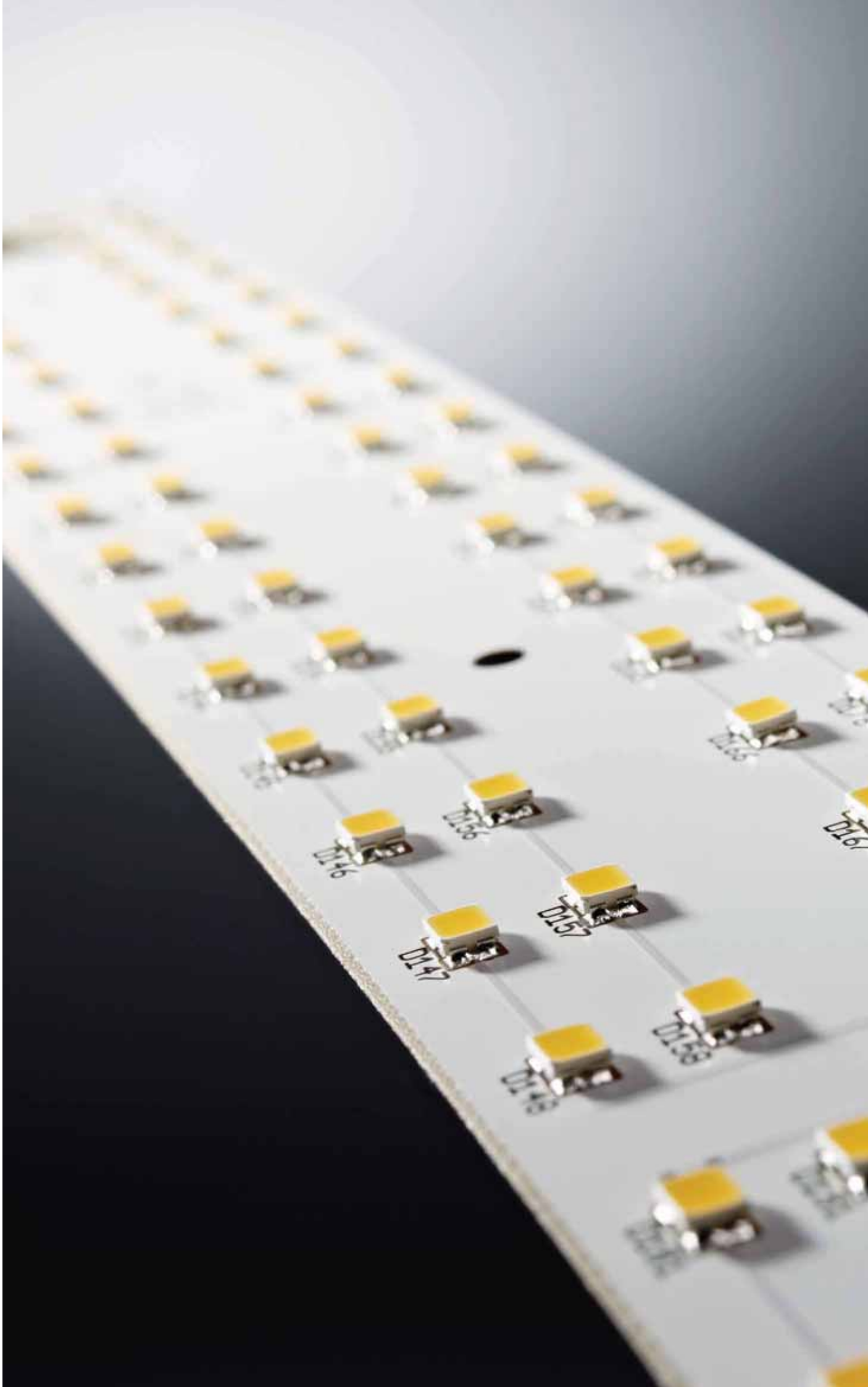
# LEDs - a source of inspiration

Advanced LED technology

ETAP

EXCELLENT LIGHTING, SAVING ENERGY






# ETAP

## Ground-breaking with LEDs

LEDs are in, and that's not a coincidence. Today, this innovative light source offers an economical and ecological responsible alternative for a number of classical light sources. Of course on the condition that the LED solutions have been thoroughly technically tested. That this is not evident is unfortunately apparent by the large numbers of LED luminaires that flood the market. A piece of cake for the ETAP engineers, who have a strong reputation in the development of new, ground-breaking and technically reliable luminaires.

Already in 2003, ETAP – as one of the first in the sector – introduced LEDs into emergency lighting. Today, we use only LEDs for emergency lighting. For lighting we offer a great choice. Indeed, ETAP follows the evolution of the LED closely, and uses the positive characteristics to their fullest. You can find the result of all these developments in this catalogue.

Check our website for the most recent developments.

LED+LENS TECHNOLOGY

# ETAP

## Contents

# U7



# U7

## Recessed square luminaires

| | |
|---|---|
| **Design** | EER Architectural design, Belgium |
| **Technology** | LED+LENS™ |
| **Material** | sheet steel |
| **Colour** | structure lacquer RAL9003<br>other colours upon request |
| **Colour temperature** | 3000K or 4000K |
| **Luminous flux** | from 2500 to 5000 lumen |
| **Luminous efficacy** | up to 82 lm/W |
| **Measurements** | see www.etaplighting.com |
| **Light distribution** | medium wide-angle, wide-angle |
| **Options** | integrated light control and emergency lighting<br>air extraction<br>frame for mounting in plaster ceiling |

*U7 with air extraction*

# U7

# U7

## Recessed linear luminaires

| | |
|---|---|
| **Design** | EER Architectural design, Belgium |
| **Technology** | LED+LENS™ |
| **Material** | sheet steel |
| **Colour** | structure lacquer RAL9003<br>other colours upon request |
| **Colour temperature** | 3000K or 4000K |
| **Luminous flux** | from 2500 to 5000 lumen |
| **Luminous efficacy** | up to 82 lm/W |
| **Measurements** | see www.etaplighting.com |
| **Light distribution** | medium wide-angle, wide-angle, asymmetric |
| **Options** | integrated light control and emergency lighting<br>air extraction<br>frame for mounting in plaster ceiling |

# UM2

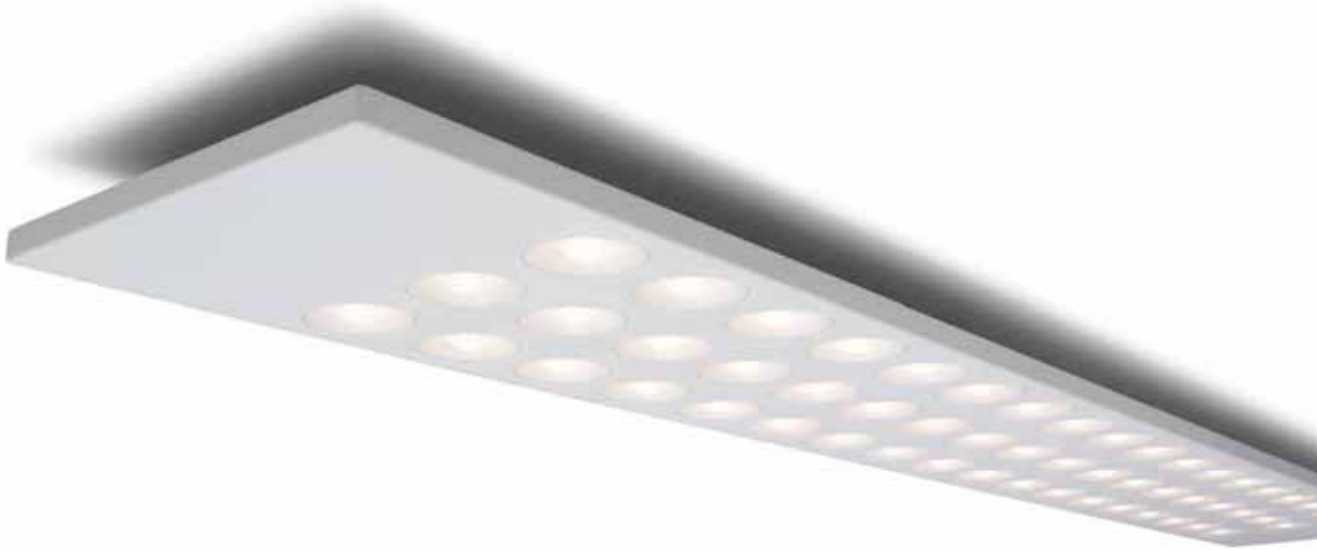
# UM2

## Recessed luminaires

| | |
|---|---|
| **Technology** | LED + MesoOptics™ diffuser |
| **Material** | extruded aluminium<br>MesoOptics™ foil on safety glass |
| **Colour temperature** | 3000K or 4000K |
| **Luminous flux** | from 3100 to 3300 lumen |
| **Luminous efficacy** | up to 87 lm/W |
| **Measurements** | see www.etaplighting.com |
| **Light distribution** | medium wide-angle |
| **Options** | integrated light control<br>air extraction<br>frame for mounting in plaster ceiling |

1. *LEDs ensure perfect illumination of the diffuser*
2. *UM2 with air extraction*
3. *UM2 with daylight dependent control (ELS)*

# R7

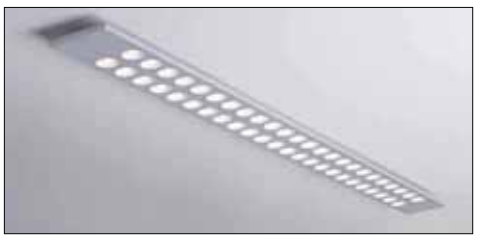




# R7

## Surface mounted luminaires

| | |
|---|---|
| **Design** | EER Architectural design, Belgium |
| **Technology** | LED+LENS™ |
| **Material** | sheet steel |
| **Colour** | structure lacquer RAL9003 - RAL9006<br>other colours upon request |
| **Colour temperature** | 3000K or 4000K |
| **Luminous flux** | from 2500 to 5000 lumen |
| **Luminous efficacy** | up to 82 lm/W |
| **Measurements** | see www.etaplighting.com |
| **Light distribution** | medium wide-angle, wide-angle, asymmetric |
| **Options** | integrated light control and emergency lighting |



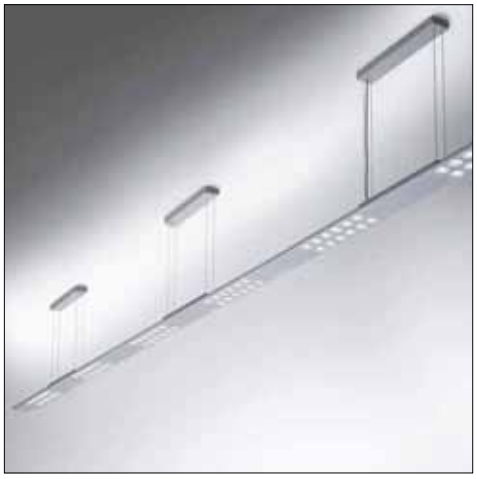
# R7

# R7

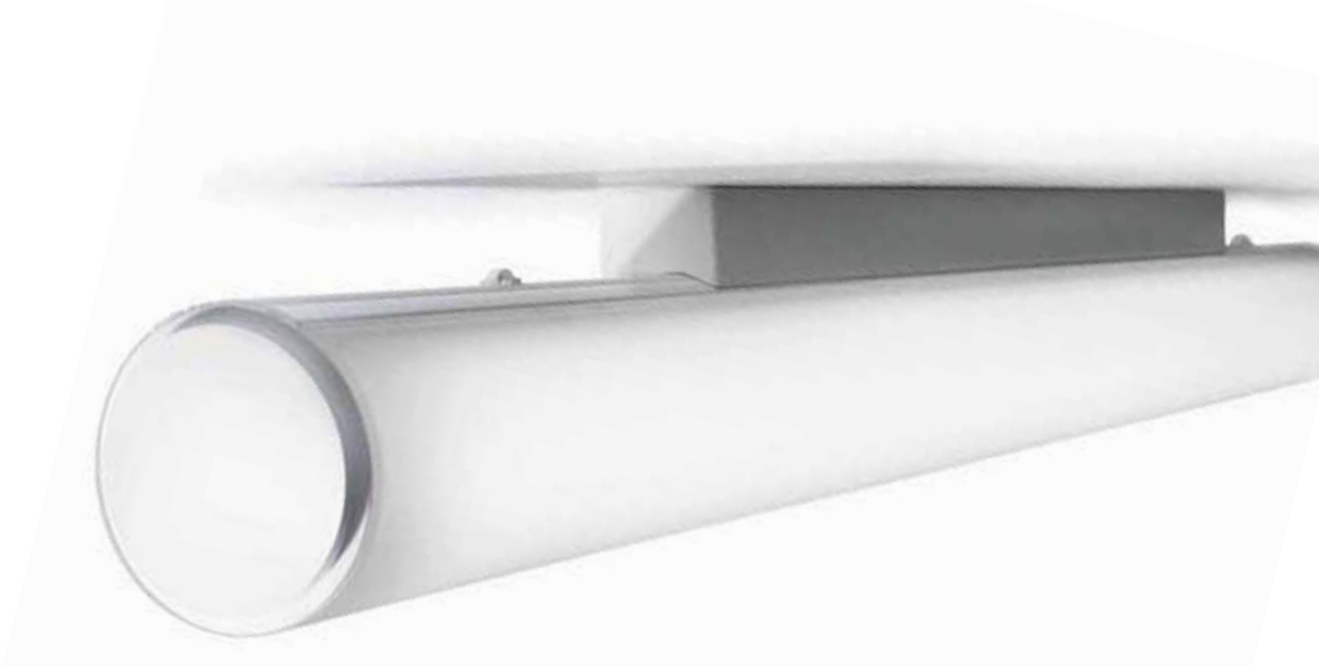
## Suspended luminaires

| | |
|---|---|
| **Design** | EER Architectural design, Belgium |
| **Technology** | LED+LENS™ |
| **Material** | sheet metal |
| **Colour** | structure lacquer RAL9003 - RAL9006<br>other colours upon request |
| **Colour temperature** | 3000K or 4000K |
| **Luminous flux** | from 2500 to 5000 lumen |
| **Luminous efficacy** | up to 82 lm/W |
| **Measurements** | see www.etaplighting.com |
| **Light distribution** | medium wide-angle, wide-angle, asymmetric |
| **Options** | integrated light control and emergency lighting |

1. *R7 suspended luminaire line mounting*
2. *R7 uplight*



# R8





# R8

## Surface mounted and suspended luminaires

| | |
|---|---|
| Technology | LED + HaloOptics® diffuser |
| Material | housing: profile extruded aluminium |
| Colour temperature | 3000K or 4000K |
| Luminous flux | from 1200 to 3100 lumen |
| Luminous efficacy | up to 88 lm/W |
| Measurements | Ø 90 mm |
| Light distribution | diffuse |

# Kardó 60

# Kardó 60

## Modular light systems

| | |
|---|---|
| **Design** | EER Architectural design, Belgium |
| **Technology** | LED+LENS™ or<br>LED + HaloOptics® diffuser |
| **Material** | profile: extruded aluminium |
| **Colour** | profile and cover LED+LENS™:<br>anodized aluminium or lacquered white RAL9003 |
| **Colour temperature** | 3000K or 4000K |
| **Luminous flux** | uplight: 1000 lumen<br>diffuser: 1500 lumen<br>lens: 2000 lumen |
| **Luminous efficacy** | uplight: up to 65 lm/W<br>diffuser: up to 77 lm/W<br>lens: up to 74 lm/W |
| **Light distribution** | medium wide-angle, diffuse |
| **Options** | integrated light control and emergency lighting |

*Kardó 60 with diffuser*

# D1





# D1

## Downlights

| | |
|---|---|
| **Technology** | LED module |
| **Material** | reflector: specular or satin-anodised aluminium<br>trim: sheet steel |
| **Colour** | trim: RAL9003 - RAL9006 |
| **Colour temperature** | 3000K or 4000K |
| **Luminous flux** | from 1000 to 2800 lumen |
| **Luminous efficacy** | up to 79 lm/W |
| **Measurements** | see www.etaplighting.com |
| **Light distribution** | wide-angle |
| **Options** | integrated light control and emergency lighting |
| **Accessories** | frosted disc – glass ring - IP44 design |

1. *Cooling body*
2. *D1 with specular reflector*
3. *D1 with glass ring*

# D2



# D2

## Downlights

| | |
|---|---|
| **Technology** | LED module |
| **Material** | housing: aluminium<br>reflector: specular or satin-anodised aluminium |
| **Colour** | RAL9003 - RAL9006 |
| **Colour temperature** | 3000K or 4000K |
| **Luminous flux** | from 1000 to 2800 lumen |
| **Luminous efficacy** | up to 79 lm/W |
| **Measurements** | Ø 200 mm, surface height: 210 mm |
| **Light distribution** | wide-angle |

# D3



# D3

## Downlights

| | |
|---|---|
| **Technology** | LED module |
| **Material** | reflector: specular or satin-anodised aluminium<br>trim: sheet steel |
| **Colour** | trim: RAL9003 - RAL9006 |
| **Colour temperature** | 3000K or 4000K |
| **Luminous flux** | from 1000 to 2800 lumen |
| **Luminous efficacy** | up to 73 lm/W |
| **Measurements** | ⌀ 175 mm, mounting depth: 140 mm |
| **Light distribution** | wide-angle |
| **Options** | integrated light control and emergency lighting |
| **Accessory** | IP44 design |

*D3 with reflector*

# D4

# D4

## Downlights

| | |
|---|---|
| **Technology** | LED+LENS™ |
| **Material** | housing: die cast aluminium |
| **Colour** | RAL9003 (white), RAL9005 (black) and grey<br>other colours and color combinations upon request. |
| **Colour temperature** | 3000K or 4000K |
| **Luminous flux** | from 1440 to 3030 lumen |
| **Luminous efficacy** | up to 69 lm/W |
| **Measurements** | Ø 200 mm - Ø 250 mm, mounting depth: 68 mm |
| **Light distribution** | wide-angle |
| **Options** | integrated light control and emergency lighting<br>washer for soft ceilings |
| **Accessory** | IP44 cover plate |

1. *Ø 200 mm - red housing, red LED module*
2. *Ø 250 mm - black housing, black LED module*
3. *Ø 250 mm - grey housing, grey LED module*

4. *D4 with K9 emergency lighting module*
5. *Cooling element*

# Ehaled



# Ehaled

## Recessed luminaires

| | |
|---|---|
| **Technology** | LED + HaloOptics® diffuser |
| **Material** | white sheet steel housing<br>diffuser (PMMA) |
| **Colour temperature** | 3000K or 4000K |
| **Luminous flux** | 1070 lumen |
| **Luminous efficacy** | up to 53 lm/W |
| **Measurements** | Ø 310 mm, mounting depth: 126 mm |

# Flare



# Flare

## Spots

| | |
|---|---|
| **Technology** | LED+LENS™ |
| **Material** | housing: die cast aluminium |
| **Colour** | RAL9003 (white), RAL9005 (black) and grey<br>other colours and color combinations upon request. |
| **Colour temperature** | 3000K or 4000K |
| **Luminous flux** | from 323 to 773 lumen (3, 4 or 7 leds) |
| **Luminous efficacy** | up to 56 lm/W |
| **Measurements** | Ø 98 mm, recessed height: fixed: 63 mm, pointable: 93 mm |
| **Light distribution** | light beam 16˚, 24˚, 36˚ |
| **Option** | mounting box for concrete ceilings |

1. *Flare spot with 3 LEDs, white housing – black LED module*
2. *The Flare spot is tiltable up to 25˚*

3. *Flare spot with installation clamps for hollow ceilings*
4. *Flare spot with 7 LEDs, black housing – black LED module*

# UW



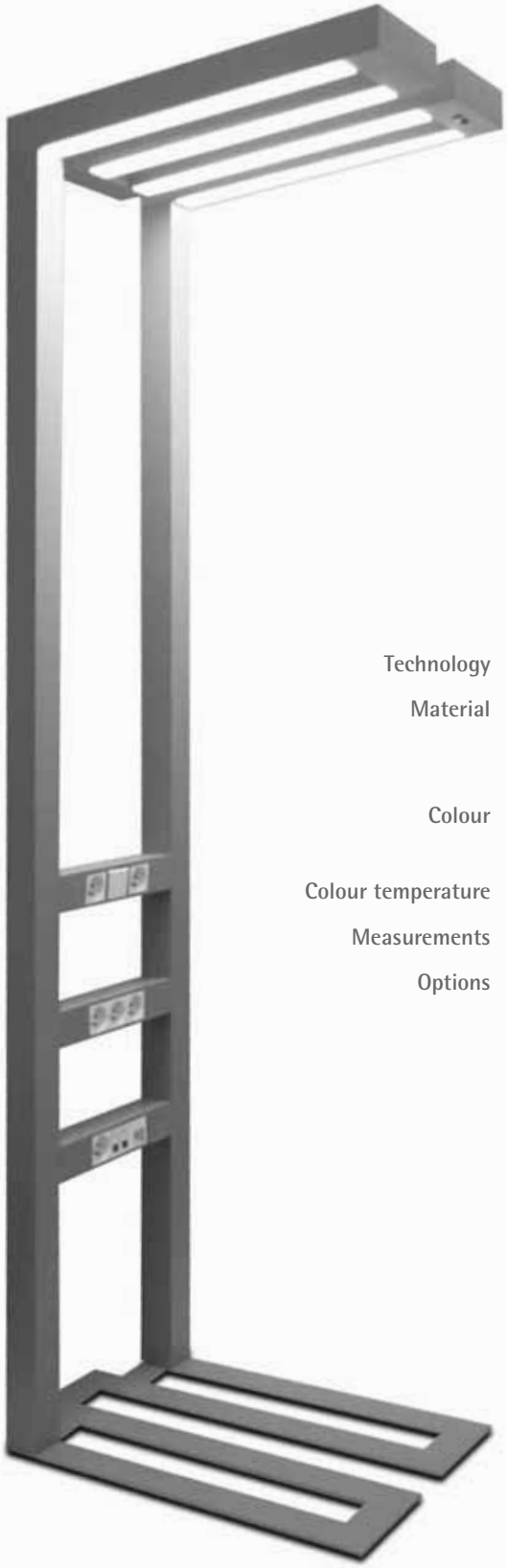

# UW

## Wall luminaires

| | |
|---|---|
| **Technology** | LED + diffuser |
| **Material** | sheet steel housing, with aluminium front plate<br>diffuser - acrylate |
| **Colour** | RAL9003 - RAL9006 |
| **Colour temperature** | 3000K or 4000K |
| **Luminous flux** | 116 lumen |
| **Luminous efficacy** | up to 29 lm/W |
| **Measurements** | width x height: 200 x 80 mm, depth: 43 mm |
| **Light distribution** | extreme wide-angle |
| **Option** | mounting box for concrete surface |

*Extreme wide-angle light distribution*

# Padeo



# Padeo

## Floor standing luminaires

| | |
|---|---|
| **Technology** | LED + diffuser |
| **Material** | lacquered aluminium housing<br>diffuse lamp shielding: HaloOptics®<br>lacquered steel foot |
| **Colour** | RAL9003 - RAL9006<br>other colours upon request |
| **Colour temperature** | 3000K or 4000K |
| **Measurements** | 1950 x 655 x 385 mm |
| **Options** | integrated light control<br>switches and sockets |

# E7



# E7

## Light line systems

| | |
|---|---|
| **Technology** | LED+LENS™ |
| **Material** | base: lacquered sheet steel housing<br>module: extruded aluminium |
| **Colour** | RAL9003<br>other colours upon request |
| **Colour temperature** | 3000K or 4000K |
| **Luminous flux** | 3000 to 12000 lumen |
| **Luminous efficacy** | up to 82 lm/W |
| **Measurements** | module: 78 x78 mm, length: 1, 2, or 4 m |
| **Light distribution** | narrow-angle, medium wide-angle, wide-angle, asymmetric |
| **Options** | integrated light control and emergency lighting<br>central battery system (EBS) |

1. *E7 suspended luminaire with 2 light modules*
2. *E7 surface mounted luminaire, line mounting*


E1



# E1

## High protection factor luminaires

| | |
|---|---|
| **Technology** | LED+LENS™ |
| **Material** | fiberglass enforced polyester housing<br>protection from acrylate of polycarbonate<br>polyurethane seal<br>quick release mounting brackets and stainless steel |
| **Colour** | not applicable |
| **Colour temperature** | 4000K |
| **Luminous flux** | from 3000 to 4600 lumen |
| **Luminous efficacy** | up to 80 lm/W |
| **Measurements** | see www.etaplighting.com |
| **Light distribution** | narrow-angle, medium wide-angle, wide-angle |
| **Specific characteristics** | IP65 protection grade<br>IK03 impact resistant by PMMA<br>IK08 impact resistant by PC |

# K7



# K7

## Recessed and surface luminaires for emergency lighting and signage

| | |
|---|---|
| **Material** | housing and diffuser: impact-resistant polycarbonate<br>mounting bracket: galvanised steel |
| **Measurements** | see www.etaplighting.com |
| **Light distribution** | foil, viewing distance: 26m<br>perfect evenly distributed illumination, conform to EN 1838 |
| **Self test** | gives a warning signal when the brightness under emergency conditions drops below 2 cd/m² |

1. *K7 recessed luminaire*
2. *K7 wall luminaire*
3. *K7 suspended luminaire*
4. *Optional: lightspot module or escape route module*
5. *K7 escape route lighting with wide-angle distribution*

# K8



# K8

## Surface luminaires for emergency lighting and signage

| | |
|---|---|
| **Material** | base made out of hardened steel and aluminum, end pieces out of aluminum, painted white (RAL9003)<br>HaloOptics® diffuser for high efficiency |
| **Measurements** | 290 x 90 mm |
| **Light distribution** | perfect evenly distributed illumination, conform to EN 1838 |

1. *K8 anti-panic and escape route lighting*
2. *K8 perpendicular wall mounting*
3. *K8 suspended mounting*

# K9

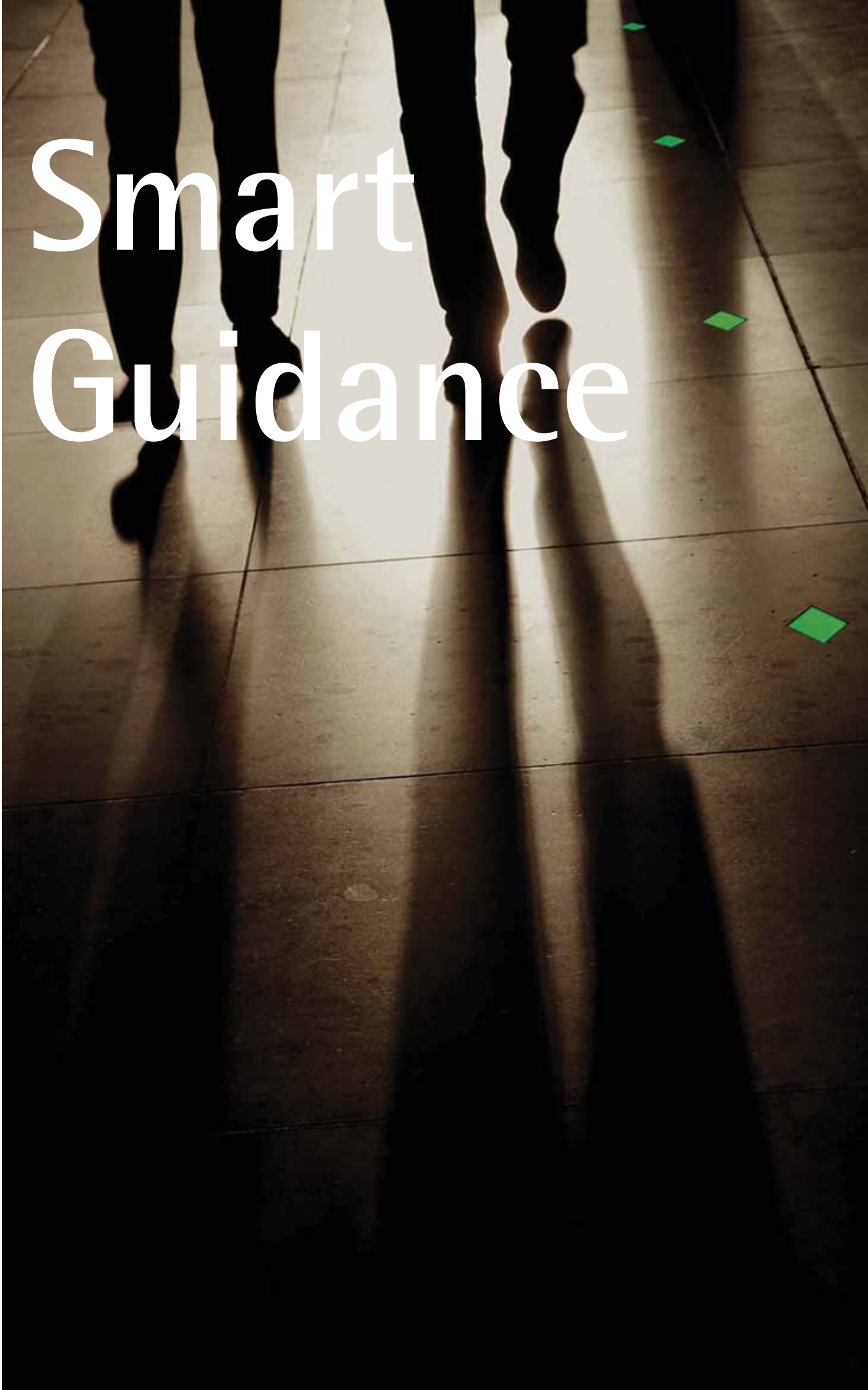


# K9

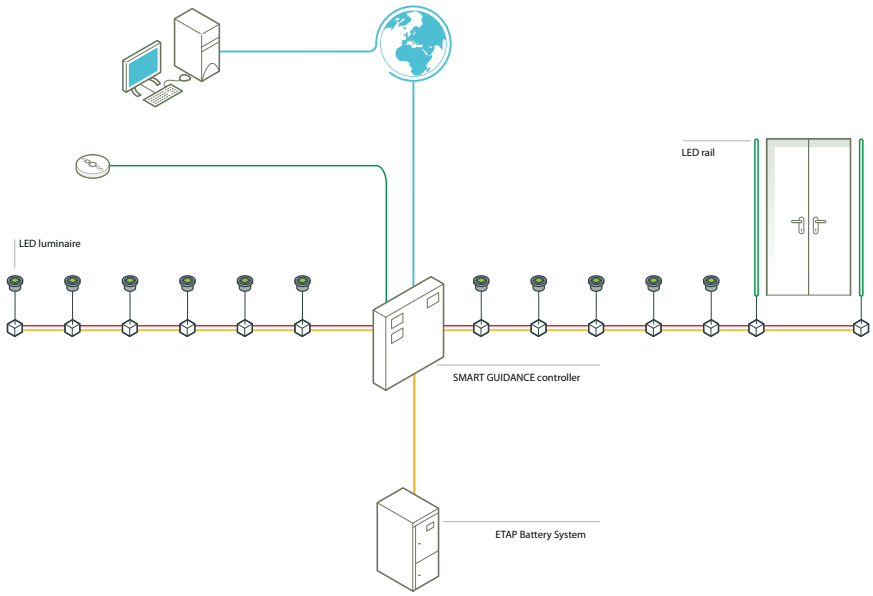
## Recessed and surface luminaires for emergency lighting and signage

| | |
|---|---|
| **Material** | housing: pressure die cast aluminium, painted white aluminium (RAL9006), white (RAL9003) as option<br>housing recessed: white (RAL9003) or white aluminium (RAL9006)<br>painted sheet steel<br>sign plate: polymethyl metacrylate (PMMA) |
| **Measurements** | see www.etaplighting.com |
| **Light distribution** | perfect evenly distributed illumination, conform to EN 1838 |
| **Self test** | gives a lamp warning when the brightness under emergency conditions drops below 2 cd/m$^2$ |

1. *K9 wall luminaire for maintained signage*
2. *Automatic self test*
3. *K9 suspended luminaire for maintained signage*
4. *K9 recessed luminaire for escape route lighting*
5. *K9 recessed luminaire for maintained signage*



# Smart Guidance






# Smart Guidance

**System** Smart Guidance is a system that guides large groups of people to their destination in an intelligent and intuitive manner. In emergencies, the system allows for faster evacuation, thanks to the dynamic lighting which indicates the route to be followed. In normal conditions, Smart Guidance guides people to their destination in a more orderly fashion.

**Components**

luminaires — ground or wall luminaires alongside route
LED rail next to (emergency) exit

power supply for the luminaires

controller — central control of the luminaires, dynamic adjustment of light signals as a function of the conditions

emergency supply for the system

1. *Ground spot*
2. *LED rail for exits*
3. *UW wall luminaire*

# L und M

# Bespoke luminaires

With our experienced development team and our flexible production, we can easily meet your request for customization in lighting and emergency lighting with LEDs as well as with fluorescent lamps. You can specify shape, colour, light techniques, air treatment, measurements, mounting or electrical connection to meet your needs. We have already delivered customized luminaires for countless projects.

## L und M

L und M, the German specialist in data processing, is a good example of customisation. This company chose a unique LED solution that changed the server room into an impressive display of lights. Visitors are offered various vantage points to watch the server space, which extends over three floors.

The custom designed luminaires consist of
90 tubular HaloOptics® polycarbonate diffusers that are attached to the ceiling with transparent cables. The ceiling contains also the Dali ballasts that allow the LED luminaires to be dimmed per floor. Programmable, dynamic scenes thus enable different light movements and patterns to be dis- played from the central server over the full height of the building.

## Advanced LED technology

# Designing with LEDs

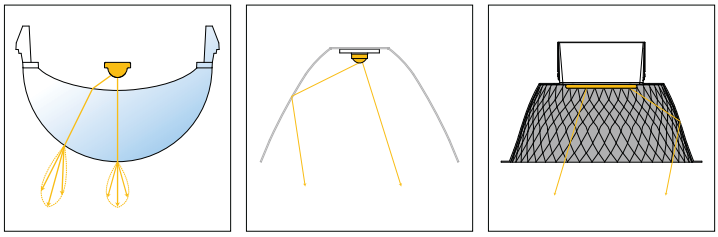
An LED is a completely different light source than a fluorescent lamp. LEDs are a lot smaller, but also are more luminous. In order to achieve optimal use of light, a specific optic design of a luminaire is necessary.

Most LEDs have wide angled distribution and they illuminate in an angle of 80 to 140° (complete angle). With the help of secondary and tertiary optics (lenses, diffusers, reflectors or combinations thereof) we can achieve the specific distribution. An appropriate distribution of light is important in order to keep the specific power, and thus the energy consumption, as low as possible.

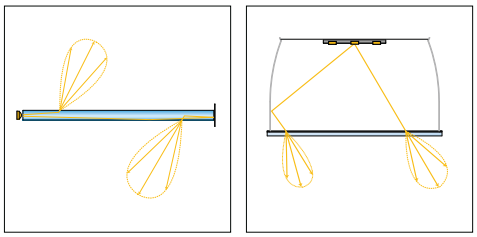
Because of our 10 year experience with the design of LED luminaires, ETAP knows all these technologies. That way we are not limited to one solution, rather in all functions of the application we can always make the right choices.  Below you shall find a schematic overview of the solutions which we have successfully applied in our luminaires.

If you would like more information about the LED technology, please check the LED Dossier at www.etaplighting.com/downloads/leaflets

1. *High power LED+LENS™*
2. *High power LED – reflector*
3. *LED module – reflector*



4. *High power LED – light guide*
5. *Low power LED – reflector & diffuser*





# ETAP offers quality and energy saving LED solutions

- General lighting, accent lighting and emergency lighting
- For offices, shops, reception areas, schools, hospitals, warehouses, factories etc.
- Recessed, surface, suspended luminaires and wall luminaires
- Various optics such as lenses, diffusers, reflectors or light conductors
- High power LEDs, low power LEDs and LED modules
- Standard products and customized solutions

ETAP NV ■ Progress Business Centre ■ Whittle Park Way ■ Slough ■ Berkshire SL1 6DQ
Tel. +44 (0)1628559650 ■ Fax +44 (0)1628559012 ■ enquiries@etaplighting.com ■ www.etaplighting.com

ETAP Export Department ■ Antwerpsesteenweg 130 ■ B-2390 Malle ■ Belgium
Tel. +32 (0)3 310 02 11 ■ Fax +32 (0)3 311 61 42 ■ export@etaplighting.com ■ www.etaplighting.com

ETAP U.A.E. ■ Energy & Environment Park ■ Nucleotide Lab, 2nd floor, Office EO 01 PO BOX 345014, Al Barsha ■ Dubai, UAE
Tel. +971 (0)4 434 7364 ■ Fax +971 (0)4 437 0378 ■ export@etaplighting.com ■ www.etaplighting.com



ETAP

EXCELLENT LIGHTING, SAVING ENERGY