

LED lighting for large spaces



Brightly illuminated large spaces

ETAP's E4, E5, E7 and E8 comprises an extensive range of LED lighting for large spaces and high ceilings, such as industrial halls, warehouses, shopping areas and public buildings. Thanks to the modular structure and flexible lighting technology, you will get the lighting best suited to every space and application. High-quality LEDs and innovative lens technology guarantee efficiency and visual comfort.

E4

DUAL-LENS
TECHNOLOGY



- Medium-power LEDs
- Production halls, warehouses, workstations and store racks
- Individual luminaires or continuous light lines
- Luminous flux from 2000 tot 6000 lm/m
- optimal light comfort with patented technology

E5



- Medium-power LEDs
- Industrial production and warehouses
- One-line system with lighting modules at variable intervals
- Luminous flux from 9000 tot 18000 lm/m

E7

LED+LENS
TECHNOLOGY



- High-power LEDs
- High production halls, warehouses and sports halls
- Individual luminaires or continuous light lines
- Luminous flux from 1000 tot 10000 lm/m
- optimal light comfort with patented technology

E8

LED+LENS
TECHNOLOGY



- High-power LEDs
- very high production halls & warehouses (up to 20 m)
- Individual luminaires
- Luminous flux from 22000 tot 32000 lm/m
- optimal light comfort with patented technology
- 1-on-1 replacement of highbay luminaires with gas discharge lamps



EFFICIENT

High luminous flux, low consumption

The series were specifically designed for the efficient lighting of large spaces and high ceilings. They link high lumen output (up to 18000 lm per metre) to high efficiency (up to 160 lm per watt) and low power consumption. Every series can be combined with individual or central light control, thus further reducing power consumption (see p. 23).

FLEXIBLE

Light where you need it

Every series offers high flexibility: light distribution and luminous flux can be precisely customised to the specific needs of your spaces. Providing you with light exactly where you need it and in the correct quantity.

SUSTAINABLE

For the long term

Thanks to their long service life LEDs are the ideal choice for large spaces with high ceilings, where lamp replacement is not easy. However, ETAP goes one step further. Quality LEDs, optimum thermal management and intelligent design result in particularly high lumen maintenance and low Total Cost of Ownership.



Our LED lighting for large spaces represents high-efficiency, suitable light distribution and long service life.

Suitable lighting for every space

E4, E5, E7 and E8 offer a solution for the specific needs of every space. In every series you can choose between several light distributions through which the light – in relation to the space – ends up in the correct location. However photometrics, glare and construction also make the series suitable for various applications.

STORE SHELVES



WORKSTATIONS



WAREHOUSES



narrow angle
light distribution

E5

Suitable lighting for every space

PRODUCTION



E5

wide-angle
light distribution



SPORT HALLS



E7

impact-proof
version



SPACE > 10 METRES



wide-angle
light distribution

E7



Highbay

E8

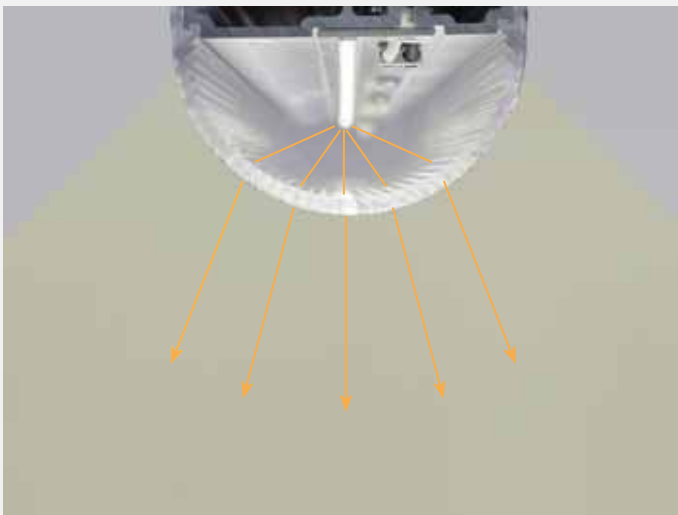
E4: DUAL•LENS

INNOVATIVE LENS TECHNOLOGY

The DUAL•LENS™ technology was specifically developed for the E4 series. The unique surface structure of this linear lens creates a dual effect. The structure on the inside determines the desired light distribution for a wide array of applications: wide- and narrow-angle, but also asymmetric and double asymmetric for the directional lighting of vertical surfaces such as workstations and store shelves. The structure on the outside of the lens for its part reduces the luminance of the LEDs (UGR < 22 or < 25).



The unique linear lens guarantees an optimum light distribution and a low glare index (UGR < 22 or < 25).



The surface structure on the inside ensures directional light distribution.



On the outside the lens features longitudinal shielding, which results in low glare and optimum comfort.

HIGH EFFICIENCY, LONG SERVICE LIFE

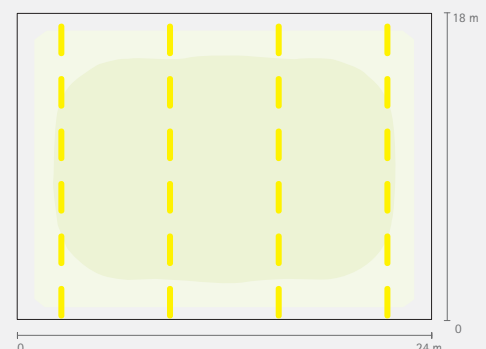
The medium-power LEDs combine high efficiency with low consumption and long service life. The ceramic filling keeps them very stable, also with high temperatures: after 50,000 hours they keep up to 98% of their luminous intensity (LLMF - Lamp Lumen Maintenance Factor).



After 50,000 burning hours, the ceramic LEDs still reach 98% of their luminous flux.

Example:

In a space of 18 by 24 metres and 7 metres height we achieve an illuminance of 300 lux with a specific power of 1.3 W/m²/100lx using 24 wide-angled E4 luminaires with DUAL•LENS™ technology.



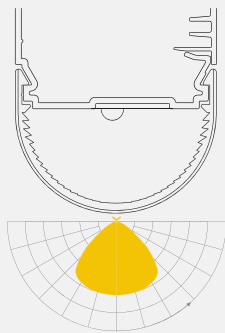
E4

Efficient and flexible

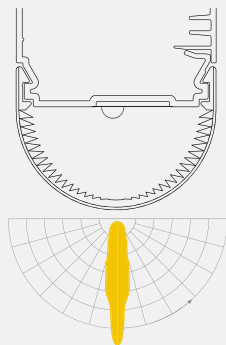
The E4 series offers considerable flexibility on all fronts: dimensions, mounting systems, light distributions and luminous flux. The installation is done in three simple steps.

FOR ANY APPLICATION

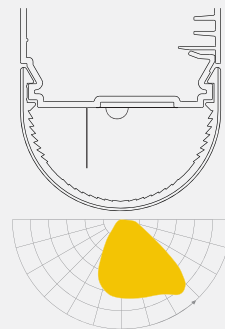
The light distribution in E4 luminaires can be adjusted to your application:



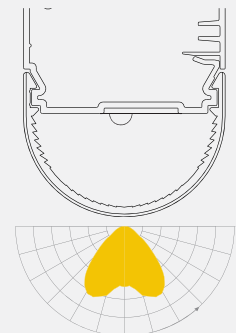
Wide angle:
uniform lighting of
the entire space.



Narrow angle:
directional lighting
on work surfaces
or in corridors.



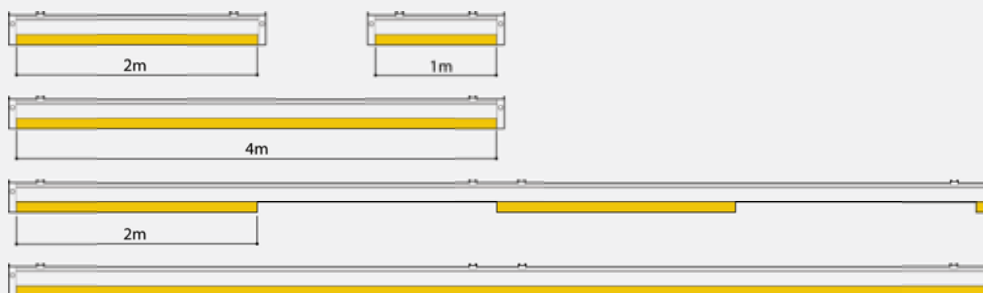
Asymmetric:
directional lighting of
vertical surfaces such as
workstations or product racks.



Double asymmetric:
directional lighting of vertical
surfaces in two directions.

FOR ANY LIGHTING LEVEL

E4 luminaires are available with four different lumen packages, depending on your specific lighting needs: 2000, 3000, 4000 or 6000 lumen per metre. The modules for 2000 and 3000 lumen ($UGR < 25$) are built with intervals, the modules for 4000 and 6000 lumen ($UGR < 25$) create straight lines. Upon request low luminous flux (2000 and 3000 lumen) is also available as continuous light lines ($UGR < 22$).



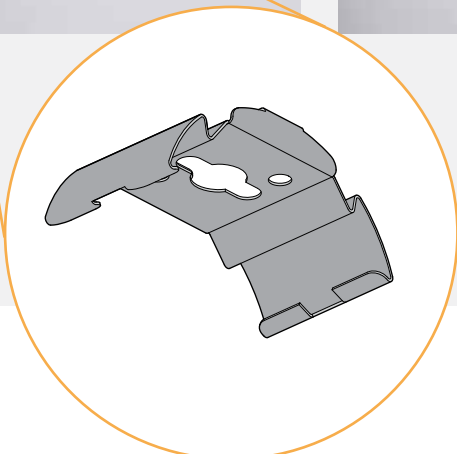
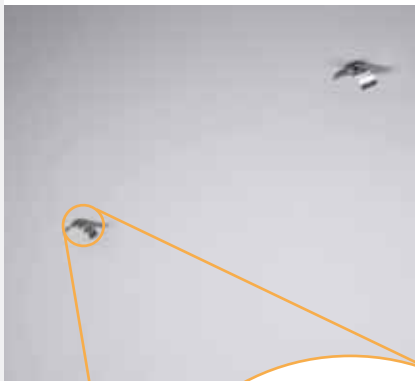


HASSLE-FREE INSTALLATION

1

SECURING MOUNTING BRACKETS

Fix the brackets on the ceiling. Only two suspension points are required for each individual luminaire. For line systems, one suspension point per module is sufficient, plus one at the end of each line.



2

SNAPPING THE LUMINAIRE IN PLACE

The luminaires are snapped into the brackets without screws or tools.



3

CONNECTING

Thanks to the side access the luminaires can be quickly connected. The LEDs are furthermore safety-shielded to prevent touching. In line systems the modules are linked and end caps are installed.

The luminaires are easy to clean. Maintenance on the drivers is effortless, through the lateral cover plate.



E5: MULTILENS

With the multilens ETAP offers a wide array of light distributions, with a simple, albeit highly efficient lens solution. The clustered lenses guarantee high efficiency and directional light distribution.

EFFICIENCY FIRST AND FOREMOST

The light from the individual LEDs is controlled by a lens package. They form a sealed unit that shields the LEDs. There is a different multilens for every light distribution, with adapted lens type:

- Narrow angle
- Medium angle
- Wide angle
- Extreme wide angle
- Asymmetric
- Double asymmetric

The PMMA lenses allow up to 95% of the LED lights to penetrate, enabling us to achieve the highest efficiency. Thanks to the smooth surface the optics are easy to clean.



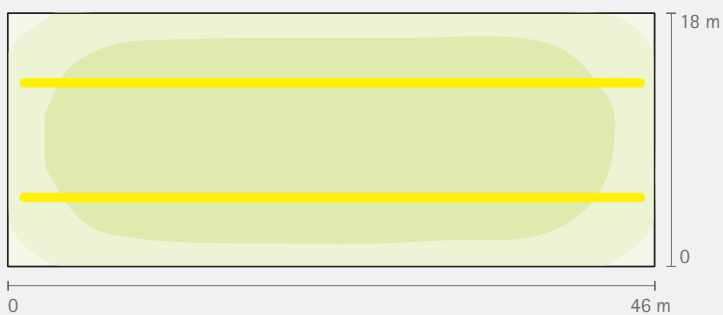
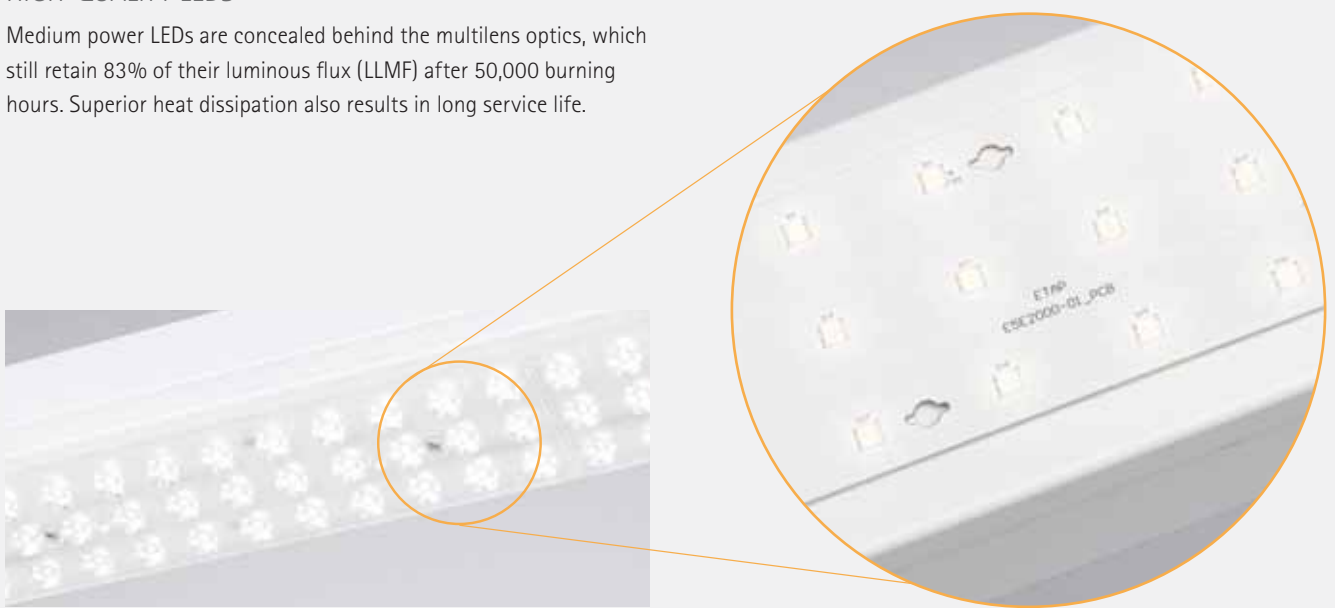
For each led stands a lens that directs the light.



E5 has a wide variety of light distribution thanks to the different lenses.

HIGH-QUALITY LEDS

Medium power LEDs are concealed behind the multilens optics, which still retain 83% of their luminous flux (LLMF) after 50,000 burning hours. Superior heat dissipation also results in long service life.



Example:

In an industrial environment (18 x 46 m, 10 m high) we achieve an illuminance of 300 lux with a specific power of 1.3 W/m²/100 lux with 28 medium angle E5 segments with Multilens technology.

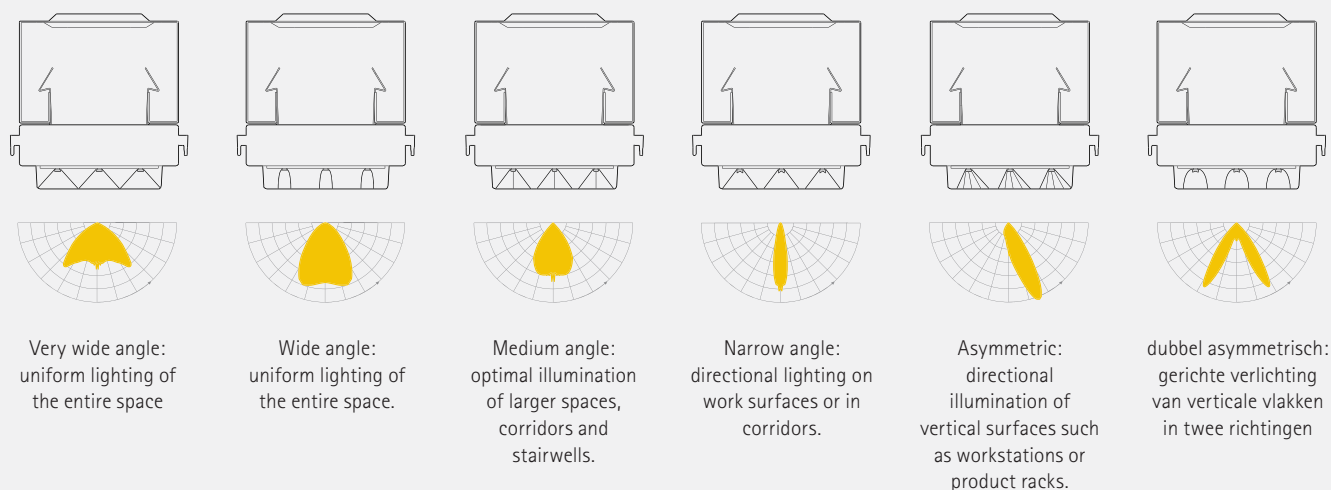
E5

Op maat van uw behoefte

The E5 consists of a continuous profile on which separate LED modules can be installed. Intervals between modules are completely up to you based on your lighting needs and the layout of your space. Will you need more light later? Just add extra modules. Does your space layout change? Just move the modules.

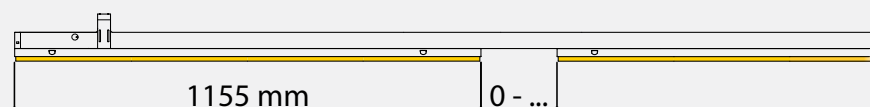
FOR ANY APPLICATION

Select the right light distribution for the E5 modules based on your application.



FOR ANY LIGHTING LEVEL

You can choose between single or double lighting modules. Depending on the intervals, which are fully determined by your space and application, you will achieve up to 18000 lumen per metre. Upon changing lighting needs you can just add, remove or replace modules. To do so please contact your lighting adviser.

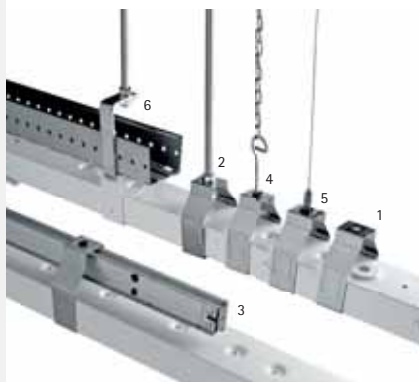


HASSLE-FREE INSTALLATION

1 MOUNTING BRACKETS

Mount the brackets on the ceiling (1), threaded rods (2), chains (4), Telemecanique Canalis KLE (3), steel wires (5) or cable channels (6) .

One point of suspension per segment suffices, plus one at the end of each line.



2 MOUNTING THE BASE UNIT

Mount the base profile (1.5 m, 3 m or 4 m) with through-wiring in the brackets without screws or tools.



3 CONNECT

Connect the modules and click them into the base unit. Any open segments can be filled with a cover plate.

The modules are easy to clean. They are also easy to take out of the profile for maintenance or for moving.



EASY SWITCH FROM FLUORESCENT TO LED

In renovation projects, existing E3 or E5 luminaires with fluorescent lamps can be easily replaced by LED modules. The principle is simple: we remove the E3 or E5 fluorescent luminaires and install LED modules on the existing profile. This takes place on the basis of a new lighting study, which will determine the best possible illuminance for your specific scenario, which means that you can switch from fluorescent to LED without adjustments to the ceiling and that you can immediately enjoy the benefits: no more lamp replacement and up to 30% savings on your energy bill.

Before

After

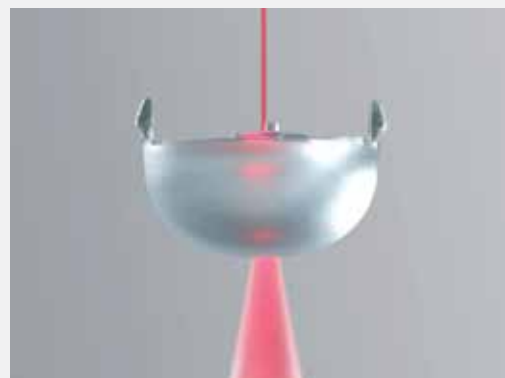


E7, E8: LED+LENS

The advanced LED+LENS™ technology combines high power LEDs with individual lenses. The ingenious optics direct the light exactly to where you need it, and softens the bright LED light to guarantee optimum comfort at all times.

AS EFFICIENT AS IT IS COMFORTABLE

The LED+LENS™ technology works with high power LEDs, allowing luminous fluxes up to 10,000 lumen per meter – ideal for spaces where you need a lot of light. The advanced lenses in turn ensure that the bright LED light is never disruptive – an essential factor in workshops, store environments or hectic public buildings. The result is a highly specific luminous flux (up to 138 lm per watt) and maximum visual comfort (UGR < 19 or < 22).

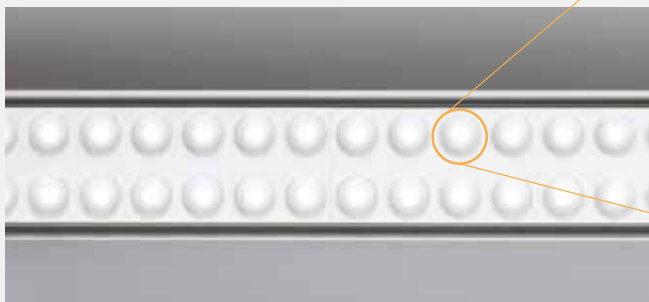


The patented surface structure softens the bright LED light.

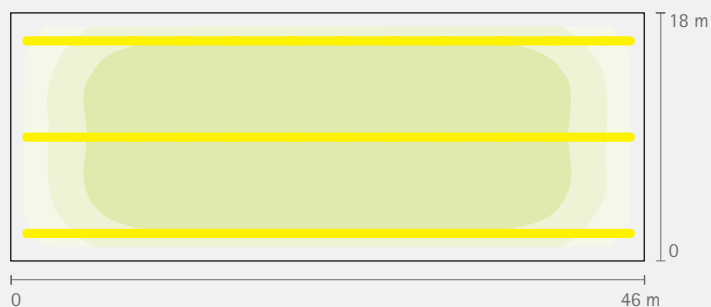


HIGH LUMEN MAINTENANCE

High quality LEDs and excellent thermal management result in high lumen retention. The LEDs maintain 98% of their luminous intensity (LLMF) after 50,000 hours, making it possible to keep the number of luminaires and the installed power low. Furthermore you can be certain that even after 50,000 burning hours, your installation still provides the same amount of light.



LED+LENS™ technology combines high power LEDs and individual lenses.



Example:

In an industrial environment (18 x 46 m, 10 m height) we achieve an illuminance of 1000 lux with a specific power of 1.2 W/m²/100 lux with 33 medium angle E7 segments (4 m) with LED+LENS™ technology.

E7

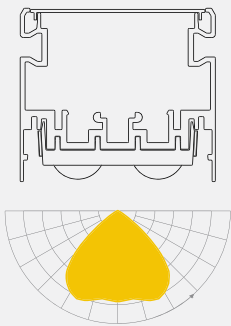
High luminous flux in stylish design



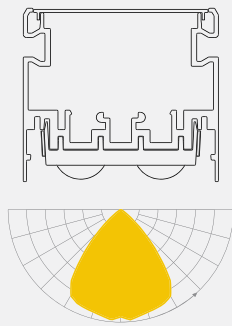
The E7 series makes optimum use of the considerable advantages of LEDs: the light source can be very flexibly spread over the length of the luminaire. As a result, you can perfectly gear the light to the lighting needs in your spaces.

FOR ANY APPLICATION

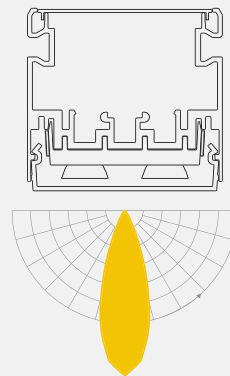
The light distribution of E7 luminaires can be adjusted to your application:



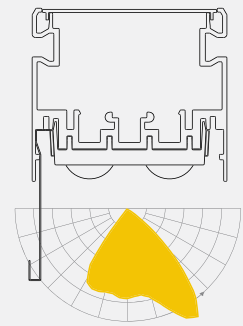
Wide angle:
uniform lighting of
the entire space.



Medium angle:
optimal illumination of
larger spaces, corridors
and stairwells.



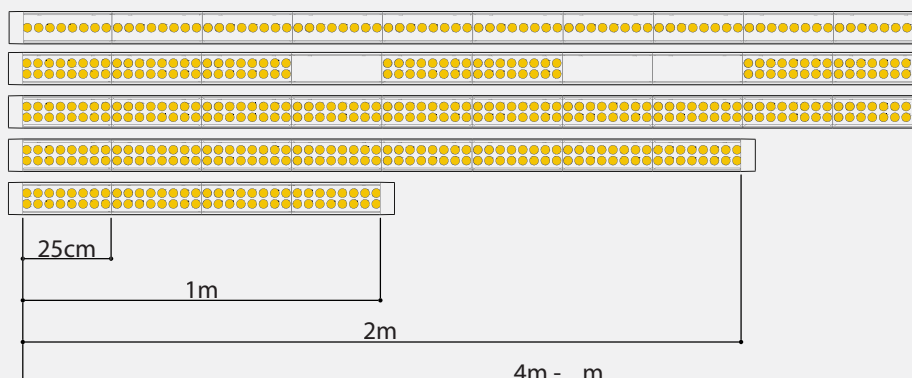
Narrow angle:
directional lighting on work
surfaces or in corridors.



Asymmetric:
directional illumination of
vertical surfaces such as
workstations or product racks.

FOR ANY LIGHTING LEVEL

The E7's luminous flux can be fully geared to your lighting needs, since the number of LEDs per luminaire can be easily adjusted thanks to its modular structure. You can choose from 1 or 2 rows of LEDs and decide on the number of LEDs per metre. Intervals can also be planned within a light line. The E7 achieves luminous flux ranging from 5,000 to 10,000 lumen per metre.



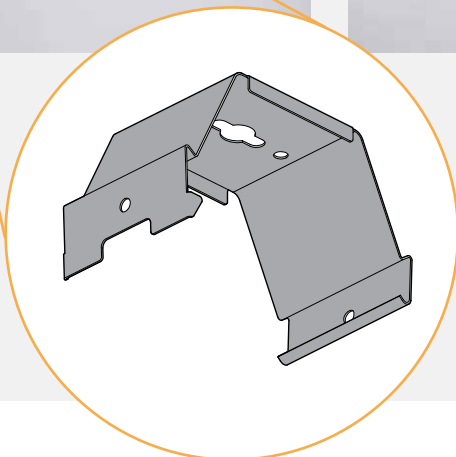
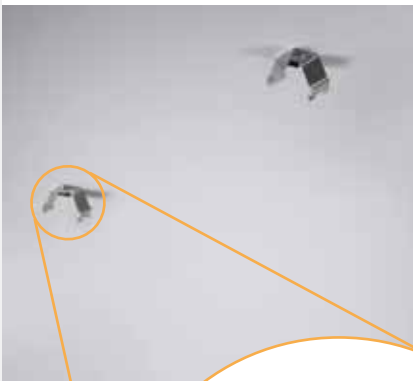


HASSLE-FREE INSTALLATION

1

BRACKET MOUNTING

The E7 uses a simple bracket system, which is secured in the ceiling. Only two suspension points are required for each individual luminaire (up to 4 metres!). For line systems one suspension point per luminaire is sufficient, plus another one at the beginning and end of each line..



2

FASTENING

The open light module is snapped into the bracket system.



3

CONNECT AND SNAP

Thanks to through cabling the luminaires can be quickly connected. For in-line systems, the modules are connected and end caps are added.



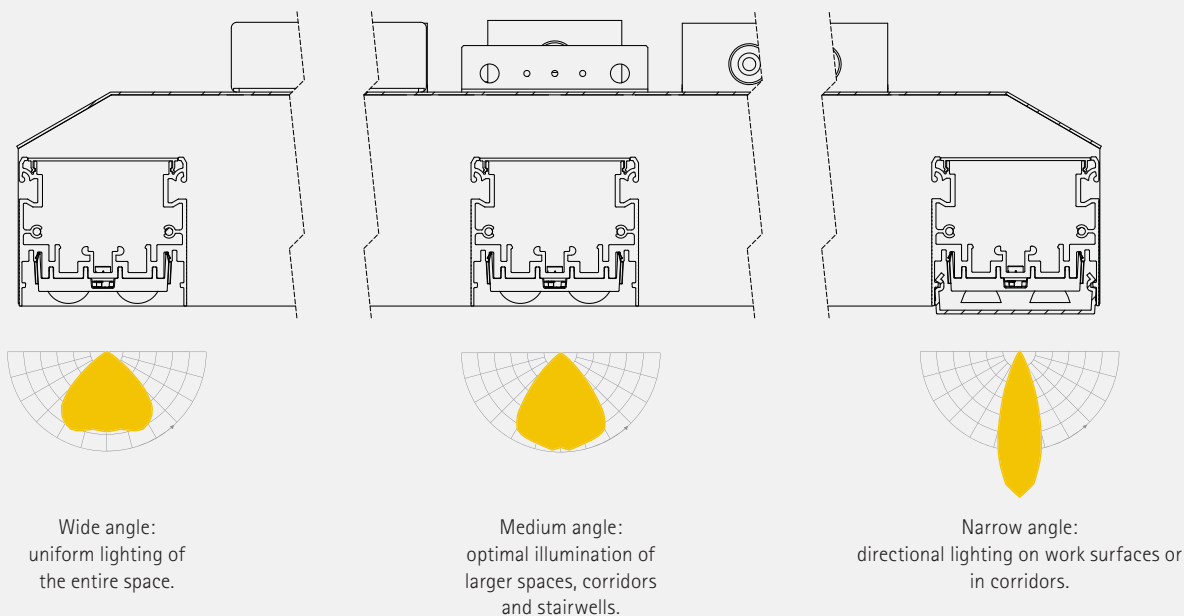
E8

Lighting at a high level

With the E8 highbay you will take lighting to a higher level. We designed this LED+LENS™ solution for spaces from 8 to no less than 20 metres in height. Thanks to the high luminous flux (up to 32000 lm) and the sophisticated light distribution you will get the illuminance you need, without compromising on comfort.

SPACES UP TO 20 METRES HIGH

The E8 is the luminaire par excellence for high spaces where sufficient illuminance is needed, such as production halls, warehouses, sport halls and tall corridors.



ROBUST AND EFFICIENT

With E8 luminaires you will achieve luminous flux of 32000 lumen. The luminaires are fitted with industrial drivers (IP67), which offer better resistance against disruptions on the network and against high temperatures.

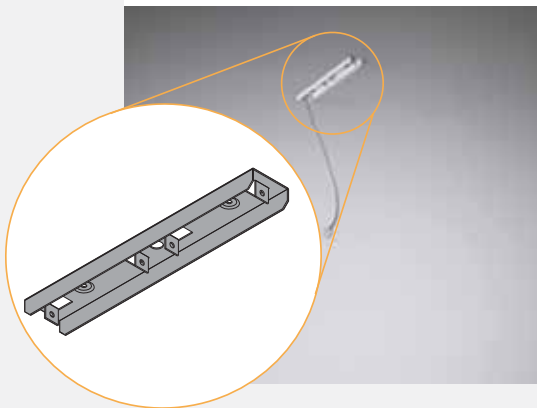


HASSLE-FREE INSTALLATION

1

BRACKET MOUNTING

Secure the bracket to the ceiling or on a threaded rod. For suspended versions, go for one- or two-point suspension.



2

HANGING LUMINAIRE



3

CONNECTING



If you wish you can also tilt the luminaires. For example, in a sport hall they can be suspended over the playing area without blinding the players.

EXTRA PROTECTION

As an option we can deliver the E8 with a polycarbonate cover plate, which not only provides extra protection (IP40 and IK07), but also makes the optics much easier to clean.



Range

E4



E4 surface-mounted, in-line



E4 suspended, in-line



E4 surface-mounted, individual



E4 suspended, individual

E5



E5 surface-mounted, in-line



E5 suspended, in-line

E7



E7 surface-mounted, in-line



E7 suspended, in-line



E7 surface-mounted, individual



E7 suspended, individual

E8



E8 surface-mounted



E8 suspended

INTEGRATED LIGHT CONTROL AND EMERGENCY LIGHTING

Big spaces, big energy savings: every series is available with the regular ELS daylight sensor, specific daylight sensors for big heights or the combined EMD movement and daylight sensor. You can also integrate an emergency lighting LED module. For E5, sensors and emergency lighting are mounted on the base unit. For more information, please contact your ETAP advisor.



E4 with LED
module for
emergency
lighting



E4 with
movement and
daylight sensor



E4 with specific
daylight sensor
for big heights



E4 with daylight
sensor





LED lighting for large spaces

- Light lines with LEDs, specifically designed for large spaces with high ceilings
- Efficient: high efficiency and ingenious light distribution
- High luminous flux (up to 18,000 lm per meter)
- Flexible: light distribution and amount customised to every specific situation
- Durable: long service life, high lumen maintenance
- Easy installation and upkeep
- Superior comfort thanks to DUAL•LENS™, LED+LENS™ and Multilens technology



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