

# Downlights and spots





# Downlights and spots

## **Extensive range**

ETAP produces a broad range of downlights and spots for general and accent lighting. Recessed or surface-mounted; round or square; with reflector or with lenses: the choice is up to you. Downlights represent the right lighting solution for a variety of applications such as corridors, reception areas and stores, as well as public spaces and offices (if  $UGR \leq 19$ ). Spots are used as accent or general lighting in stores, hotels and reception areas.

## **Efficiency and low energy consumption**

The downlights are designed in such a way that the LEDs maintain their ideal operating temperature. The combination comprised of reflectors and patented lenses ensure high light output. Thanks to the wide-angle light distribution fewer luminaires will be needed in many cases. High-quality LEDs and optimum cooling result in high lumen maintenance, guaranteeing years of sufficient illuminance.

## **Comfortable**

Reflectors and lenses not only ensure sophisticated light distribution, they also shield the bright LED light source optimally. Several versions of our downlights have a glare rating of 19 or lower, which makes them suitable for office applications.

## **Stylish**

Downlights and spots are often featured in representational spaces, such as lobbies, reception areas, stores or catering businesses. With their stylish design and high-quality finish they suit any architecture style.

## **IP44**

All downlight series (except the surface-mounted versions) are available in IP44 version, which makes them splash proof and hence suitable for lighting in kitchens and sanitary facilities, among others.



# Technology

## Downlights with reflector

*The D1, D9 and D2 are fitted with high-quality reflectors that shield the light and at the same time are highly efficient. They use a chip-on-board module (COB) as their light source.*

### Sophisticated reflector design

Downlights boast a compact light source, which provides high luminance. Excellent light management is therefore critical. That is why ETAP designs various reflectors: a specular reflector, a satin anodized reflector and a matte white reflector.



The reflectors shield the light source thus preventing glare from the LED lights. Specific versions of the D1 and D2 are suitable for office lighting ( $UGR \leq 19$ ).

In addition, the reflectors ensure efficient, wide-angle light distribution. As a result, fewer luminaires are needed.



### Optimal cooling

The thermal design is also important to the efficiency and service life of your lighting. A custom-made heatsink combined with thermal foil ensures optimal cooling. After 50,000 burning hours, the LLMF (Lamp Lumen Maintenance Factor) is still 90%.

Layer of phosphorus

Reflective layer

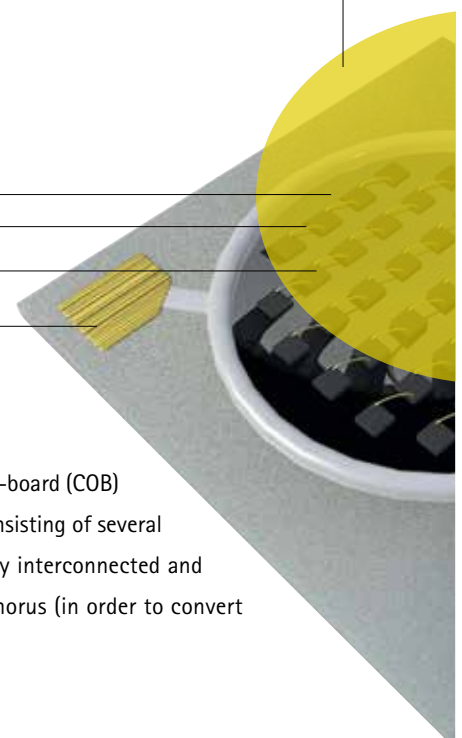
Wire bonding

LED chips

Electrical connection

### Chip-on-board

These downlights feature a chip-on-board (COB) light source, an LED component consisting of several LED chips. The chips are electrically interconnected and are covered with a layer of phosphorus (in order to convert the blue LED light into white light).



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## Downlights and spots with lenses

*The D4 and the Flare spot use the LED+LENS™ technology. The combination of high-power LEDs and sophisticated lens technology results in high-performance, energy efficient and comfortable lighting solutions.*



*D4 lenses have a double function.*



*Flare spot lenses provide medium-wide angle or wide-angle light distribution.*

### LEDs keep their cool

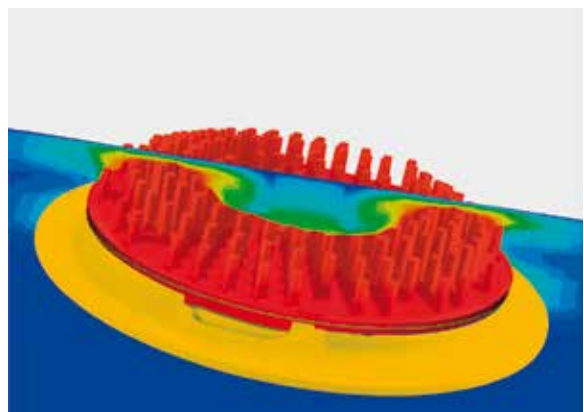
ETAP paid a lot of attention to thermal management, also in LED+LENS™. Result: long service life and high efficiency for the LEDs.

*This thermal image clearly shows how the heat from the LEDs is dissipated by the heatsink.*

### Winning combination

D4 downlights use high-power LEDs, combined with patented lenses. These lenses, with a specific surface structure, have a dual function. Firstly, the lenses keep glare within comfortable boundaries with a unified glaring rating ( $UGR \leq 19$ ). Secondly, the lenses provide wide-angle light distribution, thus limiting the number of luminaires.

Flare spots feature medium-wide or wide angle light distribution. Result: the spots only illuminate that which is necessary, thus not wasting any energy on the undesirable scattering of light.







# D9

## *The widest choice*



With the D9 you have ample choice to gear your lighting to your own taste and needs. ETAP has developed three reflectors: a specular, faceted reflector for the best efficiency; a satin-anodized reflector for a calmer image and a matte white reflector for diffuse lighting. You can choose from three lumen packages: 1000, 2000 and 3000 lumen. The D9 is suitable for corridors, sanitary spaces (IP44 version) and public areas within the building.

### **Efficient**

D9 uses chip-on-board-technology. The COB module boasts diffuse shielding in order to limit the LEDs' high luminance. The superior thermal design and specially developed reflectors ensure specific luminous flux up to 127 lm/W.

The various reflectors ensure optimal light distribution, thus allowing to limit the number of luminaires in most cases.

### **Seamless finish**

The D9's polycarbonate housing and reflector form one unit, without visible seams, resulting in their discreet integration into the ceiling.

### **Extras**

Optionally the D9 can be fitted with a matte cover glass. For humid spaces, we have a IP44 cover glass available to protect the downlight against splash water.

### **Easy to install**

The trim is mounted on the ceiling using three brackets. Subsequently the power is connected and the power supply is installed in the ceiling. Lastly, the downlight (with its reflector) is installed and secured with a twisting motion. No tools are required.

> View the installation video at [www.etaplighting.com](http://www.etaplighting.com).







# D1

## *Also suitable for offices*

In addition to 'traditional' downlight applications the D1 can also be used in offices and conference rooms.

### **Efficient and comfortable**

The D1 features an aluminium housing and a reflector in a specular finish with facets. It is available in three lumen packages: 1000, 2000 and 3000 lumen.

Just like the D9, the D1 uses chip-on-board-technology. The LEDs are shielded by a diffuse plate and the reflectors protect against glare. This results in a  $UGR \leq 19$ , making the D1 suited for offices and meeting rooms. The thermal and photometric design ensure efficiency up to 104 lm/W.

### **Extra options**

The D1 is available with wafer or flat trim in white or grey. The wafer trim version has several optional accessories, such as a glass ring, plate or cylinder that can be mounted under the luminaire. In humid spaces you can protect the D1 with an IP44 cover glass.

### **Ease of installation**

The D1 can also be installed in no time. Firstly, connect the luminaire (with Wieland plug) and secure to the ceiling using three pre-mounted fixing brackets. Lastly, click the reflector into the luminaire.





# D2

## *If recessed is not an option*

The D2 is a stylish downlight for surface mounting, suitable for ceilings where recessed luminaires are impossible. Due to its characteristic design, the luminaire lends itself to spaces and buildings with a distinct architecture.

### **Plenty of choice**

The D2 is the surface-mounted version of the D1 recessed downlights. They use the same photometrics and also come with aluminium specular reflectors with facets. In addition, the D2 is also available with a satin-anodized reflector. Here too you can choose between 3 lumen packages (1000, 2000 and 3000 lm) and two colours: white and grey structure lacquer.

### **Reliability in the long term**

Contrary to the recessed downlights, the D2 has no separate heatsink: the housing itself ensures optimum heat dissipation. In this way hardly any deterioration takes place: the Lamp Lumen Maintenance Factor (LLMF) stays at 90% after 50,000 burning hours.







# D4

## *More than just a downlight*

The D4 is one of the most striking downlights on the market. It combines the latest LED+LENS™ technology with an attractive design. The downlights are available in various colour combinations (black/white, solid white, solid black or grey), making them suitable for any architecture style.

### Unique combination

The combination of high-power LEDs and individual lenses turn the D4 into a unique downlight with quite a few assets. High lumen packages (up to 4000 lm per luminaire) and the most efficient LEDs on the market result in a specific luminous flux up to no less than 125 lm/W. The patented lenses with special surface structure compensate for this high luminous flux and keep glare within boundaries. Versions with a  $UGR \leq 19$  can be used for office applications.

### Two sizes, many variations

The D4 is available with 18 LEDs (Ø20 cm) and 35 LEDs (Ø25 cm). Each time you can choose between a high lumen package and a low lumen package ( $UGR \leq 19$ ).

### Uniform style

By combining the D4 with other LED+LENS™ luminaires (U7 recessed, R7 surface-mounted or suspended and Flare spot) you will create a characteristic, cohesive style throughout your building.

### Installation without tools

The D4 can also be installed effortlessly in the ceiling, without any tools. Install the mounting frame using three brackets. Subsequently connect the driver and install it in the ceiling. Lastly, attach the LED module's safety catch to the mounting frame and install the module by 'twisting and locking'.





# Flare

## *Compact and flexible*

Flare spots are the perfect choice for highlighting objects and details in your décor. In addition they are also used for general lighting in reception areas, hotel rooms and stores.

### **Compact size, extensive possibilities**

The Flare spot with a diameter of 98 mm, make a comprehensive series. You can choose between 3, 4 or 7 LEDs; fixed or directional, with a medium wide (24°) or wide light beam (36°). All spots are available in a colour temperature of 3000 or 4000K. The housing is white and the LED module black as standard; but a solid white, black or grey version is also possible.

### **Flexibility**

The LED module in the directional spot can be tilted (to 25°) as well as rotated (to 350°). Only the LED module tilts or rotates, whilst the luminaire housing stays in place.

### **Energy saving**

Energy-saving was also a point of special interest in the design of the Flare. With a specific luminous flux up to 110 lm/W your energy bill will not come as an unpleasant surprise.



## D9

- ø 190 mm / h 98 mm
- White trim
- Min. cutout: 175 mm



Specular faceted reflector



Satin-anodized reflector



Matte white reflector

## D1

- ø 220 mm / h 120 mm
- Specular faceted reflector
- White or grey trim
- Min. cutout: 205 mm



Wafer trim



Flat trim



IP44 version

## D2

- ø 200 mm / h 212 mm
- White or grey housing



Specular faceted reflector



Satin-anodized reflector

## D4

- LED+LENS™
- White housing with black LED module



18 LEDs / Ø 200 mm  
h 74 mm / min. cutout: 180 mm



35 LEDs / Ø 250 mm  
h 74 mm / min. cutout: 230 mm

## Flare

- ø 98 mm / h 63 mm
- White housing with black LED module
- Fixed or directional
- Min. cutout: 80 mm



3 LEDs



4 LEDs



7 LEDs





IP44 version



Accessories: glass plate



Accessories: glass plate, ring or cylinder

## Full range

*D9 with ELS sensor.**With Excellum2, users can adjust the lighting to their own preferences.**D4 with K9 LED module.*

### Extra energy-saving and comfort

For extra energy-saving the downlights can be fitted with a sensor for daylight-dependent light control (ELS), or a multisensor for motion detection and daylight-dependent control (EMD). The ELS sensor measures illuminance and dims the lights as more daylight enters the space. The EMD sensor also detects motion: whenever someone comes within the reach of the sensor, the light will automatically switch on. If no further motion is detected, the light switches off again after a previously set timespan. In the D4 the sensors are seamlessly integrated into the black LED module. In the other downlights the sensors are mounted on a bracket in the reflector.

### Excellum2

The Excellum2 light control system centrally manages your luminaires. The software allows to create overviews of energy consumption and savings. Users can adjust the lighting to their own preference on PC, tablet or smart phone.

### Integrated emergency lighting

The LED module for emergency lighting is an excellent alternative to separate emergency lighting luminaires. Here too the module is discreetly integrated into the luminaires: in the D4 it is mounted in the LED housing; in the other downlights the module is mounted on a bracket in the reflector.



## Downlights & spots

- Extensive range for all lighting applications
- High efficiency and visual comfort
- High-quality finish and stylish design
- Easy installation
- IP44 version for humid spaces

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