# **Product Portfolio** 2016

Lighting and control systems for professional lighting solutions

Modular lighting systems

**Downlights** 

**Recessed luminaires** 

Surface-mounted and pendant luminaires



Free-standing and wall-mounted luminaires



Continuous-row systems and individual batten luminaires



0

**High-bay luminaires** 



Luminaires with extra protection



Façade, media and outdoor luminaires



Lighting management



**Emergency lighting** 



13

**Zumtobel Lighting Services** LED quality criteria / LED lighting quality





History of the company

Zumtobel. The Light. 4 Research and development 5 6 **Product design** 7 Quality Sustainability 8 **Green Building Certification** 10 Product portfolio 12

2

**Zumtobel Product Portfolio** 

2016

#### 1950

Dr. Walter Zumtobel founds "Elektrogeräte und Kunstharzpresswerk W. Zumtobel KG" in Dornbirn.

#### 1952

Manufacture begins of complete luminaires. The first successful range is Profilux, the "thinnest batten luminaire in the world".



#### 1957

Presentation of the first ballast with patented wire winding ("random winding"), which becomes the industry's standard.

#### 1958

The build-up of the German sales organisation signals the access to foreign markets. Zumtobel KG exhibits its products at the Hanover trade fair.

#### 1959

The first Zumtobel lighting laboratory is started up. One of the first tasks is the creation of light distribution curves.



#### 1980

Introduction of the world's first luminaire range with indirect-direct distribution for office use.



# 1967 Debut of LightTrack, the first German track system developed by Staff & Schwarz Leuchtenwerke.

## History of the company

The success story of the Zumtobel brand started more than sixty years ago with the founding of "Elektrogeräte- und Kunstharzpresswerk W. Zumtobel" in Dornbirn. A passion for the medium of light and outstanding entrepreneurship have enabled Zumtobel to become a leading global provider of sustainable and integral lighting solutions. Today the luminaire manufacturer supplies a wide range of product lines for a variety of professional interior lighting applications.



# 1988 Debut of the concept of MELLOW LIGHT, a new lighting solution generation for office use.

#### 1001

Launch of the bus-compatible LUXMATE® lighting management software.

1993

over.

Take-over of the majority of

1945. At the end of 1994,

all staff shares were taken

shares in the German lighting company of Staff founded in



#### 2002

The LIGHT FIELDS range of luminaires introduces the micro-pyramidal optic for glare-free light at the work-place.

#### 1999

First series production of a lighting solution incorporating LED technology, and "Active Light" for light in variable colours





#### 2014

Design and function form an inseparable whole in CRAFT. Never was a luminaire so powerful, so compact and so efficient.

#### 2010

The PANOS infinity LED downlight range outdates conventional light sources in terms of efficiency, lighting quality and colour rendering.



- 1952 Profilux mounting rail, 1956 product brochure
- 1957 LXG ballast, developed by Ernst Wiesner
- 1967 Staff Lite-Trac lighting track system
- 1980 Redesign of the Department of Education of the Canton of Berne. Lighting design: Peter A. Balla
- 1988 RCA Mellow Light surface-mounted luminaire. Design: Karin Pesau
- 1999 Sir Alexander Fleming Building, Imperial College London. Architects: Foster and Partners; colour design: Per Arnoldi; lighting solution/lighting management: Zumtobel Staff/Luxmate Controls
- 2002 LIGHT FIELDS detail
- 2010 PANOS infinity (cross section)
- 2014 CRAFT LED high-bay luminaire (cross section)



## "FOR MORE THAN 60 YEARS IT HAS BEEN OUR AMBITION TO CREATE THE BEST LIGHT FOR PEOPLE AND OUR ENVIRONMENT."

### Zumtobel. The Light.

For over sixty years, the Zumtobel brand has stood for innovation, unique product and service quality and sophisticated design. Its knowledge about light and a profound understanding of its effects on people has at all times been the bedrock of the Zumtobel brand. Zumtobel brings lighting quality and energy efficiency into harmony and develops customised lighting solutions for measurable added value. Zumtobel addresses customer requirements and user needs in multifarious areas of application – always following its ambition of supplying the best light for people and the environment.



# Design: Delugan Meissl Industrial Design

## Research and development

Thanks to close cooperation with international experts and scientific institutions, Zumtobel leads the field in lighting research. By implementing the latest results in scientific research, based on its unique practical expertise in applied knowledge and comprehensive technological know-how, Zumtobel is consistently pressing ahead with product innovations. In its constant endeavour to ensure the best light for the customer, Zumtobel is quick off the mark in observing and researching local and global trends for the development of future-oriented lighting solutions.

#### Scientific networks

Bartenbach Lichtlabor

Bauhaus-Uni Weimar

DIAL

ENTPE Lyon EPFL Lausanne

ETH Lausanne

ETH Zurich FH Detmold

FH Mittelhessen

FH Rosenheim

FH Vorarlberg

Fraunhofer IBP Stuttgart Fudan University Shanghai

HAW Hamburg

HAWK Hildesheim

Hochschule Liechtenstein

HS Luzern

Human Research Weiz Kompetenzzentrum Licht

KTH Stockholm

Light & Lighting LabOratory Gent

LRC Troy

NRC Ottawa

Tongji University

TU Berlin

TU Darmstadt

TU Graz

TU Ilmenau TU Karlsruhe

UCL London

MICROTOOLS

Modular LED lighting system 2012 iF Design Award GOLD, Design Plus by light+building



## Product design

For Zumtobel, intelligent design means equal fulfilment of aesthetic and functional requirements. 282 iF awards and numerous other prizes are evidence of this endeavour. The Zumtobel product design team develops its products independently and in close cooperation with internationally renowned designers. The products excel in their maximum efficiency and subtlety of aesthetic design. Our approach to design is based on our profound knowledge of the application and use of light, while bearing in mind the continuous changes taking place in the working and living environment. Only then can light unfold all its effects and powers of expression.







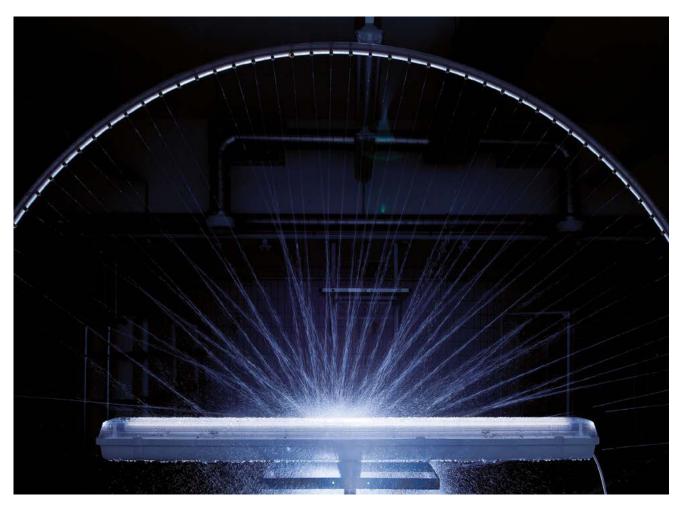
reddot design award







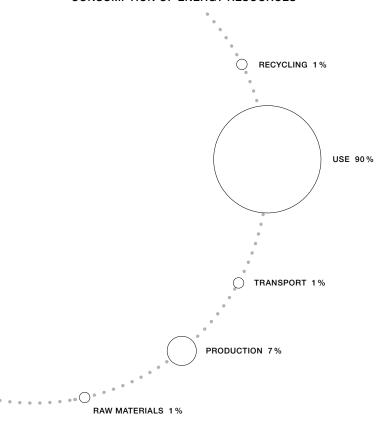




**Water and dust laboratory** Headquarters Dornbirn | AT

## Quality

Products by Zumtobel fulfil the highest quality requirements, impress customers on account of their long service life and thus set standards in the industry. To secure the continual improvement of product and service quality, Zumtobel has implemented an uncompromising quality management system. This involved certifying all production locations in accordance with international standard ISO 9001. Over and above this, Zumtobel is one of the few companies in this sector that has accredited measuring laboratories at its disposal, ensuring that the development process operates at the highest level.



# Sustainability

Zumtobel is very much aware of its responsibility towards the environment. Besides marking exceptionally sustainable products with the eco+ label, Zumtobel issues environmental product declarations (EPD) for all its products. The environmental impact of a product throughout its entire life cycle is therefore quickly and simply visualised for the customer. Moreover, EPD contribute greatly to the environmental certification of buildings. With the introduction of EPD, Zumtobel has adopted a pioneering role in supporting transparency and is emphasising its standards in terms of sustainable use of resources.

zumtobel.com/sustainability

#### ONLITE PURESIGN

Design by EOOS

#### 100% recycling

Manufactured without heavy metals, the NiMH battery can be 100% recycled and the wiring, too, is completely halogen-free.

#### Longevity

In order to guarantee constant average luminance for the LED's entire service life, Puresign features a built-in maintenance function, which starts operation at a dimming level of 70 % and gradually increases it to 100 %.



#### Sustainable product design

Resource-saving production through digital printing and eco-friendly powder coating of the aluminium frame.

#### Luminaire efficiency

The highly efficient LEDs of the latest generation guarantee outstanding luminaire efficiency including a longer service life and lower maintenance and energy costs.

#### **Dual function**

The ERI spotlight (Escape Route Illumination) is an energy-efficient LED spot combined with a patented lens. It provides 40% of emergency lighting and makes additional emergency luminaires redundant.

#### Environmental product declaration (EPD)

- Product-specific environmental data sheet

- Based on a life cycle assessment (LCA)
  Complies with relevant European standards
  Program operator: Institute Construction and Environment e. V. (IBU)
- Verified by independent IBU expert committee











## Green Building Certification

There is a marked trend towards environmental certification of buildings, which is reflected in a rapidly growing large-volume market. In 2010, green buildings accounted for 35 percent of all newly built buildings, a figure that is equivalent to USD 54 billion for a market volume of USD 154 billion. By 2015, this figure is expected to increase to up to 48 percent of the anticipated total volume of USD 302 billion. In the same period, the market share accounted for by refurbishments will nearly treble\*.

Environmentally certified buildings have a demonstrably positive effect on employees and, hence, on the success of a company, thanks to cutting-edge structural measures such as air-conditioning, lighting or interior design\*\*.



<sup>\*\*</sup> CBRE Richard Ellis and USD University of San Diego, Green Buildings and Productivity (2009)













Sustainable products

#### Life cycle of Zumtobel products

The Zumtobel life cycle assessment is based on the international ISO 14 040/44 standard. By means of this generally accepted and reliable tool, the environmental impact of a product is measured and assessed from production of raw materials through to recycling. The underlying principle: to analyse environmental impact already during generation, and to keep it as low as possible over the product's service life.



Efficient lighting solutions

#### Integral lighting solutions

The perfect combination of luminaire and control system results in a whole package of benefits. In addition to efficient luminaires, Zumtobel therefore provides useful lighting design tools and a variety of services to assist you on your way to a sustainable lighting solution.



Detailed documentation

#### For improved transparency

By supplying each product with an Environmental Product Declaration (EPD), we make a major contribution to helping you obtain successful certification of your building. An EPD is a material and environmental statement based on the ISO 14025, ISO 14040/44 and EN 15804 standards (sustainability of buildings, environmental product declarations, basic rules for the Construction Products category). Each document is checked and verified by the independent Institute Construction and Environment e. V. (IBU). In this way, we provide the prerequisite for comparability of products, for transparency in terms of materials used, and for ongoing product improvement.









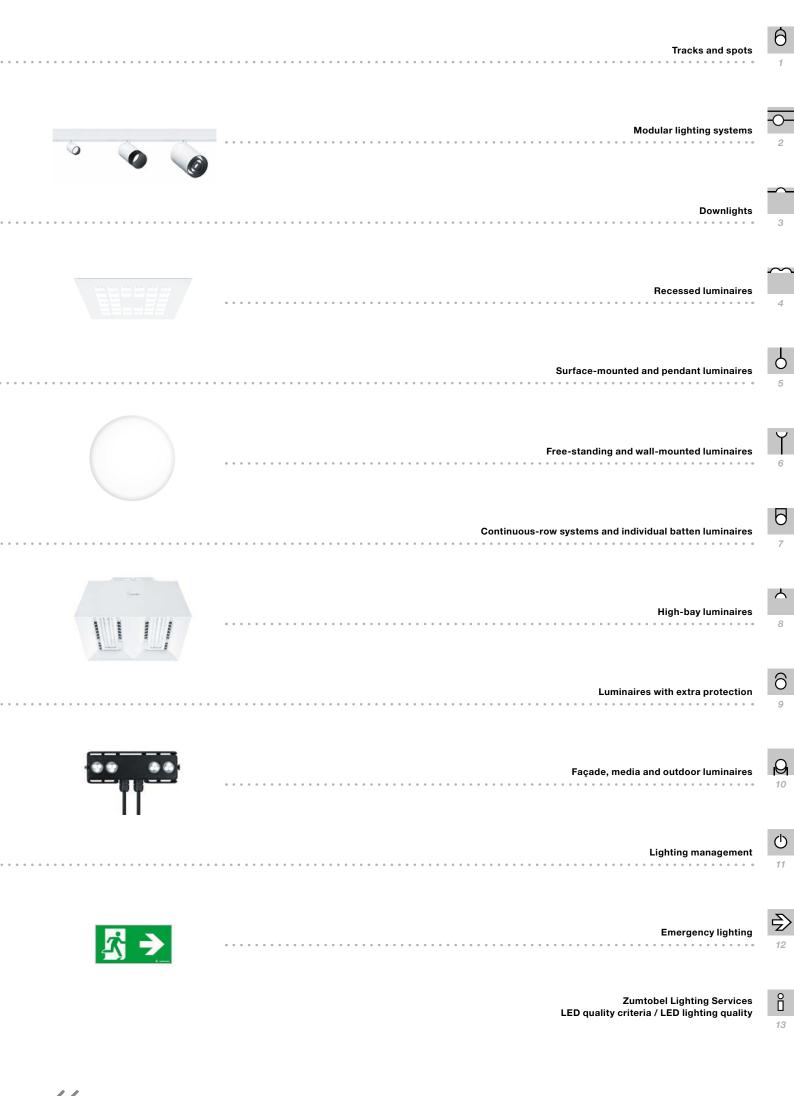


## Product portfolio

Zumtobel products signify light of perfect quality. They combine aesthetic grace, functionality and sustainability. The portfolio covers a range from high-quality spotlights and lighting systems, industrial and high-bay luminaires and façade lighting, to emergency lighting and lighting management systems. Zumtobel develops products for multifarious application areas, in a harmonious combination of lighting quality and efficiency based on state-of-the-art technology.













Spots

- 16 ARCOS
- 22 IYON
- 26 DISCUS LED
- 30 VIVO
- 34 ONICO
- 38 FACTOR
- 42 CARDAN LED

DIAMO

see section 3

Tracks

44 1-phase 3-phase/L3+DALI

Multifunctional lighting systems

SUPERSYSTEM

see section 2

INTRO

see section 2

Shelf lighting

**MICROTOOLS** 

see section 2

← Museo delle Culture (MUDEC), Milan | IT Architecture: David Chipperfield Architects, Milan | IT Lighting design: Manens Intertecnica / Ove Arup & Partners, Milan | IT Lighting solution: ARCOS, ONLITE RESCLITE, ONLITE PURESIGN, LUXMATE LITENET





↑ Museum Ton Schulten, Ootmarsum | NL Architecture: Architectenbureau Ronald de Baas, Hengelo; Leferink Architecten BNA, Denekam | NL Lighting design: Meutzner Licht Design, Woerden | NL Lighting solution: ARCOS

→ Museo delle Culture (MUDEC), Milan | IT
Architecture: David Chipperfield Architects, Milan | IT
Lighting design: Manens Intertecnica / Ove Arup & Partners, Milan | IT
Lighting solution: ARCOS, ONLITE RESCLITE, ONLITE PURESIGN,
LUXMATE LITENET



reddot award 2014



#### **ARCOS**

### Sensitivity and high precision – the spotlight system for sophisticated lighting scenarios

ARCOS LED spotlights cannot fail to impress thanks to their minimalist design: available as LED wallwashers and LED ceiling spotlights, the luminaires perfectly combine pinpoint accent lighting and widearea illumination. With this integral lighting solution, nothing diverts attention from the objects on display – quite the contrary: special focus is placed on the exhibits, and the effects they create are enhanced by lighting and architecture. A further development of the conventional model, the ARCOS LED version is available with a variety of accessories: thanks to sophisticated lighting technology, ARCOS LED is able to set the most varied objects perfectly centre stage. The luminaire also takes conservational requirements into

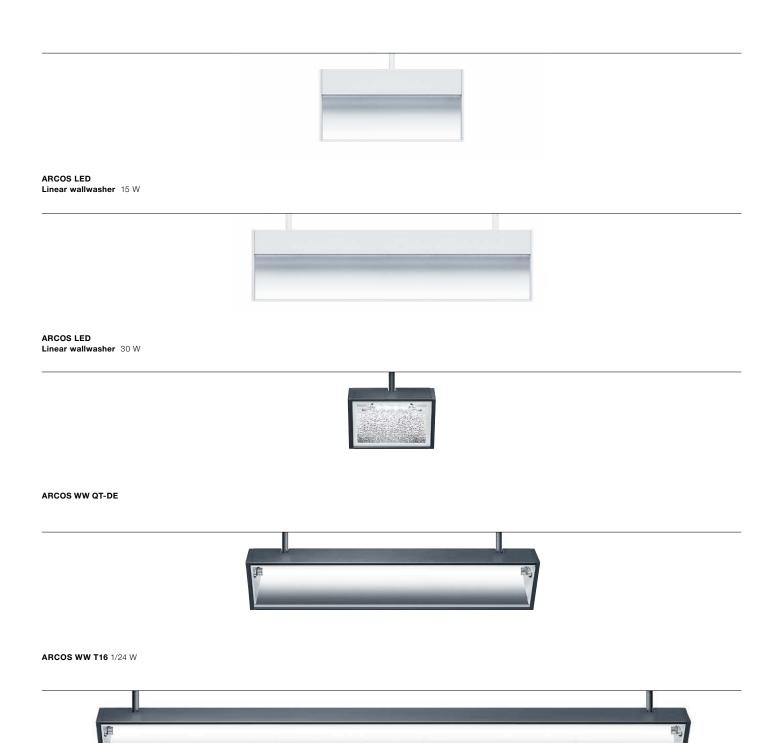
account, for its UV- and IR-free light is extremely gentle on exhibits. Moreover, the use of innovative LED technology results in a considerable reduction in energy consumption, compared to the conventional generation. Despite all modifications, the popular purist design of the ARCOS spotlight has remained unchanged – as has its high level of flexibility. In brief: Zumtobel has added the benefits of LED technology to the tried-and-tested features of the spotlight, which results in integral lighting solutions that provide fascinating illumination.

Design: David Chipperfield zumtobel.com/arcos









ARCOS WW T16  $1/54~\mathrm{W}$ 





## <sup>20</sup> ARCOS

# Spots and wallwashers

	ARCOS 1 QR-CBC	ARCOS 1 Projection	ARCOS 2 LED xpert	ARCOS 2 LED xpert Projection	ARCOS 2 HIT
Distribution characteristics					
Superspot	•		•	•	•
■ Spot/medium spot	•	•	•	•	•
Flood	•	•	•	•	•
Wideflood			•		•
Wallwasher			•		•
Colour					
Colour White	•	•	•	•	•
Anthracite	•	•	•	•	•
Antinacite		•			•
Installation					
1-phase track	•				
3-phase track	•	•	•	•	•
L3+DALI track			•		
Luminaire diameter					
Ø 80 mm	•	•			
Ø 100 mm			•		•
Ø 120 mm					
Luminaire length					
178 mm					
320 mm					
591 mm					
620 mm					
1191 mm					
LED					
1/15 W (3000 K, 4000 K)					
1/22 W (3000 K, 4000 K)			•	•	
1/30 W (2700–6500 K)					
1/30 W Projection					
1/30 W (3000 K, 4000 K)					
1/35 W (3000 K, 4000 K)					
Metal halide lamps					
HIT-TC-CE GU6,5					•
HIT-TC-CE G8,5					
Low-voltage halogen lamps					
QT-DE					
QR-CBC51	•	•			
Fluorescent lamps					
T16					
Accessories					
UV/IR/colour filter	•				•
Wallwasher attachment			•		•
Cross-louvre attachment			•		
Projection attachment (lens, iris, outline)		•		•	
Interchangeable reflector			•		•
Lenses (oval outline lens, rectangular lens, soft outline lens), films	•		•		•
Honeycomb mesh	•		•		•
Ring louvre					
Vane louvre					
Barn doors			•		•





ARCOS 3 LED xpert	ARCOS 3 LED tunableWhite	ARCOS 3 LED Projection	ARCOS 3 HIT	ARCOS LED WW	ARCOS WW QT-DE	ARCOS WW T16
•		•	•			
•	•	•	•			
•	•	•	•			
			•			
•			•	•	•	•
•	•	•	•	•	•	•
•	•	•	•	•	•	•
•	•	•	•	•	•	•
•	•			•	-	•
•	•	•	•			
					•	
				•		
						•
				•		
						•
				•		
	•					
		•				
				•		
•						
			•			
					•	
					·	
						•
			•		•	
•			•			
		•				
•	•		•			
•	•		•		•	
•			•			
•						
					•	•
•			•		•	





↑ Vodafone Village, Milan | IT
Architecture and lighting design: Dante O. Benini & Partner s Architects, Milan I IT
Lighting design: Studiebureau De Klerck Engineering, Bruges | BE
Lighting solution: IYON LED, MIROS, SLOTLIGHT, MELLOW LIGHT IV, PANOS infinity,
CARDAN LED, LUXMATE LITENET

→ Modehaus Oberrauch Zitt, Bolzano | IT
Architecture: Arch. Waler Agonese, Caldaro (BZ) | IT
Lighting solution: IYON, TECTON TETRIS, VIVO, ARCOS, ONDARIA, SUPERSYSTEM,
ONLITE LOCAL, ONLITE RESCLITE, ONLITE PURESIGN













### **IYON LED**

# Maximum LED efficiency in a sophisticated design

The design aspects of IYON suggest constant movement and liveliness as an interpretation of infinite mutability. The fluid interaction between object and medium conveys sensuality and a high level of functionality. Variable lighting scenes and targeted spatial positioning go hand in hand with the way in which the light source continuously transforms itself. Velvety-matt surfaces and a sophisticated design hint at the function-focused, individually controllable lighting technology incorporated in this highly versatile spotlight.

"The symbiosis of light direction and proportion as parameters of design affects people's sensory perception and at the same time determines the physiological sensation of a room's quality."

Design: Delugan Meissl Industrial Design

((



# <sup>24</sup> IYON LED

# Spots



IYON S LED Essential+, Essential



IYON-SL S LED Essential+, Essential



IYON M LED
TGRfashion, Essential+, Essential

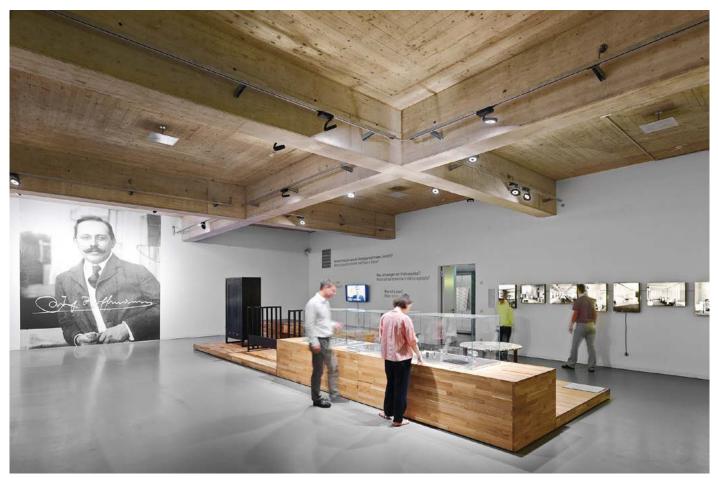


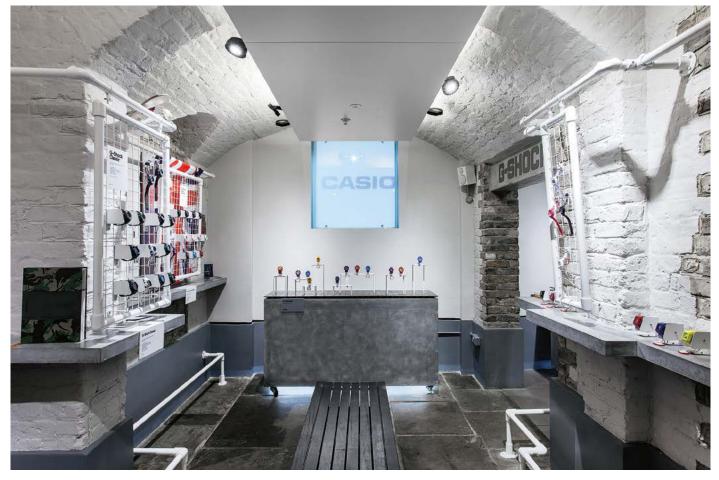
IYON-SL M LED
TGRfashion, Essential+, Essential

	IYON S LED	IYON-SL S LED	IYON M LED	IYON-SL M LED
Distribution characteristics				
■ Spot	•	•	•	•
▲ Flood	•	•	•	•
Wideflood			•	•
Colour				
White matt	•	•	•	•
Black matt	•	•	•	•
Installation				
Semi-recessed		•		•
3-phase track	•		•	
L3 + DALI track	•		•	
TECTON			•	
Recessed depth				
100 mm		•		•
Luminaire diameter				
Ø 100 mm	•	•		
Ø 120 mm			•	•
TOD: 11				
TGRfashion				•
36 W (3000 K, Ra>90) 2400 lm			•	•
Essential+ stableWhite				
17 W (3000 K, 4000 K, Ra 90) 900–1000 lm	•	•		
27 W (3000 K, 4000 K, Ra 90) 1700-1800 lm			•	•
36 W (3000 K, 4000 K, Ra 90) 2600–2700 lm			•	•
Essential stableWhite				
17 W (3000 K, 4000 K, Ra>80) 1000–1100 lm	•	•		
27 W (3000 K, 4000 K, Ra>80) 2000–2100 lm			•	•
36 W (3000 K, 4000 K, Ra>80) 3000–3200 lm			•	•
Accessories				
Anti-glare ring	•	•	•	•
Oval outline lens 50°	•	•	•	•
Honeycomb mesh	•	•	•	•
Interchangeable Spot reflector	•	•	•	•
Interchangeable Flood reflector	•	•	•	•
Interchangeable Wideflood reflector			•	•









↑ MAK Design Labor, Vienna | AT Architecture: Exhibition design EOOS, Vienna | AT Lighting solution: DISCUS, ONLITE central, RESCLITE CROSSIGN

↓ Casio Shop, London | GB
Lighting design: DHA Design, London | GB
Lighting solution: DISCUS





### **DISCUS LED**

### Spotlight system

State-of-the-art light sources inspire new peaks of performance and this is especially true of the DISCUS LED spotlight system. Its delicate but robust design is creatively inspired by cutting-edge LED technology: a flat, minimalist shape with an unmistakable appearance – characterised by the radial fins of the passive heatsink and its illuminated replaceable optic. It fulfils the exacting demands made on sales-promoting accent lighting with dependable accuracy

and extremely good colour rendering (Ra 92). The new DISCUS LED-generation evolution achieves double the luminous flux and efficiency of its predecessor. The luminaire is dimmed on the actual spotlight itself or by DALI control commands, both these methods have a positive impact on energy consumption. The product range is rounded out by track-mounted models and recessed spotlights that blend unobtrusively into any interior design.

Design: EOOS zumtobel.com/discus









DISCUS evolution LED E1

DISCUS evolution LED E2

	DISCUS evolution LED	DISCUS evolution LED E1	DISCUS evolution LED E2
Distribution characteristics			
<b>I</b> Spot	•	•	•
Flood	•	•	•
Wideflood	•	•	•
Colour			
White	•	•	•
Black	•		
Installation			
3-phase track	•		
L3+DALI track	•		
Recessed depth			
to 100 mm		•	•
Luminaire diameter			
Ø 146 mm	•	•	•
LED			
32 W 1950 lm (3000 K / Ra92)	•		
32 W 2100 lm (3000 K / Ra 82)	•		
32 W 2300 lm (4000 K / Ra 82)	•		
2x32 W 1950 lm (3000 K / Ra92)			•
2 x 32 W 2100 lm (3000 K / Ra 82)			•
2 x 32 W 2300 lm (4000 K / Ra 82)			•
Accessories			
	•	•	•
Anti-glare ring Oval outline lens	•	•	•
Interchangeable spot optic		•	•
Interchangeable spot optic		•	•
	<u>.</u>	•	•
Interchangeable wideflood optic	•	•	•







↑ Spar Flagshipstore, Budapest | HU Architecture: LAB5 Architects, Budapest | HU Lighting solution: VIVO LED, CARDAN LED, TECTON LED, ONDARIA

↓ Ceramiche Refin S.p.A, Casalgrande | IT Lighting solution: VIVO LED, SLOTLIGHT II







#### **VIVO**

# The flexible versatility of light: spotlight system with LED technology

Professional lighting is gentle on sensitive goods and also boosts sales. LED luminaires achieve the same lighting quality as metal halide lamps but produce less IR and UV radiation. VIVO LED spotlights stand out thanks to their high colour rendering index and extremely uniform light distribution. For every lighting concept, the right light colours, colour temperatures and illuminance levels are available. Unique PiLED technology, pre-programmed colour points and premium lens systems pave the way for implementing exclusive solutions.

"The quest for intuitive images characterises the way in which EOOS works. VIVO blends the archetypal cylindrical shape of a spotlight with design details inspired by reinterpreting a turbine. Effective airflow management, which is especially important for LED technology, actually becomes an unobtrusive but significant design feature."

Design: EOOS zumtobel.com/vivo



## <sup>32</sup> **VIVO**

## Spotlight system



#### VIVO XS LED

LED spotlight with reduced dimensions and passive cooling. Due to excellent colour rendering, adequate alternative to conventional solutions using LV halogen lamps.



#### VIVO M LED

Compact, dimmable spotlight with passive cooling that is able to impress thanks to its efficiency, good glare control and excellent colour rendering. Perfect alternative to conventional systems using 35 W metal halide lamps.



#### VIVO L LED

High-output spotlight with passive right-output sponight with passive cooling that boasts high luminous flux levels, excellent colour rendering and variable light colours. Innovative alter-native to solutions using 35 W to 50 W metal halide lamps



#### **VIVO** Pendant

Alternative cylindrical design version.



#### VIVO-SL LED

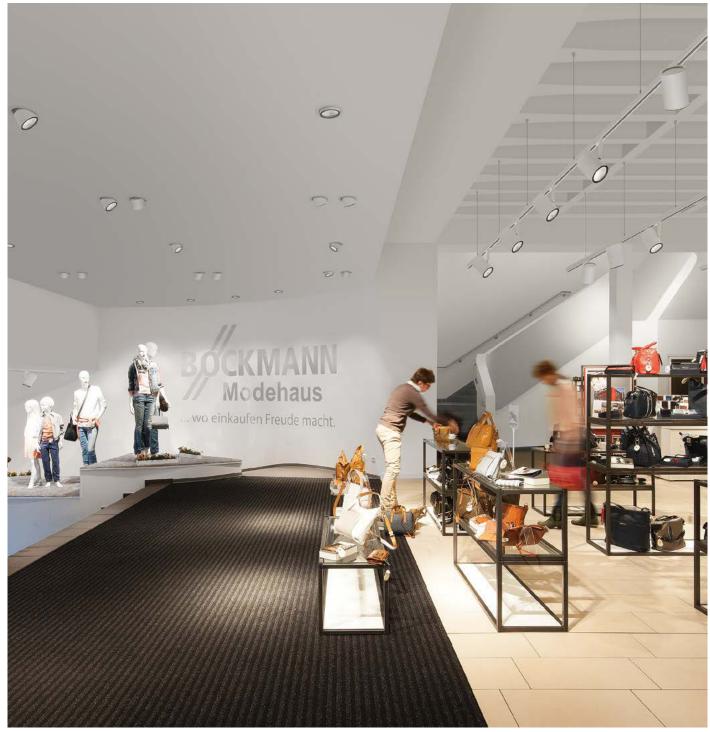
Semi-recessed directional spotlight for suspended ceilings.





	VIVO XS LED	VIVO M LED	VIVO L LED	VIVO-P L LED	VIVO-SL LED
Distribution characteristics					
Spot	•	•	•		•
▲ Flood	•	•	•		•
Wideflood		•	•	•	•
Colour					
White	•	•	•	•	•
Black	•	•			
Silver	•	•	•	•	
Ceiling cutout					
Round					•
Square					•
<del></del>					
Installation					
Recessed/semi-recessed					•
3-phase track	•	•	•	•	
L3+DALI track		•	•		
TECTON continuous-row lighting system		•	•	•	
Recessed depth min. 100 mm					•
LED					
27 W TGRfashion		•			•
27 W TGRfood				•	
36-44 W Tunable Colour			•		
27 W Essential stableWhite		•	•		•
36 W Essential stableWhite			•		
60 W Essential stableWhite			•		
-					
15 W Essential+ stableWhite	•				
	•	•	•		•
27/29 W Essential+ stableWhite	•	•			•
27/29 W Essential+ stableWhite 36 W Essential+ stableWhite	•	•	•		•
27/29 W Essential+ stableWhite 36 W Essential+ stableWhite  Accessories	•		•		•
27/29 W Essential+ stableWhite 36 W Essential+ stableWhite  Accessories			·	:	
15 W Essential+ stableWhite 27/29 W Essential+ stableWhite 36 W Essential+ stableWhite  Accessories Interchangeable reflector Blocking filter Meat and cold meat (M+CM))			·		
27/29 W Essential+ stableWhite 36 W Essential+ stableWhite  Accessories Interchangeable reflector Blocking filter			·	•	
27/29 W Essential+ stableWhite 36 W Essential+ stableWhite  Accessories Interchangeable reflector Blocking filter Meat and cold meat (M+CM))	•	•	•	•	•







### **ONICO**

Luminaire family for configuring individual lighting solutions in a consistently clear design

### Variable lighting tools in a uniform design

Regardless of whether track, ceiling-recessed or pendant – with ONICO, it's easy to design technically consistent lighting solutions for retail areas with suspended or closed ceilings. Thanks to simple styling and through integrated operating units, these concepts are also suitable for global application. LED modules and reflectors are selected simply according to the required light properties from the modular design. Special designs in customised colours open up additional possibilities for personalisation.

"ONICO emerged from a passion for technology and design. The unique product family gives every designer the freedom to shape their own range of luminaires with suitable LED light sources and high-performance reflectors. By adjusting the beam angle and luminous flux, perfection can be achieved in all applications. Clear and focused shapes enable the luminaires to discreetly act in diverse environments – with the possibility to subtly illuminate the surroundings. ONICO serves a diverse number of markets, among them sales, and presents itself as a versatile lighting tool for designers who want to consistently surpass expectations."

Design: LAPD lighting design, Steve Dean and Glenn Campion





### **ONICO**

# Uniform variety

### **LED** spotlight





#### ONICO N

Compact, passively cooled LED spotlight with integrated converter: Excellent efficiency, glare suppression and colour rendering distinguish ONICO M as the perfect alternative to conventional lighting systems with 20 W metal halide lamps.

#### ONICO L

Efficient, passively cooled LED spotlight with integrated converter: The high luminous flux, best colour rendering and variable light colour define ONICO L as an innovative alternative to lighting solutions with  $35~\mathrm{W}-50~\mathrm{W}$  metal halide lamps.

### LED recessed spotlight





### ONICO-S M

Compact, passively cooled LED recessed spotlight with innovative tilt action: Replaces conventional systems with 20 W metal halide lamps.

### ONICO-S L

Efficient, passively cooled LED recessed spotlight with innovative tilt action: contemporary alternative to lighting solutions with 35 W -50 W metal halide lamps.

### **Pendant luminaires**



### ONICO M pendant

Compact, passively cooled pendant luminaire with integrated converter: Special features include the clear shape and the possibility to subtly illuminate surroundings. Replaces conventional systems with 20 W metal halide lamps.

### ONICO L pendant

Efficient, passively cooled pendant luminaire with integrated converter: Straight, discreetly bright alternative to lighting systems with 35W to 50 W metal halide lamps.

ONICO M spotlight with alignment tool







	ONICO M	ONICO L	ONICO-S M	ONICO-S L	ONICO M pendant	ONICO L pendant
Distribution characteristics						
N Spot 13°/11°	•	•	•	•	•	•
Flood 25°	•	•	•	•	•	•
Wideflood 39°/40°	•	•	•	•	•	•
Colour						
White matt	•	•	•	•	•	•
Black matt	•	•	•	•	•	•
Installation						
L3+DALI track	•	•				
TECTON trunking	•	•				
Ceiling mount			•			
Pendant installation					•	•
Torracti instantation						
Ceiling section						
Ø 150 mm			•			
Ø 190 mm				•		
Luminaire diameter						
Ø 95 mm	•		•		•	
Ø 132 mm		•		•		•
LED						
20 W Essential stableWhite (3000 K/Ra > 80) 2000 lm	•		•		•	
20 W Essential stableWhite (4000 K/Ra > 80) 2100 lm	•		•		•	
27 W Essential stableWhite (3000 K/Ra > 80) 2800 lm		•		•		•
27 W Essential stableWhite (4000 K/Ra > 80) 2900 lm		•		•		•
36 W Essential stableWhite (3000 K/Ra > 80) 3700 lm		•		•		•
36 W Essential stableWhite (4000 K/Ra > 80) 4000 lm		•		•		•
20 W Essential Plus stableWhite (3000 K/Ra > 90) 1600 lm	•		•		•	
20 W Essential Plus stableWhite (4000 K/Ra > 90) 1800 lm	•		•		•	
27 W Essential Plus stableWhite (3000 K/Ra > 90) 2200 lm		•		•		•
27 W Essential Plus stableWhite (4000 K/Ra > 90) 2400 lm		•		•		•
36 W Essential Plus stableWhite (3000 K/Ra > 90) 2900 lm		•		•		•
36 W Essential Plus stableWhite (4000 K/Ra > 90) 3300 lm		•		•		•
20 W SCR (3000 K / Ra > 98) 1400 lm	•		•		•	
27 W SCR (3000 K / Ra > 98) 2400 lm		•		•		•
36 W SCR (3000 K / Ra > 98) 2800 lm		•		•		•
20 W TGRfashion (3000 K) 1600 lm	•		•		•	
36 W TGRfashion (3000 K) 2400 lm		•		•		•
36 W TGRfood (meat, pastries) 2000-2300 lm		•		•		•
Accessories						
Reflector	•	•	•	•	•	•
Alignment tool	•	•	•	•	•	•





↑ Interspar Vienna Hauptbahnhof | AT Architecture: Atelier Architekt Dipl. Ing. Bernhard Bügelmayer ZT, GmbH Dornbirn | AT Lighting solution: FACTOR, TECTON LED, SLOTLIGHT II



# **FACTOR**

# LED spotlight

Zumtobel has added FACTOR, a modular LED spotlight, to its product range for shops and retail areas. FACTOR combines reduced complexity with great lighting quality and is available in two design versions: its conical and cylindrical housing provides plenty of creative scope for implementing retail lighting solutions. It is installed on a 3-phase track or via METRUM, thus ensuring flexibility: if the shop design needs to be modified, the FACTOR spotlights can easily be repositioned. FACTOR is optionally available in a warm (3000 K), intermediate (4000 K) colour temperature or as TGR food version to ensure a presentation that matches specific merchandise.

Design: EOOS zumtobel.com/factor











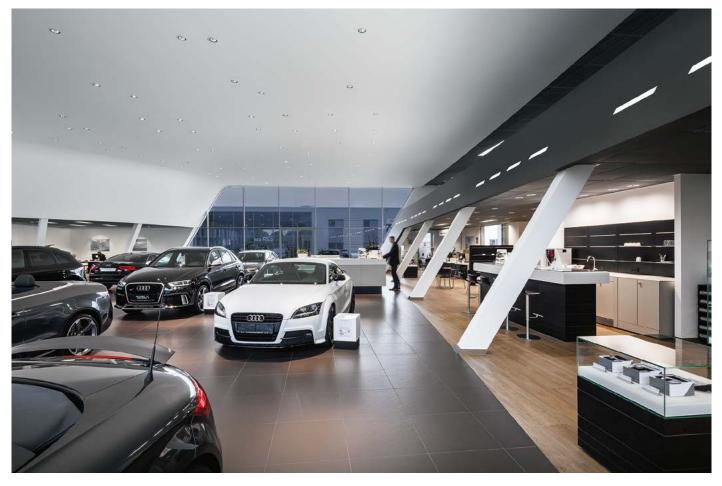


FACTOR cylindrical, black matt

	FACTOR conical	FACTOR cylindrical
Distribution characteristics		
<b></b> Spot	•	•
Flood	•	•
Wideflood	•	•
Colour		
White matt	•	•
Black matt	•	•
Installation		
3-phase track	•	•
METRUM continuous-row system	•	
Essential stableWhite		
27 W (3000 K, 4000 K, Ra>80)	•	•
36 W (3000 K, 4000 K, Ra>80)	•	•
Essential Plus stableWhite		
27 W (3000 K, Ra>90)	•	•
36 W (3000 K, Ra>90)	•	•
TGRfood*		
36 W (baked goods)	•	
36 W (cold meat)	•	

<sup>\*</sup> TrueGamutRendering





↑ Hotz bakery/pastry shop, Dübendorf | CH Lighting solution: CARDAN LED

↓ Audi Zentrum Aachen, Geilenkirchen branch | DE Lighting solution: CARDAN, PANOS infinity, LIGHT FIELDS





# **CARDAN LED**

# The lighting power pack

The range of conventional gimbal-mounted luminaires now also includes a high-performance (2200–4800 lm) and highly efficient (up to 111 lm/W) CARDAN LED luminaire fitted with the latest LED modules. Intelligently differentiated performance packages (27 W to 60 W) allow precise adjustment to a wide variety of requirements.

The unobtrusive mounting frame in a contemporary design is made of high-quality die-cast aluminium and stable sheet steel, holding an LED lighting head including a passive high-performance heat sink and swivelling continuously through up to  $\pm$  30°. No fixing wheel is required due to the self-decelerating design. The springs can be easily operated and allow for quick no-tool installation.





### Ordering details for curved tracks (standard section)

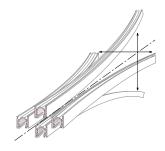
The minimum bend radius is 1000 mm. Bending in any direction is possible. The following information is required in addition to type of track and colour:

Angle of bend (arc of circle)

- Circle segment with specified angle
- Minimum bend radius 1000 mm
- The outside is always the reference side when measuring the bend radius
- Special shapes can only be bent using 1:1 templates

DALI tracks can also be bent.

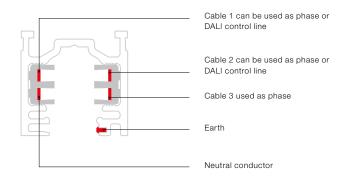
Spotlights with TRACK BOX ADAPTER, e.g. VIVO models, cannot be installed in curved tracks.



Possible bending directions with manufacturing tolerances are patterned on DIN ISO 2768

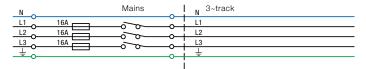
#### Structure of a track

Depending on the adapters and electrical feeds used, the 3-phase track can be used both as a conventional and as a DALI track.

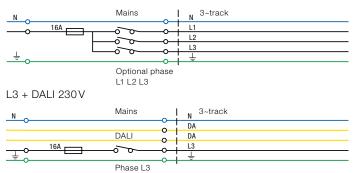


### **Electrical power connection**

### 3-phase AC 400 V



### Single phase AC 230 V











	1-phase track	3-phase/L3+DALI track	3-phase/L3+DALI track with support section
Track modules			
End feed	•	•	•
Central feed	•	•	•
Connector	•	•	•
Angle connector	•	•	•
T-connector	•	•	•
Cross connector	•	•	•
Flexible connector	•	•	•
End caps	•	•	•
Track colours  White  Titanium	•	•	•
	<u> </u>		
Black	•	•	•
Accessoires			
Pendant tube suspension	•	•	•
Cord suspension	•	•	•
Decorative hook	•	•	•
Pendant adapter	•	•	•
Adapter with socket	•	•	•
Point outlet, surface-mounted	•	•	
Point outlet, recessed	•	•	







Multifunctional lighting systems

- 48 SUPERSYSTEM II
- 52 SUPERSYSTEM
- 56 INTRO

Shelf lighting

60 MICROTOOLS

Fibre-optic system

64 STARFLEX

← Computer Gross, Empoli | IT
Architecture: Alessandro Alderighi, Empoli | IT
Lighting solution: SUPERSYSTEM,
MELLOW LIGHT V LED, PANOS infinity, FD 1000 LED,
SLOTLIGHT LED, TECTON, ONLITE RESCLITE,
CROSSIGN, LUXMATE LITENET





↑ Accentuation and vertical lighting
In shops and galleries, lighting has two primary tasks: spotlighting to produce targeted accents and wallwashing to evenly illuminate vertical surfaces.

→ Linear general lighting combined with accentuation and vertical lighting
The linear LEDline is a winning building block of Super-system providing harmonious general lighting in hotel lobbies, reception areas, or waiting rooms. Complemented by spotlights for accents, it creates a lively atmosphere. Wallwashers evenly illuminate the vertical surfaces supporting spacial perception.



### SUPERSYSTEM II

High-quality, miniaturised lighting system for expert solutions to tricky lighting problems

The second generation multi-functional SUPERSYSTEM II lighting tool continues the success story: sophisticated design, elegant materiality, and stringent miniaturisation brought together in a flexible system using efficient LED technology. The slim, extruded rail profile, combined with a wide choice of easy to install lighting inserts, covers all demanding lighting tasks and maximises light quality. SUPERSYSTEM II fulfils the various demands made on

lighting, not just in shops and retail or museums and galleries, but also in hotels and restaurants, conference rooms, or in the private sector where high quality, elegance and functionality are in harmony with the Zeitgeist. Ideal for general lighting, accent lighting and for wall washing, SUPERSYSTEM II offers a solid base of uniform styling for a coordinated lighting solution in any space.



### SUPERSYSTEM II

### Overview

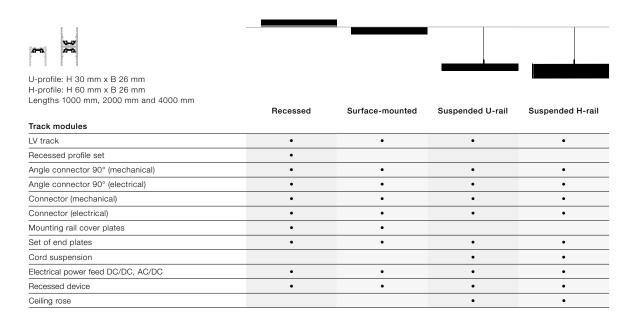
SUPERSYSTEM II LED mini wallwasher

SUPERSYSTEM II LED mini spotlight

SUPERSYSTEM II LED midi spotlight



LEDs offer great opportunities to consistently miniaturise luminaires. SUPERSYSTEM II opens up this potential even further by concealing the driver units into the extruded rail or behind the suspended ceiling. The minimalist LED Spotlight can now fully show off its elegance. This is particularly true when combined with the sleek rail profile, the dimensions of which have also been reduced to a minimum. The result is an LED lighting tool which is distinguished by absolute design simplicity combined with high impact lighting quality. The variety of lighting inserts with multiple task-specific lighting characteristics help solve any lighting problem.









	SUPERSYSTEM II mini Ø 26 mm	SUPERSYSTEM II midi Ø 45 mm	SUPERSYSTEM II maxi Ø 65 mm	SUPERSYSTEM II wallwasher	SUPERSYSTEM II LEDray	SUPERSYSTEM II LEDline
Distribution characteristics						
Extremely narrow-beam	•	•	•			
Narrow-beam	•	•	•			
▲ Wide-beam	•	•	•			
✓ Very wide-angle	•	•	•			
Oval-beam	•	•	•			
Contours (round/rectangular)		•	•			
■ Wallwasher				•		
▲ Direct					•	•
						•
LED						
1 x 2 W, 1 x 4 W	•					
3x2 W, 3x4 W	•					
1 x 6,5 W, 2 x 7 W		•				
1 x 7 W, 1 x 15 W			•			
1 x 6,5 W (framing spotlight)		•				
1 x 8,5 W (framing spotlight)			•			
1 x 8 W (wallwasher mini)				•		
1 x 10 W (wallwasher midi)				•		
1 x 8 W (LEDray S)					•	
1 x 9 W (LEDline S)						•
1 x 9 W (LEDline H)						•
Colour temperature						
4000 K (Ra 80, Ra 90)	•	•	•	•	•	•
3000 K (Ra 80, Ra 90)	•	•	•	•	•	•
2700 K (Ra 80, Ra 90)	•	•	•			
Accessoires						
Light direction foils	•	•	•			
Ring louvre	•	•	•			
Anti-glare tube	•	•	•			









↑ Maison Ullens flagship store, Paris | FR Architecture: OMA, Rotterdam | NL Lighting solution: SUPERSYSTEM E1, VIVO XS, CARDAN LED, MICROTOOLS, PANOS infinity → Cathedral Treasury Aachen | DE
Architecture: Plan Ing, DI Ralf Wolters, Aachen | DE
Lighting design: Labor für Lichtmesstechnik: PhotoMetrik GmbH, Darmstadt | DE
Lighting solution: SUPERSYSTEM, STARFLEX, ARCOS, PANOS infinity,
ONLITE RESCLITE, ONLITE ARTSIGN





### **SUPERSYSTEM**

# Modular LED lighting system

Thanks to its extremely pared-down and timeless design, SUPER-SYSTEM unobtrusively enhances architectural structures and interior design, always presenting a high-quality impression. Thanks to a number of extensions and consistent implementation of cutting-edge LED technology, SUPERSYSTEM is now able to fulfil complex lighting tasks even more efficiently. Warm white colour temperatures are ideal for creating pleasant, relaxing lighting scenes. Zumtobel now meets the demand with a colour temperature of 2700 K. In addition, the successful mini-downlight is now also available in an extra-slim version: the fixed lighting head is installed flush with the ceiling and is recommended wherever maximum unobtrusiveness is required. In order to allow more freedom of design, an additional section type was introduced: the Height-Extended section. In comparison with

the existing H section, it allows more space for cabling and thus facilitates addressing of several different phases. The extended SUPERSYSTEM product range allows for more facets to general lighting as well. Thanks to consistent further development of lighting technology, seamless LED light lines with direct and indirect light distribution can now also be implemented using SUPERSYSTEM. If the lighting task requires a particularly high extent of glare control, a narrow light line with sophisticated lens technology is now available for insertion into the SUPERSYSTEM sections. A linear LED wall-washer has also been added to the portfolio for the "Museum, Art and Culture" application area, which is able to illuminate vertical surfaces in an especially uniform manner thanks to a unique reflector/lens combination.

Design: Supersymetrics



# System versatility









Pendant luminaire fitted with T16 or LED lighting insert (direct)



Recessed-downlight



Single downlight



Quadruple downlight, flush-mounted



Quadruple downlight, slightly recessed



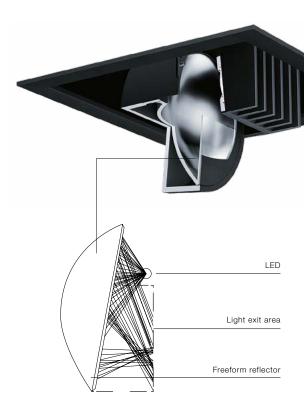


	H section 3-ph/L3 + DALI	S section 3-ph/L3 + DALI	H section	S section	E section	HE section
Track modules						
Standard section	•	•	•	•		•
Extension section	•	•				
End section	•	•				
Recessed section kit					•	
Angle connector 90°	•	•	•	•		•
T connector	•	•	•	•		•
Cross connector 90°	•	•	•	•		•
Connector (mechanical)			•	•	•	•
Connector (electrical)	•	•				
Track end panel	•	•				
Trunking end panel			•	•		•
Front plate kit					•	
TECTON cord suspension					•	
SYSTEM LED DECOLINE BASIC installation kit	•		•			
Distribution characteristics	LED lighting units	3-phase spotlight unit	Wallwasher	Downlight unit	Pendant Iuminaire unit	Emergency lighting unit
Narrow-beam	•	•		•	•	
Wide-beam	•	•		•	•	
Mide-beam  Indirect/direct	•			•	•	
Direct	•				•	
Wallwasher	•		•			
	•	•	•	•	•	
Swivelling	•			•	•	
LED						
1x2.5 W, 1x4 W LED	•			•		
2x2.5 W, 2x4 W LED	•			-		
3x2.5 W, 3x4 W LED	•	•				
	•			•		
4/2.5 W, 4/4.5 W LED (flush with ceiling)				•		
4/2.5 W, 4/4.5 W LED (slightly recessed)				•	•	_
6x2.5 W LED + T16 (direct)						
6x2.5 W LED + LED (direct)					•	
Other inserts						
PMMA diffuser optic	•					
all 3-phase and DALI spotlights		•				
Fluorescent lamps						
T16			•			
Resclite						
1x2.4 W Power LED						•
Colour temperature						
4000 K (intermediate white, Ra 80)	•	•		•	•	
3000 K (warm white, Ra 80 / Ra 90)	•	•		•	•	
2700 K (warm white, Ra 80)				•		
Accessories						
Interchangeable lens 36°	•	•		•	•	
Interchangeable lens 40° x 10°	•	•		•	•	
Anti-glare tube	•	•		•	•	





↑ Gerry Weber, Herford | DE Lighting solution: INTRO M, VIVO XS, VIVO M, LINARIA, LUXMATE DIMLITE



#### liteCarve® Reflector technology incorporated in the INTRO system

INTRO liteCarve® | 53 W

The freeform reflector provides highly precise and balanced light distribution, right up to the peripheries. The reflector is fitted in front of an LED point light source and directs the light, 100% indirectly, onto the vertical surfaces in a targeted manner. This means that not only displays can be illuminated uniformly and efficiently but also shelves, large-format posters, recesses or wall areas that need to be highlighted. As a track-mounted version, the liteCarve® spotlight provides additional flexibility due to the lighting head that can be pivoted downwards through 40°.











### **INTRO**

# Modular LED lighting system

Designed to impressively set any store centre stage and perform a wide variety of lighting tasks, the INTRO lighting system includes four luminaire models in a con-sistent design: INTRO M and INTRO S for light that creates accents. INTRO PANOS infinity for light that efficiently provides brightness in the room. INTRO lite-Carve® for light that not only ensures uniform illumination to vertical surfaces but also produces a rectangular lighting cone.

The luminaire range is completed by INTRO RESCLITE emergency luminaires for use in emergencies. Despite the consistent design and variety of technical lighting features, every INTRO lighting solution provides maximum creative design scope: the components – mounting frame, lighting insert through to front ring – can be assembled individually. In this way, variability and flexibility meet at the highest level.

Design: Chris Redfern, Sottsass Associati





# 58 INTRO

# System overview

### The right light for any retail area; perfect design meeting any customer requirements.



#### INTRO S Q1

Miniaturised, efficient LED accent spotlight Lighting head: Ø 70 mm, black with black front ring



#### INTRO M Q1

Brilliant LED accent spotlight with high light output levels Lighting head: Ø 115 mm, black with black front ring



#### INTRO S Q2

Miniaturised, efficient LED accent spotlight Lighting head: Ø 70 mm, black with black front ring



### INTRO M Q2

Brilliant LED accent spotlight with high light output levels Lighting head: ∅ 115 mm, black with black front ring



### INTRO S Q3

Miniaturised, efficient LED accent spotlight Lighting head: Ø 70 mm, black with black front ring



### INTRO M Q3

Brilliant LED accent spotlight with high light output levels Lighting head: ∅ 115 mm, black with black front ring



### INTRO-R S

Round complete luminaire, configurable Lighting head: Ø 70 mm, ceiling cut-out: Ø 130 mm, black with black front ring



### INTRO-R M

Round complete luminaire, configurable Lighting head: Ø 115 mm, ceiling cut-out: Ø 190 mm, black with black front ring



### INTRO M liteCarve®

Spotlight for vertical surfaces Lighting head: Ø 125 mm, black





### INTRO R1, Q1 und Q2

Round and square complete luminaire Lighting head: Ø 115 mm, ceiling cut-outs: Ø 180 mm (R1), ☐ 165 mm (Q1), 165 x 320 mm (Q2)





	INTRO accent spotlight	INTRO liteCarve® spotlight	INTRO RESCLITE	INTRO PANOS infinity	INTRO PANOS infinity
Distribution characteristics		for vertical surfaces		mounting frame R100	mounting frame K150
M Spot	•				
Flood	•		•		
Wideflood	•			•	•
Swivelling	•	•			
▼ Vertical flood		•			
Colour					
White	•	•	•	•	•
Black	•	•	•	•	•
Luminaire modules					
Module unit, size S	•			•	
Module unit, size M	•	•	•		•
Fully assembled round luminaire, configurable, size S	•				
Fully assembled round luminaire, configurable, size M	•				
Track-mounted spotlight		•			
Fully assembled R1 luminaire*	•				
Fully assembled Q1 luminaire*	•				
Fully assembled Q2 luminaire*	•				
LED					
TGRfashion	•	•			
Stable food bakery	•				
Stable food fresh meat	•				
2700 K / Ra 90				•	
3000 K / Ra 80	•	•			
4000 K / Ra 80	•	•			
3000 K / Ra 90	•	•		•	•
4000 K / Ra 90	•			•	•
Accessories					
Front ring **	•	•			
Replaceable reflectors	•				
Blanking cover	•	•	•	•	•
Offset frame	•	•	•	•	•
Cover		•			
Cover ring	•				



### INTRO M RESCLITE

Emergency light unit, module width: 180 mm

System power: LED ≤ 5 W (< 1.5 W in stand-by mode)

Control: emerg. lighting NDA, emerg. lighting NSI,

emerg. lighting NT1 und NT3



INTRO S PANOS infinity downlight
Downlight, module width: 100 mm, frameless
Reflector finishes: highly specular, matt silver,
matt gold, white



### INTRO M PANOS infinity

Downlight, module width: 150 mm, frameless Reflector finishes: highly specular with facets, highly specular, matt silver, white





<sup>\*</sup> Pre-assembled mounting frame
\*\* White, black, matt silver, chrome, copper





↑ Colonys, Zurich | CH Interior design: Retailpartners AG, Wetzikon | CH Lighting solution: MICROTOOLS

→ Heimatmuseum Schloss Ritzen, Saalfelden | AT Lighting design: TB Ing. Klaus Linzmaier, Saalfelden | AT Lighting solution: MICROTOOLS, SUPERSYSTEM, IYON, DISCUS LED















### **MICROTOOLS**

# Impressive lighting within minimum space

High-quality finish and hardly visible at all: the MICROTOOLS LED system was specifically developed for shelves with boards made of wood, glass or metal. Modules for general and accent lighting are flexibly combined, the choice is between warm and intermediate colour temperatures. The extremely compact gimbal-mounted lighting heads are the smallest currently available on the market for shelf lighting and emphasise the sophisticated technology even further. With its excellent colour rendering index of Ra > 90, the MICROTOOLS system is also ideal for museums to gently illuminate exhibits from short distances.

Compared to conventional lighting systems, an outstanding luminaire efficiency of up to 82 lm/W helps to significantly cut energy consumption.







### Mounting sections



MICROTOOLS mounting section (1000/2000 mm)



MICROTOOLS mounting section (1000/2000 mm), 20° angle



MICROTOOLS mounting section (1000/2000 mm), 20° angle with cover

Blanking inserts, feeders and end caps



MICROTOOLS blanking insert (200/400 mm)





MICROTOOLS set feeder/end cap









MICROTOOLS Essential, Ra > 80 (3000 K, 4000 K); Advanced, Ra > 90 (3000 K); with replaceable optics (flood, wideflood)

MICROTOOLS-C (Cardanic) Essential, Ra > 80 (3000 K, 4000 K); Advanced, Ra > 90 (3000 K); with replaceable optics (spot, flood)

	MICROTOOLS mounting sections	MICROTOOLS fixed	MICROTOOLS-C gimbal mounted	MICROTOOLS blanking insert
Distribution characteristics				
▲ Spot			•	
Flood		•	•	
Wideflood		•		
Colour				
Silver-anodised	•	•	•	•
Mounting sections				
Mounting section (1000 mm)	•			
Mounting section (2000 mm)	•			
Mounting section 20° (1000 mm)	•			
Mounting section 20° (2000 mm)	•			
Mounting section blend 20° (1000 mm)	•			
Mounting section blend 20° (2000 mm)	•			
Blanking insert (200 mm)				•
Blanking insert (400 mm)				•
Lighting module Advanced 1/1.1 W (3000 K, Ra>90)			•	
2/1.1 W (3000 K, Ra>90)		•	•	
3/1.1 W (3000 K, Ra>90)		•		
Lighting module Essential				
1/1.1 W (3000 K, 4000 K, Ra80)			•	
2/1.1 W (3000 K, 4000 K, Ra80)		•	•	
3/1.1 W (3000 K, 4000 K, Ra80)		•		
Accessory				
Replaceable lens with spot beam pattern		•	•	
Replaceable lens with flood beam pattern		•	•	
Replaceable lens with wideflood beam pattern		•	•	
Replaceable lens with very wideflood beam pattern		•	•	
Feed-in set		•	•	
Oval outline lens		•	•	
Converter		•	•	
Power lead		•	•	
Connecting lead		•		









↑ Residenzschloss - Riesensaal, Dresden | DE Architecture: Peter Kulka Architektur, Dresden | DE Lighting solution: STARFLEX, ARCOS LED, TECTON

→ Scintille Jeweller's, Cosenza | IT
Architecture: Arch. Gennaro De Marco, Cosenza | IT
Lighting solution: STARFLEX, 2LIGHT MINI, KAVA, VIVO, PASO





# **STARFLEX**

# Modular fibre optic system

Optical string and fibre optic technology is one of the most fascinating options of high-precision technical lighting. The wide range of applications comprises the illumination of shops, museums and art galleries as well as illumination of hotels, restaurants or wellness areas.

Separating light from electricity as well as from UV and IR components opens up innumerable options, e.g. if precious objects are to be perfectly, yet gently lit.

Fibre optic technology combines three different technologies: the light engine, which produces the light; the optical fibre, which transports the light; and the light exit point for defined light emission.





# 66 STARFLEX

# Fibre optic system



100 W QR-CB engine 100 W ECO QR-CB engine



35 W HIT engine 70 W HIT engine



150 W HIT engine





Colour-wheel/sparkle-effect wheel surface-mounted module for QR-CB and 35/70 W HIT engine





Colour-wheel/sparkle-effect wheel recessed module for 150 W HIT engine

Modules	Engine 100 W QR-CB	Engine 100 W ECO QR-CB	Engine 35/70 W HIT	Engine 150 W HIT
LED (3000 K / 4000 K)				•
150 W lighting module				•
Colour-wheel surface-mounted module	•	•	•	
Sparkle-effect wheel surface-mounted module	•	•	•	
Colour-wheel recessed module				•
Sparkle-effect wheel recessed module				•
Filters				
Blue colour insert	•	•	•	•
Yellow colour insert	•	•	•	•
Green colour insert	•	•	•	•
Magenta colour insert	•	•	•	•
Pink colour insert	•	•	•	•
Red colour insert	•	•	•	•
Turquoise colour insert	•	•	•	•
IR/UVA filter				•
Accessories				
230/12 V 5 W transformer			•	
ZS ESA 90/9 adapter	•	•	•	•
QR-CBC51 50 W lamp	•	•		
QR-CB51 100 W lamp	•	•		
Fibre optics protective tube	•	•	•	•
PMMA fibre bundle set	•	•	•	•
Installation duct	•	•	•	•



### STARFLEX light outlets



Version	Recessed light outlet open 60/70°	Recessed light outlet lens 25-53°	Recessed light outlet acrylic cone	Recessed light outlet glass cover $60-70^{\circ}$	Recessed light outlet pivoting lens 7–28°	Recessed light outlet pivoting lens 25–53°
Cover: matt anodised aluminium	•	•	•	•	•	•
Cover: black anodised aluminium	•		•	•		
Cover: white painted aluminium	•		•	•	•	•
Cover: polished brass	•		•	•		

















Version	Adjustable surface-mounted light outlet lens 25-46°	Adjustable surface-mounted light outlet lens 7-25°	Adjustable surface-mounted light outlet open 60/70°	Crystal lighting outlet L 12.5 mm	Crystal lighting outlet L 31 mm	Crystal lighting outlet Ø 18.5 mm
Cover: matt anodised aluminium	•	•	•			
Cover: black anodised aluminium	•	•	•			
Cover: white painted aluminium	•			•	•	•



Light outlet



Light head



Recessed



Projection

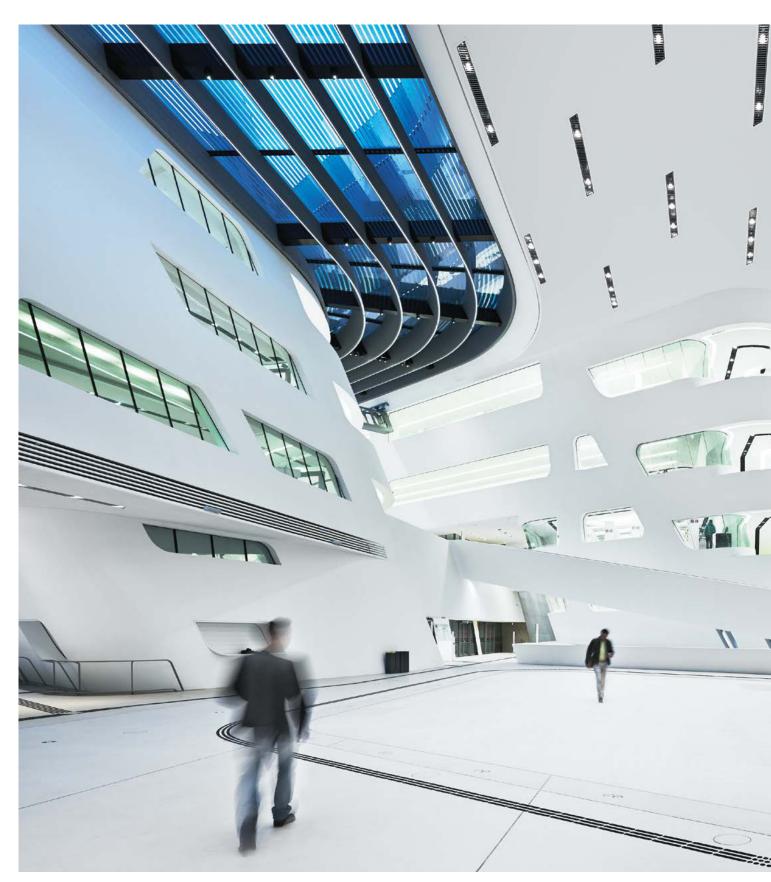
curved tube	spotlight surface-mounted IP68	light outlet IP44	attachment
•			
	•		
	•		
	•		
	•	•	
	•	•	





Cover: matt anodised aluminium Lens can be focussed 18-34° Lens can be focussed 16-30° No lens, only protective glass 52°

Glass, transparent Glass, opal Lens 11-36° Zoom objective



# **Downlights**





- 70 2LIGHT
- 72 PANOS infinity and PANOS evolution
- 76 PANOS infinity global and PANOS evolution global
- 80 PANOS
- 84 CREDOS
- 86 MICROS
- 90 DIAMO



<sup>←</sup> Vienna University of Economics and Business | AT Architecture: Zaha Hadid Architects, Hamburg | DE Lighting design: Arup, Lighting Design, Berlin | DE Lighting solution: PANOS infinity, SLOTLIGHT II, CLARIS II, SCUBA



↑ Gehri Rivestimenti SA,Lugano | CH Architecture and lighting design: nero.partners SA, Lugano | CH Lighting solution: 2LIGHT MINI LED, DISCUS, PANOS infinity, MICROS, LUXMATE CIRCLE-TUNE KIT

	2LIGHT MINI LED	2LIGHT MINI LED
	Quadratic downlight	Quadratic downlight
Distribution characteristics	with round reflector	with quadratic reflector
Narrow beam	•	•
✓ Wide beam	•	•
Very wide-angle	•	•
Colour		
Titanium	•	•
White	•	•
Installation		
Recessed	•	•
Mounting depth		
122 mm	•	•
LED		
1000 lm (2700 K, 3000 K, 4000 K / Ra > 90)	•	•
1500 lm (2700 K, 3000 K, 4000 K / Ra > 90)	•	•
Accessories		
Installation kit (for thin ceiling)	•	•
Concrete casting surround	•	•





#### **2LIGHT MINI LED**

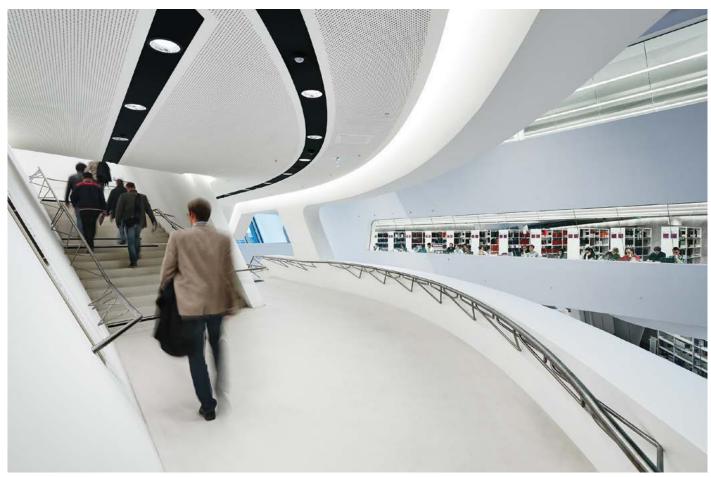
# Downlights with unique lighting characteristics

The whole 2LIGHT MINI range of downlights presents itself even more powerful: latest-generation LED technology creates a brilliant lighting atmosphere as desired in hotels, wellness areas and private homes.

This is possible thanks to excellent colour rendering of  $\rm Ra>90$  as well as reflector technology that combines accent lighting with diffuse light distribution. Colour temperatures of 2700 K, 3000 K and 4000 K as well as spot, flood and wideflood beam patterns ensure that any lighting task can be performed with utmost precision.

Design: Hartmut S. Engel zumtobel.com/2light







↑ Vienna University of Economics and Business | AT Architecture: Zaha Hadid Architects, Hamburg | DE Lighting design: Arup, Lighting Design, Berlin | DE Lighting solution: PANOS infinity, SLOTLIGHT II, CLARIS II, SCUBA

↓ Audi Zentrum Aachen, Geilenkirchen branch | DE Lighting solution: PANOS infinity, CARDAN, LIGHT FIELDS









#### **PANOS infinity and PANOS evolution**

#### LED downlight ranges

#### **Highest luminaire efficiency**

With a luminaire efficiency of up to 120 lm/W, PANOS infinity and PANOS evolution have again set new standards on the market. This is achieved through the use of innovative LED multichannel technologies featuring red/white boards and other high-grade components that are combined within the optical luminaire system.

#### Powerful lumen packages

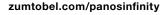
With a luminaire luminous flux of 800, 1000, 1800 or 2400 lumens, both the PANOS infinity product range and the PANOS evolution product range cover all typical downlight applications. Thus the two ranges are recommended as economically efficient alternatives in

all application areas where single- or twin-lamp downlights fitted with 18 W, 26 W or 32 W compact fluorescent lamps used to be installed.

#### Dimming or switching

The standard version of PANOS infinity is dimmable via DALI, which opens up great potential for further energy savings: Intelligently controlled lighting solutions reduce power consumption by 70 per cent. PANOS evolution offers a switchable 230 V converter as standard, but is optionally also available with DALI control gear.

Design: Chris Redfern, Sottsass Associati







#### <sup>74</sup> PANOS infinity and PANOS evolution

#### Outstanding lighting quality

#### **PANOS** infinity

With Ra levels exceeding 90, PANOS infinity stableWhite ranks first among LED downlights in terms of quality. The outstanding colour rendering index is based on a special multi-channel technology, where the intelligent interplay of highly efficient white and red LEDs ensures that virtually the entire light spectrum is rendered – including the long-wave red range. In addition to the colour temperatures offered (4000 K and 3000 K), warm 2700 K are available for the 'global' product range.

#### stableWhite | 2700 K, 3000 K and 4000 K



#### tunableWhite | 2700 K to 6500 K

or using CIRCLE tune control units.

PANOS infinity tunableWhite



Thanks to the unique Pi-LED technology, PANOS infinity

2700 K to 6500 K, providing excellent colour rendering of

individual adjustment of the colour temperature are availa-

Ra 90 with any colour temperature, so that all options of

ble, to follow the natural course of daylight, for instance,

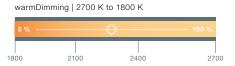
possible either via the LITECOM lighting control system

or to provide accent lighting to object surfaces. Control is

tunableWhite covers the entire white spectrum from

#### colour spectrum ensures maximum lighting quality.

PANOS infinity warmDimming



warmDimming technology allows for LED downlights to

produce pleasantly warm light at low illuminance levels -

ture of 2700 K at full illuminance and reduces it to 1800 K

at the lowest dimming level. The colour sequence along

the Planckian curve with levels of Ra 90 across the entire

similar to that of a conventional incandescent lamp. PANOS infinity warmDimming provides a colour tempera-

#### zumtobel.com/tunablewhite

#### PANOS evolution

PANOS evolution includes numerous product features of PANOS infinity, combining them with efficient and at the same time high-power single-channel phosphor LED modules as well as a colour rendering index of Ra > 80. Tried-and-tested technologies such as efficient thermal management and a wealth of reflector options ensure excellent lighting quality, featuring colour temperatures of 4000 K, 3000 K and, in the global version, 2700 K.

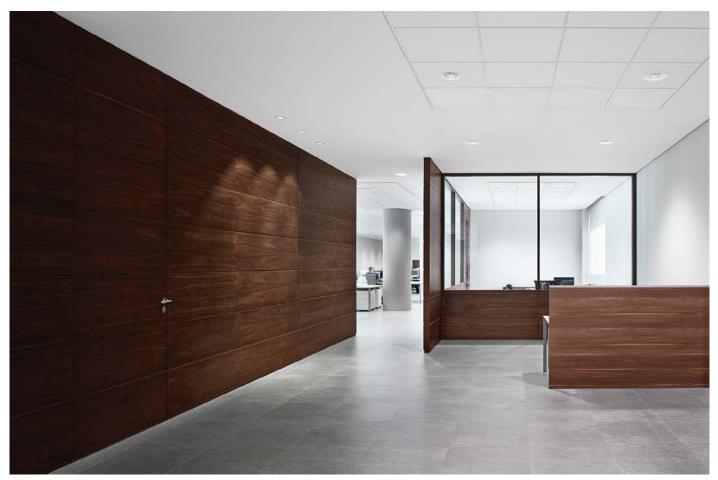




	Round Ø 150 mm	Round Ø 200 mm	Square  ☐ 140 mm	Square  ☐ 190 mm	<b>Wallwasher</b> Ø 150 mm	Wallwasher Ø 200 mm
Distribution characteristics						
▲ Wide-angle	•	•	•	•		
Wallwasher					•	•
Mounting depths						
<90 mm (Low)	•	•				
100 mm (Low)	•	•	•	•		
140 mm (High)	•	•	•	•		
130 mm (wallwasher)					•	
145 mm (wallwasher)						•
LED						
PANOS infinity (3000 K, 4000 K / Ra >90))	•	•	•	•	•	•
PANOS infinity (Tunable White 2700-6500 K / Ra < 90)	•	•	•	•		•
PANOS evolution (3000 K / 4000 K / Ra >80)	•	•	•	•		
(						
Reflector surface finishes						
Facetted	•	•	•	•		
Smooth	•	•	•	•	•	•
Matt	•	•		•		
Painted white	•	•		•		
Mounting frame With frame	•	•	•	•	•	•
Frameless*	•	•	•	•	•	•
Surface-mount housing						
PANOS infinity A E200 H (Ø 235 mm / H 206 mm)		•				
PANOS infinity A Q190 H (D 227 mm / H 206 mm)				•		
Attachments						
P54 diffuser, transparent	•	•	•	•	•	•
Antiglare ring	•	•				
Antiglare frame				•		
Decorative glass FLUX	•	•	•	•		
Decorative glass matt	•	•	•	•		
Decorative ring	•	•			•	•
Decorative surround			•	•		
Accessories						
Casting surround	•	•	•	•	•	•
Planar ring*	•	•			•	•
Flat surround*				•		
Ceiling reinforcing ring	•	•			•	•
Ceiling reinforcement surround						

<sup>\*</sup> only PANOS infinity



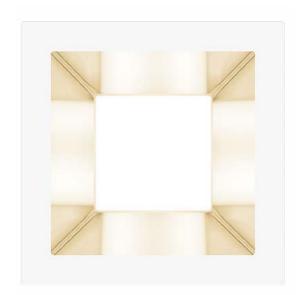




↑ Associated Consulting Engineers (ACE) Headquarters, Beirut | LB Architecture: Elie Safi – ACE Consulting, Beirut | LB Lighting solution: PANOS infinity, SLOTLIGHT, DIAMO

→ Ramada Hotel, Berlin | DE
Interior design: Planungsbüro Carl-Christian Niehaus, Hildesheim | DE
Lighting design: ARTELEMENTS Design Agentur lighting design studio, Hildesheim | DE
Lighting solution: PANOS infinity, MICROS LED





### PANOS infinity and PANOS evolution

Continuous product lines worldwide for all architectural applications

Thanks to a consistently continued utilisation concept, the PANOS infinity and PANOS evolution small downlights are in line with the large ones. Made to roll out lighting concepts internationally, necessary regional technical adjustments can be made without influencing the luminaire design or the lighting characteristics. The range includes round and quadratic downlights, wall washers and directional downlights where each combines the best light quality with maximum luminaire efficiency.

Design: Chris Redfern, Sottsass Associati

zumtobel.com/panosinfinity





#### **PANOS** infinity and **PANOS** evolution

#### General and accent lighting

#### Downlight for the lighting of horizontal surfaces

A large selection of modules with various beam angles, luminous flux, reflectors and colour temperatures provides maximum design freedom.



PANOS infinity R 100
Accent beam, white reflector,



PANOS infinity Q 100
Accent beam, black reflector,



PANOS infinity/evolution R 68
Highly specular aluminium reflector,



PANOS infinity/evolution Q 68 Highly specular aluminium reflector,



PANOS infinity/evolution R 100 Highly specular aluminium reflector, frameless



PANOS infinity/evolution Q 100 Highly specular aluminium reflector, with frame

#### Wallwashers for the lighting of vertical surfaces

Optical systems with specially designed reflectors and lens technologies guarantee maximum light quality.



PANOS infinity wallwasher R 68 Highly specular aluminium reflector, with frame



PANOS infinity wallwasher Q 68
Highly specular aluminium reflector,
with frame



PANOS infinity wallwasher R 100 Highly specular aluminium reflector, with frame



PANOS infinity wallwasher Q 100 Highly specular aluminium reflector, with frame

#### Directional downlight for very precise accent lighting

The flexible adjustable light cone makes precise light direction onto the object to be accented possible.



**PANOS infinity adjustable R 100** Highly specular aluminium reflector, with frame



PANOS infinity adjustable Q 100 Highly specular aluminium reflector, with frame





	Round Ø 68 mm	Square ☐ 68 mm	Round Ø 100 mm	Square  ☐ 100 mm	Wallwasher Ø 68 mm	Wallwasher ☐ 68 mm	Wallwasher Ø 100 mm	Wallwasher  □ 100 mm	Adjustable Ø 100 mm	Adjustable ☐ 100 mm
Distribution characteristics										
Narrow-beam	•	•	•	•					•	•
▲ Wide-angle	•	•	•	•					•	•
Very wide-angle	•	•	•	•						
■ Wallwasher					•	•	•	•		
Swivelling									•	•
Mounting depths										
100 mm	•	•	•	•	•	•	•			
110 mm								•		
115 mm	•	•	•	•						
125 mm									•	
130 mm	•	•	•	•			•	•		•
LED										
PANOS infinity	•	•	•	•	•	•	•	•	•	•
PANOS evolution	•	•	•	•						
Reflector surface finishes										
Highly specular aluminium	•	•	•	•	•	•	•	•	•	•
Silver matt	•	•	•	•					•	•
Gold	•	•	•	•					•	•
White painted	•	•	•	•					•	•
Mounting surround										
With frame	•	•	•	•	•	•	•	•	•	•
Frameless*	•	•	•	•	•	•	•	•	•	•
Attachments										
IP54 diffuser, transparent	•	•	•	•	•	•	•	•	•	•
Accessories										
Casting surround	•	•	•	•	•	•	•	•	•	•
Planar ring*	•		•		•		•		•	
Flat surround*		•		•		•		•		•

PANOS infinity: 2700 K, 3000 K, 4000 K / Ra>90 PANOS evolution: 2700 K, 3000 K, 4000 K / Ra>80 PANOS infinity warmDimming: 2700–1800 K

\* only PANOS infinity







↑ Symantec Offices, Dubai | AE
Lighting design: Acoulite Trading LLC, Dubai | AE
Lighting solution: PANOS infinity, MICROS, ECOOS





#### **PANOS**

# Customised downlight solutions to meet any requirements

The name PANOS stands for a complete, modular downlight range that teams exquisite, consistent design with high levels of practical functionality. An extensive selection of models, components and light sources provides unrivalled flexibility for designers and architects, regardless of project size and lighting task. Numerous innovative details save both installation time and expense. Energy-saving technologies and durable, re-usable materials mean that these luminaires use resources economically and won't eat into your budget. The design of PANOS remains true to the designers' vision: good lighting paints metaphors and sets the stage for life. The accents set by PANOS wherever people go about their daily lives create a wide variety of effects.

Design: Sottsass Associati





## 82 PANOS

## Downlights

#### Downlight





PANOS L



PANOS H

#### Reflector (more models)



PANOS L/H facetted



PANOS L/H smooth



PANOS L/H matt



PANOS M



PANOS M-V



PANOS M-D



PANOS M smooth/matt



PANOS M-V smooth



PANOS M-D smooth



PANOS A-L



PANOS A-M



PANOS A-L



PANOS A-M

	PANOS L	PANOS H	PANOS M	PANOS M-V	PANOS M-D	PANOS A
Distribution characteristics						
Narrow-beam			•			
✓ Wide-angle	•	•	•	•	•	•
Swivelling				•		
Reflector surface finishesr						
Facetted	•	•				•
Smooth	•	•				•
Matt	•	•				•
Metal, specular			•	•	•	
Recess diameter						
Ø 100 mm			•	•	•	
Ø 150 mm			•	•	•	
Ø 175 mm	•					
Ø 200 mm	•	•	•			
Ø 230 mm						•
Ø 250 mm	•	•	•			
Mounting depths to 100 mm	•					
to 150 mm		•				
to 200 mm		•	•	•	•	
over 200 mm		-	•	•	•	
OVEL 200 HIIII			-	-	-	
Metal halide lamps						
HIT-TC-CE PGJ5/GU6,5			•	•	•	
HIT-TC-CE G8,5			•	•	•	
HIT G12			•			
HIT G8,5						•
Compact fluorescent lamps						
TC-DEL	•	•				
TC-DEL TC-TEL	•	•				•
TC-TEL						•
						•
TC-TEL			•	•		•
TC-TEL  Attachments	•	•	•	•		
TC-TEL  Attachments IP54 attachment	•	•		·		•







↑ Swiss Ornithological Institute, Sempach | CH Architecture: W.+R. Leuenberger Architekten, Sursee | CH Lighting solution partner: Illi AG, Willisau | CH Lighting solution: CREDOS → Hartung GmbH & Co. KG, Neumünster | DE Lighting solution: CREDOS, MELLOW LIGHT IV, ONDARIA, PANOS INFINITY, ELEEA, LUXMATE DIMLITE



#### **CREDOS**

#### Compact, simple, economically efficient

This compact LED downlight combines efficiency and functionality with an attractive appearance. By using latest-generation LEDs, CREDOS achieves the same levels of performance as downlights fitted with compact fluorescent lamps up to 2/26 W – but uses minimal energy.

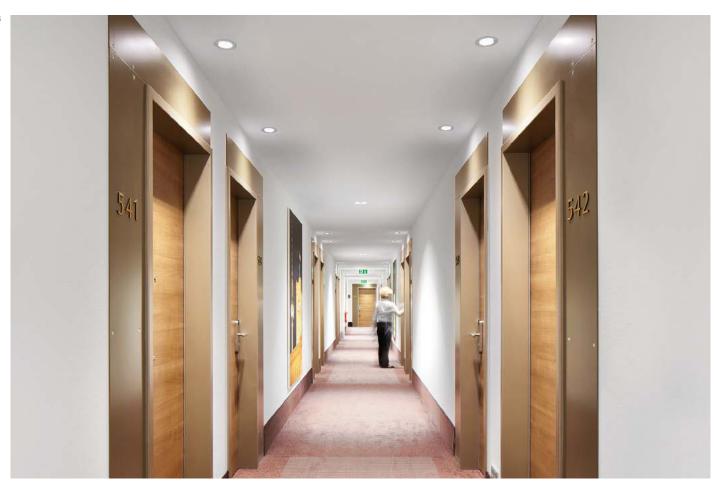
With dimmable lumen packages of 1000 and 2000 lumens, CREDOS provides pleasant and uniform general lighting in public buildings, offices, hotels and wellness areas, as well as in shops and department stores. In closed ceilings, the downlight offers IP44 protection and can therefore be used in areas where there are requirements for extra protection.

Another plus point: CREDOS has a service life of 50 000 hours with a decline in luminous flux of no more than 30 % and is therefore also specially recommended for areas where there are very extended operating hours. This durability is based on an innovative aluminium housing with a design that combines passive thermal management with compact dimensions.

The brightness of every CREDOS downlight can be adjusted by using standard-phase or reverse-phase dimmers.









↑ Ramada Hotel, Berlin | DE Interior design: Planungsbüro Carl-Christian Niehaus, Hildesheim | DE Lighting design: ARTELEMENTS Design Agentur lighting design studio, Hildesheim | DE Lighting solution: MICROS LED, PANOS infinity

→ Symantec Offices, Dubai | AE

Lighting design: Acoulite Trading LLC, Dubai | AE

Lighting solution: MICROS, PANOS infinity, LINCOR







#### **MICROS LED**

# Ideal alternative to low-voltage halogen lamps

Users reap all the benefits of the long service life of compact LED modules in decorative accent lighting applications in particular. Due to high energy efficiency and a low installed load, it is applications with long operating hours, e.g. in hotels and wellness areas, in particular which benefit from the short amortisation periods of usually less than two years.

Depending on the control gear installed, Micro LED luminaires are switchable or dimmable via DALI, 1–10 V or PushDIM.

Another plus: luminaires with a colour temperature of 3000 K and 4000 K offer the opportunity to make exactly the right choice for various surfaces and materials.





















	MICROS-C LED D68 LED	MICROS-C D95 LED	MICROS-S D105 LED	MICROS Q80 LED
Distribution characteristics				
Narrow-beam	•	•	•	•
✓ Wide-angle	•	•	•	•
Swivelling	•	•	•	
Trim				
Brushed aluminium	•	•		•
Painted white	•	•	•	•
Recess diameter				
Ø 68 mm	•			
Ø 95 mm		•		
Ø 105 mm			•	
□ 80 mm				•
Mounting depths				
50 mm	•			
75 mm		•		•
100 mm			٠	
LED				
3×1.2 W LED (3000 K)	•			
3×1.2 W LED (4000 K)	•			
6x1.2 W LED (3000 K)		•		•
6x1.2 W LED (4000 K)		•		•
6x2.3 W LED (3000 K)			•	•
6x2.3 W LED (4000 K)			•	•
Accessories				
LED power pack	•	•	•	•
Concrete casting surround	•	•		•



↑ Stubay Freizeitcenter, Telfes | AT
Architecture: Studio GA, Dipl. Ing. Wolfgang Gollwitzer M.S.AAD, Munich | DE
Lighting design: Licht Innovativ GmbH, Innsbruck | AT
Lighting solution: DIAMO, ONDARIA, VIVO, SLOTLIGHT II

	DIAMO LED downlight	DIAMO LED spotlight
Distribution characteristics		
<b>I</b> Flood	•	•
Wideflood	•	
Very Wideflood	•	
Wallwasher	•	
Diameter		
Ø 68 mm	•	
Mounting depth		
98 mm	•	
LED		
21/15 W LED (2700 K / Ra 80)	•	•
21/15 W LED (4000 K / Ra 80)	•	•
21/15 W LED (3000 K / Ra 90)	•	•
Accessories		
Cover for IP44	•	
Ceiling reinforcing ring	•	
Concrete casting surround	•	
Stray light cover	•	
LED power unit	•	









#### **DIAMO**

#### LED downlight and spotlight

DIAMO, which incorporates unique lighting technology developed jointly with experts at Bartenbach GmbH, based in Aldrans near Innsbruck, is a highlight in the world of miniaturised recessed luminaires and spotlights: intelligently designed reflectors ensure accurate light distribution by the high-power LED modules, without any spill light, as well as perfect glare control. The result: high-intensity pinpoint accent lighting with excellent lighting quality and maximum brilliance. DIAMO combines all these features in an extremely compact design, thus providing for new creative freedom in numerous

indoor applications. DIAMO is a real diamond among LED downlights, enhancing both prestigious and functional areas in offices, setting goods in shops and retail areas brilliantly and powerfully centre stage, as it is ideally suited for use in hotels – from reception areas to hotel rooms. DIAMO covers this wealth of lighting tasks as a downlight with four different distribution characteristics according to the respective application, and as a spotlight. DIAMO is available in intermediate or warm light colours as well as switchable and dimmable models.



#### **Recessed luminaires**



Microprismatic luminaires

94 LIGHT FIELDS evolution for other LIGHT FIELDS evolution

models see chapter 5/6

Mellow Light

98 MELLOW LIGHT V

102 MELLOW LIGHT IV

Louvre luminaires

106 MIREL evolution

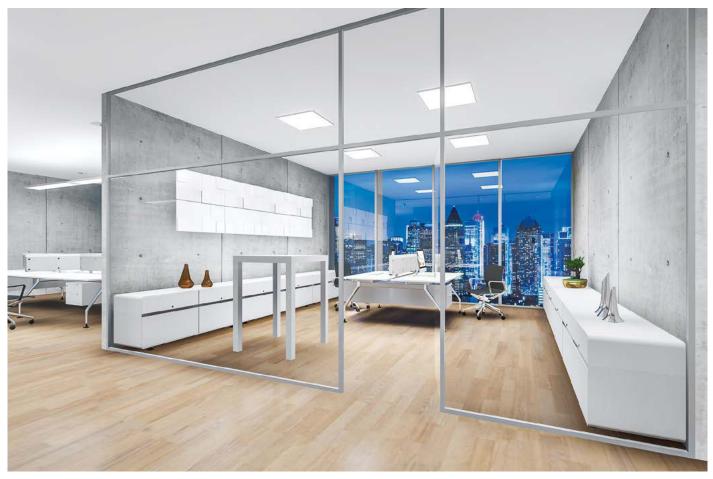
110 MIREL evolution modular

112 MIREL2

Light line

116 SLOTLIGHT infinity

<sup>←</sup> Audi Zentrum Aachen, Geilenkirchen branch | DE Lighting solution: LIGHT FIELDS, CARDAN, PANOS infinity









Thanks to continuously adjustable colour temperatures ranging from 3000 K to 6000 K, LIGHT FIELDS evolution tunableWhite is perfectly tailored to users' individual requirements and biological needs – with technical perfection, as the illuminance level remains constant even with changing colour temperatures.



#### Biological lighting effects LIGHT FIELDS evolution tunableWhite

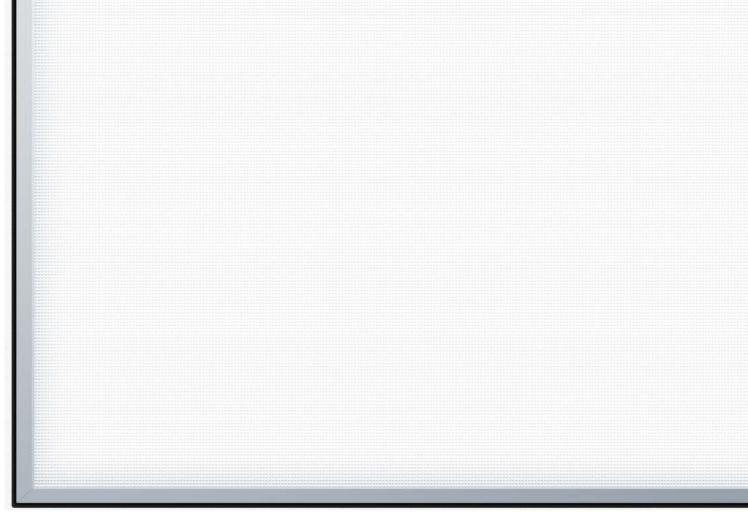
A user study on lighting quality perceived in offices conducted jointly with Fraunhofer IAO shows that users' preferences with respect to colour temperature differ strongly. Usually, colour temperatures between 3000 K and 6000 K are perceived as ideal, with a clear preference for 4000 K and 5000 K. Another result of the study is that office users rate their situation at work significantly higher where it is possible for them to adjust the lighting to their individual needs. Since synchronisation of people's inner clock through daylight is not ensured indoors during the dark months of winter, DIN SPEC 67600:201304 also includes specific design recommendations for biologically effective lighting. In this case, artificial lighting solutions incorporating wide-area panels emitting diffuse light such as LIGHT FIELDS evolution tunableWhite combined with lighting management are vital for supporting daytime activities and ensuring a good night's sleep.

Thanks to the LITECOM lighting management system and therefore continuously adjustable colour temperatures ranging from 3000 K to 6000 K, LIGHT FIELDS evolution tunableWhite is perfectly tailored to the users' individual needs and biological requirements – with technical perfection, as the illuminance level remains constant even with changing colour temperatures.



zumtobel.com/litecom











....

#### **LIGHT FIELDS evolution**

# Complete range of LED luminaires for integral office lighting

The name LIGHT FIELDS evolution says it all: the luminaire is entirely dedicated to progress and further development. The design is minimalist and consistently uniform for all models. LIGHT FIELDS evolution is impressive not only in visual terms but also in terms of technical features: the luminaire is fitted with innovative technologies and always provides perfect, glare-free light. At the same time, it is efficient and flexible: qualities by which the new generation stands out as contemporary office lighting system that provides perfect lighting conditions for many situations.

Design: Chris Redfern, Sottsass Associati

(( (

#### **LIGHT FIELDS evolution**

#### Recessed luminaire

As a recessed luminaire , LIGHT FIELDS evolution provides maximum efficiency of up to 128 lm/W, effectively reducing the energy consumption of an office building. Moreover, using a concealed housing it can be installed flush in plasterboard or modular ceilings, ensuring maximum integration into the interior design. The only thing that remains visible is a 8 millimetres wide, high-grade aluminium frame, which also marks the edges of the luminaire. The luminaire is available in four designs and as a "High Efficiency" and a "High Output" model, flexibly illuminating a variety of different rooms and room situations.



Recessed luminaires featuring backlit lighting technology for max. efficiency



# Installation Cluster ● Dimensions 297 x 297 mm ● 597 x 597 mm ● 1197 x 297 mm ● 1497 x 297 mm ● 309 x 309 mm ● 622 x 622 mm 1247 x 309 mm

Distribution characteristics

Direct

Colour
Silver
White (optionally)

1547 x 309 mm

Recessed luminaire Recessed luminaire

module 625

module 600

LED		
1300 lm / 3000 K / Ra80	•	•
3600 lm / 3000 K / Ra80	•	•
4400 lm / 3000 K / Ra80	•	•
5400 lm / 3000 K / Ra 80	•	•
1400 lm / 4000 K / Ra 80	•	•
3800 lm / 4000 K / Ra 80	•	•
4600 lm / 4000 K / Ra 80	•	•
4800 lm / 4000 K / Ra 80	•	•
5800 lm / 4000 K / Ra 80	•	•
3800 lm / 4000 K / Ra 90	•	•
4600 lm / 4000 K / Ra 90	•	•
4800 lm / 4000 K / Ra 90	•	•
5800 lm / 4000 K / Ra 90	•	•
5000 lm / 3000-6000 K / Ra80	•	•
6200 lm / 3000-6000 K / Ra 80	•	•

#### 3Dprotect® reflector

The 3Dprotect® technology (patent pending) is both protector and reflector at the same time. Its three-dimensional structure protects the LED modules during installation or maintenance and prevents damage from electrostatic discharge. At the same time, the structure's high reflection factor ensures an increase in the luminaire efficiency level.





#### Stimulation in the morning

Colour temperature: 5000 K Eh\* (daylight and artificial lighting): higher than 500 lx Aim: synchronising people's circadian rhythm, complete suppression of melatonin release



#### During the day at sunshine

Colour temperature: 4000 K Eh\* (daylight and artificial lighting): higher than 1000 lx Aim: enhancing people's well-being through well-matched colour temperature, accordingly warmer light colours during sunshine

\* E<sub>h</sub> = horizontal illuminance



#### During the day with cloudy sky

Colour temperature: 6000 K

Eh\* (daylight and artificial lighting): higher than 800 lx

Aim: enhancing people's well-being through well-matched colour temperature, accordingly cooler light colours with overcast sky



#### Getting ready for sleep

Colour temperature: 3000 K

Eh\* (daylight and artificial lighting): higher than 500 lx

Aim: synchronising people's circadian rhythm. no interference with melatonin release, restful sleep

#### **Biological lighting effects** MELLOW LIGHT V tunableWhite

A user study on lighting quality perceived in offices conducted jointly with Fraunhofer IAO shows that users' preferences with respect to colour temperature differ strongly. Usually, colour temperatures between 3000 K and 6000 K are perceived as ideal, with a clear preference for 4000 K and 5000 K. Another result of the study is that office users rate their situation at work significantly higher where it is possible for them to adjust the lighting to their individual needs. Since synchronisation of people's inner clock through daylight is not ensured indoors during the dark months of winter, DIN SPEC 67600:201304 also includes specific design recommendations for biologically effective lighting. In this case, artificial lighting solutions incorporating wide-area panels emitting diffuse light such as MELLOW LIGHT V tunableWhite combined with lighting management are vital for supporting daytime activities and ensuring a good night's sleep.

Thanks to the LITECOM lighting management system and therefore continuously adjustable colour temperatures ranging from 3000 K to 6000 K, MELLOW LIGHT V tunableWhite is perfectly tailored to the users' individual needs and biological requirements - with technical perfection, as the illuminance level remains constant even with changing colour temperatures.



zumtobel.com/litecom





#### **MELLOW LIGHT V**

A piece of sky: a perfect combination of lighting quality, efficiency and design

MELLOW LIGHT V is similar to daylight and ensures uniform light distribution in a room. There is little direct glare, luminance levels are effectively reduced at all viewing angles. Breaking up the lamp image also eliminates distracting reflected glare. This makes it possible to opt for any position when arranging the layout of a workplace. MELLOW LIGHT V combines this great flexibility with reduced maintenance effort. The sealed optic is far less prone to soiling than any louvre luminaire.

MELLOW LIGHT V is available as a linear luminaire and in a square design. The proportions of the lighting chamber and optic have been optimised for the respective design.

Design James Irvine zumtobel.com/ml



#### **MELLOW LIGHT V**

#### Recessed luminaires

**Brightness optic**A unique distinguishing feature of the optic is that it is manufactured in one piece but combines various types of light distribution in one unit. Efficient, finely structured lenticular lenses perfectly break up the lamp image

#### **HighDefinition optic**

Combining high performance with a more structured and detailed appearance, the one-piece HD optic makes optimum use of the latest technology.

MicroVane optic
With its bright metallic surface, the
MicroVane optic provides a pleasantly
elegant contrast to the lighting chamber boasting soft glare control.



	МЕ	LLOW LIGHT V I	.ED	ME	ELLOW LIGHT V	Т16	ME	LLOW LIGHT V T	C-L
	Brightness	HighDefinition	MicroVane	Brightness	HighDefinition	MicroVane	Brightness	HighDefinition	MicroVane
Distribution characteristics									
▲ Wide-angle			•			•			•
Extremely wide-angle	•	•		•	•		•	•	
0.1									
Colour White	_						_	-	
vnite	•	•	•	•	•	•	•	•	•
Recessed depth									
to 81 mm	•	•	•						
to 98 mm	•	•	•						
to 86 mm				•	•	•	•	•	•
to 103 mm				•	•	•	•	•	•
Module 600									
598 x 598 mm	•	•	•	•	•	•	•	•	•
1198 x 298 mm	•	•	•	•	•	•			
1548 x 310 mm				•		•			
LED									
3000 lm / 3000 K / 4000 K / Ra80	•	•							
3200 lm / 3000 K / 4000 K / Ra 80	•								
3600 lm / 3000 K / 4000 K / Ra 80			•						
3800 lm / 3000 K / 4000 K / Ra80		•	•						
4000 lm / 3000 K / 4000 K / Ra 80	•	•							
4200 lm / 3000 K / 4000 K / Ra 80	•								
3000 lm / 4000 K / Ra90	•								
3200 lm / 4000 K / Ra90	•								
4000 lm / 4000 K / Ra 90	•								
4200 lm / 4000 K / Ra90	•								
4200 lm / 3000-6000 K / Ra80		•							
4400 lm / 3000-6000 K / Ra80	•								
Compact fluorescent lamps									
TC-L							•	•	•
Fluorescent lamps									
T16				•	•	•			







↑ Autohaus Julmy, Schmitten | CH Architecture and lighting design: Snøhetta AS, Oslo | NO Lighting solution: MELLOW LIGHT IV, TECTON, SLOTLIGHT, VIVO

→ The Developing Child Centre Dubai | AE Lighting solution: MELLOW LIGHT IV, MELLOW LIGHT V, FD 1000, SCONFINE SFERA, ELEEA



#### **MELLOW LIGHT IV**

Soft, vivid and reflection-free light: the daylight's double is getting even closer toits role model. Now also available as LED luminaire.

Daylight is characterised by a high level of uniformity, which we perceive as natural and beautiful. That is why people feel exceptionally well in rooms that are lit according to these specifications.

MELLOW LIGHT stands for a concept inspired by daylight. The room is immersed in natural, pleasant and unobtrusively bright light – with sufficient shadow detail and contrast rendering. The direct/indirect light typical of the luminaire's fourth generation is produced in closed lighting chambers, reflections are eliminated through a variety of optics. The new LED luminaire combines these tried-and-tested qualities with maximum energy efficiency and a long, maintenance-free service life.

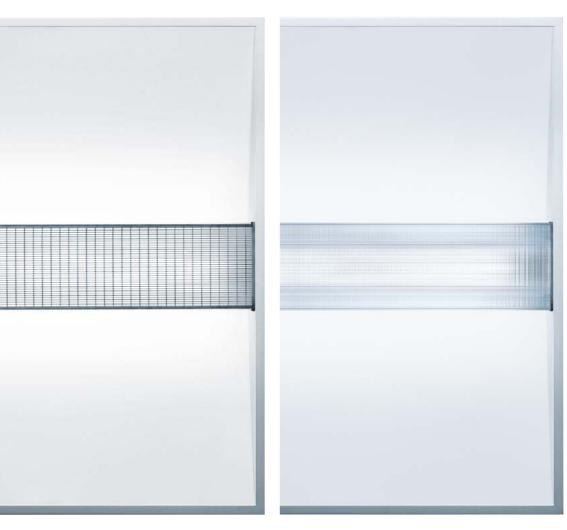
Thanks to the introduction of the new LED models, MELLOW LIGHT IV a now a very extensive generation of daylight-based luminaires. Both the square traditional models and the slim linear versions are available as recessed and surface-mounted luminaires. The amount of light ranges from nearly 2400 lm to over 4000 lm. Thanks to high light output ratios, the twin objectives of as few luminaries as possible and maximum possible lighting efficiency can both be met. The LED models, too, are available with two light colour options: warm 3000 K and intermediate 4000 K, available in two lumen packages. The LED luminaires are DALI-dimmable, the traditional fluorescent lamp models are also available in a switchable version.

Design: Studio & Partners zumtobel.com/ml4



#### 104 MELLOW LIGHT IV

LED/T16/TC-L recessed and surface-mounted luminaires



Slotted metal sheet diffuser optic
Design-oriented slotted metal sheet diffuser optic

Microprismatic optic with cross-pattern
Innovative optic for maximum energy efficiency

	MELLOW L diffuser optic	IGHT IV LED microprismatic	MELLOW L	LIGHT IV T16 microprismatic	MELLOW LIGHT IV TC-L diffuser optic microprismatic		
Bi-taile at a second at a		optic		optic		optic	
Distribution characteristics	•	•	•		•	•	
Extremely wide-angle					-		
Module 600							
598 x 598 x 102 mm	•	•	•	•	•	•	
1198 x 298 x 76 mm	•	•	•	•			
Module 625							
623 x 623 x 102 mm	•						
1248 x 310 x 76 mm	•	•	•				
Surface-mounted							
1230 x 320 x 103 mm			•	•			
1530 x 320 x 103 mm			•	•			
606 x 606 x 136 mm	•	•					
LED							
2400 lm / 3000 K / Ra 80	•						
2600 lm / 3000 K / Ra 80	•						
2800 lm / 3000 K / Ra80		•					
3000 lm / 3000 K / Ra80		•					
3200 lm / 3000 K / Ra 80	•						
3400 lm / 3000 K / Ra80	•						
3600 lm / 3000 K / Ra80		•					
3800 lm / 3000 K / Ra80		•					
2600 lm / 4000 K / Ra80	•						
2800 lm / 4000 K / Ra 80	•						
3000 lm / 4000 K / Ra 80		•					
3200 lm / 4000 K / Ra 80		•					
3400 lm / 4000 K / Ra 80	•						
3600 lm / 4000 K / Ra 80	•						
3800 lm / 4000 K / Ra 80		•					
4000 lm / 4000 K / Ra80		•					
4200 lm / 4000 K / Ra 80		•					
Compact fluorescent lamps							
TC-L					•	•	
Fluorescent lamps							
T16			•	•			





#### Stimulation in the morning

Colour temperature: 5000 K Eh\* (daylight and artificial lighting): higher than 500 lx Aim: synchronising people's circadian rhythm, complete suppression of melatonin release



#### During the day at sunshine

Colour temperature: 4000 K Eh\* (daylight and artificial lighting): higher than 1000 lx Aim: enhancing people's well-being through well-matched colour temperature, accordingly warmer light colours during sunshine

 $^*$   $E_h$  = horizontal illuminance



#### During the day with cloudy sky

Colour temperature: 6000 K

Eh\* (daylight and artificial lighting): higher than 800 lx

Aim: enhancing people's well-being through well-matched colour temperature, accordingly cooler light colours with overcast sky



#### Getting ready for sleep

Colour temperature: 3000 K

Eh\* (daylight and artificial lighting): higher than 500 lx

Aim: synchronising people's circadian rhythm. no interference with melatonin release, restful sleep

#### **Biological lighting effects** MIREL evolution tunableWhite

A user study on lighting quality perceived in offices conducted jointly with Fraunhofer IAO shows that users' preferences with respect to colour temperature differ strongly. Usually, colour temperatures between 3000 K and 6000 K are perceived as ideal, with a clear preference for 4000 K and 5000 K. Another result of the study is that office users rate their situation at work significantly higher where it is possible for them to adjust the lighting to their individual needs. Since synchronisation of people's inner clock through daylight is not ensured indoors during the dark months of winter, DIN SPEC 67600:201304 also includes specific design recommendations for biologically effective lighting. In this case, artificial lighting solutions incorporating wide-area panels emitting diffuse light such as MIREL evolution tunableWhite combined with lighting management are vital for supporting daytime activities and ensuring a good night's sleep.

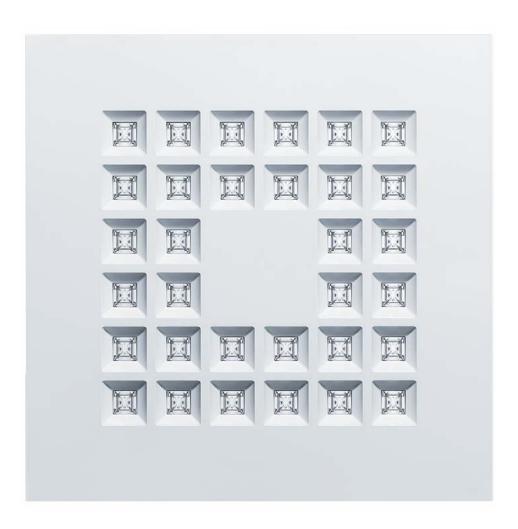
Thanks to the LITECOM lighting management system and therefore continuously adjustable colour temperatures ranging from 3000 K to 6000 K, MIREL evolution tunableWhite is perfectly tailored to the users' individual needs and biological requirements - with technical perfection, as the illuminance level remains constant even with changing colour temperatures.



zumtobel.com/litecom



Fraunhofer zumtobel.com/study-office



### MIREL evolution

## Recessed LED luminaire with lens optic or opal optic

MIREL evolution creates perfect lighting conditions for the most varied visual tasks in offices while meeting all relevant standards. When it comes to luminaire efficiency, it is exemplary, too: up to 136 lumens per watt result in short payback periods. Light distribution is effected via the lenses at a rate of 95 per cent; only 5 per cent are accounted for by the reflections from the lighting chamber. The quadratic downlight consistently continues the family idea in the smallest space. With an edge length of 230 mm and the low profile, **MIREL evolution mini** also looks extremely attractive as a surface-mounted downlight. High demands on quality and consumption are satisfied by the small model with a luminaire efficiency of 114 lm/W, the batwing light distribution and UGR < 19 for better glare control.

### Opal with 3Dprotect® reflector

Following up on the character of the lens luminaire, the opal variant of MIREL evolution continues the family concept. Square luminaires and linear luminaires position themselves as attractive lighting solutions for corridors and side rooms through quality and price. Additionally, MIREL opal luminaires with small lumen packages are ideally suited for offices and educational facilities. At glare control of UGR <19 and luminance levels of L65 < 3000 cd/m², the luminaires provide standard-compliant glare limitation. Luminaire efficiency of 123 lm/W is a convincing argument for all applications. Thanks to the great variety of versions available, MIREL evolution may also be used as an emergency luminaire with separate battery supply, for instance

Design: Studio Ambrozus zumtobel.com/mirel



## **MIREL** evolution

## Recessed LED luminaire



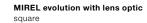


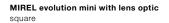


Recessed luminaire with magnet

Recessed luminaire with spring clip

MIREL evolution with lens optic









MIREL evolution with lens optic, height-adjustable

MIREL evolution with lens optic, height-adjustable





MIREL evolution with opal optic, height-adjustable linear

MIREL evolution with opal optic, height-adjustable square



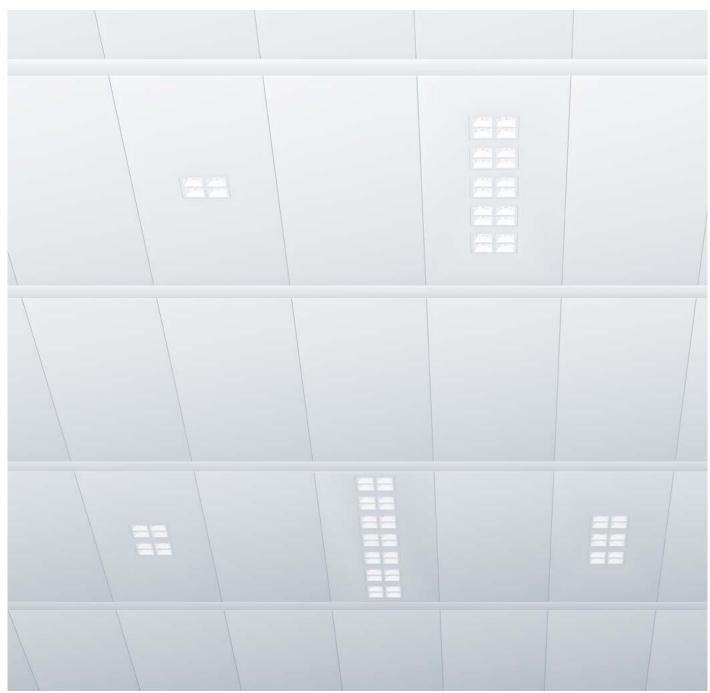
MIREL FEW LED wallwasher





	Lay-in I	evolution uminaire ns optic square	Levelling-i	evolution n luminaire ns optic square	aire Levelling-in luminaire with opal optic		MIREL evol. Rec. lum. mini with lens optic square		
Distribution characteristics									
Wide-angle	•	•	•	•			•		
Extremely wide-angle					•	•			
Wallwasher								•	
Module 600									
1198 x 298 x 38 mm	•								
598 x 598 x 38 mm		•							
1198 x 298 x 74 mm			•						
598 x 598 x 74 mm				•					
1198 x 298 x 85 mm					•				
598 x 598 x 85 mm						•			
598 x 114 x 85 mm (1:1 T16 replacement)								•	
1198 x 114 x 85 mm (1:1 T16 replacement)								•	
Module 625									
1248 x 310 x 38 mm	•								
623 x 623 x 38 mm	•								
1248 x 310 x 74 mm		-	•						
623 x 623 x 74 mm			•	•					
1248 x 310 x 85 mm				-	•				
623 x 623 x 85 mm					•				
_								•	
623 x 114 x 85 mm (1:1 T16 replacement)  1248 x 114 x 85 mm (1:1 T16 replacement)									
1348 x 298 x 38 mm 673 x 673 x 38 mm 1348 x 298 x 74 mm	•	•	•						
673 x 673 x 74 mm				•					
1348 x 298 x 85 mm					•				
673 x 673 x 85 mm						•			
Module mini									
150 x 150 x 38 mm (with magnet)							•		
170 x 170 x 38 mm (with spring clip)							•		
LED									
1000 lm / 3000 K / Ra 80							•		
1200 lm / 4000 K / Ra 80							•		
2200 lm / 3000 K / Ra80					•	•			
2800 lm / 3000 K / Ra 80	•	•	•	•					
3600 lm / 3000 K / Ra80	•		•	•	•				
2200 lm / 4000 K / Ra80								•	
2400 lm / 4000 K / Ra80					•				
2800 lm / 4000 K / Ra 80	•	•	•	•					
3800 lm / 4000 K / Ra 80	•	•	•	•	•	•			
3800 lm / 3000-6000 K / Ra 80					•	•			
3800 lm / 4000 K / Ra80	•	•	•	•	•				
4400 lm / 4000 K / Ra80								•	
Accessories									
Ceiling mounting kit			•	•	•	•			







11 11	11 11
ии	10 10
ии	10.10
ии	11:11
ни	HH
11 11	11 11

Linear	luminaire	

Square iuiiiiiaire	Square	luminaire
--------------------	--------	-----------

Length	1100 – 1800 mm	580 – 625 mm
Width	184 – 625 mm	580 – 625 mm
Number	1 to 7 LED clusters	4 or 6 LED clusters



## **MIREL** evolution modular

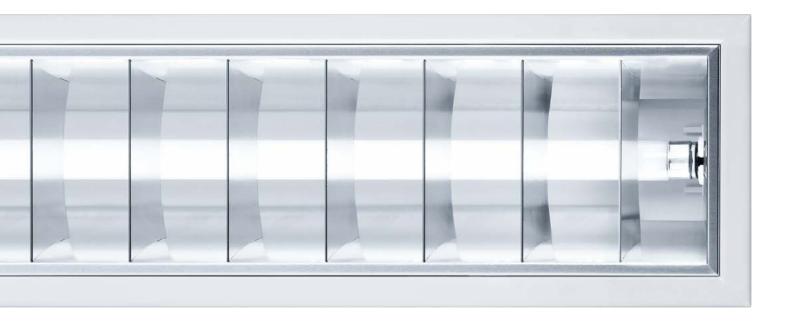
## Fully customised recessed modules

Due to the variety of design options, C-strip grid and T-beam ceilings in public buildings, offices or shopping malls are still highly popular. MIREL evolution is a custom-fit refurbishment solution that provides ideal prerequisites for keeping the costs required for refurbishment of the lighting system as low as possible for the customer. The modular platform for MIREL lens luminaires includes both square versions and linear luminaires for flush mounting. Another benefit: individually designed versions of the custom-fit recessed luminaires can also be installed in closed ceilings. MIREL evolution modular thus extends the variety of application options for the MIREL luminaire range, providing high-quality lighting solutions in a uniform design.



- ↑ Kindergarten Zell, Kufstein | AT Architecture: Architekten Lercher Frischmann Kääb Alliger, Wörgl und Kufstein | AT Lighting solution: MIREL2, LIGHT FIELDS LED
- → Würth-Hochenburger GmbH, Baumarkt Wörgl | AT Architecture: legos Architektur ZT GmbH, Zams | AT Lighting solution: MIREL2, PANOS infinity, TECTON, SCUBA, THORN





## MIREL2

## Recessed louvre luminaires

The louvre concept developed in Zumtobel's R&D laboratories optimises the interaction between two unique technical developments. It combines patented BIVERGENZ® technology and innovative UniQue® vanes. This unique louvre technology provides four benefits:

- Maximum efficiency and perfect uniformity
- Soft, all-round glare control in absolute conformity with relevant standards
- Complete system with wallwasher, as continuous-row system and even ball-proof design for sports hall lighting
- Ideal batwing distribution for almost optimum uniformity of the directly emanated light

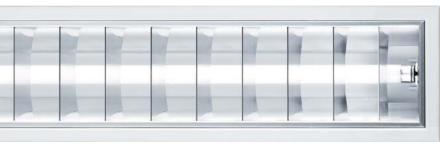
In addition, the varied diversity of this product range ensures that the right solution for any louvre application can be found using MIREL.



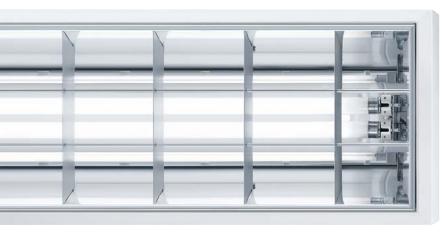


## 114 MIREL2

T16 individual and continuous row luminaires



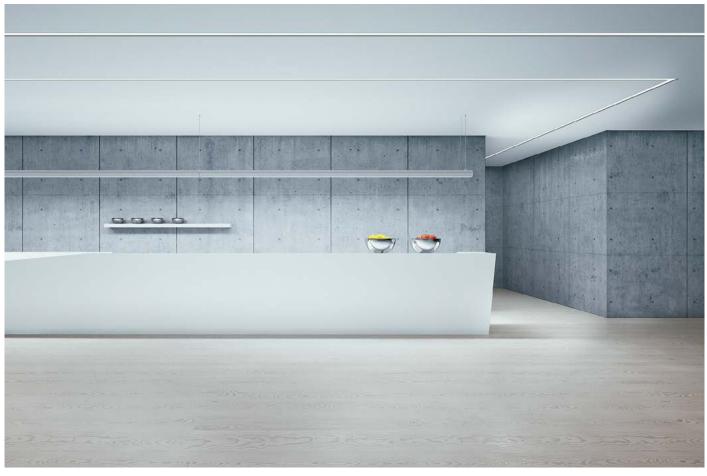
MIREL2 T16



MIRELT16 BWS luminaire for sports facilities

Distribution characteristics	MIREL2 T16 individual luminaires	MIREL2 T16 Armstrong®	MIREL2 T16 controw system	MIREL2 T16 Infill Complete	MIREL2 T16 Infill	MIREL T16 RES-BWS
✓ Wide-angle	•	•	•	•	•	•
Louvres/optics						
Specular louvre	•		•	•	•	
Matt bivergent reflector optic	•	•	•	•	•	
Ball-proof with stepped vanes						•
Module 600						
1198 x 114 x 85 mm	•					
1498 x 114 x 85 mm	•					
598 x 200 x 56 mm	•					
1198 x 200 x 56 mm	•					
1498 x 200 x 56 mm	•					
1175 x 175 x 53 mm		•				
1475 x 175 x 53 mm		•				
598 x 298 x 53 mm					•	
598 x 598 x 53 mm				•	•	
1198 x 298 x 53 mm				•	•	
1498 x 298 x 53 mm					•	
1198 x 184 x 94 mm						•
1498 x 184 x 94 mm						•
1498 x 598 x 94 mm						•
Module 600 (continuous row system)  1174 x 114 x 85 mm  1474 x 114 x 85 mm			•			
1174 x 200 x 85 mm			•			
1474 x 200 x 85 mm			•			
Madula 005						
Module 625						
1248 x 114 x 85 mm	•					
	•					
1248 x 114 x 85 mm						
1248 x 114 x 85 mm 1548 x 114 x 85 mm 623 x 200 x 56 mm	•					
1248 x 114 x 85 mm 1548 x 114 x 85 mm 623 x 200 x 56 mm 1248 x 200 x 56 mm	•					
1248 x 114 x 85 mm 1548 x 114 x 85 mm 623 x 200 x 56 mm	•				•	
1248 x 114 x 85 mm 1548 x 114 x 85 mm 623 x 200 x 56 mm 1248 x 200 x 56 mm 1548 x 200 x 56 mm	•			•	•	
1248 x 114 x 85 mm 1548 x 114 x 85 mm 623 x 200 x 56 mm 1248 x 200 x 56 mm 1548 x 200 x 56 mm 623 x 310 x 53 mm	•			•		
1248 x 114 x 85 mm 1548 x 114 x 85 mm 623 x 200 x 56 mm 1248 x 200 x 56 mm 1548 x 200 x 56 mm 623 x 310 x 53 mm 623 x 623 x 53 mm 1248 x 310 x 53 mm	•				•	
1248 x 114 x 85 mm 1548 x 114 x 85 mm 623 x 200 x 56 mm 1248 x 200 x 56 mm 1548 x 200 x 56 mm 623 x 310 x 53 mm 623 x 623 x 53 mm 1248 x 310 x 53 mm 1548 x 310 x 53 mm	•				•	•
1248 x 114 x 85 mm 1548 x 114 x 85 mm 623 x 200 x 56 mm 1248 x 200 x 56 mm 1548 x 200 x 56 mm 623 x 310 x 53 mm 623 x 623 x 53 mm 1248 x 310 x 53 mm 1548 x 310 x 53 mm	•				•	•
1248 x 114 x 85 mm 1548 x 114 x 85 mm 623 x 200 x 56 mm 1248 x 200 x 56 mm 1548 x 200 x 56 mm 623 x 310 x 53 mm 623 x 623 x 53 mm 1248 x 310 x 53 mm 1548 x 310 x 53 mm 1548 x 310 x 53 mm	•				•	
1248 x 114 x 85 mm 1548 x 114 x 85 mm 623 x 200 x 56 mm 1248 x 200 x 56 mm 1548 x 200 x 56 mm 623 x 310 x 53 mm 623 x 623 x 53 mm 1248 x 310 x 53 mm 1548 x 310 x 53 mm 1548 x 310 x 54 mm 1548 x 184 x 94 mm 1548 x 184 x 94 mm 1548 x 623 x 94 mm	•				•	•
1248 x 114 x 85 mm  1548 x 114 x 85 mm  623 x 200 x 56 mm  1248 x 200 x 56 mm  1548 x 200 x 56 mm  623 x 310 x 53 mm  623 x 310 x 53 mm  1248 x 310 x 53 mm  1248 x 310 x 53 mm  1548 x 310 x 53 mm  1548 x 310 x 54 mm  1548 x 184 x 94 mm  1548 x 184 x 94 mm  1548 x 623 x 94 mm  Module 625 (continuous row system)	•		•		•	•
1248 x 114 x 85 mm  1548 x 114 x 85 mm  623 x 200 x 56 mm  1248 x 200 x 56 mm  1548 x 200 x 56 mm  623 x 310 x 53 mm  623 x 623 x 53 mm  1248 x 310 x 53 mm  1248 x 310 x 53 mm  1548 x 310 x 53 mm  1548 x 184 x 94 mm  1548 x 184 x 94 mm  1548 x 623 x 94 mm  Module 625 (continuous row system)  1198 x 114 x 85 mm	•				•	•
1248 x 114 x 85 mm  1548 x 114 x 85 mm  623 x 200 x 56 mm  1248 x 200 x 56 mm  1548 x 200 x 56 mm  623 x 310 x 53 mm  623 x 623 x 53 mm  1248 x 310 x 53 mm  1248 x 310 x 53 mm  1548 x 310 x 53 mm  1548 x 184 x 94 mm  Module 625 (continuous row system)  1198 x 114 x 85 mm  1498 x 114 x 85 mm	•		•		•	•
1548 x 114 x 85 mm 623 x 200 x 56 mm 1248 x 200 x 56 mm 1548 x 200 x 56 mm 623 x 310 x 53 mm 623 x 623 x 53 mm 1248 x 310 x 53 mm 1548 x 310 x 53 mm 1548 x 184 x 94 mm 1548 x 184 x 94 mm 1548 x 623 x 94 mm  Module 625 (continuous row system) 1198 x 114 x 85 mm 1498 x 114 x 85 mm 1198 x 200 x 85 mm	•		•		•	•
1248 x 114 x 85 mm  1548 x 114 x 85 mm  623 x 200 x 56 mm  1248 x 200 x 56 mm  1548 x 200 x 56 mm  623 x 310 x 53 mm  623 x 623 x 53 mm  1248 x 310 x 53 mm  1248 x 310 x 53 mm  1548 x 310 x 53 mm  1548 x 184 x 94 mm  1548 x 623 x 94 mm  Module 625 (continuous row system)  1198 x 114 x 85 mm  1498 x 114 x 85 mm  1198 x 200 x 85 mm	•		•		•	•
1248 x 114 x 85 mm  1548 x 114 x 85 mm  623 x 200 x 56 mm  1248 x 200 x 56 mm  1548 x 200 x 56 mm  623 x 310 x 53 mm  623 x 623 x 53 mm  1248 x 310 x 53 mm  1248 x 310 x 53 mm  1548 x 310 x 53 mm  1548 x 184 x 94 mm	•		•		•	•





### Stimulation in the morning

Colour temperature: 5000 K  $E_{h}^{\star}$  (daylight and artificial lighting): higher than 500 lx Aim: synchronising people's circadian rhythm,

complete suppression of melatonin release



### During the day at sunshine

Colour temperature: 4000 K  $\mathsf{E_h}^\star$  (daylight and artificial lighting): higher than 1000 lx Aim: enhancing people's well-being through well-matched colour temperature, accordingly warmer light colours during sunshine

 $^*$   $E_h$  = horizontal illuminance



### During the day with cloudy sky

Colour temperature: 6000 K

Eh\* (daylight and artificial lighting): higher than 800 lx

Aim: enhancing people's well-being through well-matched colour temperature, accordingly cooler light colours with overcast sky



### Getting ready for sleep

Colour temperature: 3000 K  $\mathsf{E_h}^\star$  (daylight and artificial lighting): higher than 500 lx

Aim: synchronising people's circadian rhythm. no interference with melatonin release, restful sleep

### **Biological lighting effects** SLOTLIGHT infinity tunableWhite

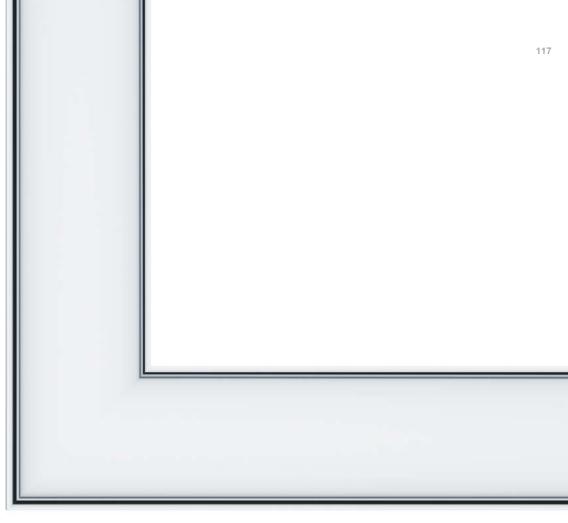
A user study on lighting quality perceived in offices conducted jointly with Fraunhofer IAO shows that users' preferences with respect to colour temperature differ strongly. Usually, colour temperatures between 3000 K and 6000 K are perceived as ideal, with a clear preference for 4000 K and 5000 K. Another result of the study is that office users rate their situation at work significantly higher where it is possible for them to adjust the lighting to their individual needs. Since synchronisation of people's inner clock through daylight is not ensured indoors during the dark months of winter, DIN SPEC 67600:201304 also includes specific design recommendations for biologically effective lighting. In this case, artificial lighting solutions incorporating wide-area panels emitting diffuse light such as SLOTLIGHT infinity tunableWhite combined with lighting management are vital for supporting daytime activities and ensuring a good night's sleep.

Thanks to the LITECOM lighting management system and therefore continuously adjustable colour temperatures ranging from 3000 K to 6000 K, SLOTLIGHT infinity tunableWhite is perfectly tailored to the users' individual needs and biological requirements - with technical perfection, as the illuminance level remains constant even with changing colour temperatures.



zumtobel.com/litecom

Fraunhofer zumtobel.com/study-office



SLOTLIGHT infinity | recessed corner luminaire

SLOTLIGHT infinity slim | pendant luminaire



## **SLOTLIGHT** infinity

The world's first consistent light line complies with the highest architectural and technical lighting requirements.

It has never been so easy to create the perfect shadow gap along a luminaire, for SLOTLIGHT infinity has been designed from scratch as a continuous light line for flush mounting with the ceiling. Any drywall builder will be perfectly familiar with the materials and methods that ensure a perfect transition between ceiling and luminaire. The luminaire's linear design is continued in a precisely defined shadow gap. Problems with the formation of cracks are now a thing of the past as well, as the luminaire is technically and thermally separated from the ceiling by a mounting frame. The final result is a high-grade lighting solution meticulously integrated into the interior design, which appears as a fully consistent light line to the beholder.

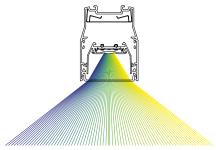
With SLOTLIGHT infinity, Zumtobel provides architects and designers with a tool for consistently linear design with high precision. Light is now available as a continuous light line: nearly endless, up to 20 metres in length, without any butt joints and with uniform illumination even around corners.

Even greater scope for creative design is opened up by **SLOTLIGHT infinity slim**, which is only 45 mm wide, one third narrower than the standard light lines. SLOTLIGHT infinity slim provides potential for (almost) unrestricted creativity: the SLOTLIGHT infinity slim design feature and functional lighting tool can also be elegantly integrated into ceilings made of wood slats.



## **SLOTLIGHT** infinity

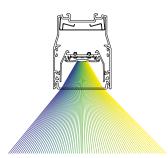
## The entire spectrum of light



UGR<25

#### Opal cove

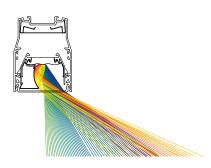
The diffuse distribution lens distinguishes a SLOTLIGHT infinity as a simple and efficient light line with an homogeneous appearance. The application area ranges from reception areas, to corridors, to lounge areas and break-out zones.



UGR < 19 and L65 < 3000 cd/m<sup>2</sup>

### Cover for the office

With this cover, SLOTLIGHT infinity reduces the glare to UGR < 19 and thus ensures workplace lighting in accordance with EN12464:2011. The brilliantly appearing luminaire is ideal for offices, schools and meeting rooms.



### Decorative wall washer

The asymmetric distribution of the SLOTLIGHT infinity illuminates vertical wall areas or pictures evenly and, as a result, enhances traffic zones, for example. As the reflector is inside the luminaire, the wall washer is not recognisable as such from the outside.

### Wall washer for school blackboards

Matched to the common blackboard formats and the highly visual tasks in a school, a 3m or 4m long SLOTLIGHT infinity wall washer illuminates the vertical blackboard surfaces with 500 lx and a uniformity of 0.7 in compliance with the standards. In doing so, the uniform appearance is not disrupted by protruding components.

The optic of SLOTLIGHT infinity is supplied as a continuous 20-metre diffuser roll – for easy installation of a continuous LED light line by one person only.

### Installation aid for LED light line

The installation aid for SLOTLIGHT infinity focuses on consistently precise linearity. It greatly facilitates the installation of SLOTLIGHT infinity in ceilings and walls, even where the luminaires are installed in concrete.





Distribution characteristics	ind. lum. recessed	technical ind. lum recessed	n. continuous-ro recessed	w wallwasher recessed	ind. lum. surfmounted	continuous-row surfmounted	SLOTLIGHT In wallwasher surfmounted
Wide-angle	•	•	•		•	•	
Wallwasher	,		•			•	•
							•
Optics							
PMMA (opal)	•	•	•		•	•	
LRO (office)	•	•	•		•	•	
Vallwasher			•	•			•
nstallation							
Recessed (B 72 mm / ET 136 mm)	•	•	•	•			
Recessed technical (B 100 mm / ET 134 mm)	•	•	•				
Surface-mounted/pendant (B 76 mm / H 109 mm)					•	•	•
Corner luminaire module							
Recessed 545 x 545 mm	•		•				
Surface-mounted 543 x 543 mm					•	•	
	b D						
Module recessed (channel / technical / continuous-ro							
000 mm / 1048 mm / =	•	•					
250 mm / 1298 mm / – 500 mm / 1548 mm / –		•					
	•	<u> </u>					
750 mm / 1798 mm / – 000 mm / 2048 mm / –	•	•					
250 mm / 2298 mm / –	•	- :					
250 mm / 2548 mm / –	•	•					
2750 mm / 2798 mm / –	•	•					
	•	•	•				
000 mm / 3048 mm / 3000 mm	•		•				
1000 mm / 4048 mm / 4000 mm	•	•	•	•			
Module surface-mounted (channel / continuous-row o	channel)						
024 mm / –					•		
274 mm / –					•		
524 mm / –					•		
774 mm / –					•		
2024 mm / 2000 mm					•	•	
2274 mm / –					•		
2524 mm / –					•		
774 mm / –					•		
3024 mm / 3000 mm					•	•	•
024 mm / 4000 mm					•	•	•
.ED							
tableWhite (3000 K)	•		•	•	•	•	•
tableWhite (4000 K)	•		•	•	•		•
unableWhite (3000-6000 K)	•		•		•	•	
<u> </u>							
nserts							
Blind cover 6/10 m	•	•	•		•	•	
Opale cover (PC) 6/8/10/15/20 m	•	•	•		•	•	
Office cover (PCO) 6/10/20 m	•	•	•		•	•	
Vallwasher cover 6/10/20 m				•			•
Reflector (wallwasher) 250/500/750/1000 mm				•			•
Accessories							
Set of end caps	•	•	•	•			
Masking plate			•			•	
J-shaped connector	•		•		•	•	•
Spacer	•	•	•	•			
Mounting clip	•	•	•	•			
roanting onp				•			
Recessed rail (2500 mm)	•	•	•				







## Surface-mounted and pendant luminaires



Waveguide luminaires

**AERO II LED** 

Microprismatic luminaires

**LIGHT FIELDS evolution** for other LIGHT FIELDS evolution models see chapter 4/6

**ECOOS** 128

Circular luminaires

**ONDARIA** 132

Light line

**SLOTLIGHT** infinity

Mellow Light

**MELLOW LIGHT IV** 

Louvre luminaires

140 **AXON** 

142 **SEQUENCE** 

146 **ELEEA** 

**MIREL** evolution 150

**MIRAL** 154

158 **LINCOR** 

Decorative pendant luminaires

162 **CAELA** 

166 **SCONFINE SFERA** 

**SCONFINE LINEA** 170

**LQ CHANDELIER** 

← Ardor International, Ahmedabad | IN Architecture: Design Module, Ahmedabad | IN Lighting design: Associated Lighting Systems, Lighting solution: SLOTLIGHT II, VAERO, LANOS,

KAREA





→ Temporary Visitors Center (TVC), Abu Dhabi | AE Lighting solution: AERO II, ARCOS, SLOTLIGHT II, MICROS, CHIARO, COPA, PASO II



## **AERO II LED**

## A design masterstroke

AERO II writes a new chapter in the history of lighting technology. Being a hybrid model, it was the first luminaire to interactively combine LED and fluorescent lamp. The 100 % LED version goes even further by exploiting the LED's potential not only for direct lighting, but also for indirect lighting. In terms of design and lighting technology, the AERO II LED is based on the classic AERO luminaire by Ettore Sottsass. Its high-quality waveguide technology with micro-pyramidal optic set new standards in lighting quality. By integrating LEDs in a consistent design concept, efficiency and quality have now been combined at the highest level.

Design: Sottsass Associati zumtobel.com/aero





### Stimulation in the morning

Colour temperature: 5000 K Eh\* (daylight and artificial lighting): higher than 500 lx Aim: synchronising people's circadian rhythm,



### During the day at sunshine

Colour temperature: 4000 K Eh\* (daylight and artificial lighting): higher than 1000 lx Aim: enhancing people's well-being through well-matched colour temperature, accordingly warmer light colours during sunshine



### During the day with cloudy sky

Colour temperature: 6000 K

Eh\* (daylight and artificial lighting): higher than 800 lx

Aim: enhancing people's well-being through well-matched colour temperature, accordingly cooler light colours with overcast sky



### Getting ready for sleep

Colour temperature: 3000 K

Eh\* (daylight and artificial lighting): higher than 500 lx

Aim: synchronising people's circadian rhythm. no interference with melatonin release, restful sleep

#### **Biological lighting effects** LIGHT FIELDS evolution tunableWhite

A user study on lighting quality perceived in offices conducted jointly with Fraunhofer IAO shows that users' preferences with respect to colour temperature differ strongly. Usually, colour temperatures between 3000 K and 6000 K are perceived as ideal, with a clear preference for 4000 K and 5000 K. Another result of the study is that office users rate their situation at work significantly higher where it is possible for them to adjust the lighting to their individual needs. Since synchronisation of people's inner clock through daylight is not ensured indoors during the dark months of winter, DIN SPEC 67600:201304 also includes specific design recommendations for biologically effective lighting. In this case, artificial lighting solutions incorporating wide-area panels emitting diffuse light such as LIGHT FIELDS evolution tunableWhite combined with lighting management are vital for supporting daytime activities and ensuring a good night's sleep.

Thanks to the LITECOM lighting management system and therefore continuously adjustable colour temperatures ranging from 3000 K to 6000 K, LIGHT FIELDS evolution tunableWhite is perfectly tailored to the users' individual needs and biological requirements - with technical perfection, as the illuminance level remains constant even with changing colour temperatures.



zumtobel.com/litecom





## **LIGHT FIELDS evolution**

# Complete range of LED luminaires for integral office lighting

The name LIGHT FIELDS evolution says it all: the luminaire is entirely dedicated to progress and further development. The design is minimalist and consistently uniform for all models. LIGHT FIELDS evolution is impressive not only in visual terms but also in terms of technical features: the luminaire is fitted with innovative technologies and always provides perfect, glare-free light. At the same time, it is efficient and flexible: qualities by which the new generation stands out as contemporary office lighting system that provides perfect lighting conditions for many situations.

The **square** LIGHT FIELDS evolution **pendant luminaire** creates a pleasant atmosphere in any room – both as an individual luminaire with a side length of 636 mm and as a cluster of several luminaires. The luminaire also shows its qualities wherever installation is difficult for recessed or surface-mounted models.



Design: Chris Redfern, Sottsass Associati

zumtobel.com/lightfieldsevolution



### **LIGHT FIELDS evolution**

## Surface-mounted and pendant luminaire

Structural conditions in offices, for instance low ceiling heights, frequently pose a challenge to lighting. Where neither pendant nor recessed luminaires are an option, the problem is solved reliably by surface-mounted luminaires: thanks to innovative litePrint® waveguide technology (patent pending), the surface-mounted luminaire provides a clear, uncluttered appearance, with a visible height of only 28 millimetres\*. An additional indirect light \*\* component of 5 percent creates a pleasant lighting corona, making the surface-mounted luminaire appear to float below a cushion of light.

\* total height of luminaire: 56 mm

\*\* except for MINI version

Suspended from the ceiling, the LIGHT FIELDS evolution pendant luminaire cannot fail to impress on account of the perfect interplay of indirect and direct light. Its large direct light component of 80 percent provides sufficient vertical illumination while significantly reducing energy consumption. Its indirect light component of 20 percent ensures perfect quality: the ceiling is brightened up pleasantly, the gentle transition between the luminaire and the background providing good ergonomic compatibility. The light source, which is fitted with innovative litePrint® waveguide technology (patent pending), remains concealed despite its minimum height and delicate frame. This means that the high luminance of the individual LED lighting points is resolved perfectly. Featuring a slim-line, minimalist unit made of high-grade aluminium, the pendant luminaire can be easily integrated into contemporary office interiors.



Surface-mounted and pendant luminaires featuring sidelit lighting technology for minimum height





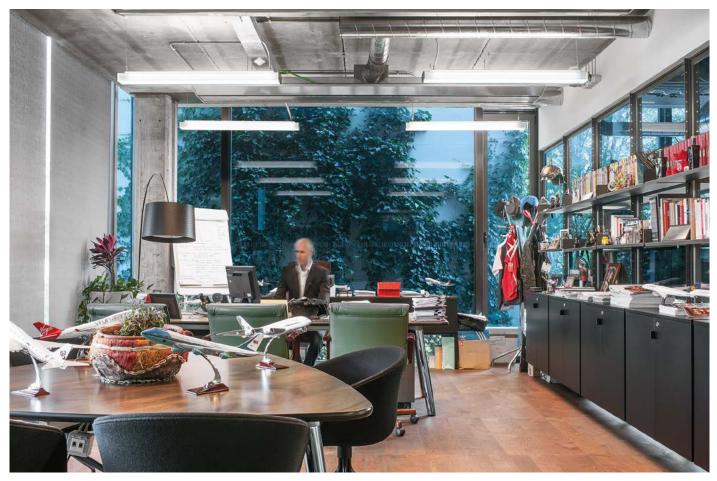


### litePrint®

In case of light injected laterally, the precisely calculated dot matrix of the litePrint light guide ensures uniform illumination of the complete luminaire surface. At the same time, a precisely defined light component is directed upwards in specific regions, via openings in the luminaire housing. No additional LED modules are required for the 5 percent indirect component.

4400 lm / 3000 K / Ra80	•	•
5200 lm / 3000 K / Ra80		•
1600 lm / 4000 K / Ra80	•	
4600 lm / 4000 K / Ra80	•	•
5600 lm / 4000 K / Ra80		•
4200 / 3000-6000 K / Ra80	•	•
4800 / 3000-6000 K / Ra80		•
5000 / 3000-6000 K / Ra80	•	







↑ Diesel SpA, Molvena | IT Architecture: Diesel Creative, Breganze / F & M Ingegneria SpA, Milan | IT Lighting solution: ECOOS, IYON, CRAFT

→ Maroplastic AG, Reitnau | CH
Lighting solution: ECOOS, LIGHT FIELDS, LIGHT FIELDS MINI LED, SLOTLIGHT II,
CAPA LED, 2LIGHT, PANOS, TECTON, CROSSIGN,
RESCLITE escape, RESCLITE antipanic, ONLITE central





### **ECOOS**

# Individual luminaire and continuous-row system – 360° light

This luminaire is right up with the times. ECOOS's rounded corners team consistent straight lines with soft contours. It embodies an equally sophisticated interplay of features and materials. The textured surfaces of the luminaire unit are attractively finished off by shiny chrome end caps. The MPO+ micro-pyramidal optic and perforated lateral reflectors make the luminaire sparkle like crystal. ECOOS has a brilliant look which enhances both workspaces and communication areas alike. It achieves this through the effect of light and the vista it produces.

ECOOS is economically efficient and environmentally compatible – it provides all-round 360 degree light using just one light source and fulfils a wide range of tasks. For working, for relaxing and for a pleasant room effect. It has a versatile range of uses. Office buildings and educational establishments are just two application areas where ECOOS meets both technical lighting and maintenance requirements with maximum economic efficiency.



### **ECOOS**

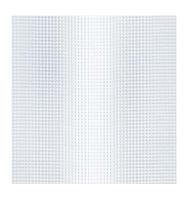
LED/T16 surface-mounted and pendant luminaire



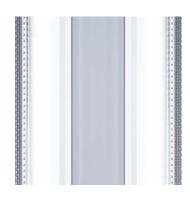
ECOOS continuous row system with connector

Excellent light output ratios and a large direct component make the ECOOS LED/T16 luminaire one of the most efficient indirect/direct luminaires available on the market. Its complex system of optics and reflectors is highly effective. It delivers light which fulfils specific tasks in every respect. Indirect, direct and lateral light components ensure efficient task area lighting and also allow vertical illuminance levels. These improve visual comfort and concentration, while bright ceilings and walls create a pleasant atmosphere.

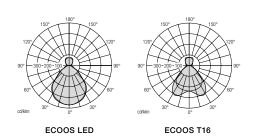
Defined light emission with L < 1500 cd/m $^{2}$  at 65 $^{\circ}$  for LED/HE lamps and UGR < 19 is achieved by guiding the direct component through multiple layers via the MPO+ micro-pyramidal optic, diffuser film and reflectors.



MPO+, Zumtobel's unique micro-pyramidal optic: outstanding glare control enables luminaires to be arranged freely, parallel or vertical relative to window frontage, and even directly above workstations.



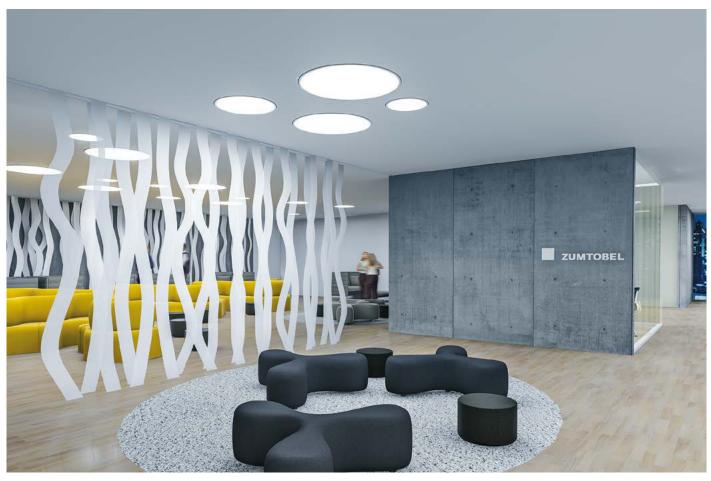
Indirect light component, wide-angle distribution: even with the minimum pendant length of 35 cm, the diffuser-pearl enclosure ensures uniform ceiling illumination.



Mainly direct distribution characteristics (ID/DI - 1:3 ratio) combined with the luminaire's high operating efficiency of 90 % provide particularly energy-efficient lighting solutions. The balanced indirect component visually brightens up the room, creating a pleasant atmosphere.

Distribution characteristics	ECOOS A LED surface-mount luminaire	ECOOS ID LED pendant luminaire	ECOOS TEC LED TECTON	ECOOS T16 surface-mount luminaire	ECOOS T16 pendant luminaire
<b>⚠</b> Direct	•		•	•	
M Direct/indirect		•			•
Montage					
Individual luminaire	•	•	•	•	•
Continuous-row system		•	•		•
Dimensions					
1207 x 120 x 60 mm	•	•	•	•	•
1507 x 120 x 60 mm	•	•	•	•	•
LED					
4000 lm / 3000 K / Ra 80	•	•			
4400 lm / 4000 K / Ra 80	•	•			
5000 lm / 3000 K / Ra 80	•	•			
5400 lm / 4000 K / Ra 80	•	•			
6200 lm / 3000 K / Ra 80	•	•			
6600 lm / 4000 K / Ra 80	•	•			
2800 lm / 3000 K / Ra80			•		
3000 lm / 4000 K / Ra80			•		
3600 lm / 3000 K / Ra80			•		
3800 lm / 4000 K / Ra80			•		
5600 lm / 3000 K / Ra80			•		
6000 lm / 4000 K / Ra 80			•		
Fluorescent lamps					
T16				•	•
A					
Accessoires		•			•
Transparent feeder cable		•			
Continuous ray connector		•			
Continuous row connector					
Through-wiring		•			•





### Stimulation in the morning

Colour temperature: 5000 K Eh\* (daylight and artificial lighting): higher than 500 lx Aim: synchronising people's circadian rhythm,

complete suppression of melatonin release



### During the day at sunshine

Colour temperature: 4000 K Eh\* (daylight and artificial lighting): higher than 1000 lx Aim: enhancing people's well-being through well-matched colour temperature, accordingly warmer light colours during sunshine

 $^*$   $E_h$  = horizontal illuminance



### During the day with cloudy sky

Colour temperature: 6000 K

Eh\* (daylight and artificial lighting): higher than 800 lx

Aim: enhancing people's well-being through well-matched colour temperature, accordingly cooler light colours with overcast sky



### Getting ready for sleep

Colour temperature: 3000 K

 $\mathsf{E_h}^\star$  (daylight and artificial lighting): higher than 500 lx

Aim: synchronising people's circadian rhythm. no interference with melatonin release, restful sleep

#### **Biological lighting effects** ONDARIA tunableWhite

A user study on lighting quality perceived in offices conducted jointly with Fraunhofer IAO shows that users' preferences with respect to colour temperature differ strongly. Usually, colour temperatures between 3000 K and 6000 K are perceived as ideal, with a clear preference for 4000 K and 5000 K. Another result of the study is that office users rate their situation at work significantly higher where it is possible for them to adjust the lighting to their individual needs. Since synchronisation of people's inner clock through daylight is not ensured indoors during the dark months of winter, DIN SPEC 67600:201304 also includes specific design recommendations for biologically effective lighting. In this case, artificial lighting solutions incorporating wide-area panels emitting diffuse light such as ONDARIA tunableWhite combined with lighting management are vital for supporting daytime activities and ensuring a good night's sleep.

Thanks to the LITECOM lighting management system and therefore continuously adjustable colour temperatures ranging from 3000 K to 6000 K, ONDARIA tunableWhite is perfectly tailored to the users' individual needs and biological requirements - with technical perfection, as the illuminance level remains constant even with changing colour temperatures.



zumtobel.com/litecom

Fraunhofer zumtobel.com/study-office







### **ONDARIA**

# pleasantly soft light emitted by a wide-area lighting object

Diffuse wide-area lighting enhances people's sense of well-being and makes rooms appear larger and wider. ONDARIA relies on homogeneous illumination, which makes the luminaire almost seem like a skylight. In addition, its circular design allows fully flexible positioning in the room. An unobtrusive indirect component that brightens up the ceiling enhances the luminaire's low-profile design, so that it seems to float in the room.

The luminaire can easily be installed without being opened. The small and medium versions of the opal luminaire can also be mounted on the wall. This allows ONDARIA to enhance prestigious areas such as receptions, entrance and waiting areas as well as break-out zones and common rooms, or to produce gentle ambient lighting in shops.

Design: Stefan Ambrozus zumtobel.com/ondaria





### **ONDARIA**

## Overviev

### Recessed

A range of practical accessories for recessed mounting is available to hide the ceiling cut-out and align the luminaire. Installation directly on the bare ceiling ensures load deflection. Alternatively, semi-recessed mounting is also possible.





### Surface-mounted

The luminaire is surface-mounted directly on the ceiling or wall\*. Thanks to its small indirect component and slightly offset installation, the luminaire seems to float





### Pendant

The ONDARIA range can be flexibly suspended from three delicate steel cords that are 2 or 4 m long.





	ONDARIA	ONDARIA tunableWhite**
Distribution characteris		
✓ Wide-angle	•	•
Installation		
Recessed mounting	•	•
Semi-recessed mounting	•	•
Surface mounting ceiling	•	•
Surface mounting wall*	•	•
Pendant	•	•
Dimensions		
Ø 590 mm / H 85	•	•
Ø 870 mm / H 85	•	•
Ø 1150 mm / H 85	•	•
LED		
3600 lm / 3000 K, 4000 K / Ra 80 (high efficiency)	•	
8000 lm / 3000 K, 4000 K / Ra 80 (high efficiency)	•	
14000 lm / 3000 K, 4000 K / Ra80 (high efficiency)	•	
5800 lm / 3000 K, 4000 K / Ra80 (high output)	•	
12000 lm / 3000 K, 4000 K / Ra80 (high output)	•	
22000 lm / 3000 K, 4000 K / Ra80 (high output)	•	
3600 lm / 3000 K - 6000 K / Ra 80 (high efficiency)		•
8000 lm / 3000 K - 6000 K / Ra 80 (high efficiency)		•
14000 lm / 3000 K - 6000 K / Ra 80 (high efficiency)		•
Accessoires		
Transparent supply cable	•	•
Cord suspension	•	•
Recessed housing	•	•
Cleaning set	•	•

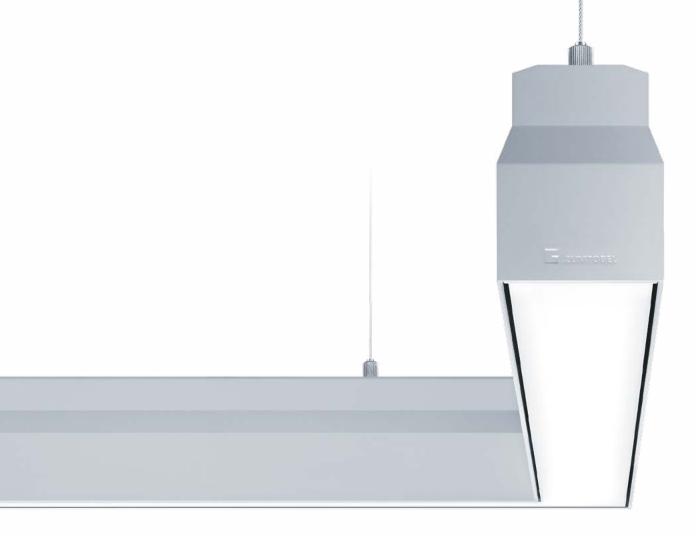
 $<sup>^{\</sup>star}~$  only Ø 590 mm and Ø 870 mm

<< <

<sup>\*\*</sup> available from autumn 2016

136





## **SLOTLIGHT** infinity

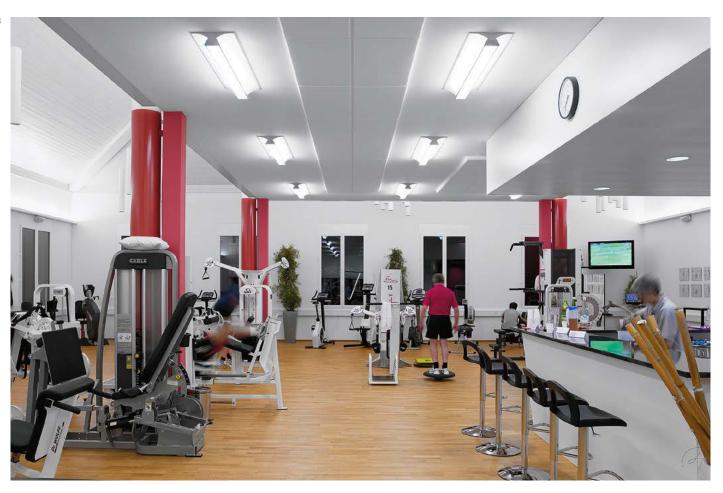
The world's first consistent light line complies with the highest architectural and technical lighting requirements

In the ceiling, on the ceiling or suspended from the ceiling: the SLOTLIGHT infinity light line stays true to the principle of the perfect line, no matter how it is installed. Thanks to its innovative design, the individual assembly steps are now made even easier and, when installed flush with the ceiling, an attractive transition is also ensured. High-precision shadow gaps provide for perfect lighting.

SLOTLIGHT infinity knows how to take light round the corner, its illuminated L-connectors opening up new scope for creative design. Room geometries can be made clear more effectively, room zones can be redefined, and corner areas can be brought into sharper focus using light. The 90° angle modules are not merely connectors; they blend in as an integral part of the luminaire, their consistent, virtually end-to-end illumination being just as perfect as the dead straight light lines.

For more information, see section 4.



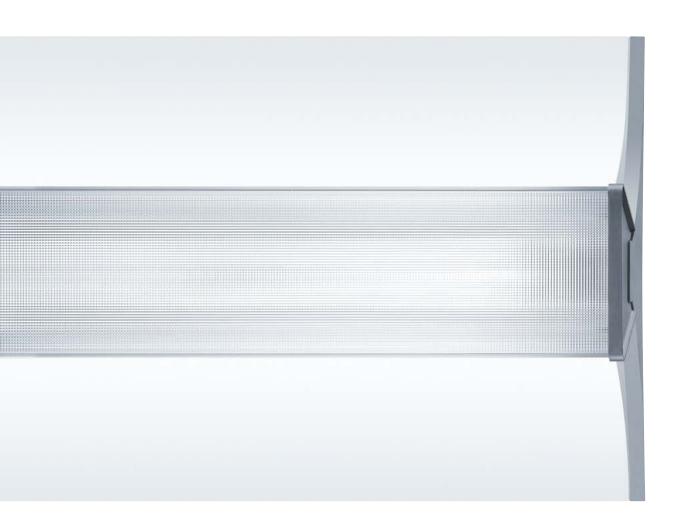




↑ Grand Resort, Bad Ragaz | CH
Architecture Spa-Tower: Hilmer, Sattler & Albrecht GmbH, Munich | D
General design: Burckhardt+Partner AG, Berne | CH
Lighting design: Carbone Interior Design, Wolfhalden | CH, Reflexion AG, Zurich | CH
Lighting solution: MELLOW LIGHT IV, MICROS LED, ZBOX, PANOS Q, SLOTLIGHT,
TECTON, HELISSA, LED light lines, LIGHT FIELDS

→ A.Loacker, Heinfels | AT
Architecture: Architektengemeinschaft Lienz | AT
Lighting solution partner: Elektro Ortner, Lienz | AT
Lighting solution: CREDOS, MELLOW LIGHT IV, ONDARIA, PANOS infinity, ELEEA,
LUXMATE DIMLITE





### **MELLOW LIGHT IV**

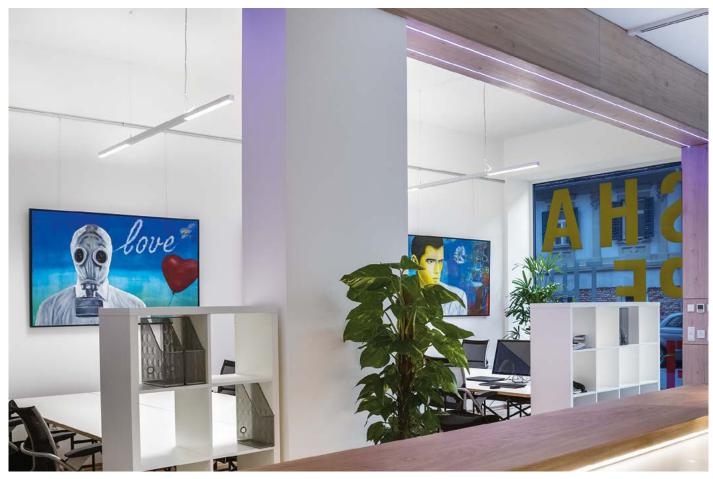
## Classic, minimalist look and reduced dimensions

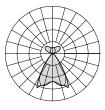
The lighting effect created by MELLOW LIGHT is very similar to that created by daylight with its uniform luminance levels. Long-term studies have shown that lighting quality similar to daylight enhances the employees' performance and sense of well-being. MELLOW LIGHT IV's unique lighting effect is achieved through a combination of optics and a lighting chamber. The MPO+ micropyramidal optic increases the throughput of light while the diffuser optic breaks up the lamp image perfectly.

For more information, see section 4.

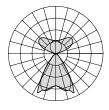
Design: Studio & Partners zumtobel.com/ml4







AXON



AXON CRF

Thanks to a choice of two different types of light distribution, AXON covers a wide range of application areas.

The basic version meets the demands for maximum energy efficiency. The centrally arranged light emitting panel and a direct light component of 67 percent add up to a luminaire efficiency level of 115 lm/W.

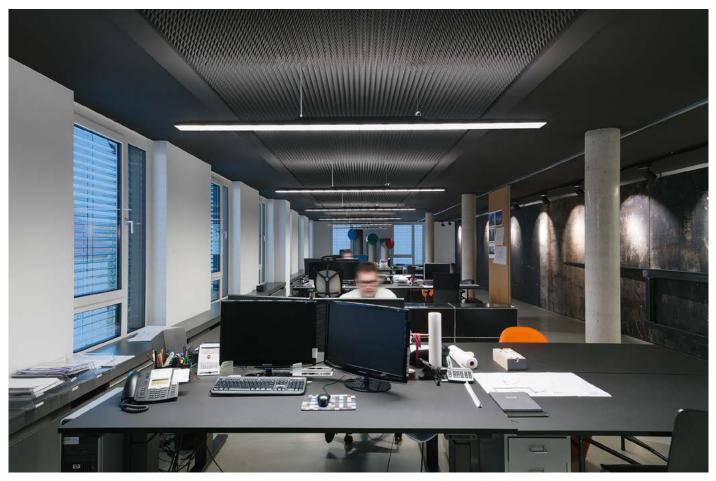
The focus of AXON CRF is on working with tablet PCs or high-gloss brochures and reduced reflections. To achieve this, the luminaire with laterally emitted light and non-luminous central panel is installed directly above the workstation. The indirect light component of 48 percent ensures highly uniform light distribution at a luminaire efficiency level of 112 lm/W.



## **AXON**

The uniquely slim indirect/direct luminaire combines maximum efficiency with convenient lighting provided by an office luminaire with good glare control.

The slim-line AXON pendant luminaire is characterised by contemporary architectural design and a large number of functions. Designed for installation in offices and with a cross-section of  $38 \times 38$  mm, AXON provides excellent lighting quality and a high degree of glare control. This is made possible thanks to the integration of high performance LEDs in combination with the latest generation LED lens technology ensuring perfect direction of light and glare control at the same time. Moreover, a well-balanced coordination of indirect and direct light distribution creates a pleasant atmosphere at the workstation. Various models of AXON are available for implementation into sophisticated lighting concepts. Available with a colour temperature of either 3000 K or 4000 K, the lighting can also be configured individually, depending on needs and preferences.



↑ Planquadrat Gaiser & Partner Architekten, Sigmaringen | DE Architecture: Planquadrat Gaiser & Partner Architekten, Sigmaringen | DE Lighting solution: SEQUENCE, VIVO, SLOTLIGHT LED, SCONFINE SFERA

## → Energie Service Biel | CH Architecture: Gebert Architekten, Biel | CH Lighting solution: SEQUENCE, TECTON LED, PANOS Q







#### **SEQUENCE**

## Individual lighting solution with smart control and luminaire control according to segments

Changing types of collaboration, whether in project teams, at conventional workstations or in open space, require flexible lighting solutions that adapt to people's individual needs. A study conducted by Zumtobel in collaboration with Fraunhofer IAO has shown that users prefer lighting solutions that can be individually controlled. The SEQUENCE infinity pendant and surface-mounted LED luminaire perfectly meet these requirements. Separately controlled LED modules cater for users' individual needs in a flexible manner. Even direct and indirect lighting can be combined as required and dimmed according to the visual tasks. The lighting scenes are called up and adjusted with once click using the LITECOM lighting control unit – individual rooms in particular can be fitted with a CIRCLE SEQUENCE infinity kit at no great effort.

SEQUENCE consists of modular units of identical design that are connected in series and accommodated in a flat high-quality aluminium housing, each module incorporating  $6\times3$  centrally located LED lighting points. Grouped together in three logical sets, the individual modules and the indirect light component can be controlled individually. This makes adaptive lighting possible.

Continuous dimming, diffuse light emitted through the opal frame, switching of individual modules and nearly unlimited other useful scenarios are conceivable.

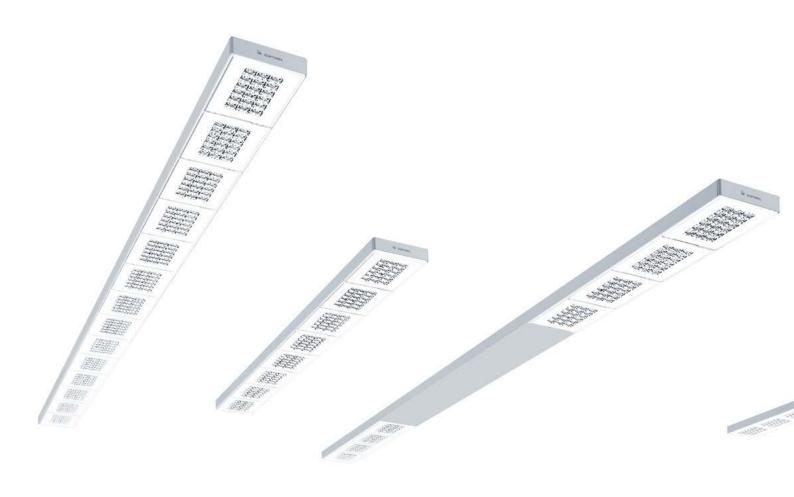


## Surface-mounted and pendant LED luminaire

#### **Modular variety**

The modular design of SEQUENCE allows for a wide range of geometrical configurations and technical lighting options. A choice of pendant luminaires with direct/indirect light distribution and surfacemounted luminaires with purely direct light distribution is available. In order to perfectly implement changes in luminance, the 210 cm basic version comprises 14 LED modules.

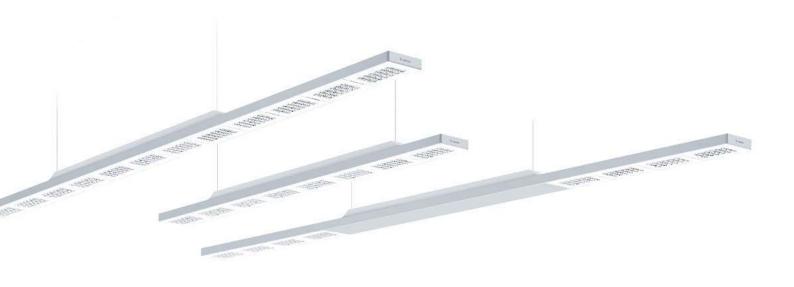
In case of a reduced luminaire length of 120 cm, the various lighting tasks will be performed by 8 LED modules. Deliberately doing without LED modules in the central direct lighting segment will solve any problem of annoying reflections on high-gloss surfaces. Directly positioned above the task area, SEQUENCE CRF increases contrast rendering and is therefore perfectly suited for working on tablet PCs.

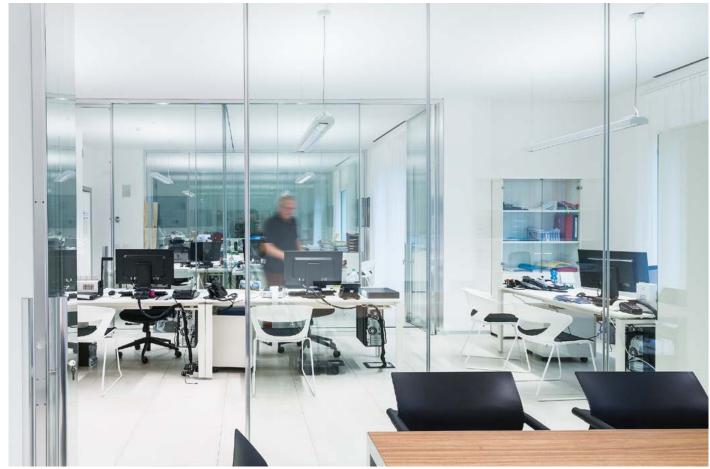




	SEQUENCE infinity Surface-mounted luminaire	SEQUENCE infinity Pendant luminaire	SEQUENCE Surface-mounted luminaire	SEQUENCE Pendant luminaire
Distribution characteristics	Surface-mounted luminaire	Pendant luminaire	Surface-mounted luminaire	Pendant luminaire
△ Wide-angle	•		•	
☑ Direct/indirect		•		•
N Asymmetrical			•	•
Dimensions				
2100 mm (14 modules)	•	•	•	•
2100 mm (8 modules / CRF*)			•	•
1200 mm (8 modules)			•	•
LED				
2800 lm / 3000 K / Ra 80 (Comfort)			•	
3600 lm / 3000 K / Ra 80 (Comfort)				•
4200 lm / 3000 K / Ra80			•	
4600 lm / 3000 K / Ra 80 (Comfort)			•	
4800 lm / 3000 K / Ra80				•
5800 lm / 3000 K / Ra 80				•
7000 lm / 3000 K / Ra80 (Comfort)				•
7400 lm / 3000 K / Ra80	•		•	
9000 lm / 3000 K / Ra 80		•		•
3000 lm / 4000 K / Ra 80 (Comfort)			•	
3800 lm / 4000 K / Ra 80 (Comfort)				•
4600 lm / 4000 K / Ra80			•	
5000 lm / 4000 K / Ra 80 (Comfort)			•	
5200 lm / 4000 K / Ra80				•
6800 lm / 4000 K / Ra80				•
7400 lm / 4000 K / Ra 80 (Comfort)				•
8000 lm / 4000 K / Ra80	•		•	
10000 lm / 4000 K / Ra 80		•		•

<sup>\*</sup>CRF: luminaire model with higher contrast rendering factor





- ↑ Clinica Monastier Villa delle Magnolie | IT Architecture: Volpe Engineering s.r.l., Bassano del Grappa | IT Lighting design: Sinergo SpA, Martellago | IT Lighting solution: ELEEA, PANOS infinity, ONLITE RESCLITE
- → Hartung GmbH & Co. KG, Neumünster | DE Lighting design: Elektro Schüler Installation GmbH, Bordesholm | DE Lighting solution: ELEEA, ONDARIA, CREDOS, MELLOW LIGHT IV, PANOS INFINITY, LUXMATE DIMLITE





#### **ELEEA**

# Direct/indirect luminaire range - efficient solution with excellent lighting quality

ELEEA is available as individual luminaire, double length luminaire, or continuous-row system. It can be surface-mounted or suspended by single cords.

In the suspended version, ELEEA luminaires can be operated with ceiling spacings ranging from 15 cm to 50 cm without any loss in quality of illumination. Thanks to its light output ratio of over 90 % and low installed load, this luminaire range is highly efficient. A direct component of 75 % and an indirect component of 25 % ensure a well balanced lighting situation. The luminaires are optionally available with louvre optic or LRO optic, or even as a hybrid luminaire, upon request. For use as a continuous-row system, straight and L connectors can be ordered.



## 148 ELEEA

## Surface-mounted and pendant luminaires



ELEEA continuous-row luminaire with darklight louvre

	ELEEA D-D/I LRO-D/I	ELEEA D-D LRO-D	ELEEA WW wallwasher	ELEEA D-D/I LRO-D/I continous-row luminaires
Distribution characteristics				
■ Wide-angle		•		•
M Direct/indirect	•			•
■ Wallwasher			•	
Optics				
Darklight louvre	•	•		•
LRO optic	•	•		•
Wallwasher optic			•	
Installation				
Surface-mounted		•	•	
Pendant	•		•	•
1-length				
1200 mm	•	•	•	•
1500 mm	•	•	•	•
2-length				
2412 mm	•	•	•	•
3012 mm	•	•	•	•
Fluorescent lamps				
T16	•	•	•	•
Connectors				
Straight connector				•
L-connector				•
Accessories				
Cord suspension kit	•		•	•
Transparent supply cable	•		•	•
LRO set	•			







↑ C.O.B.A. Consorzio Ortofrutticolo Bassa Anaunia, Denno (TN) | IT Architecture and lighting design: Studio Azzali S.N.C., Trentino | IT Lighting solution: MIREL evolution, LINCOR, LIGHT FIELDS evolution, TECTON LED





#### **MIREL** evolution

## Surface-mounted and suspended LED luminaire with lens optic

MIREL evolution is the next generation of the MIREL product range. By giving the luminaire a distinct appearance, Zumtobel faces the challenge of integrating energy-efficient LED technology in proven design with a unique appearance: the cluster of lenses of the MIREL evolution are visible to users. Its design being clear, unobtrusive and universally applicable, the luminaire comes with great potential for lighting quality and energy efficiency.

Only 52 mm high, MIREL evolution is the flattest surface-mounted luminaire in the Zumtobel range. When it comes to luminaire efficiency, it is exemplary, too: up to 136 lumens per watt result in short payback periods. Light distribution is effected via the lenses at a rate of 95 per cent; only 5 per cent are accounted for by the reflections from the lighting chamber. The lumen packages and module sizes, however, have not changed as compared to the classic recessed luminaire. Accordingly, conventional luminaires can simply be replaced by exchanging them 1:1. Another benefit: MIREL evolution is available in many versions, for instance as an emergency luminaire with separate battery supply.

Design: Studio Ambrozus zumtobel.com/mirel



## 152 MIREL evolution

## Surface-mounted and pendant LED luminaire



MIREL evolution surface-mounted luminaire



MIREL evolution surface-mounted luminaire



MIREL evolution mini surface-mounted luminaire square



MIREL evolution TEC luminaire linear



MIREL evolution pendant luminaire

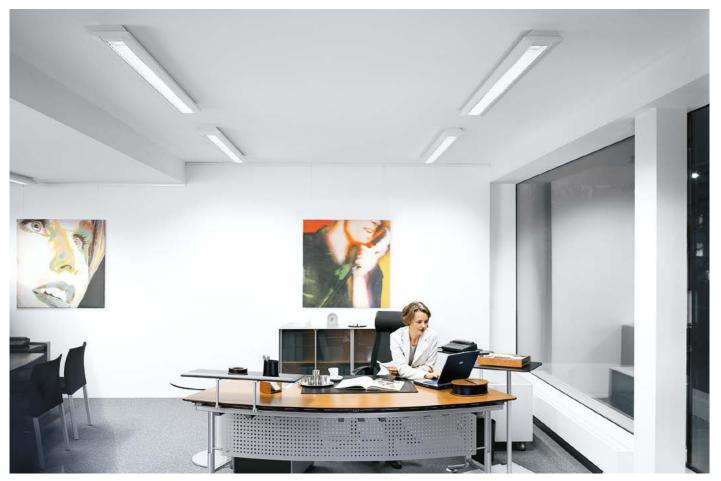


MIRAL FAW LED surface-mounted wallwasher



Distribution characteristics	MIREL evolution surface-mounted with lens optic linear	MIREL evolution surface-mounted with lens optic square	MIREL evolution surfmounted mini with lens optic square	MIREL evolution TEC luminaire with lens optic linear	MIREL evolution pendant luminaire with lens optic linear	MIRAL FAW LED surface-mounted wallwasher linear
	•	•	•	•		
Breitstrahlend	•	•	•	•		
Direkt/Indirekt	•	•			•	
Wallwasher						•
Dimensions						
230 x 230 x 63 mm			•			
1200 x 187 x 73 mm						•
1200 x 300 x 52 mm	•			•		
600 x 600 x 52 mm		•				
1348 x 238 x 41 mm					•	
LED			_			
1000 lm / 3000 K / Ra80			•			
2800 lm / 3000 K / Ra 80	•	•		•	•	
3600 lm / 3000 K / Ra80	•	•		•		
5600 lm / 3000 K / Ra80					•	
1200 lm / 4000 K / Ra80			•			
2800 lm / 4000 K / Ra 80	•	•		•		
3000 lm / 4000 K / Ra80					•	
3800 lm / 4000 K / Ra 80	•	•		•		
4400 lm / 4000 K / Ra80						•
5800 lm / 4000 K / Ra80					•	
Accessories						
Continuous row kit					•	
Continuous row connector					•	







↑ Bene Büromöbel, Bregenz | AT Lighting solution: MIRAL2

↓ Kirchberg Sports Hall, Kirchberg | CH
Architecture: Arn+Partner, Münchenbuchsee | CH
Lighting solution: MIRAL, TECTON



### **MIRAL2, MIRALT16**

## Surface-mounted and pendant louvre luminaires

Confidently showing its class without pushing itself to the fore – this is MIRAL 2 at its best. The luminaire unit cannot fail to impress with its low profile, slim-line design emphasised by its linear contours. MIRAL 2 boasts a clear stylistic idiom and high functionality, its newly developed end caps complementing the harmonious overall impression. For Studio Ambrozus, the definition of perfect design also includes optimum handling and ease of installation.

#### MIRAL T16 BWS sports hall lighting

In any case, perfect lighting must ensure the safety of athletes and the best possible visual conditions for competitors, spectators and referees. The luminaire has been developed and tested especially for this area of application. Standard EN 12193, which was prepared in cooperation with sports associations, provides guidance on proper lighting. BWS T16 effortlessly meets the specifications contained in this standard, regardless of whether it is installed as a surface-mounted or recessed luminaire. It can be fitted with light sources of up to 80 W.

For more information, see section 4.

Design: Studio Ambrozus zumtobel.com/miral



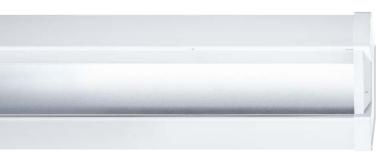
## <sup>156</sup> MIRAL 2 / MIRAL T16

## For offices and sports facilities



MIRAL 2 T16 FAC2

surface-mounted/pendant luminaire with matt louvre



MIRAL 2 T16 FAW2

surface-mounted/pendant luminaire with wallwasher optic



MIRAL T16 FAC2 B Infill matt louvre

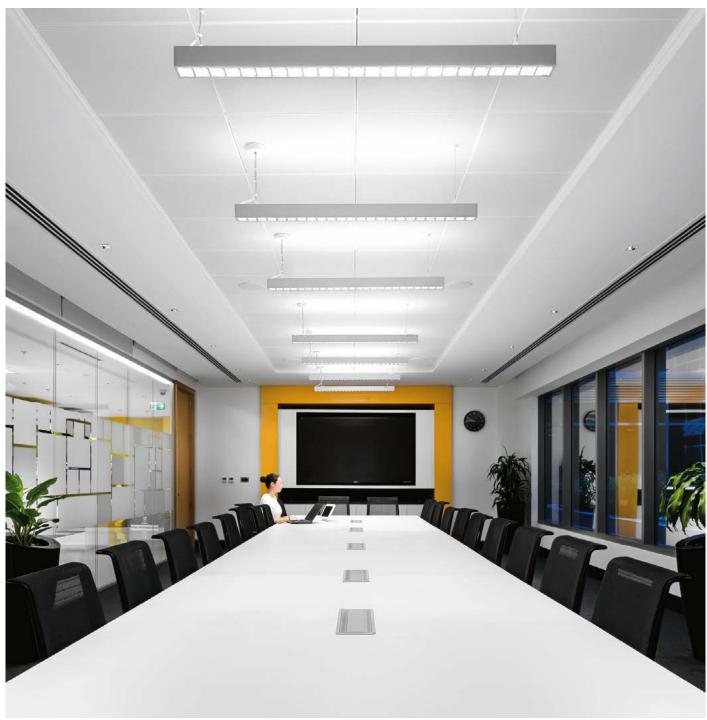


MIRAL T16 RAS-BWS

stepped-vane optic, luminaire for sports facilities

	MIRAL2 T16 surface-mounted	MIRAL2 T16 pendant	MIRAL2 T16 wallwasher	MIRAL T16 Infill	MIRAL T16 RAS-BWS
Distribution characteristics					
✓ Wide-angle	•			•	•
M Direct/indirect		•			
Wallwasher					•
Louvres/optics					
Specular louvre	•	•		•	
Matt louvre	•	•		•	
Wallwasher optic			•		
Ballproof with stepped vane optic					•
Dimensions					
600 x 600 x 57 mm				•	
1200 x 187 x 73 mm	•	•	•		
1500 x 187 x 73 mm	•	•	•		
1550 x 186 x 101 mm					•
1550 x 312 x 101 mm					•
1550 x 450 x 101 mm					•
Fluorescent lamps					
T16	•	•	•	•	•
Accessories					
Transparent supply cable		•			
Continuous-row connector	•	•			
Trunking					•
Ceiling suspension					•
Chain suspension					•
Cord suspension					•
Cover strips					•





→ Symantec Offices, Dubai | AE

Lighting design: Acoulite Trading LLC, Dubai | AE

Lighting solution: LINCOR, PANOS infinity, MICROS





#### **LINCOR**

## Indirect/direct light at the highest LED level: slim, convenient and efficient

With its slim and unobtrusive design, the LINCOR LED luminaire draws an elegant line through the room, its contemporary minimalism enhancing room axes and architectural concepts. Arranged as a double-length light line or a continuous-row system, it is an expression of maximum linearity. Efficient LED technology takes full effect in a section of only 63 mm square - resulting in high-quality indirect/direct lighting.

All good things come in threes: increasing luminaire efficiency using innovative LED technology - increasing a room's lighting quality using additional indirect light - and eliminating compromises in terms of design. The innovative LINCOR lighting technology (patent pending) meets each one of these requirements with minimum dimension. The luminaire's sustainability and user convenience are supported by the following figures: luminaire efficiency of 88 lumens per watt, colour temperatures of 3000 K and 4000 K, and a large direct light component of 83 %.

### Luminaire range



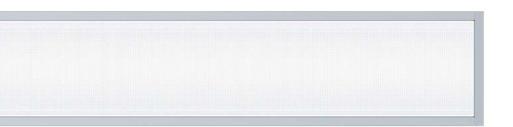
#### LED minicells Comfort

The matt Comfort cell makes direct light safely visible. The luminaire appears as a uniformly illuminated light line enhancing architectural structures to optimum effect.



#### LED minicells Darklight

In contrast, the highly specular darklight cell hides the direct light component. Thus, LINCOR provides optimum glare control and lets the light flow into the room from a hidden source.



#### **LRO**

Thanks to the luminaire-reducing optic, LINCOR can be used even more flexibly: harsh shadows in task areas and annoying reflections are effectively reduced by prismatic lighting technology.



#### **CRF**

The most recent addition to the versatile LINCOR product range is a doublelength pendant LED luminaire focusing on superior lighting quality without reflected glare. LINCOR CRF provides indirect and direct lighting - however, the latter only from the laterally arranged light emitting areas. Thanks to a central part from which no light is emitted downwards, the luminaire meets the highest demands regarding contrast rendition, even where placed directly above the workstation; it avoids annoying reflections on glossy surfaces and is therefore ideally suited for working at tablet PCs. Thanks to a special lens, the ceiling is uniformly brightened up by indirect light distribution. LINCOR CRF is available with a matt Comfort optic or a highly specular Darklight optic, and with a colour temperature of either 3000 K or 4000 K.



		LINCOR pendant luminaire	LINCOR surface-mounted	
Distribution cl	haracteristics		luminaire	
✓ Direct			•	
Indirect/dire	ect	•		
Optics				
Comfort minice	lls	•	•	
Darklight minice			•	
LRO				
CRF		•		
Colour Silver		•	•	
White (optional	)	•	•	
write (optional	)			
Installation				
Individual lumin	aire	•	•	
Continuous-row	v system	•		
Dimensions				
1209 x 63 x 64	mm	•	•	
2407 x 63 x 64	mm	•	•	
Lumen packag	ges (4000K / 3000K)			
3970 lm	3763 lm		•	
4070 lm	3858 lm		•	
4630 lm	4389 lm	•		
4800 lm	4550 lm	•		
4900 lm	4650 lm	•		
7940 lm	7526 lm		•	
8140 lm	7716 lm		•	
9260 lm	8778 lm	•		
9600 lm	9100 lm	•		
9800 lm	9300 lm	•		
Accessories				
Accessories Power-feed-kit		•		

#### **Pendant luminaires**



LINCOR single length 1209 mm, up to 4900 lm



LINCOR double length 2407 mm, up to 9800 lm



LINCOR continuous-row system

#### **Surface-mounted luminaires**

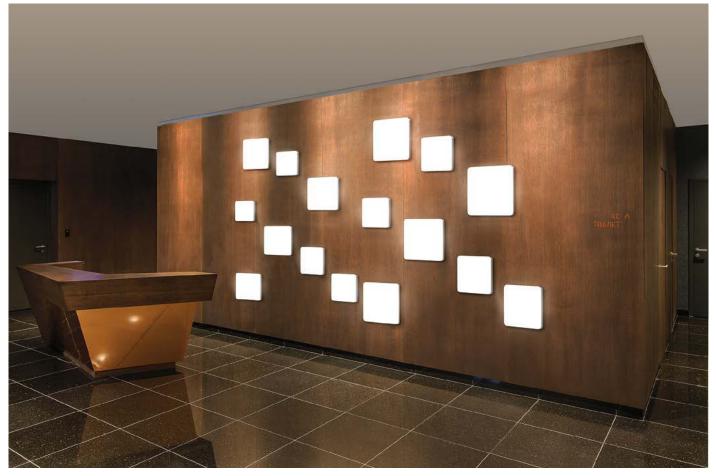


**Longueur simple** 1209 mm, jusqu'à 4070 lm Avec adaptateur pour rail conducteur TECTON en option

Double length 2407 mm, up to 8140 lm







Two by two: Size and shape
The CAELA family concept shows the possibility to combine different models at your discretion and thus shape individual sculptures with big and small, round and square luminaires.









#### **CAELA**

## Slimmer and more precise: modular lighting system with Edge-LIT LED technology

CAELA represents a beautiful blend of elegance and levity. The range boasts a series of low-profile luminaires with a highly sophisticated appearance and exceptional versatility. As a wall-mounted, ceiling-mounted or pendant luminaire, CAELA provides decorative highlights in corridors and entrance areas. Even in restaurants or private domestic areas, this lighting solution adjusts perfectly to the ambience of a particular room. CAELA is available as a round or square luminaire with a diameter or side length of 330 mm and 430 mm. The different versions can be specified in one of six colours (white, matt silver, copper, brass, matt grey and black).

The modular design of CAELA is reflected in the choice of switchable or dimmable models, with a luminous flux of 1000 lm and 1500 lm, as well as in the range of lighting distributions. In addition to a standard symmetrical light distribution, the square version is also available with an innovative asymmetrical light distribution that has been specifically configured to meet the lighting requirements in corridors and stairwells.





### A luminaire for all instances



The standard 2000 mm pendant tube can be cut to any length at the construction area, which makes a composition of different installation heights very easy. Since the luminaires can also turn 355° and tilt 45°, several luminaires form a curve, a wave or architectural structure as desired.





#### **Ceiling mounting**

Round or square, big or small: The installation height of all models is only 57 mm.





#### Wall mounting

Regardless of size, light distribution or shape: A fitted CAELA only extends a meagre 57 mm into the room.





	CAELA	CAELA
	opal	clear
Distribution characteristics		,
▲ Lambertian	•	
Asymmetrical		•
Style		
Circular	•	
Square	•	•
Colour		
White	•	•
Matt silver*	•	•
Grey**	•	•
Black**	•	•
Brass**	•	•
Copper**	•	•
Installation		
Wall installation	•	•
Ceiling installation	•	
Pendant installation	•	
Dimensions		
Ø 334 mm	•	
□ 331 mm	•	•
Ø 432 mm	•	
□ 431 mm	•	•
LED		
1100 lm / 3000 K, 4000 K / Ra80	•	
1200 lm / 3000 K, 4000 K / Ra80	•	
1000 lm / 3000 K, 4000 K / Ra80		•
1500 lm / 3000 K, 4000 K / Ra80	•	
2100 lm / 3000 K, 4000 K / Ra80	•	
1600 lm / 3000 K, 4000 K / Ra80		•
A		
Accessories Pendant set	•	•
r chuant sci	•	

<sup>\*</sup> Alternative standard colour for the housing
\*\* Additional colours for personalising all components in myCAELA product configuration tool
Standard colour scheme: Diffuser such as housing, pendantrod and ceiling rose in white





↑ swisspro AG, Zurich | CH Architecture: CB Richard Ellis, London | UK Lighting solution: SCONFINE SFERA, PANOS infinity, LIGHT FIELDS, CAPA

→ Planquadrat Gaiser & Partner Architekten, Sigmaringen | DE Architecture: Planquadrat Gaiser & Partner Architekten, Sigmaringen | DE Electrical design: EZS GmbH & Co. KG, Sigmaringen | DE Lighting solution: SCONFINE SFERA, SEQUENCE, VIVO LED, SLOTLIGHT LED





### **SCONFINE SFERA**

## Spherical pendant luminaires, apparently weightless and floating

SCONFINE SFERA is a range of spherical pendant luminaires with partly transparent chrome or bronze coating, with the lamps of the LED module visibly located in the luminaire unit. They provide both direct radiation into the area required and reflection inside the luminaire unit, making it appear to float. An opal inner sphere (accessory) ensures optimum glare control in conjunction with the chrome coating – enhancing the impression of plasticity and room depth.

#### **SCONFINE SFERA LED**

The spherical SCONFINE Sfera pendant luminaire creates impressive, decorative accents with an interplay of light and shadow in hotel lobbies as well as shops, foyers or mansions. The partly transparent, chrome- or bronze-plated luminaire units with diametres of 170 mm, 250 mm and 500 mm are exceptionally attractive, both as individual luminaires and luminaire groups.

Design: Matteo Thun zumtobel.com/sconfine





## **SCONFINE SFERA**

## Overview







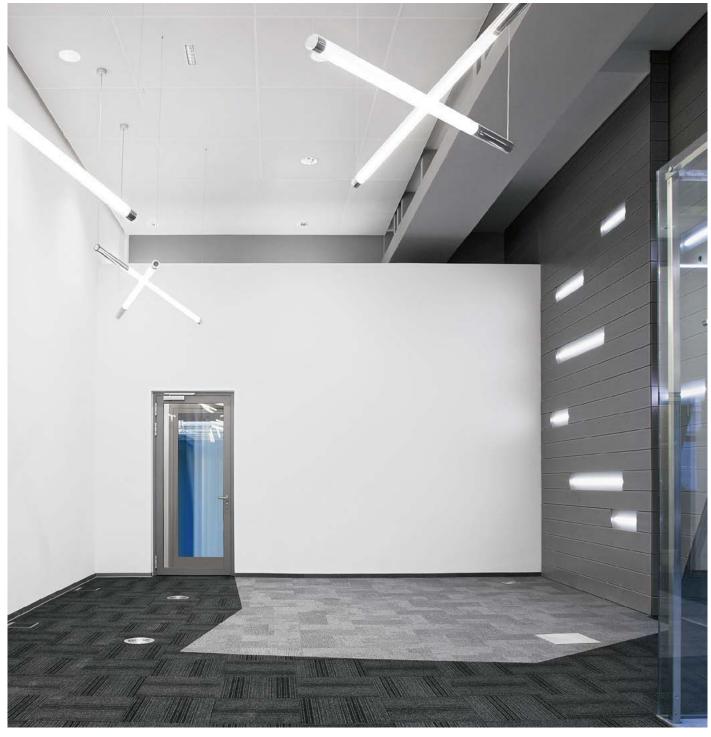




	SCONFINE SFERA 170 LED	SCONFINE SFERA 250 TCD/TCG	SCONFINE SFERA 250 LED	SCONFINE SFERA 500 TCD/TCG	SCONFINE SFERA 500 LED
Distribution characteristics					
Narrow beam	•		•		•
Wide beam	•	•	•	•	•
Colour					
Chrome	•	•	•	•	•
Bronze	•	•	•	•	•
Installation					
Transparent suspension cord* (L 3000 mm)	•	•	•		
Transparent suspension cord* (L 4000 mm)				•	•
LED					
500 lm spot (2700 K, Ra > 90 )	•		•		•
550 lm spot (3000 K, Ra > 90 )	•		•		•
600 lm flood (2700 K, Ra > 90 )	•		•		•
700 lm flood (3000 K, Ra > 90 )	•		•		•
Compact fluorescent lamps					
TCD-SE		•			
TCG-SE				•	
Accessories					
Inner sphere made of opal glass		•		•	

<sup>\*</sup> Standard (including ceiling rose)





↑ Der Standard, Vienna | AT
Architecture and lighting design: DI Markus Marignoni, Vienna | AT
Lighting solution: SCONFINE LINEA, PANOS infinity, CLARIS II, ONDARIA, CAPA



#### **SCONFINE LINEA**

## The elegant pendant luminaire system in the SCONFINE range

Impressive on account of its elegant design, whether installed vertically or horizontally. The luminaire unit made of a diffuser-pearl optic fascinates as it appears almost immaterial. The electronic components are accommodated in chrome-coated housings, a design feature common to all SCONFINE luminaires.

Three design lengths, and pendant lengths of more than four metres allow for a wealth of applications, as an individual luminaire or a luminaire cluster, also in rooms with high ceilings such as staircases, foyers and halls.

Rooms can be creatively designed or modified, not only where clusters of pendant luminaires are used: special components provide for the required flexibility in terms of interior design. Configuring individual pendant luminaires to form a "cloud" of apparently floating light lines creates room depth and dematerialisation of space, in line with the SCONFINE philosophy. Clusters can be infinitely extended and blend perfectly into rooms with high ceilings.

Design: Matteo Thun zumtobel.com/sconfine







#### LQ CHANDELIER

## A decorative pendant luminaire that can be arranged to form a lighting object

"LQ" is a humorous reference by the New York architect Hani Rashid to Louis Quatorze, the Sun King. The application of certain geometrical principles, the focussing of miniature faces into a multi-facetted reflector, and the accurate arrangement of innovative LED light sources is all it takes to create exciting visual effects, a complex relational texture of form and light.

The basic unit of the modular chandelier consists of four LED modules, each fitted with 3 LEDs of 1.2 W each. A highly distinctive feature is the downwardly opening tulip-shaped design of the chrome-plated components, which emphasises the chandelier's avant-garde look.

Design: Hani Rashid zumtobel.com/chandelier





## Free-standing and wall-mounted luminaires



Free-standing and wall-mounted luminaires

176 LINETIK

**SFERA** 

LIGHT FIELDS evolution

CAPA

Recessed wall luminaires

180 KAVA LED

Wall-mounted and ceiling-mounted luminaires

184 HELISSA

CAELA

see chapter 5



 Hertz Autovermietung GmbH, Eschborn | DE Architecture: REAL GREEN GmbH, Frankfurt am Main | DE Lighting solution: SFERA free-standing luminaire featuring swarmControl



↑ LINETIK | LED free-standing luminaire

Not so much a luminaire, more of a delicate object with a great effect: LINETIK

speaks a clear, but minimalist design language. The slim body of the luminaire has a

cross-section of only 24x24 mm, like the column. Despite this subtly filigree appearance, it is robust and can be erected or positioned in the room in a few simple steps.







## Free-standing and wall-mounted luminaires

Mobile task luminaires for greater freedom of design plus extra convenience and maximum efficiency

They move with the times. Achieve maximum efficiency and ergonomics. And have the big advantage of being free and flexible. Free-standing luminaires can be positioned wherever required: in any location in the room, at any position relative to the task area; there they focus their light onto the specific visual task – economically and efficiently.





## 178 Free-standing and wall-mounted luminaires

## Overview



**LINETIK**Free-standing luminaire

**SFERA**Free-standing luminaire

**LIGHT FIELDS evolution**Free-standing and wall-mounted luminaire





**CAPA**Free-standing and wall-mounted luminaire

**CAPA Lite LED (square-cut edges)** Free-standing luminaire

**CAPA Lite LED (rounded)** Free-standing luminaire



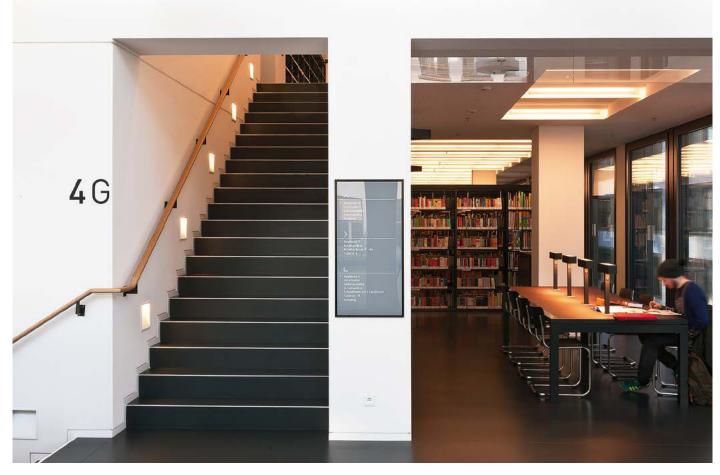


	LINETIK	SFERA	LIGHT FIELDS evolution	CAPA LED	CAPA Lite LED	CAPA TC-L
Distribution characteristics						
Indirect/direct			•	•	•	•
Indirect/direct (separately controllable)	•	•	•			
Recommended application						
Single-person workstation	•	•	•	•	•	•
Two-person workstation	•	•	•	•	•	•
3-axes office			•			•
Room*		•	•			
Installation						
Free-standing luminaire	•	•	•	•	•	•
Surface-mounted on wall			•			•
Colour						
Aluminium			•			
Silver				•	•	•
White	•	•		•	•	•
Black	•					
Optics						
MPO+		•	•	•	•	•
Louvres	•					
Built-in control (free-standing luminaires)						
switchDIM	•				•	•
sensControl	•	•	•	•	•	•
swarmControl		•	•			
Light source						
	•	•	•	•	•	
LED Compact fluorescent lamps	•	•	•	•	•	•
LED Compact fluorescent lamps	•	•	•	•	•	•
ED Compact fluorescent lamps Efficiency	•	•	•	•	•	•
LED Compact fluorescent lamps  Efficiency < 80 Im/W	•		•	•		
LED Compact fluorescent lamps Efficiency	•	•	•	•	•	

<sup>\*</sup> Free-standing luminaires with swarmControl use radio signals sent to adjacent luminaires to create a light cloud that always ensures ideal lighting conditions in the workplace. This makes free-standing luminaires with swarmControl an intelligent spatial solution.

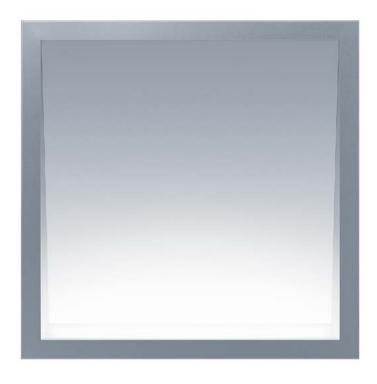






↑ Joanneumsviertel, Graz | AT
Architecture: ARGE:EEP Architekten, Graz and Nieto Sobejano Arquitectos, Madrid
Lighting solution: KAVA LED, TECTON, ONLITE PURESIGN, ONLITE ARTSIGN,
ONLITE RESCLITE, LUXMATE LITENET

 $\Psi$  University of Teacher Education, Zurich | CH Architecture: Max Dudler, Zurich | CH Lighting solution: KAVA LED, PANOS, TECTON, SLOTLIGHT II, ONDARIA



### **KAVA LED**

# Effective and functional luminaire for vertical surfaces

The square recessed wall luminaire ennobles any room – through its elegant design and mellow light. The asymmetric reflector directs light directly to the floor or ceiling, the luminaire itself blends into the background. That's how the KAVA LED tackles the strict geometry of vertical surfaces and produces refreshing lighting effects.

With two sizes, each in three frame colours, the KAVA LED offers the freedom for individual design. Mirror reflectors made of matt anodised pure aluminium allow asymmetric light distribution. Popular areas of use include entrance areas, hallways and stairwells in hotels, public buildings or car parks. They are also readily used in hospitals and retirement and care homes as orientation lighting. The KAVA LED IP54 is used when there is a demand for increased resistance to impact and protection against moisture. Easy to install in cavity walls thanks to the snap-fit clips. Special recessed wall housings offered as an accessory – also as IP40 version – for solid walls.











KAVA LED Q220



KAVA LED IP54

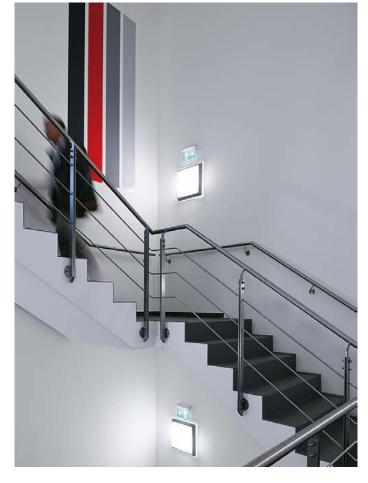
	KAVA LED	KAVA LED IP 54
Distribution characteristics		
Asymmetrical	•	•
Installation		
Recessed wall	•	•
Dimensions		
94 x 94 x 75 mm		•
110 x 110 x 43 mm	•	
220 x 220 x 75 mm	•	
Reflectors Flat specular reflector	•	•
LED		
LED 3000 K warm white	•	•
LED 4000 K neutral white	•	٠
Accessories		
Glass cover	•	
Decorative cover	•	
Wall mounting IP40	•	
Concrete casting surround	•	•
Cavity wall installation kit	•	•
Universal box IP67		•





#### ↑ Assolombardo conference room and offices, Milan | IT Architecture: Archilabo laboratorio di architettura, Monza | IT Lighting design: CS Progetti, Milan | IT Lighting solution: HELISSA, 2LIGHT, SLOTLIGHT

→ Parker Hannifin logistics centre, Bielefeld | DE Architecture: Robert Wiehofsky, Podufal + Wiehofsky, Löhne | IT Lighting design: CS Progetti, Milan | IT Lighting solution: HELISSA, KAREA, MELLOW LIGHT IV, PANOS, SLOTLIGHT, SCONFINE, TECTON





### **HELISSA**

# Pleasant appearance with suitable profile for indoor and outdoor areas

Effective as well as energy-saving: the decorative HELISSA wall and ceiling-mounted luminaire masterfully sets corridors, staircases, functional areas, wellness and outdoor areas centre stage. Luminaires with the same visual look and IP40 and IP65 protection create a unique opportunity to implement lighting solutions in a single consistent upmarket design as one moves from indoors to outdoors.

Both the round and square versions of HELISSA blend seamlessly into their architectural surroundings thanks to their unobtrusive design. A subtle white or coloured corona gives the luminaire an incredibly weightless look and emphasises its decorative appearance.

The diffuser is made of UV-resistant polycarbonate (IP40) or high-quality satin-finished glass (IP65). HELISSA's elegant design is topped off by a solid frame made of polished specular aluminium (only IP65) in a white or titanium finish.

HELISSA really comes into its own in all situations where attractive, efficient lighting is required at affordable cost. HELISSA is a comprehensive luminaire product line which includes emergency lighting versions to take care of all essential tasks in passageways and functional areas. With its unobtrusive design and colour, it blends harmoniously into any surroundings. When mounted on a wall or ceiling, indirectly radiated light wraps the luminaire in a soft corona, which, together with diffuse direct light, produces an agreeable room atmosphere.











Continuous-row systems

**TECTON** 

Individual batten luminaires

198 LINARIA

202 ZE

XPO 206

← Autohaus Schweiger, Reutte | AT Architecture: archtirol, Helmut Schweiger and Bernd Müller, Innsbruck | AT Lighting design: systech-solution GmbH, Reutte | AT Lighting solution: TECTON LED, CARDAN LED, DIAMO, SLOTLIGHT infinity, BEGA outdoor luminaires



## ↑ Industrie- und Gewerbebau Schützenwiese, Kriessern | CH Architecture: Carlos Martinez Architekten, Berneck | CH Architecture: Carlos Martinez Architekten, Berneck | CH Lighting design and electrical consultants: Schmidheiny Engineering AG, Widnau | CH Lighting solution: TECTON LED, VIVO LED, LIGHT FIELDS evolution, SFERA free-standing luminaire

#### → Sollich KG, Salzuflen | DE

Architecture: Robert Wiehofsky, PODUFAL+ WIEHOFSKY,
Architekten und Ingenieure, Löhne | DE
Lighting solution: TECTON LED, MELLOW LIGHT V LED, PERLUCE LED, CREDOS,
Thorn OLSYS, ONLITE central eBox, CUBESIGN, LUXMATE LITENET





#### **TECTON**

### The continuous-row system with boundless versatility

TECTON is the world's first continuous-row luminaire to have an 11-pole current conducting section built into its trunking. This means that the system comes ready equipped to meet tomorrow's needs. All functions such as power supply, lighting control and connection to emergency lighting are seamlessly integrated into this multifunctional trunking. Luminaires can be positioned flexibly and the system can be adapted to suit structural alterations at any time. TECTON copes effortlessly with various lighting requirements - at the time it is installed and whenever there are changes. The TECTON trunking remains unchanged and forms the functional backbone of the system. It is simply a matter of replacing or adding lighting modules, light sources or optics as required.

#### **TECTON MPO LED with micro-prismatic lens**

LED and MPO form a unique combination: the strong LED light packages of 5500 lm, 6500 lm and 8000 lm gain unique quality thanks to the lens: Micro-prisms free the luminaire from disturbing reflections due to visible light points and minimise the subjective feeling of glare in the real application. The large, homogeneous lightemitting surface enables significantly lower UGR values with a comparable high luminous flux. TECTON MPO LED provides applicationspecific solution competence by means of a colour temperature of 4000 K with colour rendering of Ra 80 as well as dimmable and non-dimmable variants.

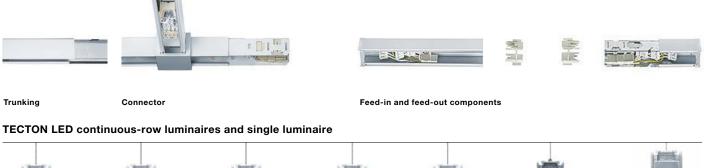


### Fixing components, trunking, continuous-row luminaires and single luminaire

#### **TECTON** fixing components



#### TECTON trunking (silver/white)





Wallwasher

with CG Kit

Shelf Beam





**Narrow Beam** 

TECTON T16 I/IP protected (IP60)

**TECTON T26 I/IP** protected (IP60)



TETRIS T16 single-lamp



**TETRIS T16** twin-lamp



Wide Beam



Trunking		TECTON LED TECTON T16 individual installation			TECTON T26 vidual installatio		TECTON continuous row system	
TECTON T 1200 (28/54 W)			•					
TECTON T 1483 (35/49/80 W)			•					
FECTON T LED 1000	•							
FECTON T LED 1500	•							
TECTON T LED 2000	•							
FECTON T 1522 (58 W BASIC LED)	•				•			
FECTON T 1500/2000/2500/3000/3500/4000							•	
TECTON T 1000 oE (empty)							•	
Feed-in and feed-out components								
FECTON TM TA/TE central feed*							•	
TECTON TM central feed*							•	
TECTON TE feed *							•	
ECTON TA feed-out							•	
ECTON TA-F flexible feed-out							•	
ECTON T-VL, T-VT, T-VX node connector							•	
incl. end cap and shock protection								
Distribution characteristics	TECTON LED Wide Beam	TECTON LED Narrow Beam	TECTON LED Shelf Beam	TECTON LED Wallwasher	TECTON LED with CG Kit	TECTON MPO LED	TECTON BASIC LED	
Narrow-beam		•			•			
Wide-angle	•	•			•	•	•	
	•		_		•	•	<u> </u>	
Shelf Beam			•	•				
Asymmetrical				•				
ED								
3700 lm / 3000 K (1000 x 60 mm)	•		•	•	•			
3700 lm / 4000 K (1000 x 60 mm)	•	•	•	•	•			
3700 lm / 6500 K (1000 x 60 mm)	•	•	•	•	•			
5200 lm / 3000 K (1000 x 60 mm)	•		•	•	•			
5200 lm / 4000 K (1000 x 60 mm)	•	•	•	•	•			
5200 lm / 6500 K (1000 x 60 mm)	•	•	•	•	•			
7400 lm / 3000 K (2000 x 60 mm)	•		•	•	•			
7400 lm / 4000 K (2000 x 60 mm)	•	•	•	•	•			
7400 lm / 6500 K (2000 x 60 mm)	•	•	•	•	•			
10500 lm / 3000 K (2000 x 60 mm)	•		•	•	•			
0500 lm / 4000 K (2000 x 60 mm)	•	•	•	•	•			
0500 lm / 6500 K (2000 x 60 mm)	•	•	•	•	٧			
5500 lm / 3000 K (1500 x 60 mm)	•		•	•	•			
5500 lm / 4000 K (1500 x 60 mm)	•	•	•	•	•			
5500 lm / 6500 K (1500 x 60 mm)	•	•	•	•	•			
8000 lm / 3000 K (1500×60 mm)	•		•	•	•			
8000 lm / 4000 K (1500×60 mm)	•	•	•	•	•			
8000 lm / 6500 K (1500×60 mm)	•	•	•	•	•			
5500 lm / 4000 K (1500 x 104 mm)						•		
6500 lm / 4000 K (1500×104 mm)						•		
8000 lm / 4000 K (1500 x 104 mm)						•		
5200 lm / 3000 K (1500×60 mm)							•	
5200 lm / 4000 K (1500×60 mm)							•	
,	TECTON T16	TECTON T16	TECTON T26	TECTON T26	TECTON-I	TECTON-I	TETRIS T1	
Distribution characteristics		Wide		Wide	T16 IP	T26 IP		
■ Wide-angle					•	•		
N Asymmetrical					•	•		
Fluorescent lamps								
Γ16/T26 single-lamp	•		•		•	•	•	
T16/T26 single-lamp with emergency lighting	•							
16/T26 twin-lamp	•			•	•		•	



### 192 TECTON

### Reflectors, louvres, optics and spots

#### **TECTON** reflectors and optics



**TECTON R** reflector



**TECTON RW** reflector



**TECTON RG** perforated reflector



**TECTON IP50** reflector, protected



TECTON-I R reflector, twin-lamp



**TECTON ST** semi-specular reflector



**TECTON SH** semi-specular reflector



**TECTON RSB** semi-specular reflector optic with reflector



**TECTON-I RSB** semi-specular reflector optic with reflector



**TECTON SR-R** shop reflector



**TECTON SW** wallwasher optic, asymmetrical



**TECTON RSR** shelf lighting optic, symmetrical



**TECTON RSR** shelf lighting optic, asymmetrical

### **TECTON** louvres



**TECTON RL** 



TECTON-I RL vane louvre, twin-lamp



**TECTON RGL** 



**TECTON RC** 



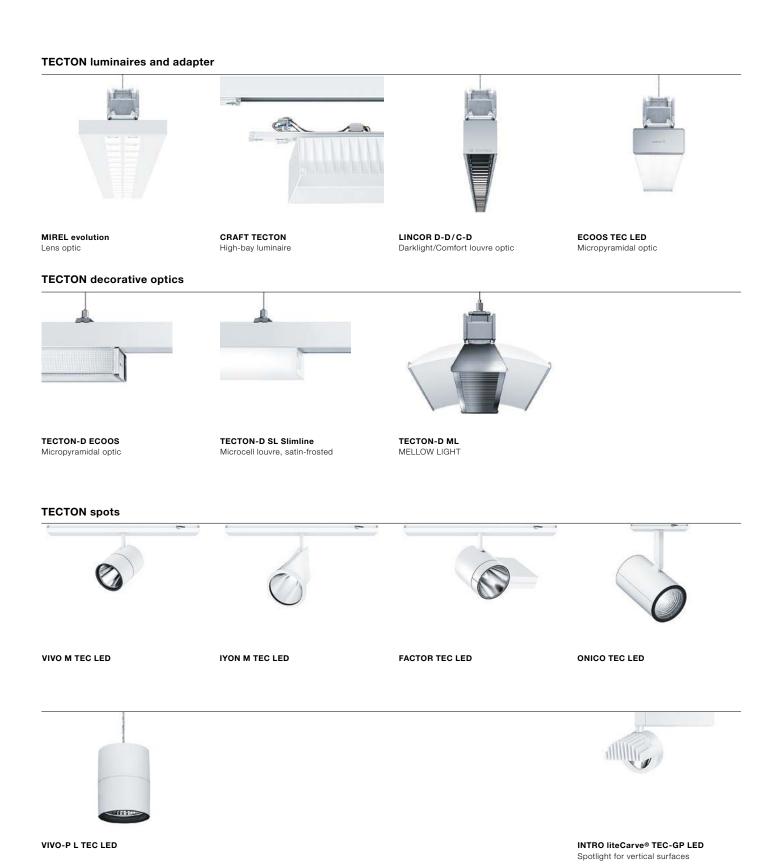
**TECTON RC** 

	TECTON R reflector					I <b>P50</b> tor	TECTON I-R reflector
Distribution characteristics							
■ Wide-angle	•			•	•		•
Very wide-angle			•				
Colour							
Silver	•		•				•
White	•		•	•			•
Fluorescent lamps							
T16	•		•	•	•		•
T26	•		•	•			•
Distribution characteristics	TECTON ST semi-specular reflector	TECTON SH semi-specular reflector	TECTON RSB semi-specular reflector	semi-specular reflector	TECTON SR-R shop reflector	TECTON SW wallwasher optic	TECTON RSR shelf lighting optic
Extremely narrow-beam		•					
Narrow-beam	•	<u> </u>					
✓ Wide-angle			•		•		•
■ Wallwasher						•	•
-							
Colour							
Aluminium	•	•			•	•	
Silver			•	•			•
White			•	•			•
Fluorescent lamps							
T16	•	•	•	•	•	•	•
<u>T26</u>	•	•	•	•			
	TECTON RL vane louvre		TON-I RL e louvre	TECTON RGL perforated louvre	TECTO! aluminium		TECTON-I RC uminium louvre
Distribution characteristics							
Wide-angle	•		•	•	•		•
Colour							
Silver	•		•	•	•		•
White	•		•	•	•		•
Fluorescent lamps							
T16	•		•	•	•		•
T26	•		•	•	-		•
120	, , , , , , , , , , , , , , , , , , ,		-	•			<u> </u>



### 194 TECTON

Decorative luminaires, decorative optics, adapter and spots





	TECTON-D ML	TECTON-D SL	TECTON-D	ECOOS TEC	LINCOR	MIREL	CRAFT
	decorative optic	decorative optic	ECOOS decorative optic	LED decorative	D-D/C-D surface-mounted	evolution louvre	TECTON high-bay
Distribution characteristics				luminaire	luminaire	luminaire	luminaire
Narrow-beam							•
■ Wide-angle		•	•	•	•	•	
	•		•	•	•	<u> </u>	<u> </u>
Very wide-angle	•						
Lamps							
LED				•	•	•	•
Fluorescent lamps (T16)	•	•	•				
	VIVO M TEC	VIVO L TEC	VIVO-P L TEC	IYON M TEC	FACTOR TEC	ONICO TEC	INTRO
	LED	LED	LED	LED	LED	LED	liteCarve®
Distribution characteristics							TEC-GP LED
<b></b> Spot	•	•	•	•	•	•	
Flood	•	•	•	•	•	•	
Wideflood	•	•	•	•	•	•	
■ Wallwasher							•
Colour							
Silver	•	•	•				
White	•	•	•	•	•	•	•
LED							
3200 lm / 3000 K / Ra80							•
3200 lm / 4000 K / Ra80							•
36-44 W Tunable Colour		•					
27 W Essential stableWhite	•	•		•	•	•	
36 W Essential stableWhite		•		•	•	•	
27 W Essential+ stableWhite	•	•		•	•	•	
36 W Essential+ stableWhite		•		•	•	•	
36 W bakery			•		•	•	
36 W fresh meat			•		•	•	



## Emergency/escape sign luminaires and sensors

#### **TECTON** emergency and escape sign luminaires



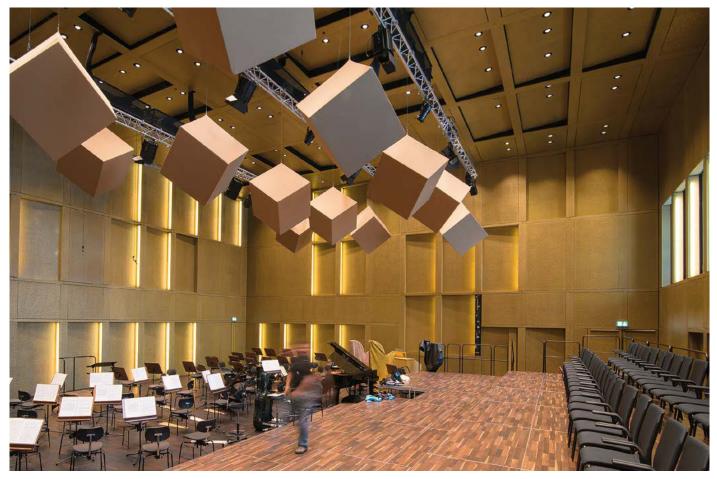
#### **TECTON** sensors





Central supply	ONLITE RESCLITE escape	ONLITE RESCLITE escape H180	ONLITE RESCLITE spot	ONLITE RESCLIT anti-pani	E RESCLITE	ONLITE RESCLITE anti-panic high ceilings
TEC LED NSI	•	•	•	•	•	•
TEC LED NDA	•	•	•	•	•	•
TEC LED NPS	•	•	•	•	•	•
Separate battery supply with monitoring						
TEC LED NT1	•	•	•	•		
TEC LED NT3	•	•	•	•		
	ONLITE PURESIGN 150	ONLITE CROSSIGN 110		ILITE SIGN 110 (	ONLITE CROSSIGN 160 ERI	ONLITE CROSSIGN 160
Central supply						
TEC LED NSI	•	•		•	•	•
TEC LED NDA	•	•		•	•	•
TEC LED NPS	•			•		•
Separate battery supply with monitoring						
TEC LED NT1	•	•		•	•	•
TEC LED NT3	•	•		•	•	•

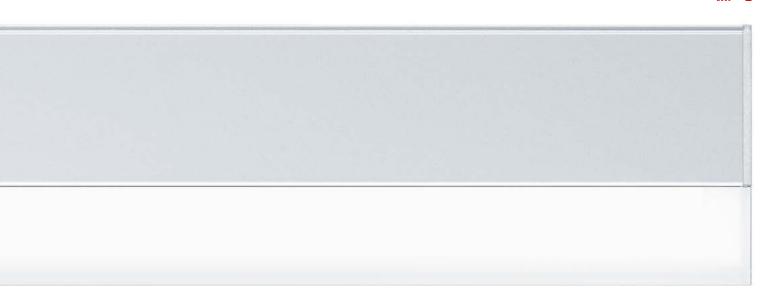






↑ Musiktheater Linz | AT Architecture: Terry Pawson Architects, London | GB Lighting design and electrical consultants: Wagner & Partner, Linz | AT Lighting solution: LINARIA, SLOTLIGHT II, ARCOS, PANOS, MELLOW LIGHT V, ELEVO, ECOOS, PAN, SCONFINE SFERA, VALUEA, LUXMATE LITENET → CMP Center for Mobile Propulsion, RWTH Aachen | DE Architecture: Lepel & Lepel Architektur Innenarchitektur, Cologne | DE Lighting design: a·g Licht GbR, Bonn | DE Lighting solution: LINARIA, ECOOS, TECTON, CHIARO, COPA





#### LINARIA

A slender line which consistently allows architecture to take centre stage

"The more simple and minimalist a product is to be, the greater the challenge is for all those involved. LINARIA is the result of single-purpose collaboration between design and lamp development. The luminaire asserts itself with the quality of its materials and its clear design; straight-line simplicity always survives the whims of fashion."

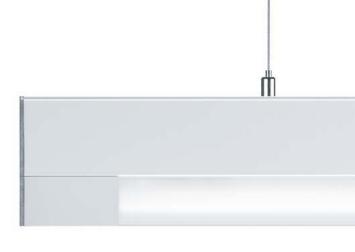
The creation of elegant light lines is the main purpose of the delicate **LINARIA LED** batten luminaire. This is made possible by various lengths ranging from 600 mm to 1800 mm that can be joined to form light lines. Freedom of choice is provided by surface-mounted, recessed and pendant versions as well as models with colour temperatures of 3000 K and 4000 K. At a system efficiency of approximately 100 lm/W in the 900 mm version, LINARIA LED presents itself as a trend-setting lighting solution with class. Added value is also provided by the luminaire's easy handling, owing to the converter being built into the LED batten luminaire as well as its easy, straightforward installation. LINARIA LED therefore has many assets.

Design: Klaus Adolph - AGLICHT zumtobel.com/linaria









#### LINARIA LED

#### Superior lighting all along the line.

With LINARIA LED, Zumtobel perpetuates the slim light line's history of success. The combination of purist design with high-power LED modules results in consistently superior lighting that can be emitted across the luminaire's entire length and even at its front ends. Thanks to the completely resolved LED points, the luminaire's appearance is perfectly uniform. A further benefit is the also simplified mounting concept. Thanks to loop-through wiring, little effort is needed to form a light line. A push fastening enables easy access to a completely recessed luminaire.

#### LINARIA T16

## A straight-line eye-catcher with impressive luminous power.

LINARIA T16, too, is just three centimetres wide, and is available as a single-length luminaire with almost all T16 wattages. It is available as a pendant version or as a wall and ceiling-mounted luminaire. It's interesting to note that in the smallest of the DALI compatible T16 batten luminaires, the ballast is integrated upright within the luminaire housing of LINARIA T16, thus making possible its extremely slender design. The housing is made of high-grade aluminium. The powder-coated surface does not only speak of manufacturing that protects resources but also the high level of resistance against mechanical impact.

LINARIA LED light line



	LINARIA LED light line	LINARIA T16 batten luminaire
Distribution characteristics		
Open light distribution	•	•
Mounting		
Recessed	•	
Surface-mounted	•	•
Pendant	•	•
Diffuser		
Diffuse enclosure	•	•
Dimensions batten luminaire		
608 x 30 x 67 mm	•	
908 x 30 x 67 mm	•	
1208 x 30 x 67 mm	•	
1508 x 30 x 67 mm	•	
1808 x 30 x 67 mm	•	
588 x 30 x 67 mm		•
888 x 30 x 67 mm		•
1188 x 30 x 67 mm		•
1488 x 30 x 67 mm		•
LED		
1400 lm / 3000 K / Ra80	•	
2100 lm / 3000 K / Ra 80	•	
2800 lm / 3000 K / Ra 80	•	
3500 lm / 3000 K / Ra 80	•	
4100 lm / 3000 K / Ra 80	•	
1500 lm / 4000 K / Ra 80	•	
2200 lm / 4000 K / Ra 80	•	
3000 lm / 4000 K / Ra 80	•	
3700 lm / 4000 K / Ra80	•	
4400 lm / 4000 K / Ra 80	•	

<< <



↑

→ Logett GmbH, Frastanz | AT

Architecture: Atelier Raggl Bauplanungs GmbH, Röns | AT

Lighting solution: ZE, SLOTLIGHT II





### ΖE

### The classic batten luminaire

Conventional batten luminaires are mostly used as inexpensive light sources without any ambition in terms of lighting effect and design. Our new accessories and attractive optics bring a fresh breeze into the rather barren world of batten luminaires, without sacrificing our basic cost-efficiency philosophy. They are both easy to install and compatible with a variety of optics or wire guards.

### Individual batten luminaires

#### **Continuous-row luminaires**







ZE T16 twin-lamp



**ZE T26** single-lamp



**ZE T26** twin-lamp

#### Optics / clip-on diffusers



wall-mount. optic module Mellow Light



ZE T16 MOON clip-on diffuser



**ZE T26** wall-mount. optic module Mellow Light

	<b>ZE T16</b> single-lamp	ZE T16 twin-lamp	ZE T26 single-lamp	ZE T26 twin-lamp
Distribution characteristics	elligio lamp	· · · · · · · · · · · · · · · · · · ·	onigio iamp	eviii idinp
Extremely narrow-beam	•		•	
Narrow-beam	•	•	•	•
	•	•	•	•
Asymmetrical	•		•	
Colour				
White	•	•	•	•
Optics/clip-on diffusers				
Mellow Light wall-mounted optic module	•	•	•	
Clip-on diffuser	•	•		
Fluorescent lamps				
T16	•	•		
T26			•	•
Accessories				
Chain suspension	•	•	•	•
Pendant suspension	•	•	•	•
Rod guard	•	•	•	•







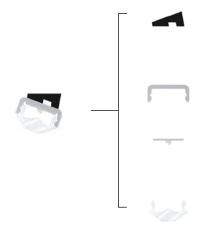
### XPO

### LED shelf lighting system

XPO is an efficient alternative to wide-area illumination and provides perfectly dosed amounts of light for each shelf bay, directly illuminating the products. Combined with a special narrow-beam optic, this brilliant LED light sets an extremely wide variety of products centrestage superbly. The authenticity of products is accentuated by different colour temperatures. As LED light contains no infra-red or ultraviolet radiation, even delicate products can be gently lit and groceries stay fresher longer. There is also another economic benefit: the XPO's excellent efficiency of up to 79 lm/W and long service life of 50 000 hours (luminous flux never drops below 80 % of its original value!) ensure that XPO is a lighting solution with a small carbon footprint.

zumtobel.com/xpo

### System overview



#### Magnetic holder

The magnetic strip provides both a fixed and variable connection between shelves and luminaire units. Designed as a wedge with a 20° angle, it directs light straight onto the  $\,$ first row of products.

#### Luminaire unit made of aluminium

The slender heat sink provides the basis for the LED luminaire's excellent thermal management which ensures a long service life.

**LED board**XPO's great efficiency of 79 lm/W\* and long service life of 50,000 hours (luminous flux decreases to no less than 80% of its original value) cut the costs of energy and main-

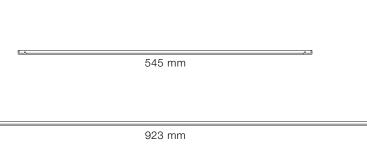
#### Narrow-beam optic

Its optic, specially developed for shelves, focuses light to provide richly accented lighting. This achieves illuminance levels up to 1000 lx on the front edge of the merchandise (maximum distance from shelf below: 400 mm).



#### In conformity with standards

Suitable for standard supermarket shelf lengths of  $600~\text{mm},\,1000~\text{mm}$  and  $1200~\text{mm},\,\text{XPO}$  ensures maximum levels of flexibility in all three lengths.



1112 mm

\* Depending on light colour, without power loss in converter













Easily mounted on: metal

metal mesh

wood

glass

ΧPO

	XPO stableWhite
Distribution characteristics	Stablewinte
Narrow-beam shelf optic with 20° angle	•
Nation Boatt office with 20 angle	
Luminaire length	
545 mm	•
923 mm	•
1112 mm	•
Cable length (black or white)	
500 mm	•
700 mm	•
Colour temperature	
2700 K, warm white for bread and baked goods	•
3000 K, warm white	•
4000 K, intermediate white	•
5000 K, cool white	•
Power supply kit	
Hub for 1-4 XPO batten luminaires, incl. converter 60 W IP20	•
Hub for 4-6 XPO batten luminaires, incl. converter 96 W IP20	•
Busbar for 1-4 XPO batten luminaires, incl. converter 60 W IP20	•
Busbar for 4-7 XPO batten luminaires, incl. converter 96 W IP20	•
Mounting	
Metal (standard)	•
Metal mesh (extra installation kit)	•
Nood (extra installation kit)	•
Glass (extra installation kit)	•
Accessories	
Luminaire extension 500 mm (black or white)	•

Luminaire extension 1000 mm (black or white)





## **High-bay luminaires**

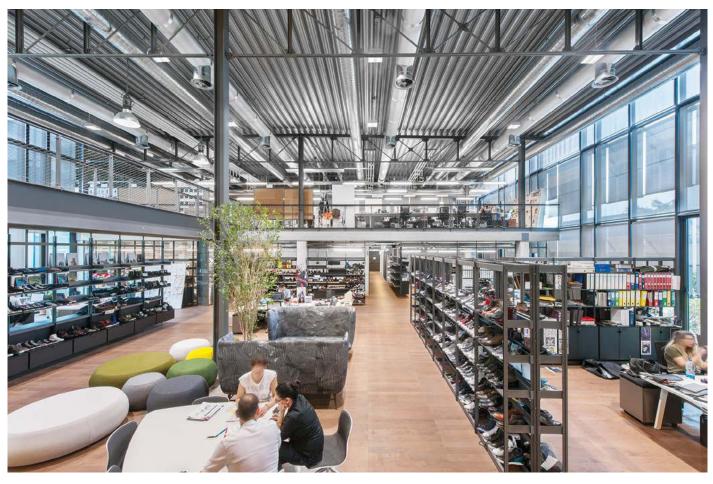
High-bay luminaires

212 CRAFT





<sup>←</sup> Carraro Headquarters, Campodarsego (Padua) | IT Electrical planner and fitter: EnergEtica, Carraro SpA, Campodarsego (Padova) | IT Lighting solution: CRAFT, LUXMATE DIMLITE





↑ Diesel SpA, Molvena | IT Architecture: Diesel Creative, Breganze / F & M Ingegneria SpA, Milan | IT Lighting solution: CRAFT, ECOOS, IYON → Seeger Präzisionsdrehteile GmbH, Salem-Neufrach | DE Architecture: Planquadrat Gaiser & Partner Architekten und Baukonstrukteure, Sigmaringen | DE Lighting design: Technum, Sint-Denijs-Westrem | BE Lighting solution: CRAFT, ONDARIA, PANOS infinity, CREDOS













#### CRAFT

# Never before has a luminaire been so powerful, so compact and so efficient

The CRAFT high-bay LED luminaire is a real success story, thanks in no small part to a specific design, rectangular light distribution and excellent thermal management. CRAFT S, M and CRAFT L models are even ready to cope with future demands, thanks to versions providing higher light output and sophisticated technical features that make it even easier to handle the luminaire. With luminaire efficiency reaching up to 143 lm/W, luminous flux levels now range from 7500 lm to 36 000 lm, helping CRAFT solve any lighting task with optimum precision. An individual suspension assembly, a 90° TECTON adapter and a dedicated CRAFT TEC model, which already includes a built-in TECTON adapter, provide additional scope for installation.

To achieve high-precision light direction, each LED has been assigned a separate lens, which means that long shelves can now be illuminated as efficiently as spacious bays.

Additional applications, for instance in projecting roofs of petrol stations or in sports facilities, are opened up by the special **mounting frame** for the CRAFT high-bay LED luminaire. Fitting the CRAFT S, CRAFT M and CRAFT L design sizes in each case, trend-setting lighting solutions can be configured that feature an attractive design and high functionality.

Design: Stephen Philips, Arup zumtobel.com/craft







CRAFT S PMMA



**CRAFT PMMA** 



CRAFT HT (high-temperature)



**CRAFT S TECTON** 



CRAFT PC



CRAFT FI (Food Industry)



**CRAFT TECTON** 



CRAFT PST (presence detector)



CRAFT M (mounting frame)



CRAFT L (mounting frame)

	<b>CRAFT</b> PMMA cover	<b>CRAFT</b> PC cover	CRAFT PST PC cover	CRAFT HT PC cover	CRAFT FI PC cover
Distribution characteristics					
Narrow beam	•	•	•	•	•
△ Wide beam	•	•	•	•	•
Dimensions					
339 x 164 x 125 mm (CRAFT S; 2,8 kg)	•				
390 x 330 x 114 mm (CRAFT M; 5,6 kg)	•	•	•	•	•
680 x 330 x 114 mm (CRAFT L; 9,5 kg)	•	•	•	•	•
Colour					
White	•	•	•	•	•
Silver	•	•	•	•	•
plack	• *				
Installation					
Ceiling installation (mounting frame)	•	•		•	
Surface-mounted (ceiling)	•	•	•	•	•
Surface-mounted (wall)	•	•	•	•	•
Cord suspension	•	•	•	•	•
Chain suspension	•	•	•	•	•
FECTON trunking	•	•			
ZX2	•				
7500 lm / warm white (3000 K, Ra 80)	•				
7 500 lm / neutral white (4000 K, Ra 80)	•				
7 500 lm / cool white (6500 K, Ra 70)	•				
10 000 lm / neutral white (4000 K, Ra 80)				•	
10 000 lm / cool white (6500 K, Ra70)				•	
13 000 lm / neutral white (4000 K, Ra 80)		•	•		•
13 000 lm / cool white (6500 K, Ra 70)		•	•		•
17 000 lm / neutral white (4000 K, Ra80)	•	•			
17 000 lm / cool white (6500 K, Ra70)	•	•			
20 000 lm / neutral white (4000 K, Ra80)				•	
20 000 lm / cool white (6500 K, Ra70)				•	
25 000 lm / neutral white (4000 K, Ra80)					•
25 000 lm / cool white (6500 K, Ra 70)					•
26 000 lm / neutral white (4000 K, Ra 80)	•	•	•		
26 000 lm / cool white (6500 K, Ra 70)	•	•	•		
34 000 lm / neutral white (4000 K, Ra 80)	•	•			
34 000 lm / cool white (6500 K, Ra 70)	•	•			
Application options					
Areas exposed to chemical substances	•				
Sports facilities		•			
Areas subject to increased temperatures				•	
					•
Food industry					

<sup>\*</sup> Size S







Moisture-proof diffuser luminaires

218 PERLUCE

222 CHIARO II

226 SCUBA

Tubular luminaire

230 TUBILUX

Clean-room luminaires

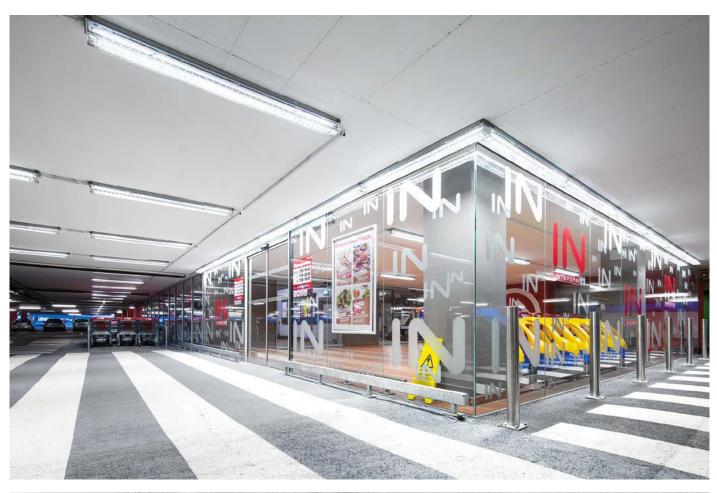
234 CLEAN

Moisture-proof batten luminaires

240 RAIN, TOL



← Al Bahar Towers, Abu Dhabi | AE Architecture: Aedas, Abu Dhabi Lighting design: Arup Gulf Ltd, Abu Dhabi | AE Lighting solution: SCUBA, SLOTLIGHT II, PANOS infinity, LEDOS III, CLEAN





↑ Interspar Unterwart | AT
Architecture: Studio of architect Dipl. Ing. Bernhard Bügelmayer ZT GmbH, Dornbirn | AT
Lighting solution: PERLUCE, TECTON LED, VIVO LED, CARDAN LED,
LINCOR LED, DIAMO LED, PYLAS LED

→ WIFI test and training centre, Klagenfurt | AT
Architecture: Arch. D.I. Edgar Egger, Klagenfurt | AT
Lighting solution: PERLUCE, PANOS infinity; PANOS, SLOTLIGHT, CLARIS,
LUXMATE EMOTION





### **PERLUCE**

### A comprehensive product range that combines toughness with problem-solving expertise

Luminaires with extra protection are used when the primary requirement placed on a fit-for-purpose lighting solution is better protection and simpler maintenance. PERLUCE is a closed lighting system that sets new standards in terms of everyday usability and combines this with a variety of optics, IP50 and IP54 protection and various models. Its deliberately utilitarian materials are reflected in its functional design. Its plain, unpretentious stylistic idiom gives precedence to the architecture of the room: light, not the luminaire, is the centre of attention.

Design: Stefan Ambrozus, Studio Ambrozus







### <sup>220</sup> PERLUCE

### Moisture-proof diffuser luminaires

### PERLUCE LED



PERLUCE LED linear LRO (micropyramidal optic – Luminance Reducing Optic)



PERLUCE LED linear opal



PERLUCE LED square opal



PERLUCE LED circular opal

#### PERLUCE T16/TC-L



PERLUCE linear darklight louvre





PERLUCE linear opal



PERLUCE square opal



		PERLUCE LED	PERLUCE LED	PERLUCE LED		PERLUCE	PERLUCE	PERLUCE
	linear LRO	linear opal	square opal	circular opal	linear darklight louvre	linear wallwasher	linear opal	square opal
Distribution characteristics								
Direct/indirect*	•	•	•	•	•		•	•
Asymmetrical						•		
Protection type								
IP50	•	•	•	•	•	•	•	•
IP54		•	•		•	•	•	•
nstallation								
Surface-mounted	•	•	•	•	•	•	•	•
Trunking (TECTON)	•	•			•	•	•	
Trunking (ZX)	•	•			•	•	•	
Dii								
Dimensions 620 x 120 x 91 mm		•			•		•	
1220 x 120 x 91 mm							•	
	•	•			•	•	•	
1520 x 120 x 91 mm	•	•			•	•	•	
310 x 310 x 90 mm			•					•
620 x 620 x 90 mm			•					•
2 330 / H 104 mm				•				
Ø 450 / H 114 mm				•				
LED								
1800 lm / 3000 K		•						
2000 lm / 4000 K		•						
2000 lm / 3000 K			•	•				
2200 lm / 4000 K			•	•				
3400 lm / 3000 K	•							
3600 lm / 3000 K		•		•				
3600 lm / 4000 K	•							
3800 lm / 4000 K		•		•				
4200 lm / 3000 K	•							
4400 lm / 3000 K		•						
4400 lm / 4000 K	•							
4600 lm / 4000 K		•						
5000 lm / 3000 K			•					
5200 lm / 4000 K			•					
2200 7 1000 11								
Compact fluorescent lamps								
TC-L								•
Fluorescent lamps								
Γ16					•	•	•	•
Accessories								
Cool spot optimizer					•	•	•	
Adapter (TECTON)	•	•			•	•	•	
100pto: (1201014)								

<sup>\*</sup> ceiling illuminated







↑ Athénée de Luxembourg, Luxemburg | LU
Architecture: Bruck + Weckerle Architectes, Luxemburg | LU
Lighting solution: CHIARO II FTR circular luminaire, TECTON, PANOS, CRAYON,
PURESIGN, ONLITE RESCLITE, ONLITE local

↓ CITTI-PARK Parkhaus, Flensburg | DE Architecture and lighting design: AX5 architekten bda, Kiel | DE Lighting solution: CHIARO II LED





### CHIARO II

### All-round, cheery light distribution

CHIARO II is a direct/indirect luminaire with a polycarbonate housing which outclasses conventional moisture-proof luminaires: it delivers an all-round, friendly lighting atmosphere that customers and employees regard as a hallmark of safety. Photometrically optimised for lighting car parks and industrial buildings, CHIARO II is a linear luminaire with a visually slimline design that demonstrates its abilities to full effect, even in spaces that have low ceilings or as a circular luminaire.

Thanks to advanced LED technology, the CHIARO II LED linear luminaire and the CHIARO II FTR LED circular luminaire feature the same quality and functions as conventional moisture-proof luminaires with fluorescent lamps. Their extra benefits include the luminaires' general dimmability and significantly lower maintenance and electricity costs. The primary optic inside made of high-grade PMMA materials ensures uniform illumination and enhances the luminaires' homogeneous look.



### 224 CHIARO II

### Moisture-proof diffuser luminaires



CHIARO II LED



**CHIARO II FTR 390 LED** 



CHIARO II FTR 680 LED



CHIARO II T16/T26 linear, single-lamp



CHIARO II T16/T26



CHIARO II FTR 390 circular



**CHIARO II FTR 680** 

	CHIARO II LED linear	CHIARO II FTR LED circular	CHIARO II T16 linear single-lamp	CHIARO II T16 linear twin-lamp	CHIARO II T26 linear single-lamp	CHIARO II T26 linear twin-lamp	CHIARO II FTR circular
Distribution characteristics							
M Indirect/Direct	•	•	•	•	•	•	•
N Asymmetrical			•				
Protection type							
IP65	•	•	•	•	•	•	•
Installation							
Surface-mounted	•	•	•	•	•	•	•
Suspension	•		•	•	•	•	
Trunking	•		•	•	•	•	
Optics							
Transparent diffuser luminaire	•		•	•	•	•	•
Wallwasher			•				
Dimensions							
1300 x 94 x 118 mm			•		•		
1600 x 94 x 118 mm	•		•		•		
1300 x 147 x 118 mm				•		•	
1600 x 147 x 118 mm				•		•	
Ø 390 mm H 125 mm		•					•
Ø 680 mm H 125 mm		•					•
LED							
2800 lm / 3000 K	•						
3000 lm / 4000 K	•						
3200 lm / 6500 K	•						
5200 lm / 3000 K	•						
5600 lm / 4000 K	•						
5800 lm / 6500 K							
3600 III 7 0300 K							
Compact fluorescent lamps							
TC-L							•
Fluorescent lamps							
T16			•	•			
T26					•	•	
T16-R							•
Accessories			•	•			
Cool Spot Optimizer					_		
V2A special-steel fastener	•		•	•	•	•	





- ↑ APAG car park, Aachen | DE Lighting solution: SCUBA LED IP65
- → J. Hofstätter winery, Tramin | IT Lighting solution: SCUBA, PANOS infinity, ONLITE central





### **SCUBA**

## A luminaire that puts up with a lot and delivers even more

Its clever mix of features makes SCUBA the new innovation leader in moisture-proof luminaires. Not only are installation, maintenance and cleaning child's play – SCUBA always provides perfect lighting conditions, even under the most demanding environmental conditions, and also boasts reliable protection against external influences and chemicals.

Durable, virtually maintenance-free and efficient: high-quality LED luminaires are a reliable lighting tool for keeping operating costs sustainably low. Aspects of economy have been combined with aesthetic styling, performance and toughness for SCUBA LED. The consistent look of the luminaire, which is enshrined in a primary optic, is distinctive of this.

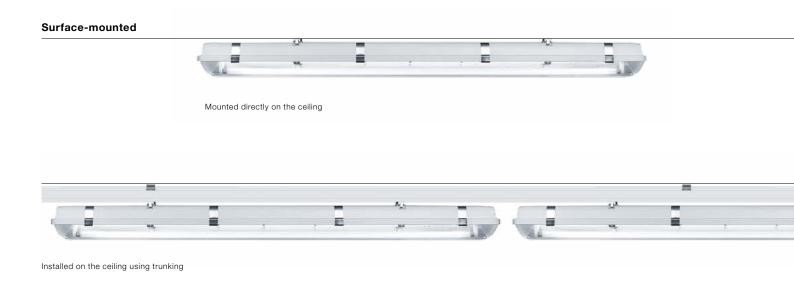
SCUBA luminaires feature outstanding long-term sealing performance. A dependable combination of sealing rim and all-round gasket prevents dripping water from penetrating inside the luminaire. Innovative material compositions ensure that seals remains durably elastic and dimensionally stable. A special expansion joint compensates for the different coefficients of expansion of various combinations of materials used in the housings and diffusers, thereby ensuring IP65 protection for all models.

Design: Massimo Iosa Ghini zumtobel.com/scuba

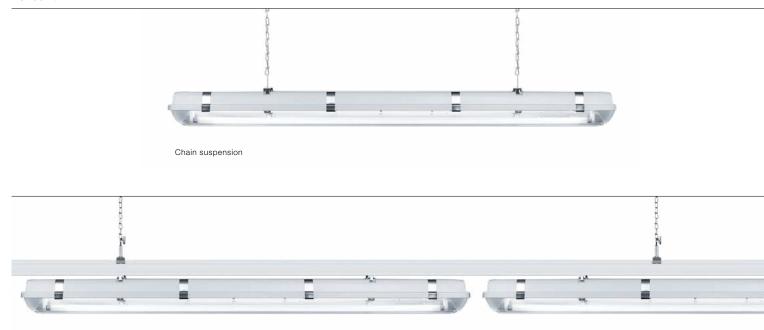


### 228 SCUBA

### Moisture-proof diffuser luminaires IP65



### Pendant



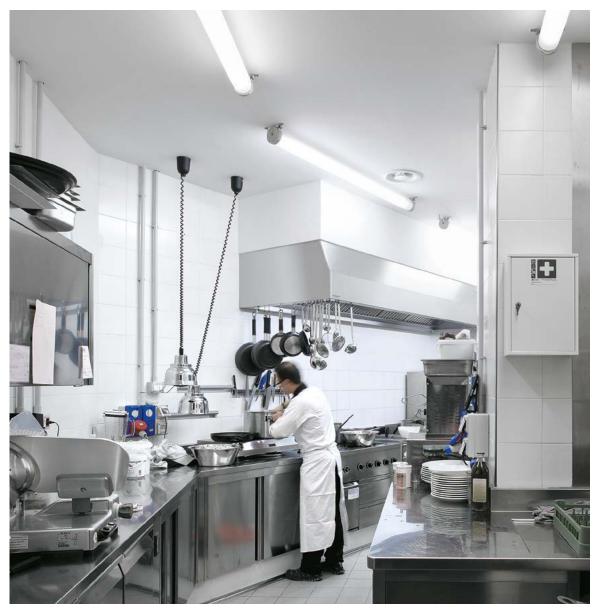
Chain suspension plus trunking



	SCUBA LED	SCUBA LED XT	SCUBA T16 single-lamp	SCUBA T16 twin-lamp	SCUBA T26 single-lamp	SCUBA T26 twin-lamp
Distribution characteristics		*			** ***	***
▲ Wide-angle	•	•	•	•	•	•
Protection type						
IP65	•	•	•	•	•	•
Installation						
Surface-mounted	•	•	•	•	•	•
Suspension	•	•	•	•	•	•
Trunking	•	•	•	•	•	•
Trunking	•	•	•	•	•	•
Dimensions						
684 x 112 x 112 mm					•	
684 x 167 x 125 mm						•
1294 x 112 x 112 mm			•		•	
1294 x 167 x 125 mm				•		•
1594 x 112 x 112 mm	•	•	•		•	
1594 x 167 x 125 mm				•		•
LED						
4400 lm / 4000 K	•	•				
4600 lm / 6500 K	•	•				
5600 lm / 4000 K	•					
6000 lm / 6500 K	•					
6600 lm / 4000 K	•					
6800 lm / 6500 K	•					
Fluorescent lamps						
T16			•	•		
T26					•	•

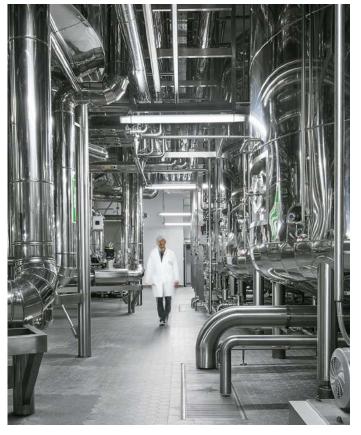
 $<sup>^\</sup>star$  XT: suitable for ambient temperatures between -35 °C and +50 °C  $^{\star\star}$  HT: suitable for ambient temperatures between 55 °C and 65 °C  $^{\star\star\star}$  TT: suitable for low ambient temperatures down to -30 °C

Cool Spot Optimizer



↑ Salewa, Bolzano | IT Architecture: Park Associati, Milan | IT Lighting design: Energytech, Bolzano | IT Lighting solution: TUBILUX, TOL, TECTON, LINARIA, PERLUCE, MELLOW LIGHT IV, SLOTLIGHT II, LIVIANO, ONDARIA

# → Sudhaus FORST, Lagundo | IT Architecture: Brüchner-Hüttemann Pasch BHP, Bielefeld | DE Lighting solution: TUBILUX, LINARIA, SLOTLIGHT, ONLITE PURESIGN





### **TUBILUX**

## Innovative product solution with IP68 protection for demanding applications

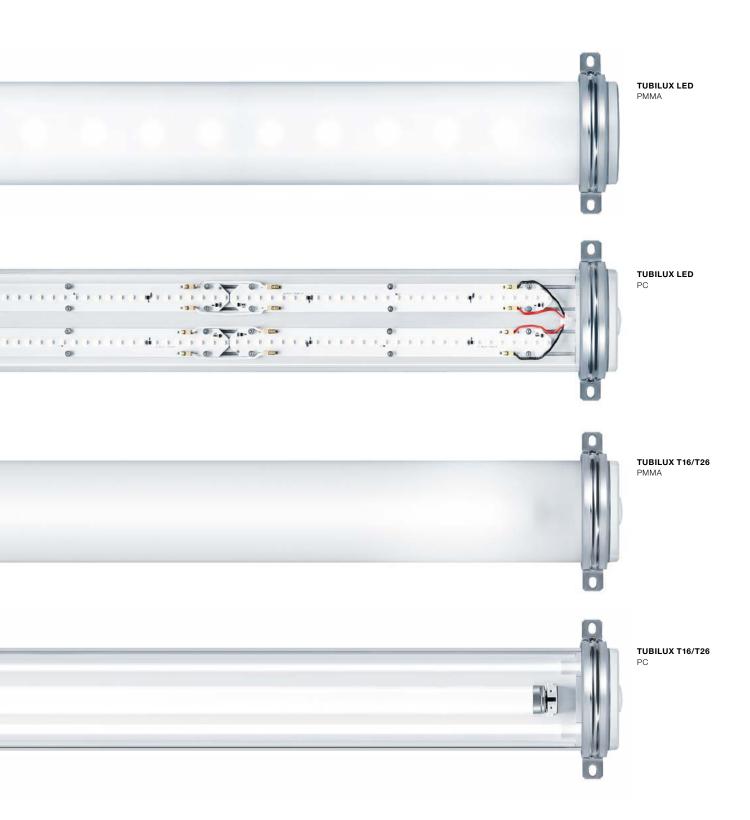
The slim 90 mm TUBILUX tubular luminaire defies even the harshest atmospheric and environmental conditions. With its high-quality materials, short sealing lengths and compact design, this luminaire plays it absolutely safe, giving aggressive chemicals, vandals, dust and moisture no chance at all.

TUBILUX PM featuring an opal PMMA tube: the chemically and UV resistant tube reduces glare and ensures a uniform appearance. TUBILUX PC featuring a transparent polycarbonate tube: the impact-resistant material lets plenty of light out and prevents ingress of moisture.

TUBILUX LED has been tailor-made for use in areas with low ambient temperatures (down to -20 °C, optionally even as low as -35 °C). TUBILUX LED completes the familiar product features with low maintenance costs and a long service life (50 000 hours until luminous flux drops to 70 % of initial level). "All in one" – accommodated in an IP68 housing, the electronic ballast and passive cooling system ensure optimum output. TUBILUX LED is particularly suitable for low-temperature applications such as coldstores and laboratories, for instance







	TUBILUX LED PMMA	TUBILUX LED PC	<b>TUBILUX</b> PMMA	<b>TUBILUX</b> PC
Protection type				
IP68	•	•	•	•
Tube cover				
Opal	•		•	
Clear		•		•
Dimensions				
Ø 90 mm / 700 (DV 725)	•	•		
Ø 90 mm / 745 (DV 770)			•	•
Ø 90 mm / 980 (DV 1005)	•	•		
Ø 90 mm / 1260 (DV 1285)	•	•		
Ø 90 mm / 1355 (DV 1380)			•	•
Ø 90 mm / 1540 (DV 1565)	•	•		
Ø 90 mm / 1655 (DV 1680)			•	•
LED				
23 W (4000 K)	•	•		
46 W (4000 K)	•	•		
57 W (4000 K)	•	•		
69 W (4000 K)	•	•		
92 W (4000 K)	•	•		
Electronic Inc.				
Fluorescent lamps				
T16			•	•
<u>T26</u>			•	•
Accessories				
Cord suspension kit	•	•	•	•
Transparent supply cable	•	•	•	•

DV = through-wiring

**(( (** 



↑ Merli Hospital, Rimini | IT Architecture: Polistudio a.e.s. Architecture Engineering S.R.L., Cumo Mori Roversi Architetti, Rimini | IT Lighting solution: CLEAN, ARCOS, PANOS, SLOTLIGHT, PASO, LUXMATE PROFESSIONAL, LUXMATE EMOTION

### **CLEAN**

## For cleanrooms in healthcare settings and industry

#### **CLEAN SUPREME – for extreme requirements**

The unique feature of the top-of-the-range model in the CLEAN product line is a continuous smooth safety glass diffuser. The 4 mm thick toughened safety glass does not need a frame nor is it interrupted by fasteners (consistent IP65 protection rating). The innovative magnetic fasteners combine safety with functionality. The CLEAN SUPREME LED clean-room luminaire is now able to make full use of the potential of LED technology. In addition to its high colour rendering index of up to Ra 90, CLEAN SUPREME LED cannot fail to impress due to the extremely low maintenance requirement and hence reduced service costs.

Fraunhofer IPA certificate for clean-room compatibility in clean rooms of Classes 3 to 9 (ISO class).





#### **CLEAN ADVANCED – for exacting requirements**

The diffuser including a high-quality anodised aluminium frame with a safety glass panel inserted is characteristic of the mid-range model of the CLEAN clean-room luminaire (IP65 protection, IP54 on the side facing the ceiling). For application areas where a particularly high colour rendering index is required, Zumtobel now offers the CLEAN ADVANCED LED clean-room luminaire also with a colour rendering of Ra 90.

Fraunhofer IPA certificate for clean-room compatibility in clean rooms of Classes 3 to 9 (ISO class).

#### **CLEAN CLASSIC – for increased requirements**

The CLEAN classic LED luminaire with opal PMMA optic, available either with warm or intermediate light colour, has been added to the CLEAN portfolio. A choice of two colour rendering levels is available (Ra 80 or Ra 90).

The classic version of the CLEAN luminaire focuses on basic clean-room requirements such as good hygiene and ease of cleaning. PMMS acrylic glass inserted into the high-grade anodised aluminium frame ensures IP54 protection (IP20 on the side facing the ceiling).





### <sup>236</sup> CLEAN SUPREME, CLEAN ADVANCED

### Clean-room luminaires

#### **CLEAN SUPREME**



**CLEAN S-MP SUPREME LED** 

linear, MPO



**CLEAN S-C SUPREME** 

linear, matt louvre



**CLEAN S-R SUPREME** 

linear, reflector symmetrical



**CLEAN SUPREME** mounting frame

with flange

#### **CLEAN ADVANCED**



CLEAN A-MP ADVANCED LED



CLEAN A-O ADVANCED

linear, opal



CLEAN A-C ADVANCED

linear, matt louvre



CLEAN A-R ADVANCED

linear, reflector symmetrical



CLEAN A-MP ADVANCED LED

square, MPO



CLEAN A-O ADVANCED

square, opal



CLEAN A-C ADVANCED

square, matt louvre



CLEAN A-R ADVANCED

square, reflector symmetrical



	CLEAN SUPREME LED linear	CLEAN SUPREME linear	CLEAN ADVANCED LED linear	CLEAN ADVANCED LED square	CLEAN ADVANCED linear	CLEAN ADVANCED square
Distribution characteristics						
☑ Wide-angle	•	•	•	•	•	•
Installation						
Surface-mounted	•	•				
Recessed			•	•	•	•
Mounting frame with flange	•	•				
Louvres/optics						
MPO	•		•	•		
Opal					•	•
Comfort louvre		•			•	•
Specular reflector optic, symmetrical		•			•	•
Dimensions						
1250 x 350 x 96 mm	•	•				
1550 x 350 x 96 mm	•	•				
1250 x 400 x 96 mm		•				
1550 x 400 x 96 mm		•				
1198 x 298 x 106 mm			•		•	
1498 x 298 x 106 mm					•	
1248 x 310 x 106 mm			•		•	
1548 x 310 x 106 mm					•	
1198 x 598 x 106 mm					•	
1498 x 598 x 106 mm					•	
1248 x 623 x 106 mm					•	
1548 x 623 x 106 mm					•	
598 x 598 x 106 mm				•		•
623 x 623 x 106 mm				•		•
598 x 598 x 126 mm						•
623 x 623 x 126 mm						•
LED						
3800 lm - 4800 lm / 3000 K / 4000 K / Ra 80 / Ra 90			•	•		
5000 lm - 6200 lm / 3000 K / 4000 K / Ra 80 / Ra 90			•	•		
8000 lm - 11000 lm / 4000 K / Ra80 / Ra90	•					
Compact fluorescent lamps						
TC-L						•
Fluorescent lamps						
T16		•			•	•



### **CLEAN CLASSIC**

### Clean-room luminaires

### **CLEAN CLASSIC**



CLEAN C-O CLASSIC LED

linear, opal



CLEAN C-O CLASSIC

linear, opal



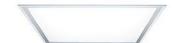
CLEAN C-R CLASSIC

linear, reflector symmetrical



CLEAN C-O CLASSIC LED

square, opal



**CLEAN C-O CLASSIC** 

square, opal



**CLEAN C-R CLASSIC** square, reflector symmetrical

	CLEAN CLASSIC LED linear	CLEAN CLASSIC LED square	CLEAN CLASSIC linear	CLEAN CLASSIC square
Distribution characteristics				
☑ Wide-angle	•	•	•	•
Installation				
Recessed	•	•	•	•
Louvres/optics				
Opal	•	•	•	•
Specular reflector optic, symmetrical			•	•
Discounting				
Dimensions  598 x 598 x 126 mm		•		•
623 x 623 x 126 mm		•		•
1198 x 298 x 101 mm	•	·	•	•
1498 x 298 x 101 mm	•		•	
1248 x 310 x 101 mm	•		•	
1548 x 310 x 101 mm				
1348 X 310 X 101 111111			•	
LED				
4600 lm / 3000 K / Ra 90	•	•		
4800 lm / 4000 K / Ra 90	•	•		
5000 lm / 3000 K / 4000 K / Ra80 / Ra90	•	•		
5200 lm / 3000 K / 4000 K / Ra80 / Ra90	•	•		
5400 lm / 3000 K / 4000 K / Ra80 / Ra90	•	•		
5800 lm / 3000 K / 4000 K / Ra80	•	•		
Compact fluorescent lamps				
TC-L				•
Fluorescent lemma				
Fluorescent lamps				
T16			•	•



↑ Wellnessbad Eggenberg, Graz | AT Architecture: Fasch & Fuchs Architekten, Vienna | AT Lighting design: Energytech, Milan | IT Lighting solution: RAIN, SCUBA, ONDARIA, SLOTLIGHT II, HILIO



### **RAIN, TOL**

## Moisture-proof batten luminaires – the all-rounders

Their optimum price/performance ratio, high-quality workmanship as well as easy and time-saving installation make moisture-proof batten luminaires an excellent solution for damp areas.

Moisture-proof batten luminaires are the undisputed all-rounders in areas where moisture and dust are part of the daily routine.





### 242 RAIN/TOL

### Moisture-proof batten luminaires









			8	
	<b>U</b>	000		
	RAIN T16 single-lamp	RAIN T16 twin-lamp	RAIN T26 single-lamp	RAIN T26 twin-lamp
Distribution characteristics				
✓ Very wide-angle	•	•	•	•
N Asymmetrical	•		•	
Protection type				
IP65	•	•	•	•
Dimensions				
1227 x 66 x 128 mm	•			
1527 x 66 x 128 mm	•			
1227 x 126 x 128 mm		•		
1527 x 126 x 128 mm		•		
1278 x 66 x 128 mm			•	
1578 x 66 x 128 mm			•	
1278 x 126 x 128 mm				•
1578 x 126 x 128 mm				•
Reflectors				
Reflector	•	•	•	•
Side reflector	•		•	
Fluorescent lamps T16	•	•		
T26			•	•
Accessories				
Cord suspension	•	•	•	•
Chain suspension	•	•	•	•
Trunking	•	•	•	•
Wall bracket	•	•	•	•
Protective tube	•	•	•	•
Rod guard	•	•	•	•







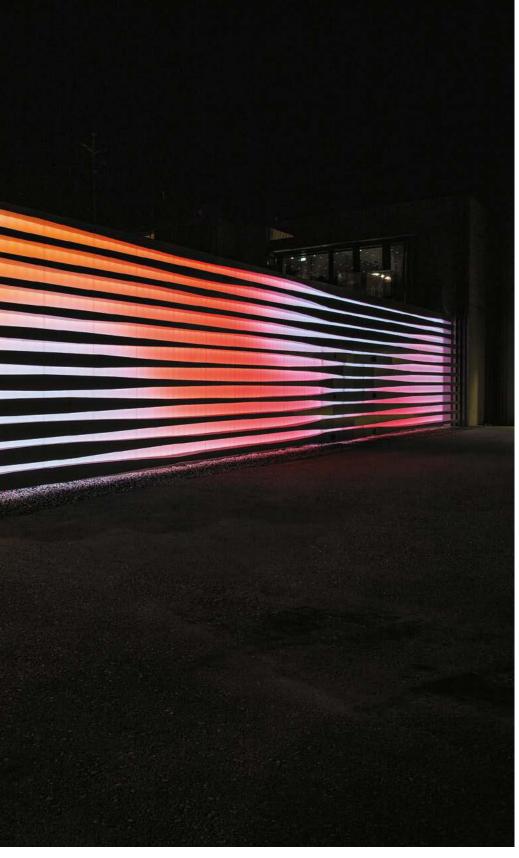




	TOL T16	TOL T16	TOL T26	TOL T26	
	single-lamp	twin-lamp	single-lamp	twin-lamp	
Distribution characteristics					
Very wide-angle	•	•	•	•	
Pivoting	•	•	•	•	
Protection type					
P65	•	•	•	•	
Dimensions					
187 x 57 x 117 mm	•				
1487 x 57 x 117 mm	•				
1187 x 200 x 117 mm		•			
1487 x 200 x 117 mm		•			
630 x 77 x 139 mm			•		
1240 x 77 x 139 mm			•		
1540 x 77 x 139 mm			•		
630 x 195 x 139 mm				•	
1240 x 195 x 139 mm				•	
1540 x 195 x 139 mm				•	
Overtubes					
Protective tube transparent			•	•	
Protective tube prisms	•	•	•	•	
Protective tube opal	•	•			
Fluorescent lamps					
T16	•	•			
Γ26			•	•	
Accessories					
Cord suspension	•	•	•	•	
Chain suspension	•	•	•	•	
Trunking	•	•	•	•	
Protection against vandals			•	•	
Protection against shock			•	•	



### Façade, media and outdoor luminaires



LED outdoor luminaires

246 SUPERSYSTEM outdoor

250 NIGHTSIGHT

Surface-mounted spotlights

254 PYLAS

258 ELEVO

Decorative façade luminaires

262 IKONO

266 SKENA

268 APHRODITE

HELISSA IP65

see section 6

Recessed spotlights

270 **PAN** 

272 LEDOS III

276 PASO II

280 ORILED

Media luminaires

282 CAPIX



← Casino Bregenz | AT Architecture: ArtArch 23, Rudolf Troppmair and Albrecht Prokop, Innsbruck | AT Lighting solution: CAPIX evolution, DIAMO



↑ Municipality of Lech am Arlberg, Lech am Arlberg | AT
Lighting project design: Dieter Bartenbach, Innsbruck | AT
Electrical installation: Elektro Müller, Landeck | AT
Lighting solution: SUPERSYSTEM outdoor mast and façade luminaire,
situation-specific with 6 to 34 pre-assembled LED tubes, central
Zumtobel outdoor lighting management system with web interface

#### Lighting that makes an area effective.

Conventional street lights primarily brighten horizontal areas. However, this is not sufficient to design an outdoor area impressively. SUPERSYSTEM outdoor includes both vertical as well as horizontal areas in the lighting concept – the spatial structure can thus also be experienced at night. Unique visual comfort is produced by division of the amount of light: Light emitted from multiple tubes prevents too high light pressure, limits the glare and distinguishes the luminaire as visually restraining lighting tool.



Conventional street lighting



Street lighting with SUPERSYSTEM outdoor







### **SUPERSYSTEM** outdoor

Multi-zone lighting for effective design of outdoor areas

### SUPERSYSTEM outdoor is breaking new ground.

Multiple light tubes create a uniquely refined luminaire. As a result, the outdoor lighting gains in visual quality, design competence and precision. The best glare suppression increases visual comfort and well-being. Directed, well-dosed light also actively protects against light pollution. The luminaire itself deliberately stays in the background and results in continuous design through all applications. Multi-zone light distribution and pivoting tubes on request make it possible.





### <sup>248</sup> SUPERSYSTEM outdoor

### LED outdoor luminaire

#### **SUPERSYSTEM** outdoor

Area Light



#### SUPERSYSTEM outdoor 12 tubes module

Luminaire for pavements: Optics, inclination and opening angles of the 12 LED tubes are perfectly matched to the lighting of narrow paths and alleys.



#### SUPERSYSTEM outdoor 18 tubes module

Luminaire for road and street lighting: Optics, inclination and opening angles of the 18 LED tubes are perfectly matched to the lighting of streets and small squares.



#### SUPERSYSTEM outdoor 30 tubes module

Luminaire for squares: Optics, inclination and opening angles of the 30 LED tubes are perfectly matched to the lighting of large squares and streets.

#### **SUPERSYSTEM** outdoor

Projection



#### SUPERSYSTEM outdoor Fixed 3 tubes module

Compact façade floodlight with 3 fixed LED tubes: Ideal for accentuating façades with various radiation characteristics.



#### SUPERSYSTEM outdoor Movable 3 tubes module

Compact façade floodlight with 3 movable LED tubes: Ideal to flexibly accent individual façade elements.



#### SUPERSYSTEM outdoor Fixed 6 tubes module

Compact façade floodlight with 6 fixed LED tubes: Ideal for accentuating façades with various radiation characteristics.







Distribution characteristics	SUPERSYSTEM outdoor Area Light	SUPERSYSTEM outdoor Projection	SUPERSYSTEM outdoor Accent luminaire
Narrow Narrow		•	•
Medium	•		
✓ Wide	•		•
Elliptical		•	
Swivelling		•	•
Special combination of tubes/optics	•		
Colour			
Charcoal	•	•	•
White		•	
Installation			
Wall and ceiling mounting with mounting bracket	•	•	
Mast mounting with mounting bracket (for round masts, 4.5 m and 6 m)	•		
Mast mounting (4.5 m)			•*
<b>Dimensions</b> 350 x 170 x 87 mm	•		
350 x 200 x 87 mm	•	•	
350 x 290 x 87 mm	•		
250 x 70 x 100 mm		•	
350 x 70 x 100 mm		•	
LED			
12 x 2,1 W (25,2 W), 3000 K, 4000 K, up to 2000 lm	•		
18 x 2,1 W (37,8 W), 3000 K, 4000 K, up to 2800 lm	•		
30 x 2,1 W (63 W), 3000 K, 4000 K, up to 4800 lm	•		
3 x 2,1 W (6,3 W), 3000 K, 4000 K, up to 600 lm		•	•
6 x 2,1 W (12,6 W), 3000 K, 4000 K, up to 1200 lm		•	
Accessories			
Mounting bracket	•	•	
Mast (4.5 m)	•		•
Mast (6 m)	•		
Clamping flange for mast connection	•		
Connector (for loop-through wiring)	•	•	•

<sup>\*</sup> Integrated accent luminaire (currently only available as special design)

### SUPERSYSTEM outdoor Accent luminaire\*

Light column, variable with sets consisting of 3 movable LED tubes in each case: Ideal for individually lighting de-corative objects and setting accents.

SUPERSYSTEM outdoor pillar luminaire 6 x 2,1 W



#### **Projector luminaire**

The projector luminaire with <code>darkBeam</code> optics is perfected for illuminating façades or emphasising architectural details where the LED light points are set back using their projection lenses. This minimises views into the light source from the side as well as any glare. The projector luminaire as part of the NIGHSIGHT product family directs attention specifically to the presented object while itself remaining in the background.



#### Area luminaire

The Area luminaire with **softGlow** optics improves the well-being of passers-by on squares, paths or residential streets. Thanks to targeted light control, this provides excellent visual comfort by minimising the brightness contrast between the LED light points and their surrounding areas. The additional vertical lighting component provides optical guidance, but also gives the eye the possibility to adapt to the brightness level when entering the illuminated areas and thus reducing its glare sensitivity.

The NIGHTSIGHT product range covers all lighting tools that are needed to illuminate both vertical and horizontal areas uniformly and create selective accents. Excellent glare control and prevention of spill light are ensured by high-precision light control. Luminaire versions with a colour temperature of 3000 K and 4000 K are ideal for presenting both a city's historic centre and a modern skyline in the right light. In addition, the consistent design language ensures that NIGHTSIGHT is perceived as an enrichment to the townscape by day as well.





## **NIGHTSIGHT**

## Architectural outdoor lighting

When it is dark, urban spaces place a variety of requirements on modern lighting: façades need to be presented not only as visual points of attraction, but are intended to actively create an effect as a vertical part of a spatial lighting concept. Urban lighting affects roads, paths and squares not only horizontally but enhances them to become centres of personal communication by providing spherical lighting components. In this way, people's subjective sense of security and well-being is increased through a high degree of visual comfort – all the while saving resources and avoiding light pollution. To answer to these varied lighting tasks, we have developed the modular NIGHTSIGHT outdoor LED lighting system. The solutions

provided by this system address all visual levels of the room instead of focussing exclusively on standard illuminance levels on the ground. By selectively using light and shadow, bright and dark zones as well as various planes of light, NIGHTSIGHT creates an atmosphere in urban areas.

For in our cities, light has become an essential part in social interactions. The varied NIGHTSIGHT lighting tool is ideal for mastering these new challenges but also for meeting the established quality features of advanced lighting solutions.

Available from autumn 2016

Design: UN Studio





## 252 NIGHTSIGHT

## Overview



NIGHTSIGHT mini 2/2 projector 120 mm x 160 mm x 78 mm



NIGHTSIGHT midi 4/4 projector 221 mm x 290 mm x 118 mm



NIGHTSIGHT midi 2/8 projector 365 mm x 214 mm x 118 mm



NIGHTSIGHT maxi 4/8 projector 365 mm x 290 mm x 118 mm

	NIGHTSIGHT mini 2/2 projector	NIGHTSIGHT midi 4/4 projector	NIGHTSIGHT midi 2/8 projector	NIGHTSIGHT maxi 4/8 projector	NIGHTSIGHT midi 2/8 Area	NIGHTSIGHT maxi 4/8 Area
Distribution characteristics						
Extremely narrow-beam	•	•	•	•		
↑ Narrow-beam	•	•	•	•		
Moderately narrow-beam	•	•	•	•		
Wide-beam	•	•	•	•		
Very wide-angle	•	•	•	•		
Oval-beam	•	•	•	•		
Area Flood without backlight					•	
Area Flood with backlight					•	
Street Narrow without backlight					•	
Street Narrow with backlight					•	
Street Deep without backlight						•
Street Deep with backlight						•
Luminous flux						
900 Im High output	•					
	·	•	•			
3200 lm High output		•	·	•		
6400 lm High output				•		
2400 lm High output					•	
4800 lm High output						•
1600 lm High efficiency					•	
3200 Im High efficiency						•
Colour temperature						
3000 K	•	•	•	•	•	•
4000 K	•	•	•	•	•	•
Optics						
darkBeam	•	•	•	•		
softGlow					•	•
Solidiow						
Converter and control						
Integrated converter		•	•	•	•	•
Without converter	•	•	•	•	•	•
DALI	•	•	•	•	•	•
switchDIM	•	•	•	•		
RF communication	•	•	•		•	•
AF Communication					•	•
Installation						
Can be rotated	•	•	•	•		
Fixed					•	•
Pole (square, round adapter required)	•	•	•	•		
Pole top mounting (adapter required)					•	•
Pole side mounting (adapter required)					•	•
(mapping columns)						
Accessories						
Round pole adapter	•	•	•	•	•	•
Pole side mounting adapter, 1-arm spigot 60 mm					•	•
Pole side mounting adapter, 2-arm spigot 60 mm					•	•
Pole side mounting adapter, 1-arm spigot 76 mm					•	•
Pole side mounting adapter, 2-arm spigot 76 mm					•	•
Pole side mounting adapter, 2-arm spigot 76 mm Side mounting adapter, round pole					•	•











← Tower of Skies, Bremen | DE Lighting design: Lichtwerke Bremen | DE Lighting solution: PYLAS



## **PYLAS**

# Efficient façade lighting from close up or far away

Featuring superior LED technology and efficiency of more than 60 lumens per watt, the PYLAS LED floodlight is a pioneer in contemporary façade lighting. The extensive PYLAS product range, which includes four design sizes in an identical design, presents itself as an ideal solution for illuminating façades from various distances and for highlighting details. PYLAS is one of the most versatile floodlights available on the market, boasting power ratings from 1.2 to 52.5 W, narrow-beam and wide-angle radiation angles as

well as various white light colours and RGB models. The luminaire cannot fail to impress on account of its easy installation and functional design: double powder coating makes the LED spotlight with IP66 protection especially durable and resistant. Flush-fitting glass panels without a groove prevent deposit of dirt and residual water. The models can be precisely adjusted via a graduated scale and are fixed with a double safety mechanism. The anti-glare accessories available ensure targeted lighting without any scattered light.

## LED spotlight luminaire



	PYLAS S LED/LED RGB	PYLAS M LED/LED RGB	PYLAS L LED/LED RGB	PYLAS XL LED/LED RGB
Distribution characteristics				
III Superspot	•	•	•	•
Flood	•	•	•	•
Pivoting range				
approx40° to +90°	•			
approx21° to +201°		•		
approx14° to +194°			•	
approx19° to +199°				•
Protection type/protection class				
IP66, protection class I, LED white (AC/DC 230 V)	•	•	•	•
IP68, protection class III, RGB (DC 24V)	•	•	•	•
LED				
1 x 1.2 W LED (3200 K, 6000 K)	•			
3x1.2 W LED RGB (flood)	•			
4 x 2.25 W LED (3200 K, 6000 K)		•		
4x2 W LED RGB (flood)		•		
7 x 2.25 W LED (3200 K, 6000 K)			•	
7x2 W LED RGB (flood)			•	
21 x 2.25 W LED (3200 K, 6000 K)				•
21×2 W LED RGB (flood)				•
Accessories				
Barn doors	•	•	•	•
Anti-glare hood	•	•	•	•
Earth spike	•	•	•	
Installation clip	•			
Clamp for fitting to masts			•	•
XLR 5-pole DMX IP65/67 socket	•	•	•	•
IP56 DMX ballast box	•	•		





↑ Musiktheater, Linz | AT Architecture: Terry Pawson Architects, London | UK Architecture: Terry Pawson Architects, London | OK Lighting design: Wagner & Partner, Linz | AT Lighting solution: ELEVO, PAN, SCONFINE, PANOS, VALUEA, SLOTLIGHT, MELLOW LIGHT V, ECOOS, ARCOS, LITENET

## → Rookery Building, Chicago | US Architecture: Burnham & Root, Chicago | US Lighting design: Office for Visual Interaction, Inc. (OVI), New York | US Lighting solution: ELEVO







013 I

## **ELEVO**

### Accents for near and far

Precise and flexible: the flat LED spotlight is less than 3.5 cm high but handles an extremely wide range of lighting tasks brilliantly. It emphasises façade elements, relief slabs and projecting features, backlights surfaces uniformly and sets tall columns and portals centre stage with equally striking effectiveness. ELEVO combines various light distribution patterns with the option of selecting either warm white or cool white light. In this way, both historic redbrick façades and contemporary metal façades can be illuminated authentically or set centre stage using coloured and dynamic lighting in order to catch people's attention.

The ELEVO façade spotlight is now also available as a single module. With its compact dimensions, the LED spotlight is primarily suitable for accent lighting on façades, for surfaces or implementation of media façades indoors and outdoors. ELEVO P2 is a small power package. Available with elliptical, narrow or wide beam angles or as a superspot, the luminaire ensures the targeted direction of light, and is able to produce lighting effects that are extremely finely tuned, depending on the lighting task at hand.

A linear wallwasher that is available in lengths of 400 mm, 800 mm and 1200 mm, ELEVO Line/Slimline is perfectly suited for illuminating large façades and surfaces. Just as flexible as ELEVO's application areas are the options to control it: either via a DMX protocol or a USB service tool, or ELEVO II can also be dimmed using a separate PWM control line. The built-in temperature guard ensures a long service life of the IP 66-rated luminaires.





	ELEVO P1 MONO	ELEVO P1 RGB	ELEVO P2 MONO	ELEVO P2 RGB	ELEVO P4 MONO	ELEVO P4 RGB	ELEVO Line/Slimline MONO	ELEVO Line/Slimline RGB
Distribution characteristics	spotlight	spotlight	spotlight	spotlight	spotlight	spotlight	wallwasher	wallwasher
Superspot			•					
V Narrow	•		•		•	•		
Flood	•	•	•	•	•	•		
Elliptical	•	•	•		•	•	•	•
Linptiod								
Protection type								
IP66	•	•	•	•	•	•	•	•
						-		
Dimensions								
62 x 54 x 35 mm	•	•						
150 x 71 x 35 mm			•	•				
207 x 71 x 35 mm					•	•		
400 x 43 x 103 mm / 390 x 40 x 60 mm							•	•
800 x 43 x 103 mm / 790 x 40 x 60 mm							•	•
1200 x 43 x 103 mm / 1190 x 40 x 60 mm							•	•
LED								
1 x 4 W	•	•						
2 x 1,5 W			•					
2 x 4,5 W			•	•				
4 x 4,5 W					•	•	•	•
8 x 4,5 W							•	•
12 x 4,5 W							•	•
Light colours								
3200 K	•		•		•		•	
6000 K	•		•		•		•	
RGB		•		•		•		•
Accessories								
Supply lead	•	•	•	•	•	•	•	•
Extension cable	•	•	•	•	•	•	•	•
Power supply PWM 150 W			•		•		•	
Power supply DMX 150 W				•		•		•
Converter 150 W			•		•		•	
Socket	•	•	•	•	•	•	•	•
Socket and plug/socket set	•	•	•	•	•	•	•	•
ASTO DMX VC USB				•		•		•
ELEVO COS WIB Adapter ASTO Set				•		•		•
ASTO Set								•
Splitter DMX VC				•		•		•
Fixing component H (wall)	•	•	•	•	•	•	•	•
Fixing component L (floor/ceiling)	•		•		•	•	•	•







### **IKONO**

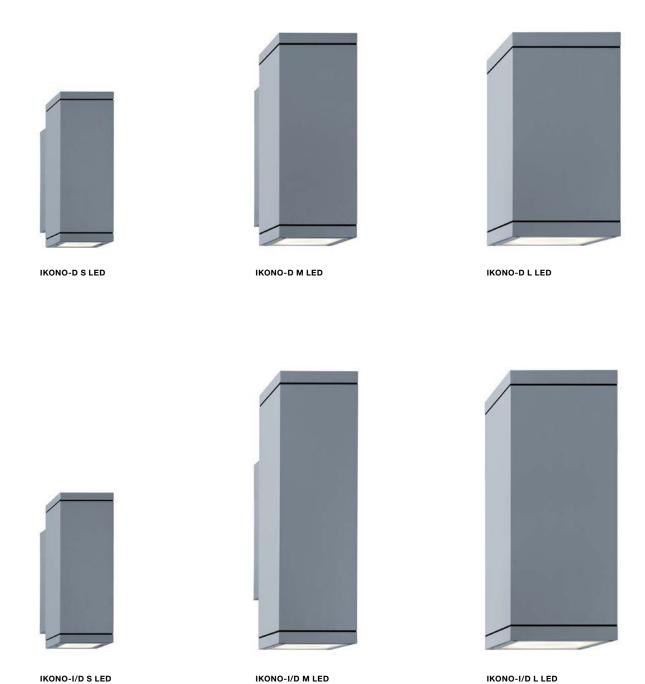
# Efficient presentation of façades using LED technology

The downlights and down/uplights of the IKONO range of wall-mounted luminaires provide impressive patterns on building façades, creating directional lighting cones in white or variable RGB colours. IKONO is a high-output wall-mounted LED luminaire with IP65 protection featuring focussed light distribution with a wealth of different effects and design patterns. On the outside, the only difference between the downlights and down/uplights available in three design sizes are the dimensions of their square light aperture: 90 mm, 130 mm or 180 mm. Inside the luminaire, the most efficient LED

technology in each case is used depending on the size and respective lighting task, combined with spot and flood optics matched to the task, and a maximum power input of 25 W. This makes the IKONO wall-mounted luminaire provide impressive streaks of light in warm or cool white, from short or long distances and matched to the façade material in place. Installation, too, is user-friendly: by means of a quick-connect coupler, the luminaire housing and the wall fitting made of die-cast aluminium can be connected easily.



## Wall-mounted LED luminaire



	IKONO-D S LED	IKONO-I/D S LED	IKONO-D M LED	IKONO-I/D M LED	IKONO-D L LED	IKONO-I/D L LED
Distribution characteristics						
<b>I</b> Spot	•	•	•	•	•	•
Flood	•	•	•	•	•	•
Pivoting	•	•	•	•	•	•
<b>■</b> Uplight		•		•		•
Pivoting range						
approx. ±15°	•	•	•	•	•	•
Protection type/protection class						
IP65, protection class I (AC/DC 230 V)	•	•	•	•	•	•
IP65, protection class III, RGB (DC 24V)	•	•				
LED						
3x2 W LED (3200 K, 6000 K, RGB)	•					
6x2 W LED (3200 K, 6000 K, RGB)		•				
1 x 15 W LED (3000 K, 6500 K, RGB)			•			
2 x 15 W LED (3000 K, 6500 K, RGB)				•		
1 x 25 W LED (3000 K, 6500 K)					•	
2 x 25 W LED (3000 K, 6500 K)						•
Accessories						
XLR 5-pole DMX IP65/67 socket	•	•				
XLR 5-pole DMX IP65/67 plug	•	•				
IP56 DMX ballast box	•	•				





↑ Vapiano restaurant, Oldenburg | DE Lighting solution: SKENA



## SKENA 1

Elegant grazing light in two directions divides up vertical surfaces to great effect, lending them extravagant appeal and new shine.



## SKENA 2

SKENA uses two different cones of light to combine a wallwashing effect with wall outlining over a defined length.



## SKENA 3

Narrow-beam cones of light from all four sides of the cube create star-shaped effects on the wall.







## **SKENA**

## Fascinating effects on façades

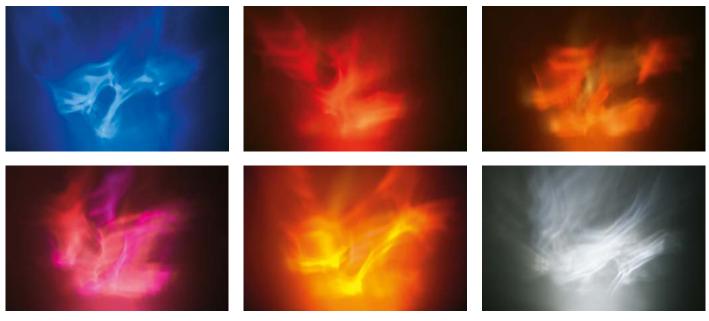
Using the SKENA LED luminaire, façades can be set centre stage by extravagant lighting patterns ranging from elegant effects through to geometric compositions, making them shine conspicuously at night. The cube-shaped design of the wall-mounted luminaire with IP66 protection harmoniously blends into the architecture, both inside and outside the building; the luminaire can be installed rotated in increments of 45°. The product range includes three different models with

domed lenses or flat panels, emitting the light directed via a conic reflector with distribution characteristics of 2° and 66°. The resulting elegant vertical or horizontal light beams create delicate and largearea effects. With a colour temperature of 6000 K, SKENA's advanced optical system ensures excellent illuminance at low energy consumption of only 10 W. In this way, it ensures perfect efficiency and a long service life, without any need for maintenance.





APHRODITE lighting scenes





### **APHRODITE**

# Special functional and emotive lighting effects

Light that is never static and never indicates any symmetry: the APHRODITE LED spotlight combines light, colour and movement in a fascinating manner, allowing to impressively set façades and rooms centre stage. Based on the lighting spectacles found in nature, a unique lighting concept has been developed that is characterised by highly emotive lighting scenes. In the process, the benefits of LED technology show to particular advantage. Permanently flowing, yet non-repetitive lighting projections are made possible by a special system (patent pending) comprising a specially developed LED module and a specially shaped, motor-driven rotating glass cylinder. A choice of seven pre-defined lighting scenes with three

speeds and various dimming levels is available. They create variable and ever-changing atmospheric lighting scenarios from functional white light in various colour temperatures, combining them with emotive coloured light from red, blue and amber LEDs. Individual lighting scenes, and the projection direction and speed can be set manually via momentary-action switches on the spotlight or by remote control via DMX protocol. Thanks to IP65 protection and the use of materials that are highly resistant to chlorine, APHRODITE is an eye-catcher also in wellness areas, inviting people to relax.

Design: Nik Schweiger zumtobel.com/aphrodite





↑ Mirage Shopping Center, Žilina | SK
Architecture: Michal Diviš Architekti s.r.o., Žilina | SK
Lighting solution: PAN, CIELOS, SLOTLIGHT, FD 1000, MICROS, PANOS infinity,
SUPERSYSTEM, ONDARIA, SCUBA, PERLUCE, ONLITE RESCLITE,
ONLITE ECOSIGN, ONLITE ERGOSIGN, ONLITE COMSIGN,
LUXMATE PROFESSIONAL









signawa

### PAN

# The small alternative to conventional floodlights

With a diameter of only 52 mm, PAN is the smallest recessed spotlight for façade lighting available on the market. The rugged spotlight can be fitted flexibly in a downlight or uplight position to highlight architectural details, which makes it an expert for illluminating windows and cornices while remaining perfectly unobtrusive itself. The luminaire, which is made of die-cast aluminium, features IP65 protection and is ready for recess and surface mounting using a surface-mounted housing, demonstrates its strengths for both modern buildings and buildings protected as historic monuments. PAN is fitted with a high-output LED and requires minimum power of only 1.25 W; it is therefore a contemporary and sustainable alternative to conventional floodlights with high lumen output.

Thanks to the varied range of models available, the maintenance-free LED luminaire provides plenty of design freedom: the choice of optical systems available includes narrow-beam spots and a wide-angle flood optic through to an elliptical lens with asymmetrical light distribution. Colour temperatures of 3200 K and 6000 K make PAN perfect for illuminating a variety of materials and surfaces such as aluminium and sandstone. The 350 mA luminaire can be wired conveniently and quickly with an external supply box with a built-in converter.

Design: EOOS zumtobel.com/pan





↑ AOK, Berlin | DE
Architecture: RKW Architekten, Berlin | DE, Klaus Gregoritsch, Klagenfurt | AT
Lighting design: Schreiber, electrical engineering office, Berlin | DE
Lighting solution: LEDOS III, CIELOS, MELLOW LIGHT IV, LUXMATE PROFESSIONAL





## **LEDOS III**

# Design variety in terms of both form and function

The third generation of LEDOS is available in three sizes and two designs and is generally smaller, more powerful and more efficient. This highly flexible recessed luminaire produces impressive technical lighting results and excels as an all-rounder for walls, floors and ceilings in indoor and outdoor locations. Different optics ensure application diversity using high-precision lighting technology, ranging from lighting points that allow easy orientation through to façade elements precisely lit in warm or cool white light. These luminaires boast reliable protection (IP67), can be walked over and can bear loads of up to 1000 kg.



## 274 LEDOS III

## Recessed spotlights



LEDOS III S D Ø 30 mm



LEDOS III S D with domed lens



**LEDOS III S Q**□ 29 mm



**LEDOS III M D** Ø 45 mm



with flat lens





LEDOS III M Q □ 43 mm



LEDOS III L D

Ø 89 mm



LEDOS III L D with flat lens

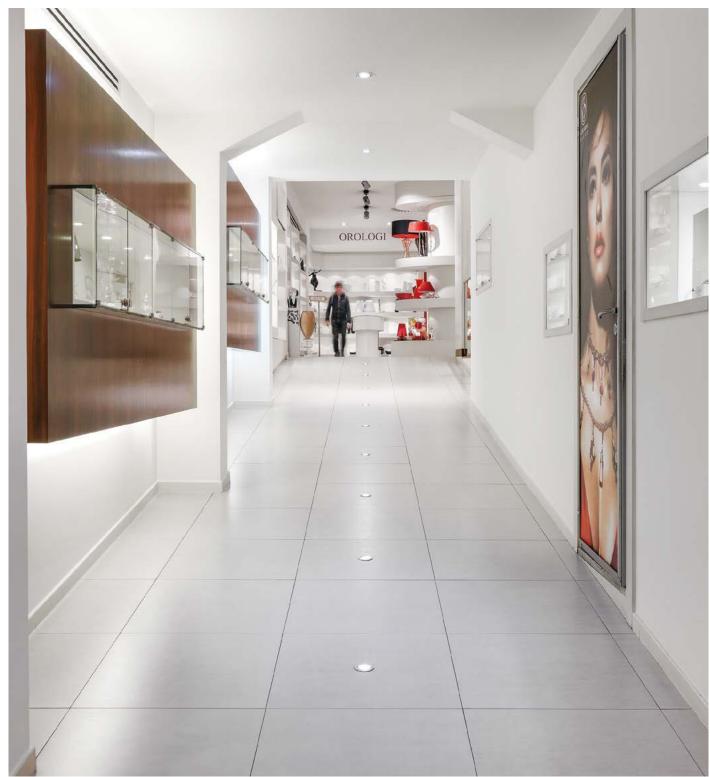


LEDOS III L Q

□ 85 mm

	LEDOS III S D30	LEDOS III S Q29	LEDOS III M D45	LEDOS III M Q43	LEDOS III L D89	LEDOS III L Q85
Distribution characteristics						
Uplight superspot					•	•
✓ Uplight spot			•	•		
✓ Uplight flood	•	•	•	•	•	•
N Asymmetric			•	•		
Swivelling					•	•
Pivoting range						
approx. ±15°					•	•
Protection type/protection class						
IP67, protection class III	•	•	•	•	•	•
Optics						
Frosted protective cover, flat	•	•	•	•	•	•
Frosted protective cover, convex	•	•				
Spot lens optic			•	•		
Textured asymmetric lens optic			•	•		
Textured flood lens optic			•	•	•	•
Superspot lens optic					•	•
LED						
1 x 0.60 W LED (3200 K, 6000 K)	•	•				
1 x 1.25 W LED (3200 K, 6000 K)			•	•		
1 x 2.70 W LED (3200 K, 6000 K)					•	•
Accessories						
Concrete casting surround	•	•	•	•	•	•
Installation kit	•	•	•	•	•	•
LED power packs	•	•	•	•	•	•
Universal boxes	•	•	•	•	•	•
Cable connectors	•	•	•	•	•	•





↑ Gioielleria Scintille, Cosenza | IT Architecture: De Marco Gennaro, Cosenza | IT Lighting solution: PASO II, KAVA, 2LIGHT MINI, VIVO, STARFLEX



### PASO II

# Lighting competence at every step and turn

PASO II knows how to hit all the right buttons when it comes to setting dramatic contemporary lighting scenes whilst remaining unobtrusive itself. Apart from conventional light sources, the PASO II luminaire range also offers a great variety of LED models. When used as a recessed floor luminaire, the PASO II LED luminaire produces monochrome or colour-changing RGB columns of light. The mature technology built into the PASO II recessed floor luminaire with IP67 protection also makes it perfect for installation on the ceiling (IP65). It ensures longevity and functional safety, particularly in locations where air humidity is high or there is significant exposure to dust or insects. PASO II LED luminaires are ideal for use in hospitals or wellness facilities because of their low maximum surface temperature,

which does not exceed 40 °C. PASO II LED offers design variety with round and square models as well as a flush-mounted or overlapping special steel frame. With its round and square versions as well as flush-mounted and overlapping stainless steel frames in three sizes, 120/190/260 mm, PASO II provides for design variety. It is particularly suitable for lighting sculptures, façades, public areas, as well as hotels or historical buildings. The corrosion-resistant stainless steel housing and the patented sealing system, in combination with the Camlock fastener, guarantee a premium-quality look. The extra low-profile PASO II, which is available in sizes 190 and 260, is only 100 mm high, including its casting surround.

## <sup>278</sup> PASO II

## Recessed floor luminaires





















	PASO II D/Q120 Power LED	PASO II D/Q120 Power LED RGB	PASO II D/Q120 Soft LED	PASO II D/Q120 Soft LED RGB	PASO II D/Q120
Distribution characteristics					
Uplight superspot		•			
Uplight spot	•		•	•	•
☐ Uplight flood					
Swivelling	•	•			•
Asymmetric					
Cover glass (optionally also anti-slip glass)					
Partially frosted glass	•	•			•
Frosted glass			•	•	•
Recessed depth					
93/100 mm / with insulation panel + 30 mm					
121/140 mm / with insulation panel + 30 mm	•	•	•	•	•
212/221 mm / with insulation panel + 30 mm					
219/227 mm / with insulation panel + 30 mm					
Cover frame					
Cover (overlapping)	•	•	•	•	•
Cover (flush)	•	•	•	•	•
Without cover (flush)	•	•	•	•	•
LED					
3x1.2 W LED (3200 K/6000 K) 230 V	•				
3x1.2 W LED (RGB) 24 V					
1x1.2 W LED (3200 K/6000 K) 230 V			•		
1x4.3 W LED (RGB) 24 V				•	
4×1.2 W LED (3200 K/6000 K) 230 V					
4×2.0 W LED (RGB) 24 V					
4x2.5 W LED (3200 K/6000 K) 230 V					
4x2.0 W LED (RGB) 24 V					
7x2.5 W LED (3200 K/6000 K) 230 V					
7x2.0 W LED (RGB) 24 V					
Metal halide lamps					
1/20 W HIIT-TC-CE PGJ5					
1/20 W HIIT-TC-CE G8,5					
1/35 W HIT-TC-CE G8,5 1/35 W HIT-CE G12					
1/70 W HIT-CE G12					
Compact fluorescent lamps  1/6 W TCR-TSE					•
1/10 W TC-DEL					
1/18 W TC-DEL					
1/18 W TC-TEL					
1/26 W TC-TEL					
1/32 W TC-TEL					
Low-voltage halogen lamps					
1/20 W QR-CBC					•
1/30 W QR 111					
Accessories					
Installation kit for wooden and cavity floors	•	•	•	•	•
Installation kit for downlight and wall-mounting positions	•	•	•	•	•
Concrete casting surround	•	•	•	•	•



































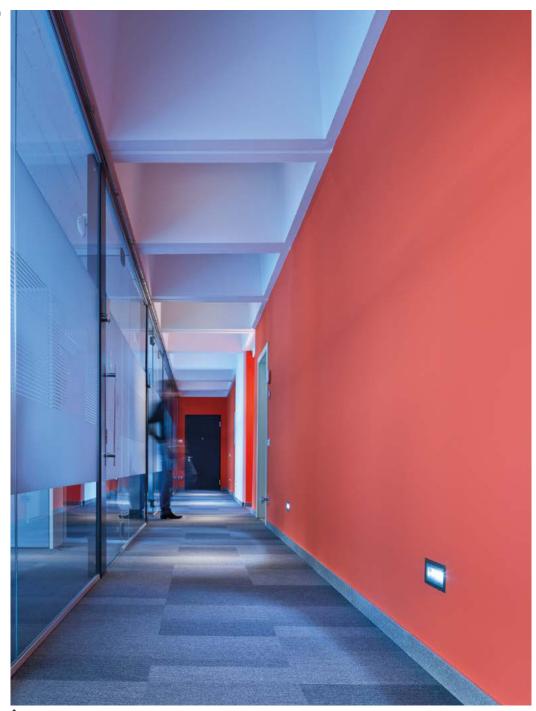




Recessed depth Recessed depth Recessed depth 100 mm 100 mm 100 mm

Recessed depth 100 mm

PASO II D/Q190 Soft LED	PASO II D/Q190 Soft LED RGB	PASO II D/Q190	PASO II D/Q190 Power LED	PASO II D/Q190 Power LED RGB	PASO II D/Q190	PASO II D/Q 260	PASO II D 260 Power LED	PASO II D 260 Power LED RGB	PASO II D 260
			•				•		•
•	•	•			•	•			
				•				•	•
			•	•	•		•	•	•
						•			
		•	•	•	•	•	•	•	•
•	•	•			•	•			•
•	•	•				•			
			•	•	•				
							•	•	•
			_						
•	•	•	•	•	•	•	•	•	•
•	•	•	•	•	•	•	•		•
•	•								
	•		•						
				•					
							•		
		•			_				
					•	•			
						•			•
									•
		•							
						•			
					•				•
									•
									-
		•							
					•				
•	•	•	•	•	•	•	•	•	•
•	•	•	•	•	•	•	•	•	•
•	•	•	•	•	•	•	•	•	•



↑

→ Association of Trentino's municipalities, Trento | IT
Architecture: Arch. Giovanni Modena,
Studio associato Modena De Concini, Trento | IT
Lighting design: SIRA soc.coop.r.I., Rovereto (TN) | IT
Lighting solution: ORILED, AERO, ONLITE RESCLITE,
ONLITE COMSIGN, ONLITE PURESIGN



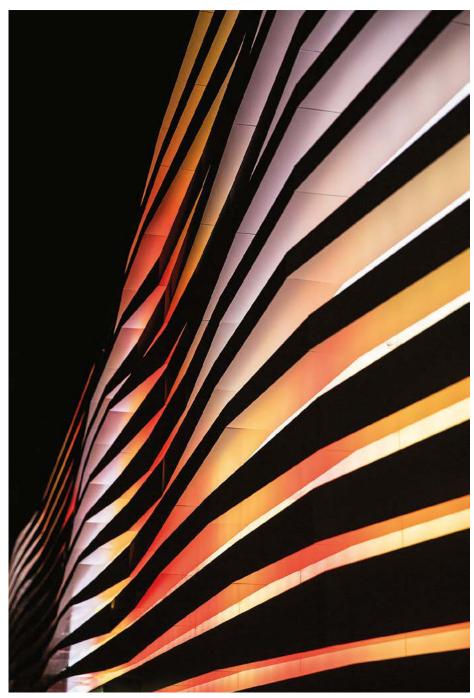


## **ORILED**

# Orientation lighting close to ground level with LED

People need to be able to find their way intuitively at any time of day. This is especially true when it comes to finding one's way around public buildings. Light makes an important contribution to this and also improves safety. ORILED is the perfect alternative to conventional fluorescent lamps. A unique lens/reflector combination directs LED light onto the ground over a wide area. The luminaire's extremely uniform light distribution is ideal for specifically illuminating stairs, corridors, passageways and circulation areas. Here, LED technology is an efficient alternative to light sources with relatively higher wattages and luminous flux levels.

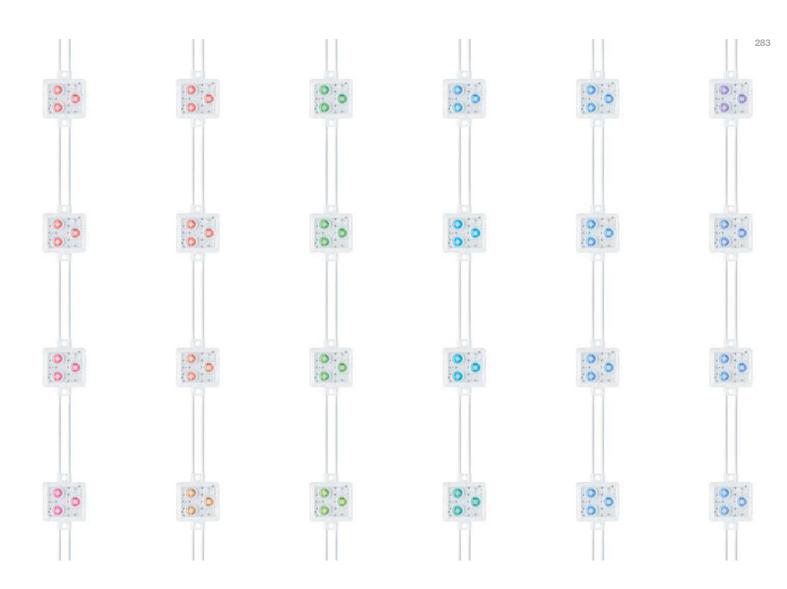
The optionally flush-fitting or overlapping stainless-steel frame is safely yet invisibly attached using Camlock fasteners. These recessed luminaires and bollard luminaires are available with IP65 protection and are perfect for both indoor and outdoor use. Alternatively, ORILED is also available with separate battery packs for 1 or 3 hours of operation for use in emergency lighting systems.





↑

 Casino Bregenz | AT
 Architecture: ArtArch 23, Rudolf Troppmair and Albrecht Prokop, Innsbruck | AT
 Lighting solution: CAPIX evolution, DIAMO

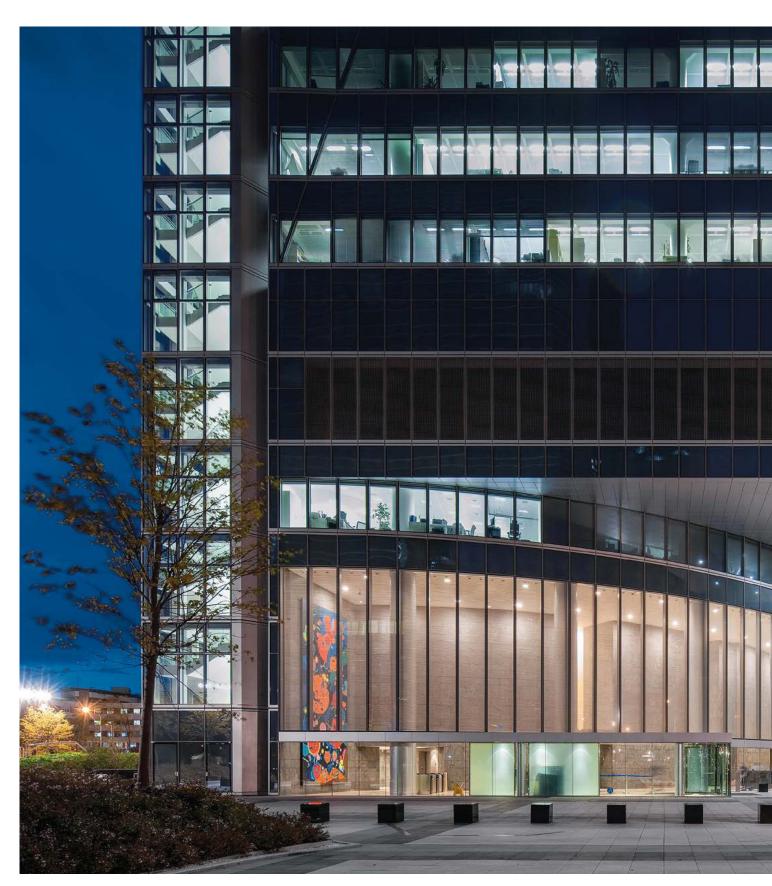


## **CAPIX** evolution

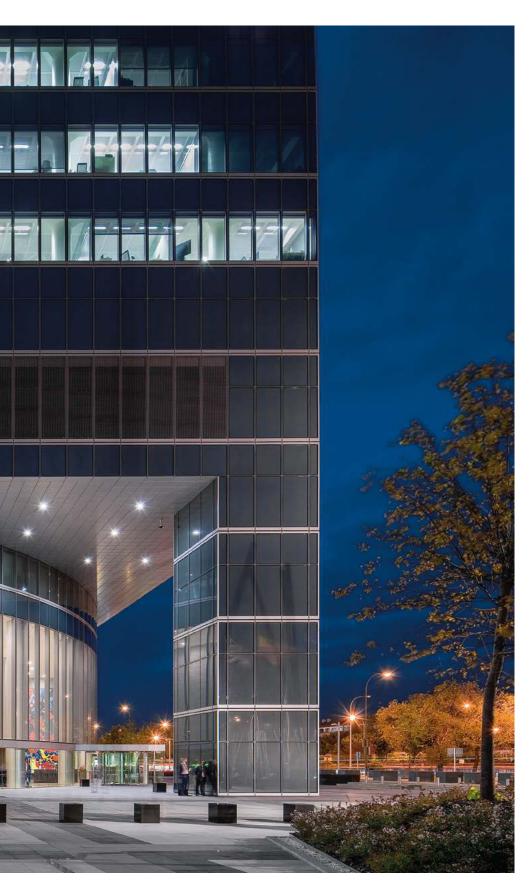
# Custom-made multi-media lighting effects that get right to the point

CAPIX evolution transforms any static façade into a dynamic media façade. In addition to generating colours and other effects, the intelligent control system of CAPIX evolution also allows running a sequence of moving pictures. A CAPIX evolution chain consists of a great number of light points as well as a combination of data and supply cables. One CAPIX evolution pixel incorporates three RGB LEDs, which results in a bright and brilliant lighting effect, even viewed from large distances. The special thing about CAPIX evolution is that the distance between the individual light points, and hence the resolution of the luminous media surface, can be customised to fit the viewing distance. In addition, individual replacement pixels make façade maintenance easy.

Like a second skin, the CAPIX evolution LED matrix clings to the façade. Thanks to a 140° lens, the media luminaire now offers even more flexibility in the illumination of buildings and objects. Even installation has become easier, so that it can now be installed virtually anywhere.



## Lighting management



Lighting management systems

286 LITECOM infinity

290 LITECOM

294 ATIVO

296 LUXMATE BASIC LUXMATE DIMLITE

298 LUXMATE LITENET
LUXMATE PROFESSIONAL

300 **ZBOX** 

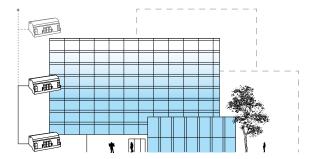
302 LUXMATE

system components



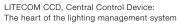
← Torre Espacio, Madrid | ES
Architecture: Pei Cobb Freed & Partners,
Henry N. Cobb, New York | US
Lighting design: R. Urculo Ingenieros Consultores,
S.A., Madrid | ES
Lighting solution: LUXMATE PROFESSIONAL
lighting management system





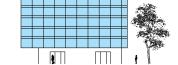
**LITECOM infinity**The number of possible addresses adds up by linking several LITECOM controllers. A first generation LITECOM infinity system can comprise up to 2500 addresses with up to 15 controllers and ultimately up to 100,000 addresses will be possible. The system can thus be flexibly adjusted if the requirements in the building change.











### LITECOM

A single LITECOM controller is enough for small buildings or a single floor. If the system is expanded to a LITECOM infinity system, several existing controllers are linked with one another. The opposite way is also possible at any time. By removing them from the system, each controller can again be transferred to the self-sufficient LITECOM mode with 250 addresses.





# **LITECOM** infinity

Next-generation lighting management for buildings and building complexes

The principle is astonishingly simple: The larger the system, the more controllers constitute a system. After networking for the first time, the controllers independently organise themselves into a LITECOM infinity system – without a central automation server, which is necessary for other systems. That is why the system is and remains so flexible. It is possible to join more controllers with a LITECOM infinity system or remove them again for self-sufficient LITECOM mode at any time.

The transition from LITECOM to LITECOM infinity is fluid. The control centre of both systems is the LITECOM CCD, which respectively controls 250 actuators. Larger systems simply need an additional LITECOM infinity controller (first version max. 2500 addresses with max. 15 LITECOM CCDs). The hardware is always the same and installation always takes place according to the same scheme. Every LITECOM infinity system of this size is presented to the observer as a unit and can be operated, monitored and configured centrally. Users only see floors and their rooms or zones when operating and can thus easily find their way.

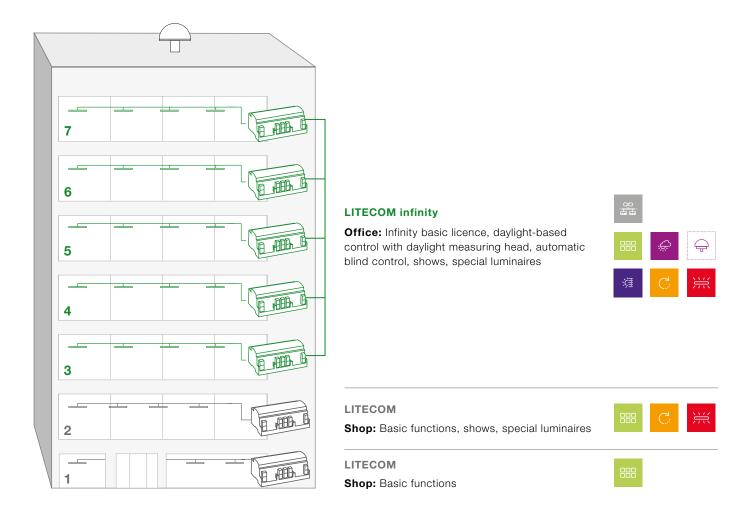
# **LITECOM** infinity

# Lighting management with endless flexibility

#### Flexible building use

A LITECOM infinity system fits precisely into any building use. From self-sufficient lighting control on each individual floor through to building-wide overall systems with an Ethernet backbone, everything is possible. Thereby, areas can be brought together and removed from one another again.

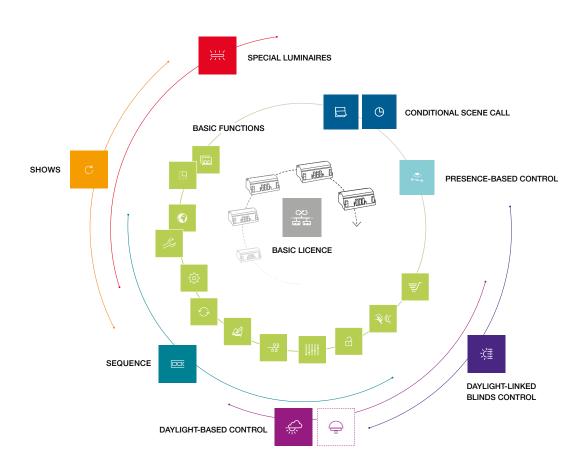
Therefore, LITECOM and LITECOM infinity are not just the ideal solution for businesses that want to flexibly react to future changes, but also for buildings that are rented out to different users. Because with LITECOM, tenant himself can decide which function he wants to use in his own area.







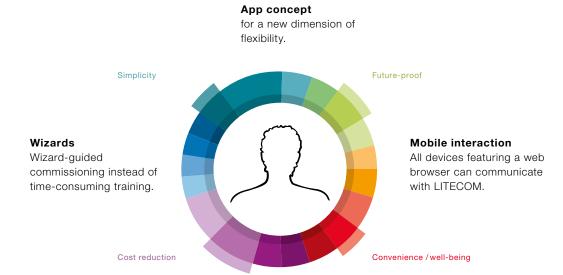
Additional LITECOM infinity licences can be included at any time. Basic functions of the lighting system and building services are already covered with the basic licence. This includes, among other things, dimming luminaires, saving lighting scenes, and controlling screens, windows and blinds. Other functions, such as daylight or blind management with central daylight measuring head, are covered by optional licences. Thus, any changes and additions have been provided for.











#### **LITECOM**

# The next generation of lighting management

In order to develop LITECOM, Zumtobel cooperated with the best partners from the most varied disciplines. In collaboration with renowned development partners, they have created a pioneering and innovative open lighting management system that will forever change the world of building management. Interface designers and application experts have been involved in the project from the beginning. The result is a new form of lighting management that combines intuitive control via apps with easy installation and operation using an individual controller. For users, LITECOM means easy configura-

tion, intuitive user guidance and maximum flexibility, which is made possible thanks to the synthesis of controller, control unit and software within one system. This allows for the implementation, control and monitoring of individual lighting solutions that fully correspond to the specific requirements of a project: if required, additional functions can be programmed and integrated. LITECOM reduces complexity and can easily be controlled in an uncomplicated manner via any PC, smart phone or tablet using web technology.



# <sup>292</sup> LITECOM lighting management

### Unique app concept

Through LITECOM, lighting management is given a new form of unlimited flexibility and customisation. This is made possible through a unique app concept.

#### **Customised functionality**

Owing to the app concept, the lighting management system can be adjusted precisely to the needs of any building or user. Additional apps can be included at any time. Basic functions of the lighting system and building services are already covered by the Basic app. This includes, among other things, dimming luminaires, saving lighting scenes, and controlling screens, windows and blinds. Other functions, such as daylight-based lighting management, are covered by optional apps. Thus, any changes and additions have been provided for.

#### Light that makes people feel good

Based on the unique LITECOM control strategies, permanently available daylight not only increases the system's efficiency but also enhances people's well-being. At all times, visual contact with the outside world is maintained. Visible and noticeable daylight variations increase productivity and enhance the employees' loyalty towards the company. At the same time, LITECOM improves visual comfort, as there will be no glare even when the sun is low.

#### **FUTURE APPS**







SEQUENCE APP



APP FOR DAYLIGHT-BASED CONTROL



#### LITECOM Wizards: guided commissioning

Step by step, the addressing wizard will guide you through the commissioning procedure. This tool allows even non-engineers to commission the system effectively. Basic functions such as switching and dimming of luminaires and luminaire groups as well as lighting scenes are available after just a few steps. Other wizards will help users make settings and configurations for special luminaires or daylight-based control.

#### **Mobile interaction**

Every computer connected via a network, every tablet and every smartphone can assume the function of an operating point or control unit. The various expectations of users and system administrators are met in a target group-adequate manner using a 2-tier access system: no more than a click is required to call up a lighting scene, new functions can be added within seconds, and configuration is guided step by step. For the user interface especially developed for LITECOM is just as easy to use as a momentary-action light switch.

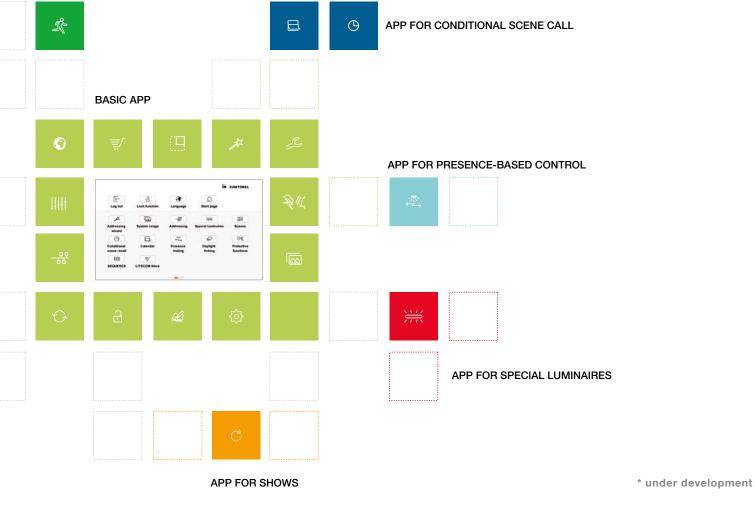


Every device fitted with a Web browser can be used as a LITECOM control unit. The user interface is displayed after one click.





#### APP FOR EMERGENCY LIGHTING\*

















CIRCLE

Momentaryaction switch

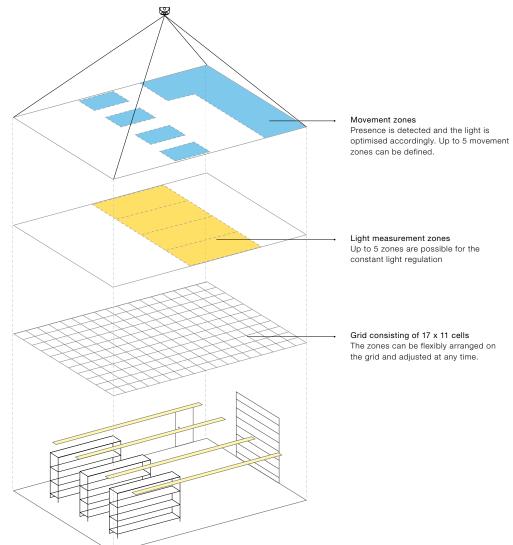
Zumtobel control units and conventional momentaryaction switches fulfil the functions of traditional manual control in LITECOM systems.







# Sensors that adapt perfectly to the room layout





#### **ATIVO**

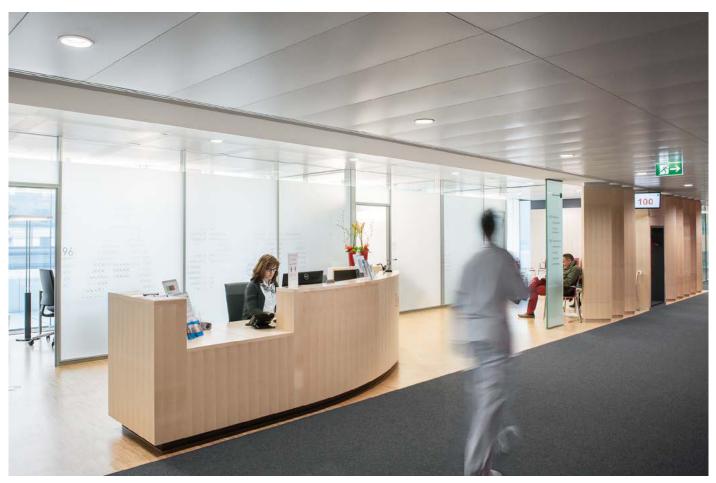
# Multisensor for detecting light and movement in rooms with high ceilings

The ATIVO multisensor has been designed especially for detecting light and the presence or movement of people or vehicles, such as forklifts, in rooms with high ceilings. As compared to conventional PIR and radar sensors, the contrast sensor system features intelligent detection of objects and not only operates with significantly higher precision but is also faster, and therefore considerably less prone to errors. Applications of the ATIVO sensor include sports facilities and multi-purpose halls, industrial, manufacturing and production bays through to high-bay storage facilities and logistics centres. The sensor accurately monitors any walking or driving motion with ceiling heights between 6 m and 20 m.

The ATIVO multisensor is ideal for application-specific solutions in which high energy efficiency is of major importance: to this end, up to five zones can be individually defined by the user for motion detection; in addition, five brightness levels can be programmed, so that any hall can be divided into zones according to the specific tasks to be performed.

In case of the ATIVO multisensor, plug'n'play means absolutely simple assembly and installation. ATIVO as a DALI master system independently actuates the luminaires. Integrated into LITECOM, it supports proven lighting management functions such as daylight-based control and also serves as a basis for the "Activity Based Lighting" presence-based control system. Through this function, LITECOM provides automatic selection of the lighting scene perfectly adjusted to the use of space.







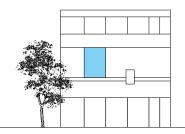
↑ Aarau cantonal hospital | CH
Lighting design: Hefti. Hess. Martignoni., Aarau | CH
Lighting solution: LUXMATE BASIC lighting management, MICROS LED, AERO II

→ Hervis Wien Mitte, Vienna | AT
Architecture: DIWAHN Architekten ZT GmbH, Wien | AT
Lighting and electrical design: IB Hartl & CO KG, Klagenfurt | AT
Lighting solution: LUXMATE DIMLITE lighting management, VIVO LED, TECTON LED,
ZX2 LED, SCONFINE









### **LUXMATE BASIC/DIMLITE**

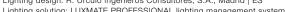
# The ideal first step into the world of intelligent lighting control

The LUXMATE BASIC CIRCLE kit is the perfect solution for increasing comfort and at the same time reducing energy consumption using the simplest possible means. Compact, simple and straightforward. Thanks to its formally reduced design, the focus is placed on functionality. One CIRCLE kit includes all components necessary to make the first step into the world of lighting management: the control point and an appropriate bus power supply are all you need for smartly managing several luminaires. This is lighting management anyone can afford. For installation and commissioning, electricians need neither special training nor additional tools.

LUXMATE DIMLITE – simply connect piece by piece. This lighting control system works like a jigsaw puzzle: various components are added to a basic module, as required. Even the basic unit provides many practical functions such as dimming, a central ON/OFF function and one lighting scene. As requested, a variety of components can be connected to this central module for a functional upgrade. Whether convenient control units like the CIRCLE control point, a presence detector, or a light sensor for daylight-based lighting control – they all have one thing in common: simply connect them and they are ready.

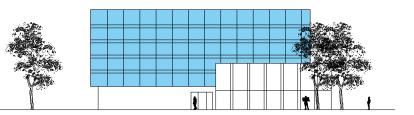


# ↑ → Torre Espacio, Madrid | ES Architecture: Pei Cobb Freed & Partners, Henry N. Cobb, New York | US Lighting design: R. Urculo Ingenieros Consultores, S.A., Madrid | ES Lighting solution: LUXMATE PROFESSIONAL lighting management system









#### LUXMATE LITENET/PROFESSIONAL

High-end room management system with lighting and blinds control

The intelligent way to reduce energy consumption: the flexible lighting management system handles small building units just as conveniently and reliably as large building complexes. Its software also provides users with a consistent user interface. LITENET embodies cutting-edge communications standards and can be integrated into superordinate building systems.

zumtobel.com/litenet

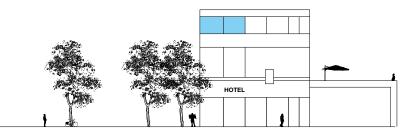


#### ↑ JW Marriott Absheron, Baku | AZ Architecture: ReardonSmith Architects, London | GB Interior design: Studio Jan Wichers, Hamburg | DE Lighting design: Hamburg Design, Hamburg | DE Lighting solution: ZBOX, CIRCLE control point

#### → Hotel Belvoir, Rüschlikon | CH Interior design: architektur & designbüro, Zurich | CH Lighting and electrical design: Studio Frasnelli, Bolzano , Energytech, Bolzano | IT Lighting solution: ZBOX, LUXMATE PROFESSIONAL lighting management system, CIRCLE control point, ONLITE







## **ZBOX**

# Light that gets remembered

This plug & play lighting control system is a highlight in many application areas. Features that ensure differentiation and comfort in hotel rooms also set products perfectly centre stage in shops and assist recovery in patients' rooms thanks to mellow, colour-coordinated light. The overall package including a central control unit and four innovative CIRCLE control points is fully pre-addressed – with optional connections for dimming, presence detectors, door locking systems, blinds control and building management systems. The ZBOX Web tool makes it possible to adapt a configuration using a web browser, without any need for additional software or licences whatsoever.



#### Control



Control panel LM-CIRIA



Circle control units ED/LM-CSS LM-RCx



IR remote control unit IRS IRTOUCH



Momentaryaction switches / switches LM-4UAD LM-SXED ED-SXED



Presence detector LM-4AWS

#### Sensors

#### Control



Receiver for IRS



Presence detector + receiver for IRTOUCH ED-SENS



Receiver for EnOcean wireless switch LM-RFR

Daylight-based control



Daylight sensor LM-TLM



Light sensor LSD ED-Eye

Wind/rain-based





Weather sensors

LM-SN LM-SR

LM-ST LM-SW

#### **Lighting control**



Lighting actuators LM-3DALIS2 LM-DALIS LM-DALI LM-3DLIS LM-DSI LM-3DSIS LM-2ANAS



Daylight actuators LM-TLS LM-2TL DALI



Relay outputs LM-1RUK LM-3RUKS LM-4RUKS



Multifunctional box LM-TLX



Dimmers LM-PAD 1000 LM-PD 1000 APDS 1000

#### **Motor control**



Blind LM-4JAS LM-2JASX LM-2JDCX

#### **Central units**



Bus control LM-BV LM-BVS35 LM-BK



Bus interface PCSIX PCSIR LM-SI03



Room combination module LM-RV



Meteorological sensor input for weather sensors LM-4WZS



Light sensor input for LSD sensor LM-4ILS



Time-based control LM-ZSM LM-iZSQ





# **LUXMATE** system components

LUXMATE system components make it possible to control luminaires and blinds, send control unit and sensor commands, and enable bus communication among units. In building automation, these are the field level units.

The units can be operated at the LITENET and PROFESSIONAL automation systems. They can also be operated as an autonomous lighting control system without automation. This provides the basis for the philosophy of decentralised control, according to which the key functions and settings can be run and stored in the respective field units.







# **Emergency lighting**



Emergency luminaires

306 ONLITE RESCLITE

Escape sign luminaires

310 ONLITE ARTSIGN
ONLITE COMSIGN
ONLITE PURESIGN
ONLITE CROSSIGN
ONLITE ECOSIGN
ONLITE ERGOSIGN
ONLITE CUBESIGN
ONLITE SQUARESIGN

Supply and monitoring systems

- 314 ONLITE local
- 316 ONLITE central CPS
- 318 ONLITE central eBox

 $\Rightarrow$ 

← Kaspersky Lab, Moscow | RU Architecture: ABD architects, Moscow | RU Lighting solution: ONLITE, AERO II, SLOTLIGHT II, ONDARIA, LUXMATE PROFESSIONAL





↑ Association of Trentino's municipalities, Trento | IT
Architecture: Arch. Giovanni Modena, Studio associato Modena De Concini, Trento | IT
Lighting design: SIRA soc.coop LITE, ONLITE COMSIGN, ONLITE PURESIGN,
AERO, ORILED

→ Gildemeister (DMG), Klaus | AT Lighting design: Oskar Leo Kaufmann, Dornbirn | AT Lighting solution: ONLITE RESCLITE, ONLITE local, ONLITE central, ONLITE ARTSIGN, PANOS





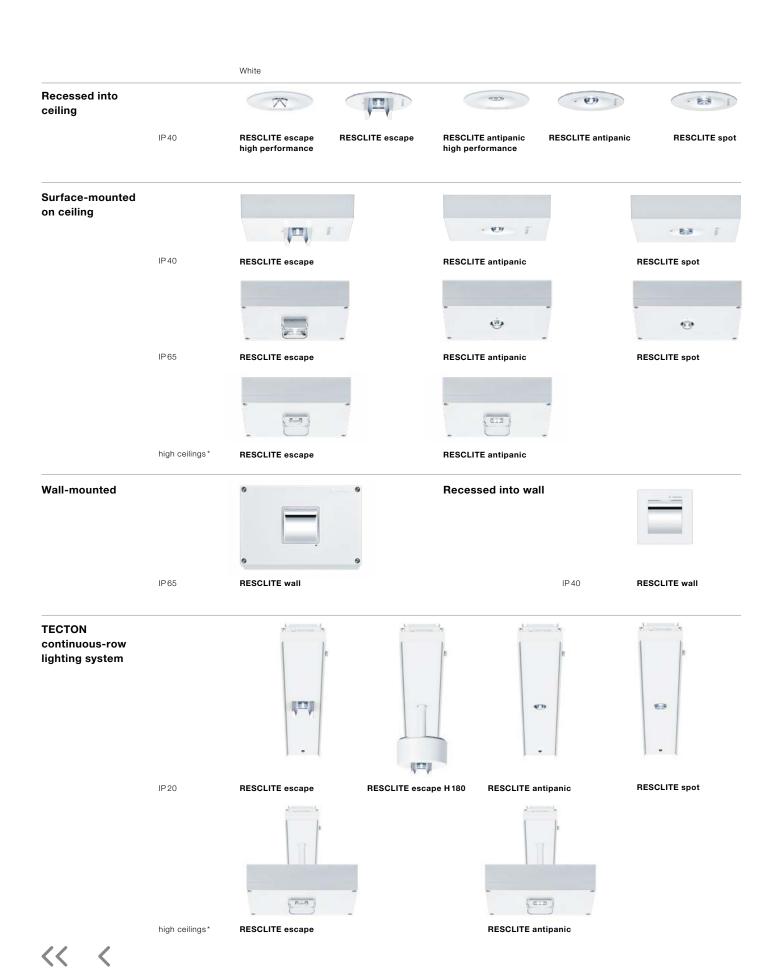
# ONLITE RESCLITE Emergency luminaires

Innovative LED technology is the driver behind continuous progress

RESCLITE emergency luminaires are becoming increasingly unobtrusive and are capable of spanning ever-increasing distances. For example, it is now possible to illuminate extremely long escape routes and extremely extensive areas (anti-panic) in accordance with standards with the luminaire models in the RESCLITE high performance series – even in cases where minimum illuminance of 5 lux or one foot candle is required. The escape route luminaires are also even flatter without the side reflectors. Instead of this, two LEDs precisely couple the light into the secondary lenses, and therefore combine maximum efficiency with skilful light distribution.

#### **ONLITE RESCLITE**

# **Emergency lighting**



#### Aluminium







RESCLITE escape

RESCLITE antipanic

RESCLITE spot



Accessories

Cover frame White



Cover frame Aluminium



Concrete casting surround Recessed into ceiling







RESCLITE spot



RESCLITE wall



Concrete casting surround Recessed into wall

#### **Emergency sets**







RESCLITE escape

RESCLITE antipanic

RESCLITE spot

<sup>\*</sup> high ceilings are only available in centrally supplied NDA, NSI and NPS variants.





















**ONLITE PURESIGN 150** 

# ONLITE escape sign luminaires

# Safety for success

ONLITE is based on extensive expertise in the area of "emergency lighting". From one source, clearly structured, and providing a perfect solution for any application.

ONLITE allows to combine general lighting and emergency lighting into one unit which performs both tasks. In this context, great importance was attached to functional integration of the escape sign and emergency luminaires into the architecture.

# Escape sign luminaires





ONLITE COMSIGN 150



**ONLITE PURESIGN 150** 



ONLITE CROSSIGN 110/160



ONLITE ECOSIGN



ONLITE ERGOSIGN



ONLITE CUBESIGN 210/450



ONLITE SQUARESIGN 300/600



	ONLITE ARTSIGN	ONLITE COMSIGN 150	ONLITE PURESIGN 150	ONLITE CROSSIGN 110/160	ONLITE ECOSIGN	ONLITE ERGOSIGN	ONLITE CUBESIGN 210/450	ONLITE SQUARESIGN 300/600
Protection typ								
Protection type 1	IP40	IP42	IP42	IP42	IP65	IP54	IP40	IP54
Protection type 2				IP54				
Recognition range								
Recognition range 1	15 m	30 m	30 m	22 m	32 m	16 m	42 m	60 m
Recognition range 2				32 m			90 m	120 m
Colour								
Silver, powder-coated		•	•					
Anodised aluminium	•						•	
White	•			•	•			
Installation Ceiling-recessed	•	•	•					
Surface-mounted on ceiling	•	•	•	•	•		•	
Wall-recessed	•		•		-	-	-	
Surface-mounted on wall 90°			•	•	•			
Surface-mounted on wall 180°	•				•			•
ASI cord suspension		•	•	•	•		•	
ESI cord suspension			•					
RSI cord suspension		•	•					
Pendant suspension					•			
TECTON continuous row			•	•				
Escape sign								
Single-sided	•	•	•	•	•	•		
Double-sided	•		•	•	•			
Multi-sided							•	
- India Glada								
Lighting inserts								
LED	•	•	•	•	•	•	•	•
TC-DEL							•	
<u>T16</u>								•
ERI spot								
with ERI spot			•	•				
without ERI spot	•	•	•	•	•	•	•	•
Luminaire type								
Escape sign luminaire	•	•	•	•	•	•	•	•
Emergency luminaire			•	•	•			

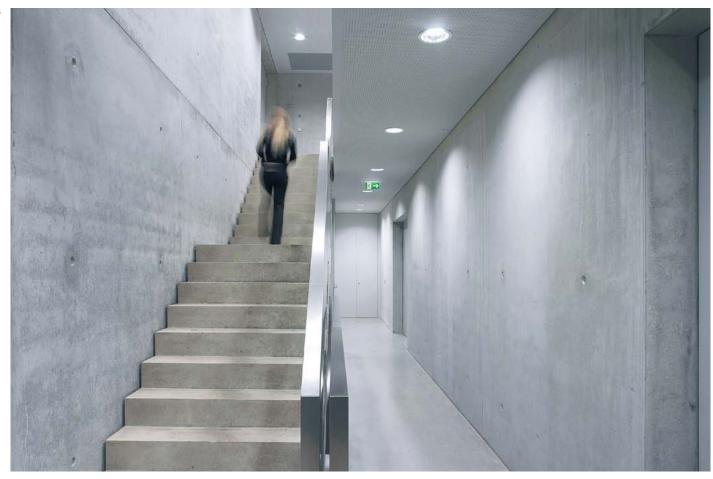
Each ONLITE luminaire is available with separate, group or central battery supply. Zumtobel luminaires for general lighting can also be used as emergency luminaires. For this purpose, they are fitted with an emergency lighting module at the factory.



Lens shown in original size

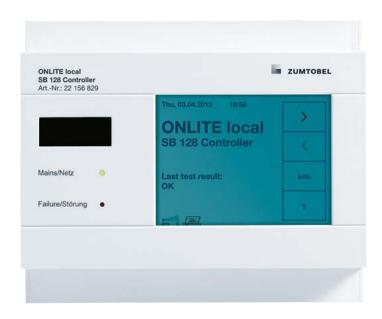
#### ERI spots

Luminaires with ERI spots boast lenses on the underside which can be manually adjusted in 90° increments. The lighting cones can therefore be aligned to the escape route and adjusted locally to the building situation. Irrespective of whether the luminaire is fixed in a corner or above intersecting escape routes, the light beam can be optimised and adjusted with a single flick of the wrist.



↑ Gildemeister (DMG), Klaus | AT Lighting design: Oskar Leo Kaufmann, Dornbirn | AT Lighting solution: ONLITE local, ONLITE central, ONLITE RESCLITE, ONLITE ARTSIGN, PANOS





#### **ONLITE** local

# The emergency lighting system with separate battery supply

Emergency lighting systems with separate battery supply have one feature in common – a battery is fitted into every luminaire. In emergency mode, this supplies the lamp with power in order to prevent panic reactions, ensure the workplace is evacuated safely and show the escape route. Economic efficiency and a high level of safety are both factors in favour of systems with separate battery supply. This system is the ideal solution for small and medium-sized buildings in particular.





# ↑ Gildemeister (DMG), Klaus | AT Lighting design: Oskar Leo Kaufmann, Dornbirn | AT Lighting solution: ONLITE central, ONLITE local, ONLITE RESCLITE, ONLITE ARTSIGN, PANOS





### **ONLITE central CPS**

Project-specific customised, networked central battery system

Every central battery system is designed project-specifically on the basis of a modular system. This produces solutions which are optimised in terms of the cost and functionality of the system. The modular design of ONLITE central CPS guarantees a tailor-made solution for any project and a significantly optimised cost/functionality ratio.









### **ONLITE** central eBox

## Central emergency power supply system

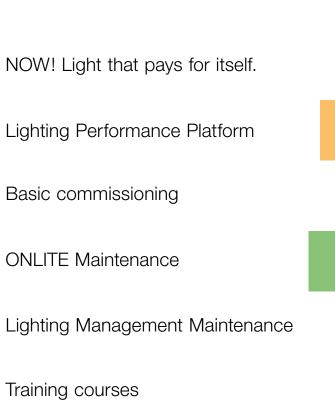
The ONLITE central eBox works in perfect harmony with Zumtobel LED emergency and escape sign luminaires. Even the use of standard luminaires with mains voltage of 230 V AC or 216 V DC is possible. Thanks to the convenient structure and the modular plug-in technology, the central emergency power supply system can be used very flexibly. Another advantage: convenient handling thanks to straightforward assembly, optional cable entry from above and from below, and a large cable clamp compartment. Initial commissioning via the WIZARD-based menu is also very easy.

Without any additional software, up to 10000 luminaires or 100 systems are visualised via the web browser interface. Maintenance is made easy because ONLITE central eBox disposes of indicator fields for entering individual designations, and the special hood concept provides for the simple, space-saving opening of the installation. The ideal ventilation conditions of the battery compartment offer protection against overheating.

# **Zumtobel Lighting Services**

Added value thanks to professional service

Aspiring to provide the best possible light for people and the environment, Zumtobel caters for customers' requirements individually – especially in the area of service. Divided into various areas and packages, Zumtobel offers professional support as required. All types of services offered can be adjusted to the customer's individual needs, providing maximum benefits and measurable added value.





LIGHT AS A SERVICE

#### Attractive complete package

NOW! will help you switch to an advanced LED lighting solution with intelligent lighting control without costing you even one extra pound. You need not take care of the replacement of luminaires nor of commissioning or maintenance of the system. Far from it: you can even use part of the electricity costs saved in order to reduce current operating costs immediately.

#### Valid information on energy consumption

The Lighting Performance Platform is an online solution by Zumtobel which provides consumption data of buildings and rooms at a glance. Perfectly matched to Zumtobel lighting management systems, the monitoring tool points the way to energy-efficient solutions.

#### Ideal starting conditions

Zumtobel supports its customers through all stages of a project, starting with professional commissioning of the lighting control and emergency lighting systems. Certified commissioning and service engineers ensure that individual customer requirements are implemented to optimum effect and efficiency.

#### CONTROL SERVICES

#### Reliably serviced emergency lighting

Statutory maintenance of emergency lighting systems requires plenty of time as well as high-precision work. An emergency lighting maintenance agreement will spare you this task. Well-trained service engineers will take charge of any maintenance work: from checking emergency luminaires through to professional tests and checks of the emergency lighting system.

#### CONTROL SERVICES

#### Perfectly appropriate settings at all times

A professional lighting control system caters for individual needs – even if the requirements of a building and the people in it change over the course of time. Professional service makes sure your lighting control system will be continuously checked and adjusted if required. This ensures optimised energy efficiency, an increase in lighting quality and a high degree of safety and security.

#### CONTROL SERVICES

#### Learning from lighting experts

Anyone who understands the way a lighting management system works and needs to be controlled and maintained, can exploit its full energy saving potential. This applies to all people who have to deal with lighting control systems: users, facility managers and service engineers. Zumtobel provides a full range of training courses.

Service packages

320 Zumtobel Lighting Services

322 NOW!

Information

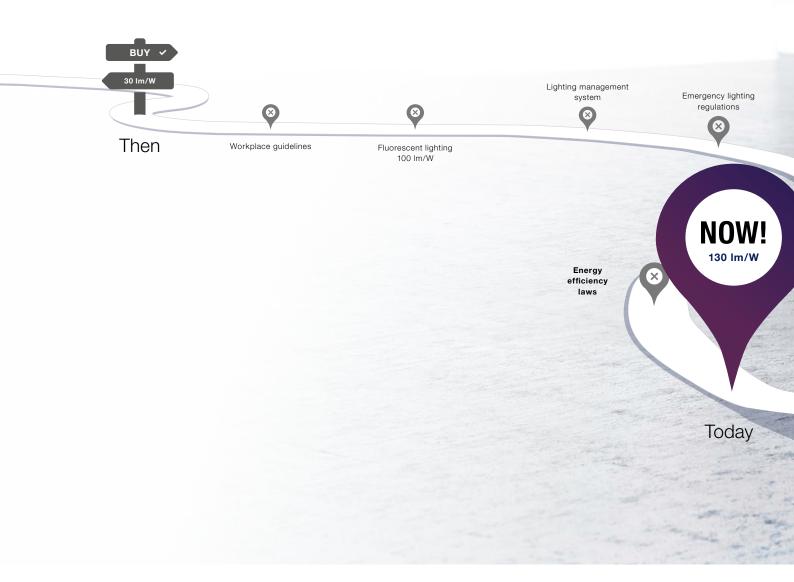
324 LED quality criteria

326 LED lighting quality

Î

CONTROL SERVICES

### Light as a service



# The world of light is in revolution

Using light as a service means keeping pace with the revolution now and in the future, and using NOW! to profit from increasing energy efficiency or innovative technologies such as tunableWhite. Thanks to tunable-White, dynamic changes in colour temperature are possible, closely following the example of natural daylight and thereby increasing well-being amongst employees.

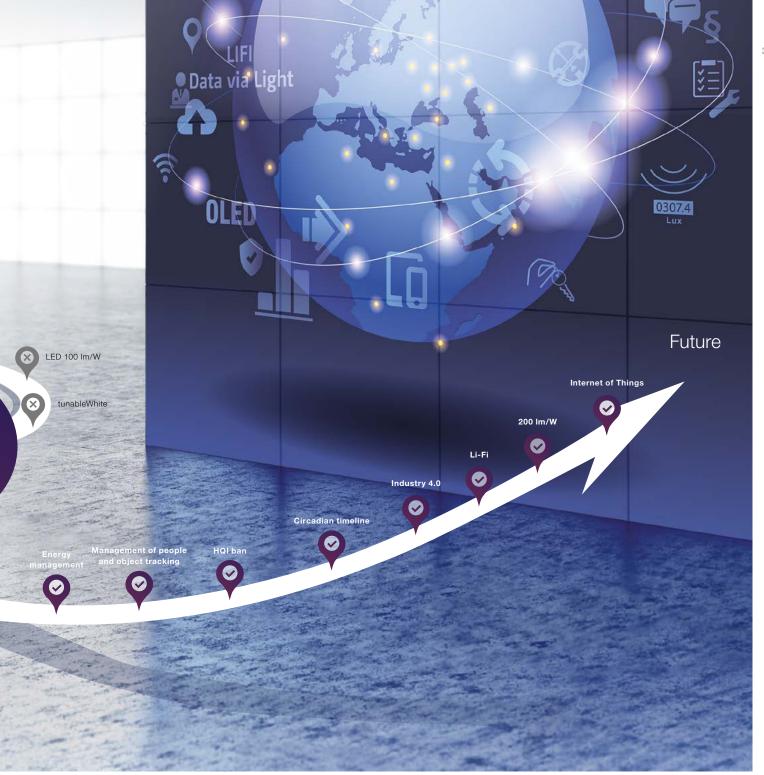
#### **FLEXIBLE**

#### Off into a dynamic future with the security of an expert lighting partner

We live in an age where light is subject to fast-paced technological change. Luminaire efficiency is increasing all the time. The influence of light on the natural rhythm of humans has now been scientifically proven. The best remedy for outdated lighting is highly flexible and continuous management of lighting. With Zumtobel, you get a partner which makes use of its knowledge of lighting, acquired over many decades, to accompany you on the path to innovative concepts well beyond lighting.







# CAREFREE Sustainable efficiency comes from comprehensive, expert service

Efficient light is a strategic milestone for your energy management. Leave it to the experts: With a Europe-wide service network, the Zumtobel Group plans lighting solutions based on the latest technological standards, provides professional installation services, and helps you to apply for grants, monitors the operation of lighting installations, and continuously identifies potential for improvements and savings. Our service guarantees the functionality and energy efficiency of your lighting into the future.

#### CAPITAL-FREE Monthly fixed sum instead of one-time capital investment

With NOW!, you don't buy lighting, you get light as a service. This results in several financial advantages: you don't have to invest in fixed assets, or divert any resources away from your core areas of business. The monthly fixed sum for the lighting services is clearly set out in advance. For lighting refurbishments, there is also the possibility to apply for grants, and achieve immediate operational costs savings.





#### LED quality criteria

There is LED and there is LED. Various LED types are available on the market, performing different tasks with respect to service life, lighting quality and thermal management, depending on the application involved. So far there are only few standards enabling objective comparison.

#### **Temperatures**

In the data sheets provided by LED manufacturers, the temperature at the semiconductor (Tj = T junction) is generally determined to be 25 °C. The Tc temperature, however, is indicated for a measuring point on the LED board. If the temperature defined by the board manufacturer is observed, the service life stated in the data sheet and/or the luminous flux of the module will be achieved.

As this information in part substantially differs from the temperature levels given directly on the chip, this may easily cause some confusion with respect to reference values.

#### Luminous flux levels and efficiency

The light emanating from the LED chip or the LED board is called luminous flux. In LED lighting we talk about the luminous flux of the luminaire instead of the lamp lumen factor. The luminous flux of the luminaire designates the light actually emanating from the luminaire. Efficiency is indicated in lumens per watt (lm/W). It designates the ratio of luminous flux to power supplied.

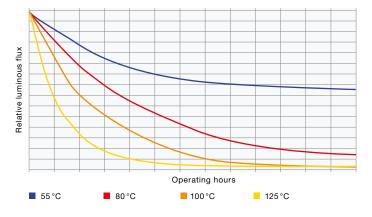
#### Colour temperature

Whether the LED and/or the luminaire has warm or fairly cool light can be derived from the colour temperature indicated. The higher the colour temperature, the cooler the lighting effect. A colour temperature of 3000 K is generally called warm. 4000-4200 K is perceived as intermediate and >5500 K as cool

#### Service life

Usually, details regarding the service life of LEDs at specific temperatures are indicated by LED manufacturers in/on the LED chip (see diagram). To achieve these, reliable thermal management must absolutely be ensured in the luminaires. For this purpose, Zumtobel uses various methods explained in greater detail under "Thermal management". The service lives of the LED chips/boards are indicated in the Zumtobel catalogues and specifications. Product-specific features, such as more favourable thermal conditions, e.g. lower temperatures than required by the manufacturer, have already been taken account of.

Another important point is the question as to which luminous flux level may be expected at the end of service life. A level of 70 % is normally assumed. Some manufacturers, however, indicate a luminous flux of 50 %. These specific features should be observed when selecting and comparing products.



The luminous flux of an LED depreciates faster at higher temperatures. Efficient thermal management extends the life of Please consider the defini-

tion of life as stated by the LED manufacturer



#### Luminous flux levels of luminaires

One critical aspect in comparing LED luminaires of different suppliers is the comparison of luminous flux levels, as mentioned above. In the catalogues of many manufacturers, you will find details regarding the luminous flux and efficiency of individual LEDs at a junction temperature of 25 °C in the LED chip (Tj), details regarding the luminous flux levels of the LED board used at a specific Tc temperature, but also details regarding the luminous flux levels of luminaires and luminaire efficiency levels, including the power loss of ballasts and any potential loss of efficiency through lighting optics, such as lenses, reflectors or mixing chambers.

The indication of the luminous flux of the luminaire and of the system efficiency in catalogue data and specifications certainly is the most meaningful as it indicates the actually available luminous flux emanating from the luminaire. These levels are indicated in Zumtobel's catalogues and specifications.

The diagram shows an example of possible efficiency losses within a luminaire. The levels may vary depending on changing materials and thermal conditions. In case of doubt, we recommend comparing the photometric data by means of lighting design software.

#### Thermal management

Efficient thermal management is indispensable in order to achieve a long service life and to operate LEDs as efficiently as possible. Not only will higher temperatures in the LED chip reduce service life; the efficiency of the LED chip, too, will decrease as temperature increases.

For reliable products with the highest efficiencies and as an indispensable must for a 5 year warranty, Zumtobel relies on passive, highly efficient surface cooling. Yet reliable and efficient thermal management starts at an earlier point: during the development process, that is - which includes comprehensive tests and simulations in Zumtobel's own laboratories.

A large heat sink alone cannot generally be considered a sufficient quality criterion for optimal thermal management. A thermal connection between board and heat sink must also be ensured. For this purpose, Zumtobel uses thermal pads or compounds as required.

Within the scope of quality processes, thermal connection of the LED chips to the boards is checked as well and compared with the LED manufacturer's specifications. The 5-year guarantee emphasizes the consistent principle of quality observed throughout the entire development and production processes of products by Zumtobel.

#### The LDT files reveal the truth!



# 110-140 % of

luminaire luminous flux

#### CORRECT 100% luminaire luminous flux

Luminous flux of the LED module (without optic etc.) In this case, the LED module is assumed to be similar to a lamp. The LED module thus has 100 % luminous flux. This value, however, has yet to be reduced by the loss in light output ratio.

Luminous flux of individual LEDs (specifications from LED data sheet)

The data sheet specifications relate to 25 °C Tj

(Tj = junction temperature) in the LED chip - between the junctions in the LED. However, the data sheets also include permissible Tj temperatures of 150 °C in some cases. During operation, high-performance LEDs get very hot. Heat however has a negative effect on both luminous flux and the service life of the LED.

Luminaire luminous flux (incl. light output ratio losses) This information refers to the actual luminous flux of the luminaire, including any losses, for instance in the reflector etc.



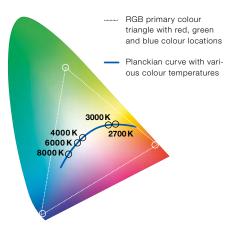


### LED lighting quality

The lighting quality of lamps and luminaires is usually defined through various criteria such as glare control, colour temperature, colour rendering & colour stability.

#### LED white light quality

Binning, as it is called, is one of the determining factors of the quality of LEDs. The indication of MacAdams ellipses provides the user with an orientation as to the degree of variance of individual LED modules with respect to colour perception, for instance. Apart from static white LED light, LED luminaires also permit the realisation of lighting solutions with dynamic colour temperatures. For the purpose of differentiation, Zumtobel has introduced the terms "Stable White" and "Tunable White", simultaneously defining fixed quality criteria for LED mixing chambers.

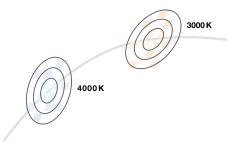


#### **Binning and MacAdams**

In the production of LED chips, LEDs of different production batches have different properties with respect to, for instance, intensity (luminous flux), colour temperature, colour location, or even with respect to forward voltage. Especially for white LEDs, the binning process is of particular importance. Depending on the application and the product, these criteria are weighted differently. Choosing a specific binning group will ensure a constant colour location of the LED light produced. This will provide for uniform appearance of all LED luminaires fitted with LEDs of the binning range specified. This selection is especially important for products with "individual LEDs", e.g. SUPER-SYSTEM LED lighting heads.

Another indication of the quality of LED clusters is provided by stating so-called MacAdams ellipses. MacAdams ellipses describe the colour distances on the XY coordinates. In theory we talk about a MacAdams as soon as there is a visual difference with respect to colour perception. As this laboratory condition is not relevant in normal lighting applications, e.g. due to reflections by coloured surfaces, as few as 3 MacAdams ellipses are considered very high quality already.

In order to show production-related deviations between individual LED modules and to ensure consistency, the colour locations and colour distances are measured. Depending on the application, a product-specific definition is made.

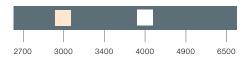


MacAdams ellipses

#### Zumtobel "Stable White"

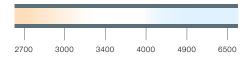
"Stable White" is a Zumtobel quality label for mixing chamber systems. In the LED sphere it comprises e.g. a maximum admissible colour drift of 5 MacAdams in the course of the service life of the LED. This makes the criteria somewhat more stringent than for fluorescent lamps, for instance, where even 5 MacAdams and more are possible when using different batches.

"Stable White" also stands for fixed colour temperatures of warm (e.g. 3000 K) and intermediate (e.g. 4000 K).



#### **Zumtobel "Tunable White"**

"Tunable White" describes the option to dynamically change the light of the LED in the white light range. By means of the Emotion Touch Panel, for instance, or the Circle Kit Tune control point, colour temperatures of e.g. 2700 K to 6500 K can be variably adjusted. In the process, the LED luminaires achieve a high colour rendering index of at least Ra 80 to Ra > 90.



#### Colour rendering

Today LED lighting solutions achieve high colour rendering in excess of Ra 90, and hence are more sophisticated than many solutions using fluorescent lamps. Even the colour rendering levels of discharge lamps are achieved, as are other technical lighting properties.

For its high-quality products, Zumtobel uses LEDs produced by various manufacturers. Close and in some cases exclusive partnerships exist with other LED and LED-module manufacturers such as Cree, Philips, Osram etc., to guarantee the integration of the latest technologies in an early phase of the development of new products.

As regards the colour rendering of LEDs, the following indications are of key importance: normative colour rendering in the warmer colour temperature range is usually higher with single-chip-LEDs with a blue dye and yellow phosphor. Colours should be rendered as naturally as possible by choosing the corresponding phosphor mixes. Unfortunately, the efficiency of warm LEDs is usually lower than that of intermediate and cool LEDs. For a cooler colour temperature, the phosphor mix is changed. LEDs with cooler light colours are normally more efficient, but their colour rendering index is also lower.

By mixing white light through LEDs of different light colours, excellent colour rendering can be achieved at simultaneously high efficiency.





LED board Stable White





LED board Tunable White





#### **United Kingdom**

ZG Lighting (UK) Limited Chiltern Park Chiltern Hill, Chalfont St. Peter Buckinghamshire SL9 9FG T +44/(0)1388 420 042 lightcentreuk@zumtobelgroup.com zumtobel.co.uk

#### USA and Canada

Zumtobel Lighting Inc. 3300 Route 9W Highland, NY12528 T +1/845/691 6262 F +1/845/691 6289 zli.us@zumtobel.com zumtobel.us

#### Australia

ZG Lighting Australia Pty Ltd 43 Newton Road Wetherill Park NSW 2164 T +61/(0)28786 6000 F +61/(0)29612 2700 info@zumtobel.com.au zumtobel.com.au

#### New Zealand

ZG Lighting (NZ) Limited 399 Rosebank Road Avondale, Auckland 1026 T +64/9 828 7155 F +64/9 828 7591 zumtobel.com.au

#### China

Thorn Lighting (Guangzhou) Limited 12A Lian Yun Road Eastern Section, GETDD, Guangzhou 510530, P.R. China T+86/(20)2232 6000 Sales Hotline: 400 8080 195 cn.sales@zumtobelgroup.com zumtobel.cn

#### Hong Kong

ZG Lighting Hong Kong Ltd Unit 503 – 508, 5/F, Building 16W, Phase 3, Hong Kong Science Park, New Territories, Hong Kong T +852/(0)2578 4303 F +852/(0)2887 0247 info.hk@zumtobelgroup.com

#### India

Thorn Lighting India Pvt Ltd No. 43, Chamiers Road Raja Annamalaipuram, Chennai 600028, Tamilnadu, India T +91/(44) 24357588 T +91/(44) 24358744 info.in@zumtobel.com

#### Singapore

Thorn Lighting (Singapore) Pte Ltd 158 Kallang Way # 06-01/02 Singapore 349245 T +65/6844 5800 F +65/6745 7707 info.sg@zumtobelgroup.com

#### United Arab Emirates

Zumtobel Lighting GmbH 4B Street, Al Quoz Industrial Area Dubai, United Arab Emirates T +971/4 340 4646 info@zumtobel.ae zumtobel.ae

#### Romania

Zumtobel Lighting Romania SRL Radu Greceanu Street, no. 2, Ground Floor, sector 1 012225 Bucharest T +40 312253801 F +40 312253804 welcome.ro@zumtobel.com zumtobel.com

#### Hungary

ZG Lighting Hungary Kft. Váci út 49 1134 Budapest T +36/(1) 450 2490 F +36/(1) 350 0829 welcome@zumtobel.hu zumtobel.hu

#### Croatia

ZG Lighting d.o.o. Radnička cesta 80 10000 Zagreb T +385/(1) 64 04 080 F +385/(1) 64 04 090 welcome@zumtobel.hr

#### Bosnia and Herzegovina

ZG Lighting d.o.o.
Predstavništvo u BiH
Zmaja od Bosne 7
71000 Sarajevo
T +387 33590463
welcome.ba@zumtobel.com

#### Serbia

ZG Lighting d.o.o. Beton hala – Karađorđeva 2-4 11000 Belgrade M+381 69 5444802 welcome@zumtobel.rs

#### Czech Republic

ZG Lighting Czech Republic s.r.o. Jankovcova 2 Praha 7 17000 Praha T +420 266 782 200 F +420 266 782 201 welcome@zumtobel.cz zumtobel.cz

#### Slovak Republic

ZG Lighting Slovakia s.r.o. Tomášikova 64 831 04 Bratislava welcome@zumtobel.sk zumtobel.sk

#### Poland

ZG Lighting Polska Sp. z o.o. Woloska 9a Platinium Business Park III 02-583 Warszawa T +48 22 856 7431 zgpolska@zumtobelgroup.com zumtobel.pl

#### Slovenia

ZG Lighting d.o.o Štukljeva cesta 46 1000 Ljubljana T +386/(1) 5609 820 F +386/(1) 5609 866 si.welcome@zumtobelgroup.com zumtobel.si

#### Russia

Zumtobel Lighting GmbH Official Representative Office Skakovaya Str. 17 Bld. No 1, Office 1104 125040 Moscow T +7/(495) 945 3633 F +7/(495) 945 1694 info-russia@zumtobel.com zumtobel.ru

#### Norway

Zumtobel Belysning Strømsveien 344 1081 Oslo T +47 22820700 info.no@zumtobel.com zumtobel.no

#### Sweden

Zumtobel Belysning Birger Jarlsgatan 57 11356 Stockholm T +46 8 262650 info.se@zumtobel.com zumtobel.se

#### Denmark

Zumtobel Belysning Stamholmen 155, 5. sal 2650 Hvidovre T +45 35 43 70 00 info.dk@zumtobel.com zumtobel.dk

#### Headquarters

Zumtobel Lighting GmbH Schweizer Strasse 30 Postfach 72 6851 Dornbirn, AUSTRIA T +43/(0)5572/390-0 info@zumtobel.info

ZG Licht Mitte-Ost GmbH Grevenmarschstrasse 74-78 32657 Lemgo, GERMANY T +49/(0)5261 212-0 F +49/(0)5261 212-9000 info@zumtobel.de

#### zumtobel.com



#### Top quality - with a five-year guarantee.

As a globally leading luminaire manufacturer, Zumtobel provides a five year manufacturer's guarantee on all Zumtobel branded products in accordance with the terms of guarantee at zumtobel.com/guarantee. Order no. 04998166-EN 04/16 © Zumtobel Lighting GmbH Technical data was correct at time of going to press. We reserve the right to make technical changes without notice. Please contact your local sales office for further information.



