





Be it motivating learning conditions in classrooms and specialist classes, a feel-good atmosphere in break areas, robust luminaires for sports halls and grounds, or safety and orientation inside and outside the building: hardly any other application area places demands as diverse and exceeding on lighting as educational facilities. In addition, there are currently relevant tasks such as air quality monitoring. Beyond that, educational institutions in particular are increasingly under pressure to save costs, operate efficiently and sustainably – but at the same time to increase the well-being of pupils, students and teaching staff. For private educational facilities in particular, it is also important to differentiate themselves from the competition. TRILUX knows the requirements for lighting in the educational sector and offers customised, intelligent and sustainable systems for all areas.





Economic efficiency and cost savings

Due to the constant use of artificial light, energy efficiency plays a decisive role, especially for educational facilities of all kinds. Refurbishments reduce CO_2 emissions and, in addition to maintenance costs, lower energy consumption by up to 85%.



Light comfort

Good lighting in the educational sector must provide more than ideal visual conditions in line with standards, not only due to increased demands for comfort, differentiation and attractiveness. Wellbeing and performance play an equally important role. Dynamic lighting concepts contribute, among other things, to strengthening the biorhythms of pupils, students and teaching staff as well as ensuring greater relaxation or concentration.

ENERGY EFFICIENCY

OPERATIONAL EFFICIENCY
MEETS SUSTAINABILITY

SUSTAINABILITY

CONSERVING RESOURCES

ENVIRONMENTAL PROTECTION

REDUCING OPERATING COSTS

CO₂ EMISSION

High energy costs, limited resources and increased awareness for environmental concerns: Energy efficiency is more important than ever for educational facilities today. This also applies to lighting, since it is responsible for a large share of energy costs. Lighting systems with high energy efficiency guarantee permanently low operating costs and thus enhance competitive capacity. In addition, the lowered energy consumption reduces the carbon footprint and thus contributes to achieving sustainability targets.



Refurbish and benefit now

Reducing operating costs and increasing quality of light, comfort and sustainability – while simultaneously setting the course for the future with an intelligent, networked lighting system. All very simple thanks to refurbishment solutions tailored to your needs.

Refurbishment solutions – for smooth replacement

TRILUX luminaires are designed for quick and simple refurbishment at all levels. This is facilitated, for instance, by:

- clever housing geometries
- flexible luminous flux packages
- smart accessories

Fully calculated - a plus in terms of profitability

Refurbishing an obsolete lighting system with LÉD technology and a light management system reduces energy costs by up to 88 per cent. This means that the refurbishment can often finance itself through the savings in terms of operating costs.

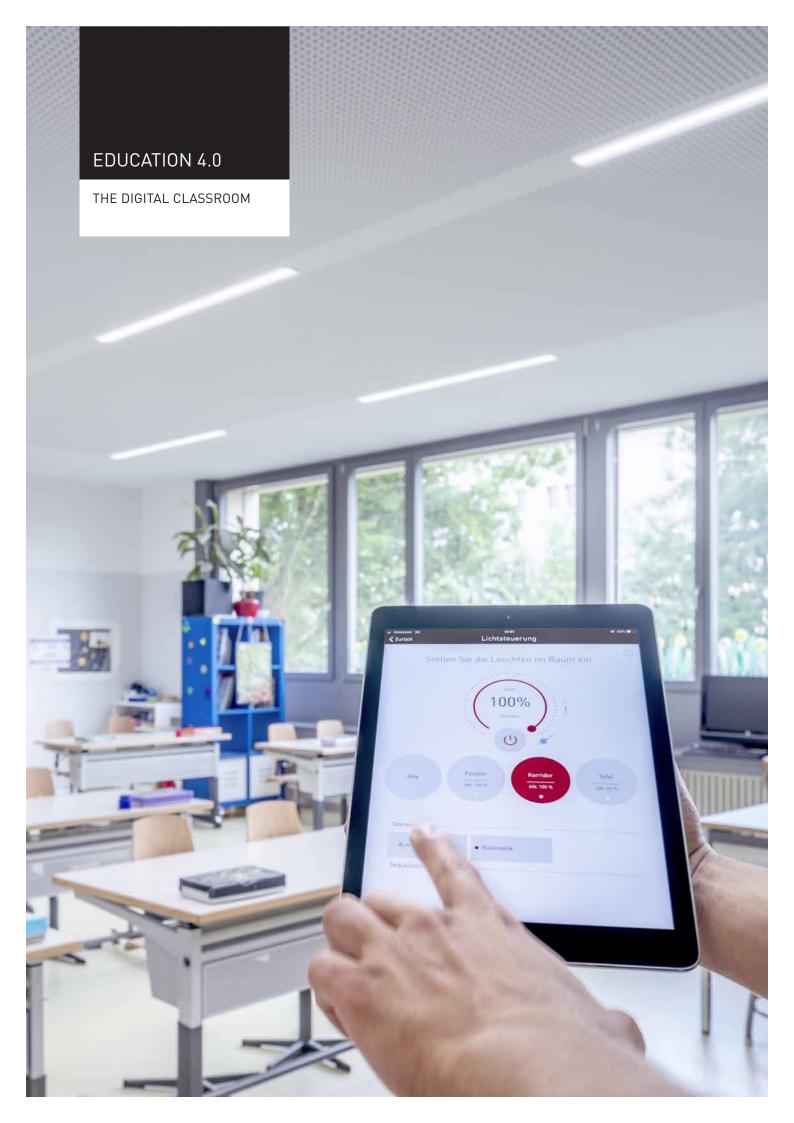




	Old installation	New LED + LM** installation
Luminaire	Surface-mounted luminaire with 1 x 58 W LLW	Opendo D1 PW19 36-840 ETDD 01
		Opendo D2 DWW 52-840 ETDD 01
System power per luminaire	66 W	28 W / 35 W
Number of luminaires in the object	11 pcs	8 pcs / 2 pcs
Total system power	726 W	238 W
Energy consumption p.a.	1,598 kWh	188 kWh
Energy costs Ø p.a.*	489 €	57 €
Savings potential		88%
Energy savings p.a.		1,410 kWh
Energy cost savings Ø p.a.*		432 €
CO₂ savings p.a.		0.85 to

^{*} This is based on an average energy price per kWh of 0.25 € in 2021 and an annual inflation rate of 3% /a. A service life of 15 years with 2,200 operating hours each is assumed.

^{**} Additional energy savings of up to 88 % via light management (daylight-dependent constant light control).



The lighting of the future is intelligent and networked. It provides users with enormous optimisation potential on all levels thanks to features like dimming, sensor control, Human Centric Lighting, cloud monitoring, location-based services and asset tracking. And there is more: a networked lighting installation creates the perfect infrastructure for networking school applications and thus forms the foundation for digital educational facilities of the future today.

New tasks, such as controlling air quality, can be implemented using CO_2 sensors, which can also be integrated into the lighting systems. Coordination with other trades, such as ventilation technology, is also possible.



With LiveLink, intelligence comes to light: be it an entry-level or customised project solution – the light management system enables realising digital services, representing the key to intelligent control for digital educational facilities. Thanks to wireless solutions, LiveLink also makes it easy to implement refurbishment projects.

www.trilux.com/livelink

LIVELINK BASIC - the entry-level solution for price-conscious decision-makers

Intelligent LiveLink control with integrated light and presence sensors: simple installation and "plug & play" commissioning make LiveLink Basic the ideal solution for simple, low-cost entry into lighting control.

LIVELINK WIFI - the smart all-rounder

With just one control device and two convenient apps, individually definable rooms can be configured and controlled via DALI interface in no time at all.

LIVELINK WIRELESS – freedom through radio networking

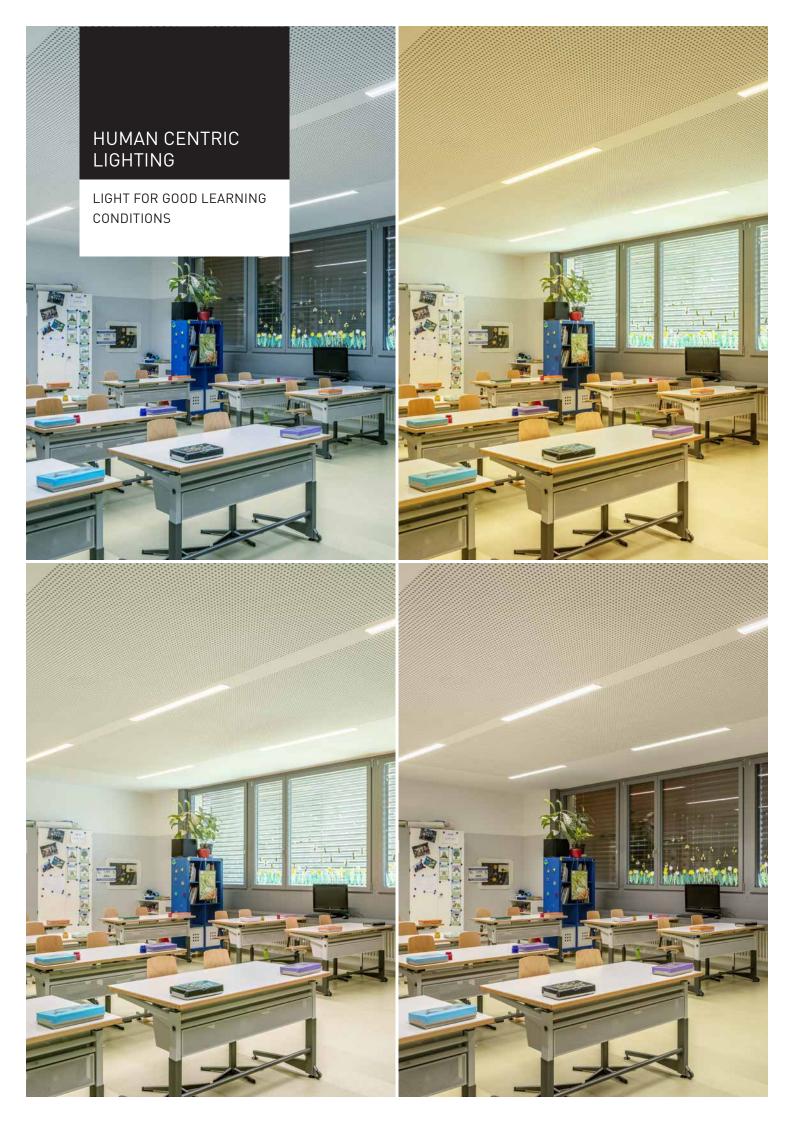
In the event of refurbishment and whenever no additional control lines can be laid or are to be laid, the system enables the luminaires to be controlled via radio. A mains connection is all that is needed for installation.

LIVELINK WIFI CONNECT - the networkable

For use in sports halls, 10 LiveLink WiFi Connect control devices can be linked via LiveLink's own WLAN. This networking enables both individual room control and overall room control.

LIVELINK as individual project solution

Convenient, intuitive and safe control of all light points of a lighting system with a server-based LiveLink solution according to individual customer requirements.



It has been scientifically proven that the quality of light – in particular the spectral composition of the light – influences the biorhythm, well-being and performance of pupils and students. Modern Human Centric Lighting (HCL) systems in educational facilities are able to dynamically adjust both the light intensity and the light colour. They create special lighting scenarios adapted to the different requirements. For example, the lighting can improve the balance between activation and relaxation or reproduce the natural course of daylight.

A Human Centric Lighting solution is always based on a professionally planned lighting concept where all components are precisely matched to customer requirements and the specific application. This enables high-performance, customised systems that optimally support people in their range of tasks.



Individual complete solutions from a single source

We create light for people: From professional light consulting to ideal product selection and intelligent light control, TRILUX supplies all components of a professional Human Centric Lighting system from a single source.



Consulting

- individual consulting according to room situation and the desired lighting tasks
- Support for standard-compliant light calculation
- Creation of individual lighting situations



Control

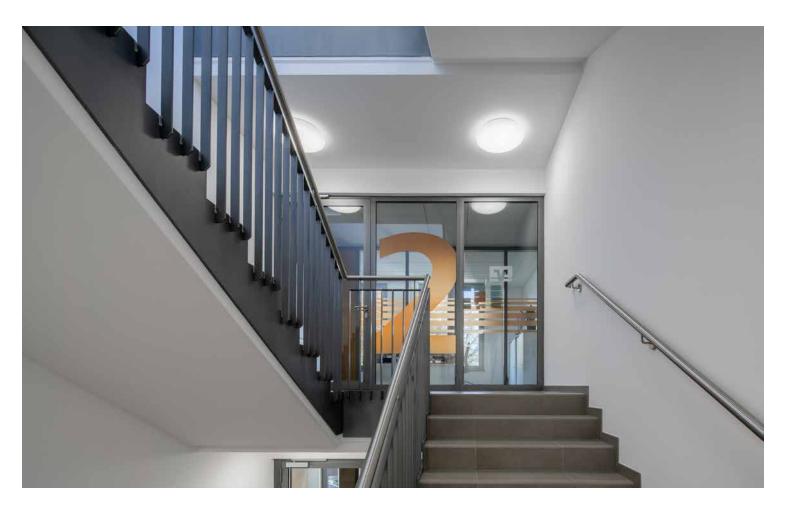
- Basic: simple diurnal progression in the form of a predefined curve
- Comfort: individual curve adjustments within certain limits via app
- Comfort Plus: realisation of a completely customised solution including system monitoring



Luminaire

- TRILUX Active portfolio
- Control via DALI
- e.g. Arimo Fit LED or Opendo LED





Exterior and interior entrance areas of schools, universities and other educational institutions welcome and provide orientation to school children, students and teachers. Especially for private institutions, the successful design and appropriate lighting of these areas is an important differentiating feature.



Lateralo Ring LED Polaron IQ LED www.trilux.com/lateralo-ring-led www.trilux.com/polaron-iq-led





74 R/Q LED www.trilux.com/74rq-led



Finea LED www.trilux.com/finea-led



Sonnos LED www.trilux.com/sonnos-led



Skeo Q LED www.trilux.com/skeo-q-led



Lutera LED www.trilux.com/lutera



Skeo Z LED www.trilux.com/skeo-z-led





The lighting of corridors and hallways primarily serves to ensure safe routing and must therefore meet special requirements: the light distribution should be uniform, the luminaires should be durable and switch-resistant, and the number of light points should be kept as low as possible. In combination with presence detection, the lighting solutions for these areas are particularly energy-efficient.



Finea LED www.trilux.com/finea-led



Solvan Flow LED www.trilux.com/solvan-flow-led

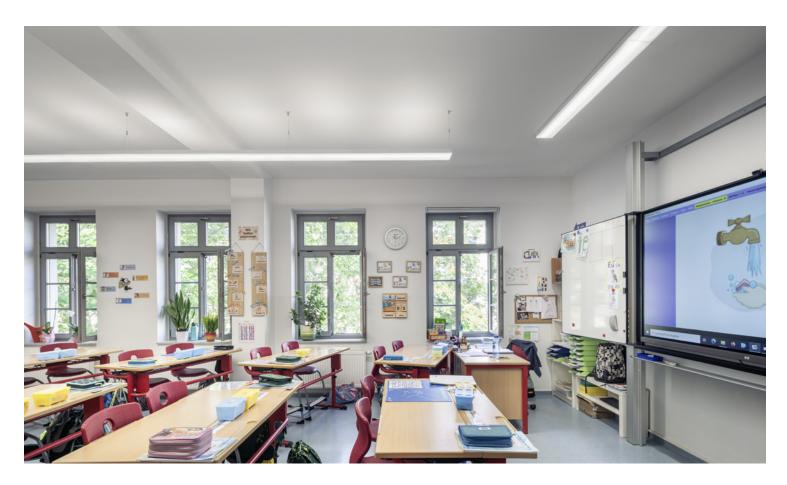


Inplana LED www.trilux.com/inplana



Onplana LED www.trilux.com/onplana





High-quality lighting in classrooms is characterised by the fact that it creates a pleasant and concentration-promoting learning and teaching atmosphere, always providing the perfect light for various visual tasks. In addition, it shines out with low operating costs and low maintenance expenditure. Furthermore, CO_2 sensors control the air quality.



Luceos D LED www.trilux.com/luceos-led



Solvan Flow LED www.trilux.com/solvan-flow-led



Finea LED www.trilux.com/finea-led



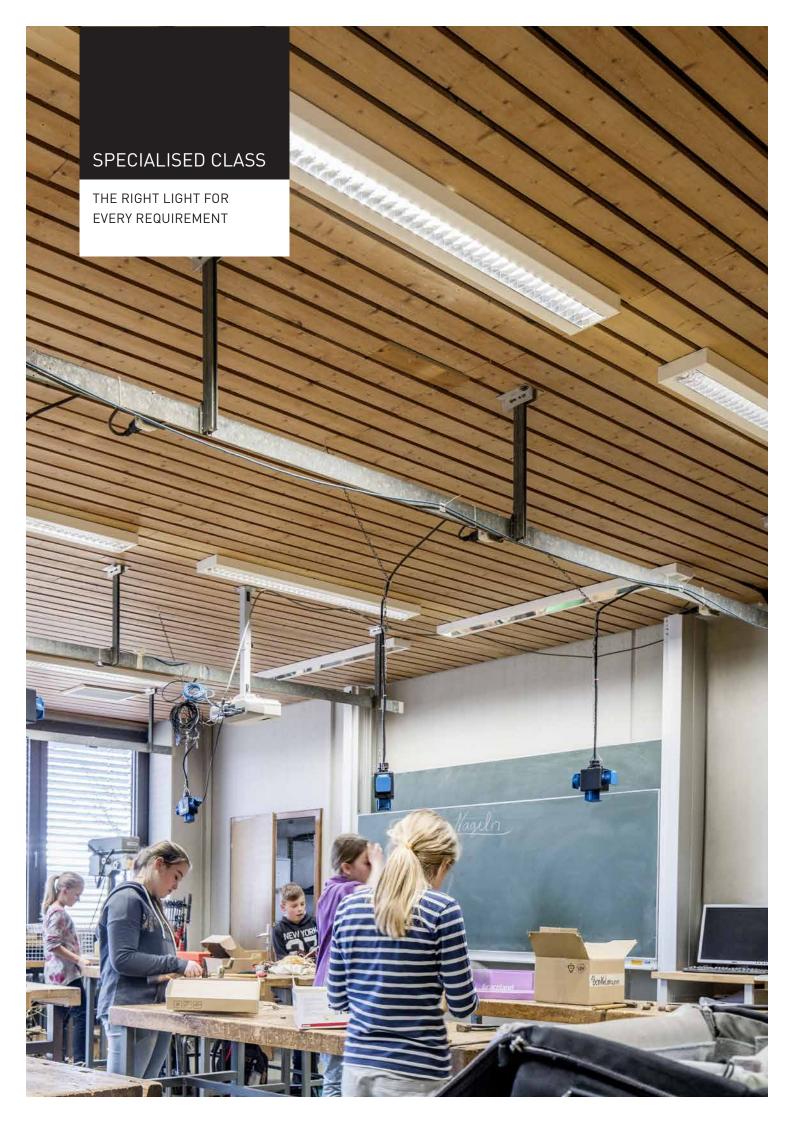
Opendo LED www.trilux.com/opendo-led

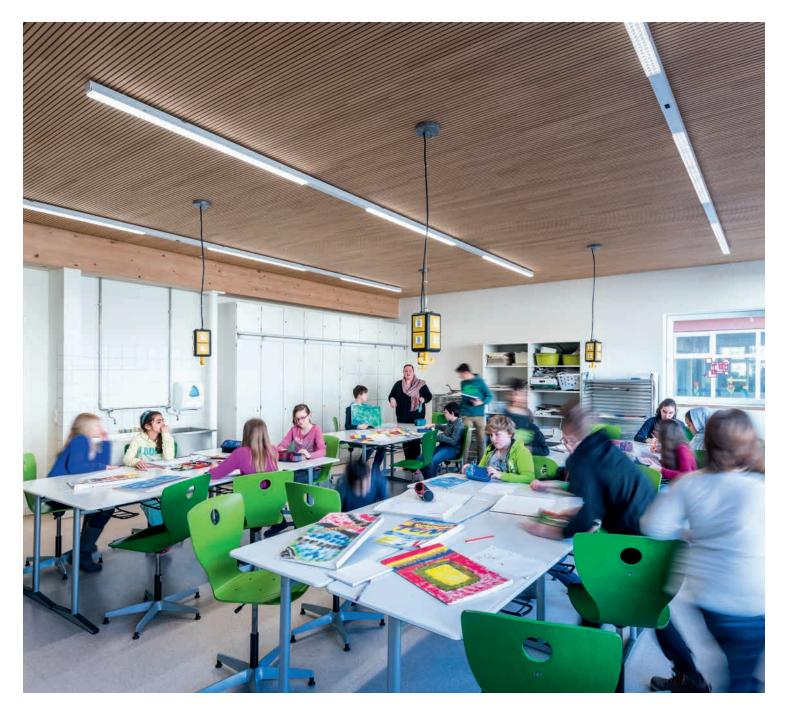


Arimo Fit LED www.trilux.com/arimo-fit-led



Naviona www.trilux.com/naviona





Specialist classrooms call for flexible lighting solutions that convince with high quality of light, balanced shadowing and good colour rendering. Combined with the TRILUX LiveLink light management system, different light scenes can be easily set while at the same time saving energy.



Opendo LED www.trilux.com/opendo-led



E-Line Next LED www.trilux.com/eline-next



Arimo Fit LED www.trilux.com/arimo-fit-led



Naviona www.trilux.com/naviona





Professional lighting in day care centres optimises general safety, creates a feel-good atmosphere and allows the children to relax. Warm colour temperatures and low illuminance levels help in keeping children relaxed through the day. The biologically effective lighting solutions from TRILUX are ideally matched to the requirements in day-care centres to support the development of children and at the same time keep operating costs as low as possible.



Opendo LED www.trilux.com/opendo-led



Inplana LED www.trilux.com/inplana



Onplana LED www.trilux.com/onplana



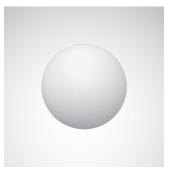
74 R/Q LED www.trilux.com/74rq-led



Sonnos LED www.trilux.com/sonnos-led



Naviona www.trilux.com/naviona



Mondia www.trilux.com/mondia





Supporting children and young people with learning disabilities at school also poses special challenges for lighting. Lighting systems with adjustable light scenes can have a supporting effect here.



Opendo LED www.trilux.com/opendo-led



Inplana LED www.trilux.com/inplana



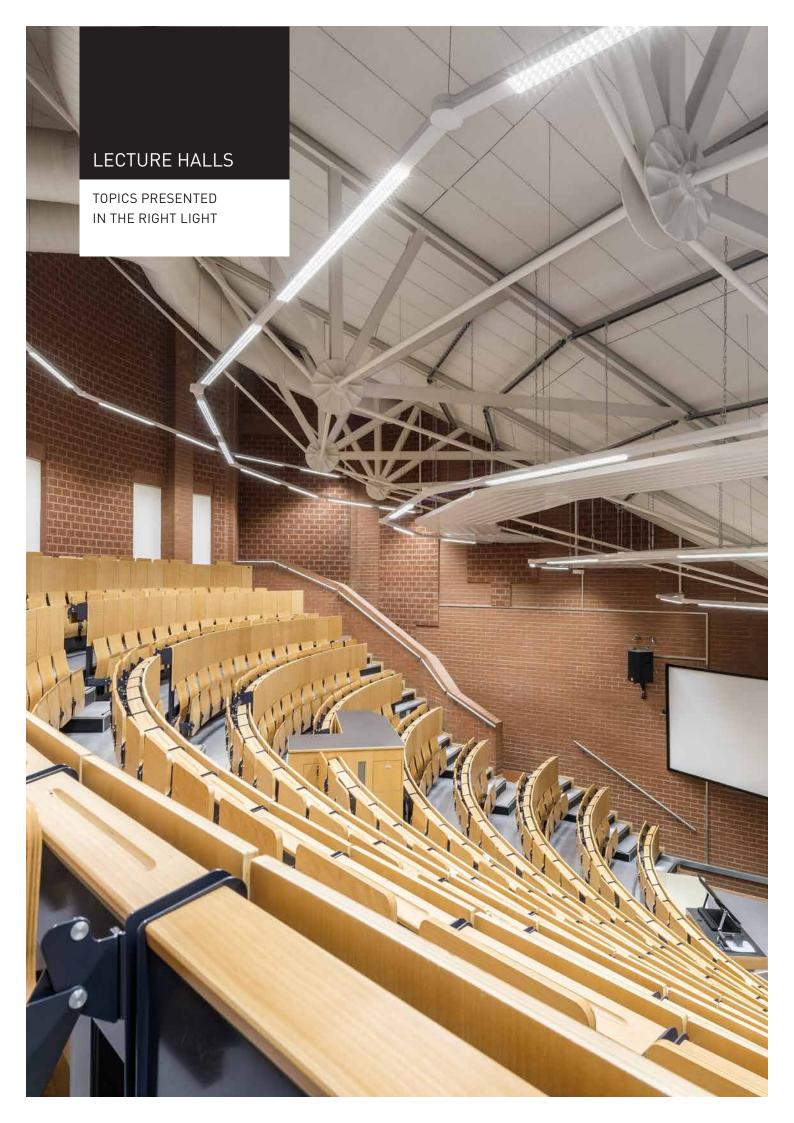
Mondia G2 LED www.trilux.com/mondia

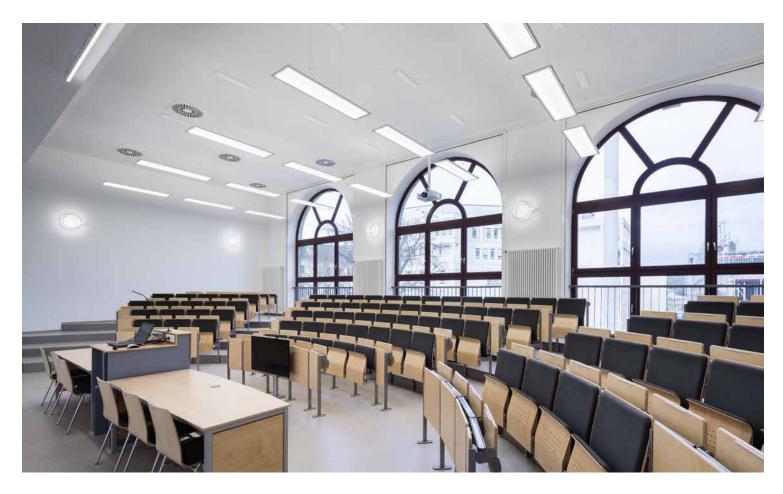


74 R LED www.trilux.com/74rq-led



74 Q LED www.trilux.com/74rq-led





Lighting in lecture halls has the challenge of meeting multiple objectives. The lecturer and presentation must be clearly lit, glare free and visible to the audience at distance. Uniform illuminance is critical for student to take notes comfortably. Lighting controls & light scenes provide an essential tool to adapt to the variety of scenarios.



E-Line Next LED www.trilux.com/eline-next



Coriflex LED www.trilux.com/coriflex-led



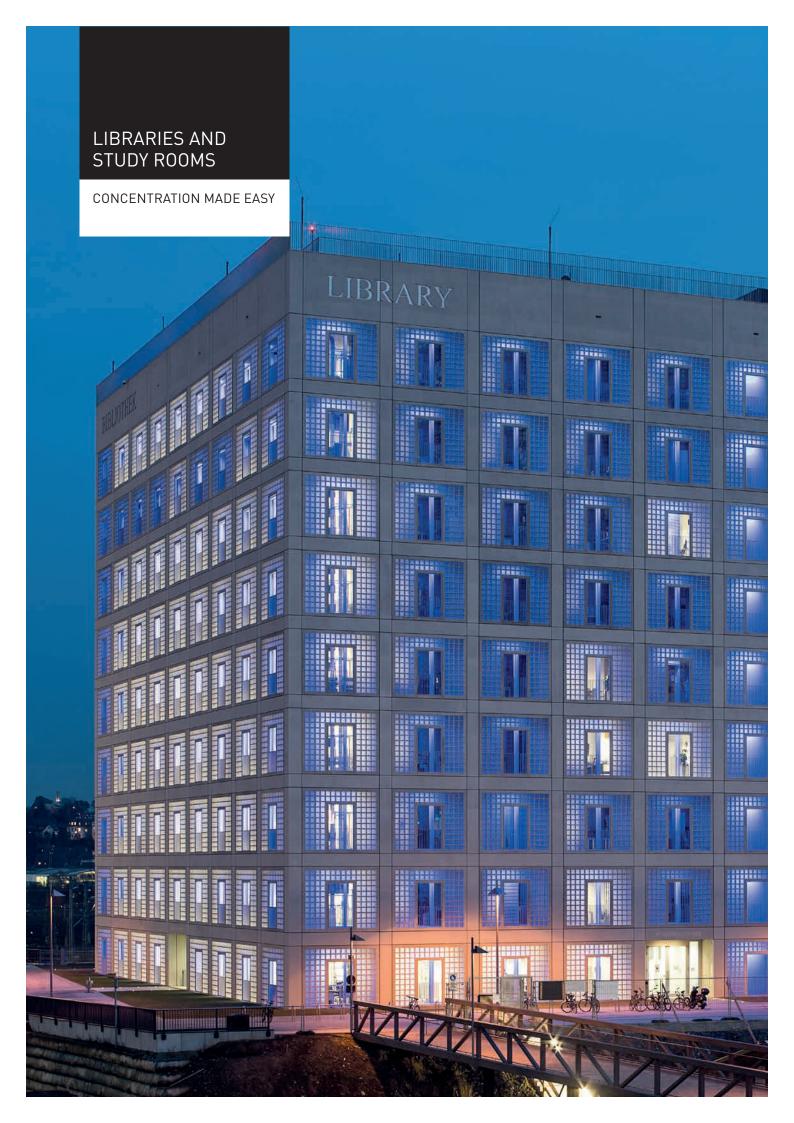
Finea LED www.trilux.com/finea-led

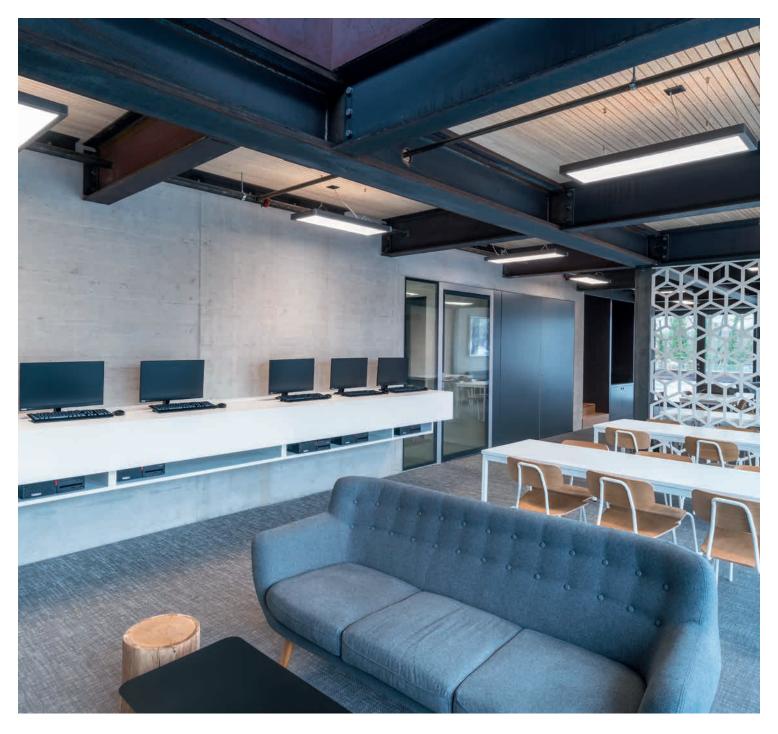


Creavo LED www.trilux.com/creavo-led



Lateralo Plus LED www.trilux.com/lateralop





Pupils and students often spend long periods of time in libraries and study rooms preparing for exams and tests. They are supported by lighting systems that promote both well-being and concentration.



Opendo LED www.trilux.com/opendo-led



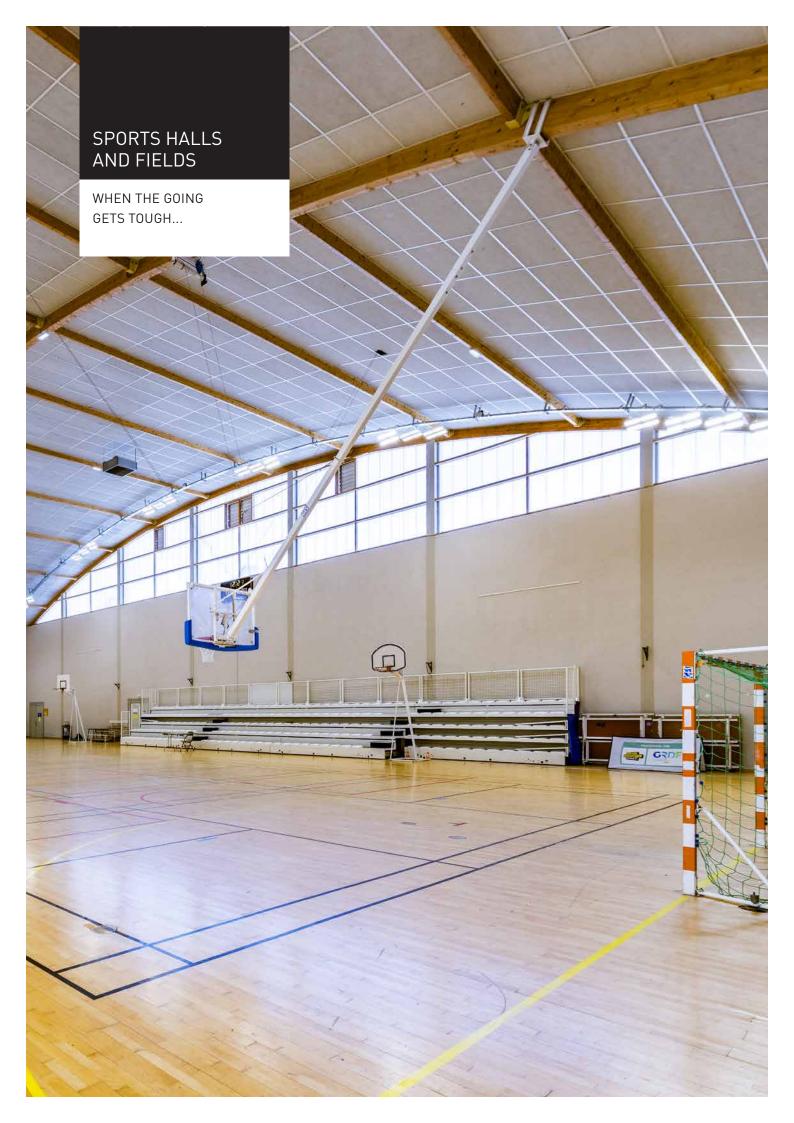
Finea LED www.trilux.com/finea-led

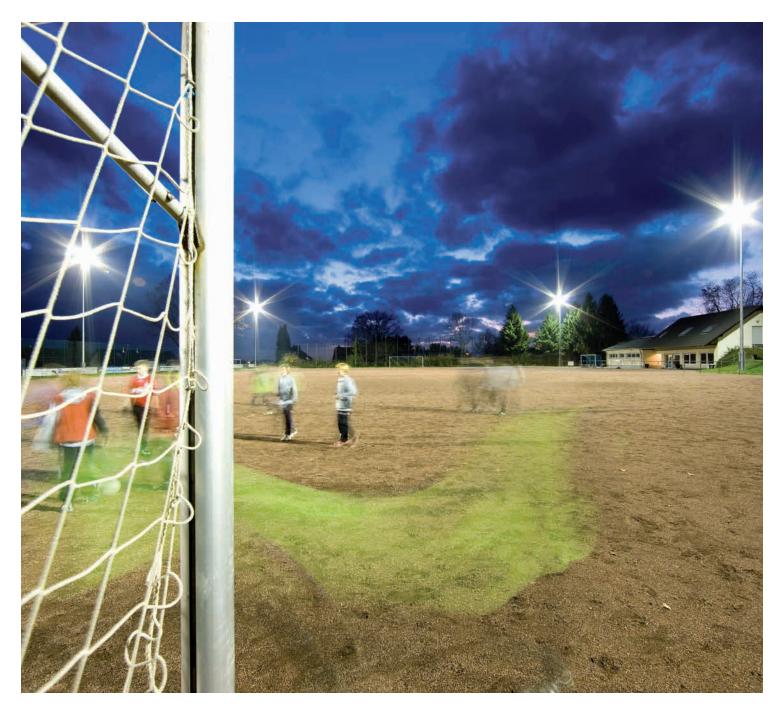


E-Line Next LED www.trilux.com/eline-next



Arimo S H www.trilux.com/arimo-fit-led





Ball-proof, weatherproof and impact-resistant luminaires provide ideal visual conditions in sports halls and on sports fields and help minimize the risk of injury. Energy savings can be achieved by integrating the LiveLink light management system.



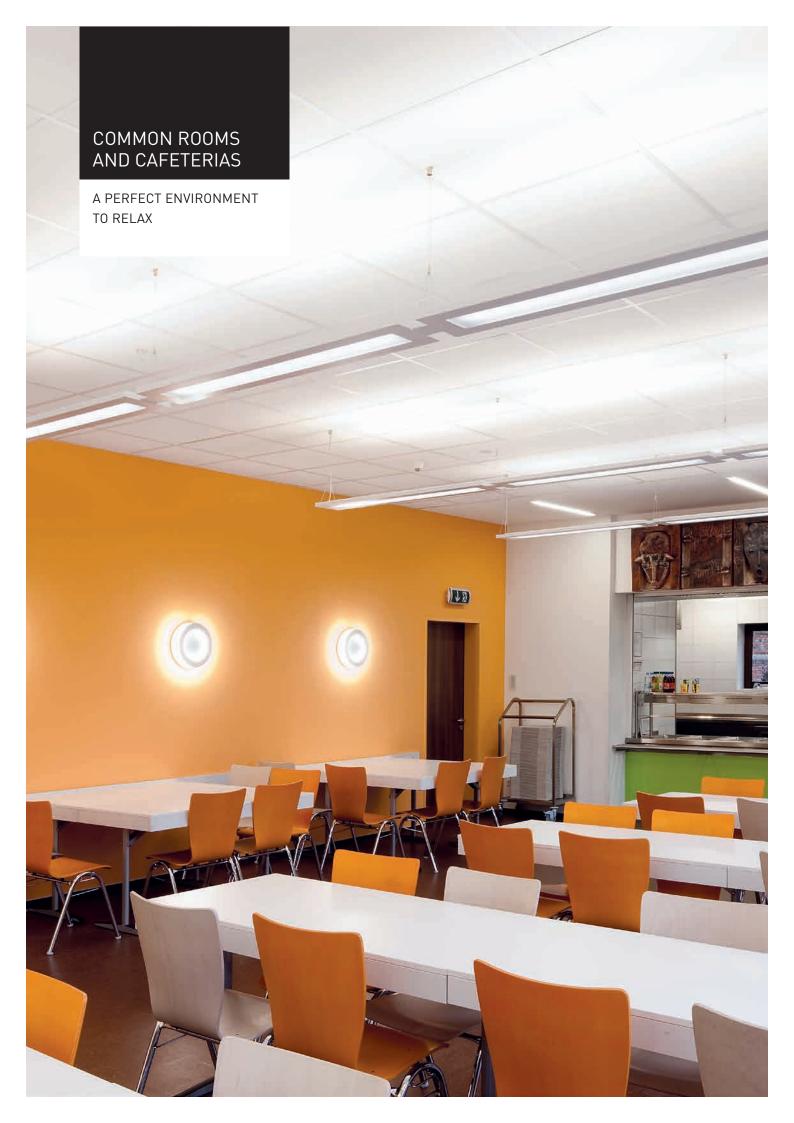
Actison Fit LED www.trilux.com/actison-fit-led



Mirona Fit LED www.trilux.com/mirona-fit-led



Lumena Fit 90 LED www.trilux.com/lumena-fit





Common areas such as staff rooms and break rooms are primarily for relaxation and regeneration which is supported by lighting systems with adjustable lighting scenes. Decorative luminaires are creating a restaurant-like character in cafeterias, while luminaires with a higher protection rating comply with increased hygiene regulations.



Creavo LED www.trilux.com/creavo-led



Solvan Flow LED www.trilux.com/solvan-flow-led



Arimo Fit LED www.trilux.com/arimo-fit-led



Naviona www.trilux.com/naviona



Solegra LED www.trilux.com/solegra-led



Onplana LED www.trilux.com/onplana



Sonnos LED www.trilux.com/sonnos-led



Polaron IQ wall-mounted www.trilux.com/polaroniq





Standard-compliant and glare-free illumination of the rooms and the individual workstations supports permanently concentrated and fatigue-free work. Daylight-dependent control can be implemented with the LiveLink light management system. CO_2 sensors integrated into the luminaires monitor the air quality.



Opendo LED www.trilux.com/opendo-led



Luceos LED www.trilux.com/luceos-led



Arimo Fit LED www.trilux.com/arimo-fit-led

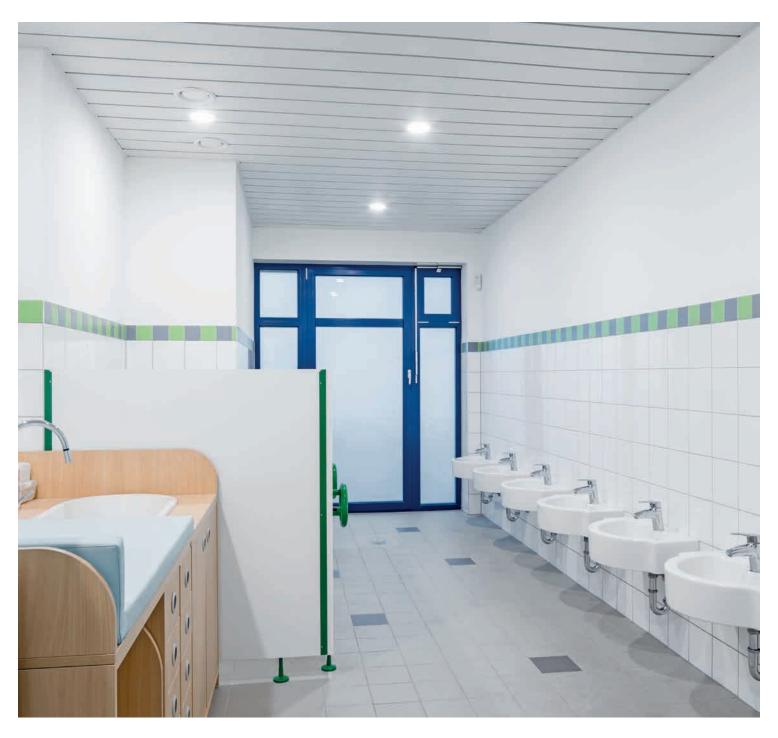


Creavo LED www.trilux.com/creavo-led



Naviona www.trilux.com/naviona





Glare-free illumination combined with the choice of an individual light colour creates a pleasant atmosphere. Daylight and presence sensors ensure maximum cost efficiency.



Acuro LED www.trilux.com/acuro-led



Sonnos LED www.trilux.com/sonnos-led



Amatris G3 LED www.trilux.com/amatris



Mondia G2 LED www.trilux.com/mondia





Optimal lighting supports the technical departments in their activities to ensure the functionality of installations, supply systems and building automation. Durability, efficiency and Fit & Forget play an important role, as does the fulfilment of higher requirements for the degree of protection.



Aragon Fit LED www.trilux.com/aragon-fit-led



Oleveon Fit LED www.trilux.com/oleveon-fit-led



Limaro LED www.trilux.com/limaro





In schools, universities and educational facilities, clear illumination and marking of exits and escape routes is imperative for safe extraction in an emergency situation.



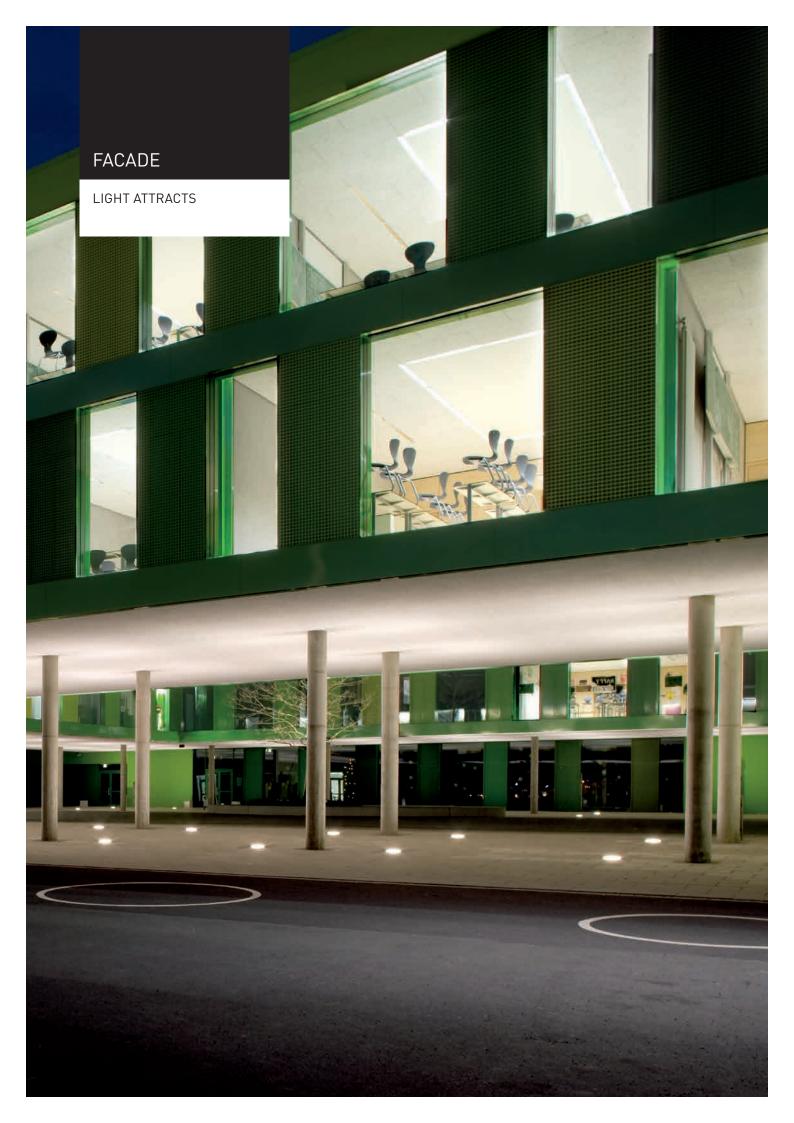


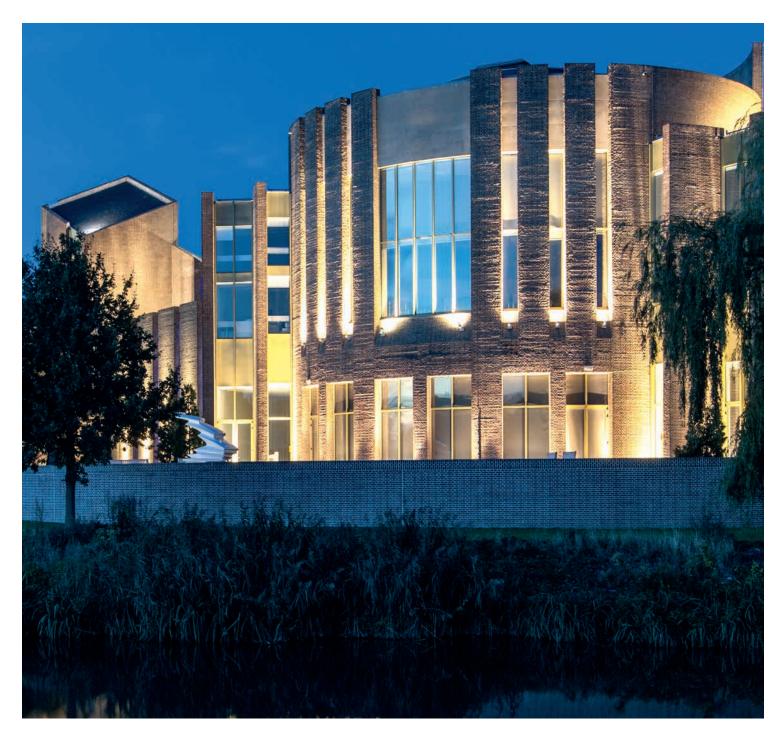


ESC Suspended



ERP Recessed





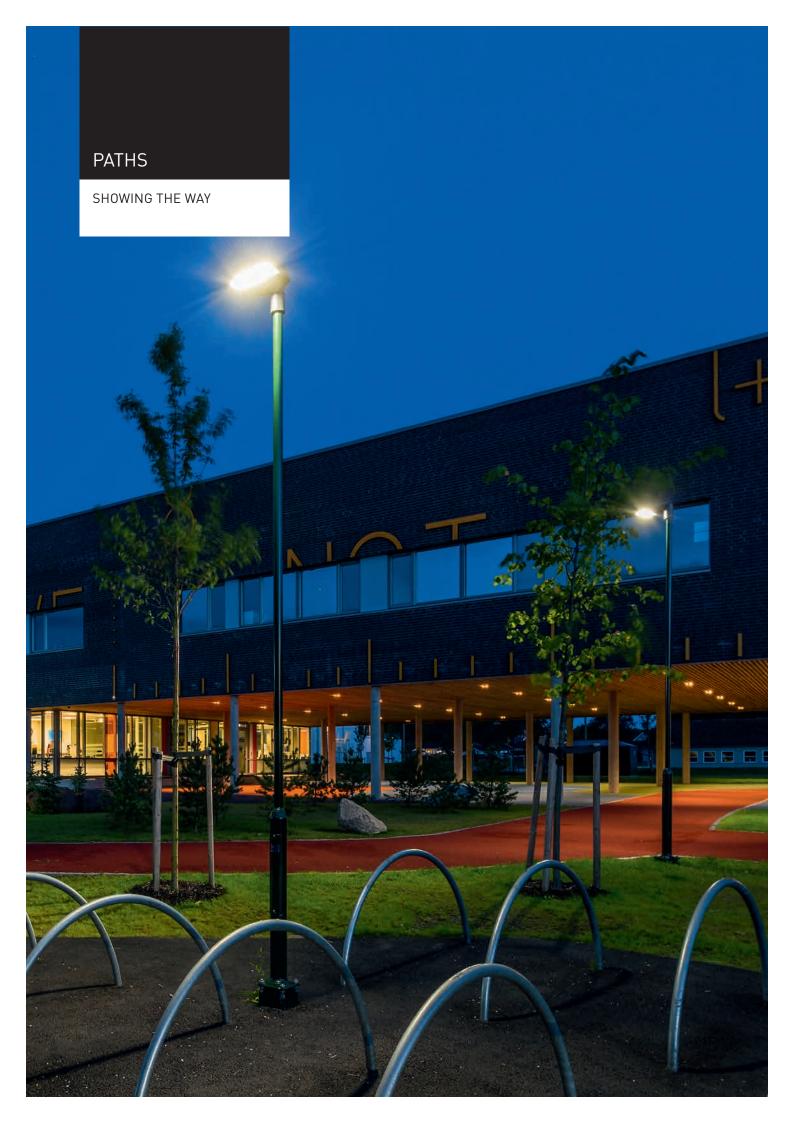
The architecture and attractive details of modern or historic school buildings and universities can be enhanced by skilfully staging the façade. Objects and signs are specifically illuminated for orientation.

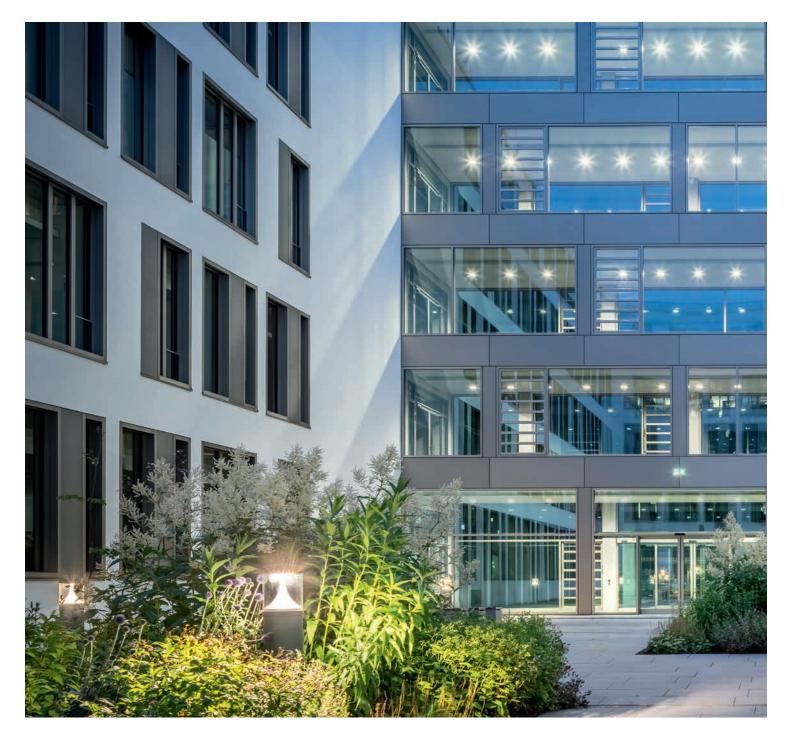


Faciella LED www.trilux.com/faciella-led



Skeo LED www.trilux.com/skeo-led





The illumination of the representative outdoor areas as well as adequate pathway lighting helps to increase safety and orientation, even at times of darkness in the morning, night and evening hours.



8841 LED www.trilux.com/8841



8851 LED www.trilux.com/8851



Invego LED www.trilux.com/invego-led





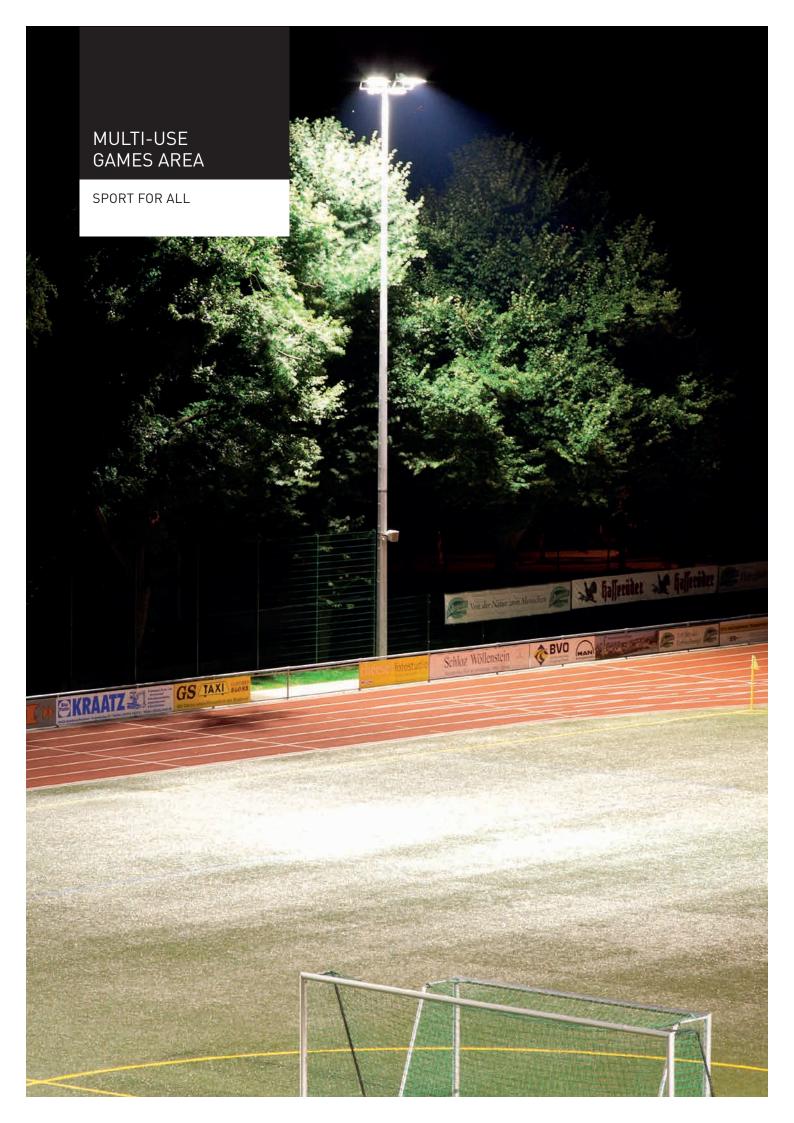
Safety in car parks is ensured by optimal illumination without glare and shadow zones. Efficient systems with light management slow down energy costs and provide orientation with the help of intelligent applications.







Jovie LED (Outdoor) www.trilux.com/jovie-led

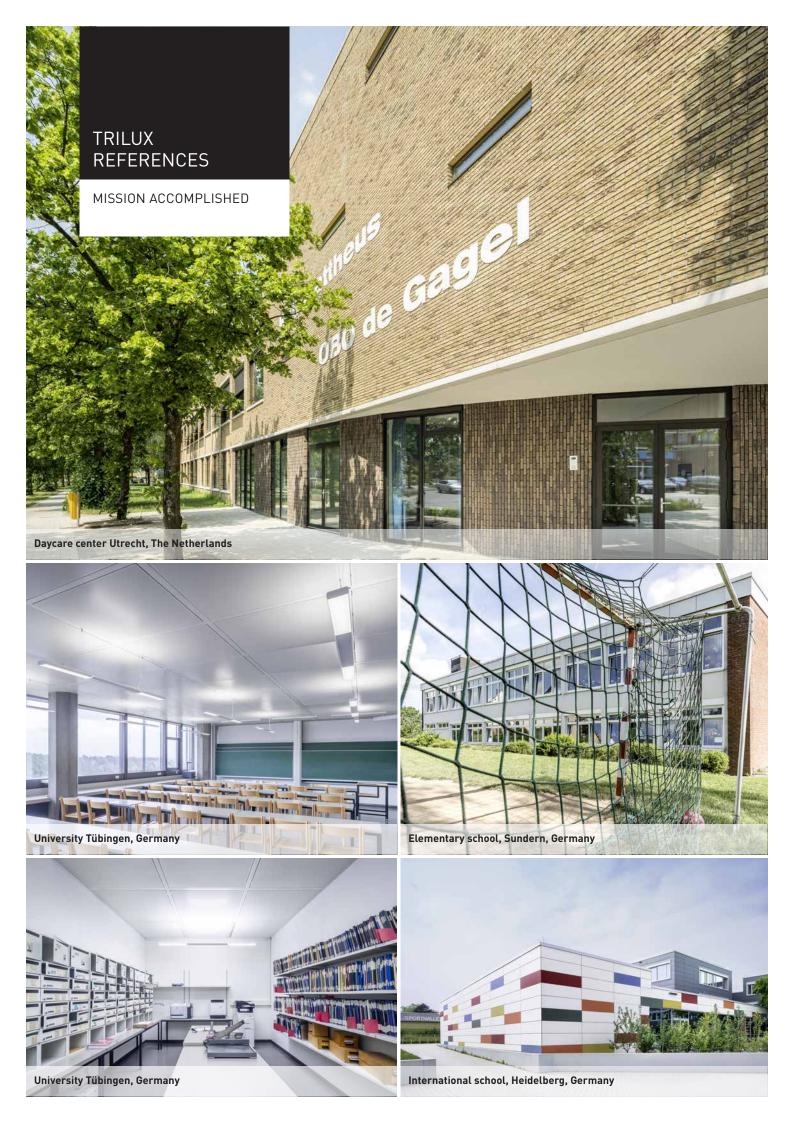




Multi-use games areas (MUGAs) require lighting solutions that cater for a variety of sports activities with accurate optical control to minimise light spill, reduce glare and provide a uniformly lit playing surface.



Lumena Fit LED www.trilux.com/lumena-fit





SBW Talent Campus Bodensee, Kreuzlingen, Switzerland



John-Brinckmann school, Schwerin, Germany





Underwood School, UK



Achieving perfect light has never been simpler

The lighting market has changed enormously due to LED transformation, increasing digitalisation and social mega-trends such as connectivity and big data. On the one hand this provides various opportunities. On the other, lighting solutions are becoming increasingly complex and their selection, configuration and operation more complicated.

TRILUX makes this complexity manageable thanks to intelligent solutions that set new standards in terms of energy efficiency and quality of light, and also by offering a wide range of customer-oriented services.



CONSULTING AND INFORMATION

In times of nearly unlimited possibilities for light control, TRILUX makes increased complexity manageable through its extensive solutions and services portfolio. A comprehensive range of smart tools and individual consulting services, you will simply find your perfect solution.

- Technology consulting
- Energy and cost efficiency calculation
- Custom lighting concept creation



PROJECT MANAGEMENT

Usually, numerous different trades are involved in designing and installing an intelligent, networked lighting solution. If desired, we can take complete care of project management for all aspects of lighting. This simplifies the path to a customised lighting solution and guarantees a perfectly coordinated chain of trades.



DIGITAL SERVICES

With TRILUX Digital Services, customers can benefit from the full potential of digital lighting solutions. The result is more comfort, more transparency and reduced costs.

- Monitoring services
- Location-based services
- Emergency light monitoring



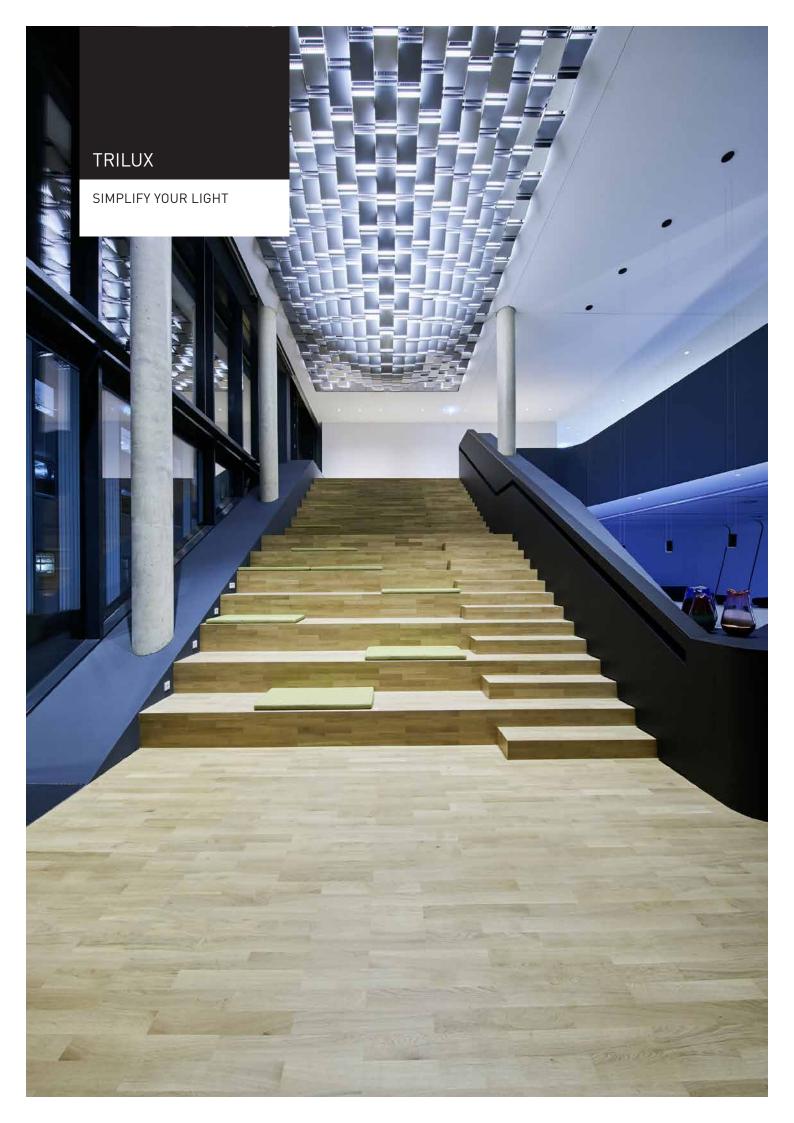
TECHNICAL SERVICES

With TRILUX Technical Services, you can commission your new lighting installation without any worries. All installation work is carried out by a reliable supplier from the TRILUX partner network. On request, specialist companies with whom you already cooperate can also be integrated. TRILUX takes charge of coordinating all project stakeholders so that you can concentrate fully on your core business.



FINANCING SERVICES

TRILUX offers you a wide range of individual financing instruments for your light. Take advantage of the opportunity to immediately reduce running cost in a balance sheet-neutral way without own investments.



German engineering, customised solutions and innovative designs – this all indicates 'Made by TRILUX'. We place great importance on high-class workmanship and products with maximum quality that adapt to the individual needs of users and the diverse range of applications. TRILUX offers not only standard solutions, but in close cooperation with the customer develops atmospheric and simultaneously functional lighting concepts complying to current standards. Your special requests are our forte. This is ensured by the use of premium materials, in-house developed optics, extensive data records and efficiency levels. Made by TRILUX is your guarantee for the highest level of quality across the board.

www.trilux.com/quality

Sustainability - TRILUX facilitates sustainable buildings

Maximum energy efficiency for maximum sustainability: We help companies improve their CO_2 footprint through particularly energy-efficient products. This is not only sensible from an ecological standpoint, it also reduces operating costs and thus increases the profitability of a lighting solution. TRILUX solutions regularly set new standards in terms of energy efficiency and are an important component for sustainable building certifications such as BREEAM or DGNB.

Sustainability and climate protection are not limited to efficient products. TRILUX also shows commitment in the context of corporate responsibility, generating transparency in the supply chain and researching pioneering concepts for resource protection and material efficiency. Detailed information can be found in the TRILUX sustainability report on our website.

www.trilux.com/sustainability





The TRILUX Akademie is the qualification partner for everyone professionally concerned with light. Light becomes intelligent, activating, relaxing or transforms into experiences. The latest specialist knowledge is therefore vital to optimally exploit the possibilities created by new products and applications.

The TRILUX Akademie communicates expert knowledge through various training formats for any training need. The wide-ranging programme of theme days, seminars and webinars enables seasoned lighting professionals to stay up-to-date and beginners to get a simple start in the world of light.

www.trilux-akademie.com

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All technical data including dimensional and weight specifications have been checked carefully. Errors excepted. Possible colour deviations are due to printing processes. We reserve the right to modify in the interest of progress. Luminaires are partly shown with accessories that must be ordered separately. Images of installations may show custom manufactured luminaires. Printed on PEFC-certified paper in an environmentally friendly way.

www.trilux.com 21/40-GB