VOSSLOH SCHWABE



# DecoLED

Lighting for decorative applications

# DecoLED

## A NEW GENERATION OF DECORATION



- **LONG SERVICE LIFE OF UP TO 35,000 HOURS (>50% LIGHT OUTPUT)**
- **HIGH EFFICIENCY UP TO 95 LM/W**
- **SLIM INTEGRATED THERMAL MANAGEMENT**
- **SUITABLE FOR RESIDENTIAL AND COMMERCIAL APPLICATIONS**
- **HUMIDITY RESISTANT: IDEAL FOR BATHROOMS**
- **EASY MAINTENANCE**
- **NO UV AND IR RADIATION**

## DecoLED – ECO-FRIENDLY LIGHTING FOR INDOOR APPLICATIONS

DecoLED, a highly efficient LED downlight, is the perfect solution for commercial and residential applications. The die-cast casing is fitted with an easy adjustment function that allows the light to be positioned at the desirable angle. The adaptable spring clip makes installation quick, easy and hassle-free, and is suitable for all types of ceiling.

Thanks to the high light output of DecoLED, a 5 W downlight can now replace a 35 W halogen lamp. DecoLED 15 W is an ideal replacement for a PAR38 lamp 120 W and the reflector design of DecoLED 7 W is a perfect 50 W dichroic halogen retrofit. This results in an energy saving of more than 87% and reduces $CO_2$ emissions, all of which makes DecoLED the more environmentally sustainable option.

VS DecoLED comes in different beam angles, wattages and white colours to suit any application.

Going greener has never been easier – for further energy-efficient and highly eco-friendly lighting options, VS provides a full range of LED modules to suit your every need.

**Typical applications**

- Commercial lighting
- Showcase lighting
- Bathroom and kitchen lighting
- Residential lighting
- Entertainment lighting

UV FREE 0% MERCURY RoHS CE

# VS Downlights

A slim and compact design with integrated thermal management and high-efficiency output, making it ideal for many lighting applications.

Allowed operating temperature: –20 to 40°C
Allowed storage temperature: –40 to 60°C
**Protection class III**
Degree of protection: IP20
Service life time: > 35,000 hrs (L50)




**DecoLED, 5 W**
Design style: lens
Current supply: 350 mA DC
Beam angle: 20° and 40°
Adjustable angle: 0 to 45°

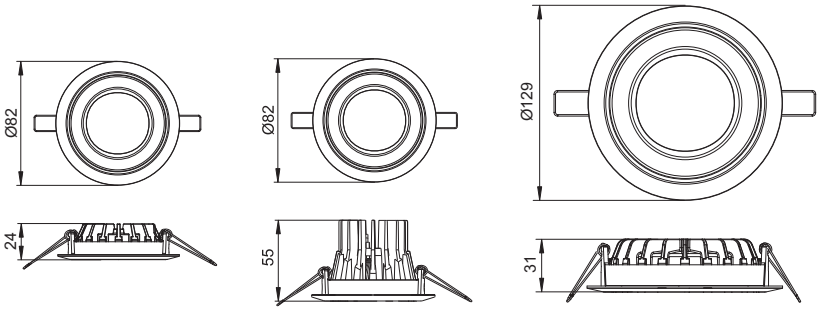



**DecoLED, 7 W**
Design style: reflector
Current supply: 350 mA DC
Beam angle: 36°
Adjustable angle: 0 to 30°

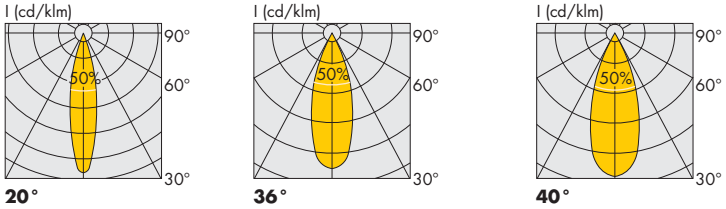



**DecoLED, 15 W**
Design style: lens
Current supply: 700 mA DC
Beam angle: 20° and 40°
Adjustable angle: 0 to 45°




**Typical light distribution curves**




| Type | Ref. No. | Colour | Colour temperature K | CRI $R_a$ | Luminous flux lm | Light intensity cd | Beam angle ° | Field angle ° | Power W | Energy efficiency |
|---|---|---|---|---|---|---|---|---|---|---|
| **DecoLED, 5 W** | | | | | | | | | | |
| DecoLED-5-2700-38-II | **549143** | warm white | 2700 | 80 | 285 | 2250 | 20 | 38 | 5 | A |
| DecoLED-5-3000-38-II | **554576** | warm white | 3000 | 80 | 315 | 2450 | 20 | 38 | 5 | A+ |
| DecoLED-5-4000-38-II | **554577** | neutral white | 4000 | 75 | 360 | 2850 | 20 | 38 | 5 | A+ |
| DecoLED-5-6000-38-II | **554578** | cool white | 6000 | 70 | 475 | 3750 | 20 | 38 | 5 | A+ |
| DecoLED-5-2700-60-II | **554579** | warm white | 2700 | 80 | 285 | 750 | 40 | 60 | 5 | A |
| DecoLED-5-3000-60-II | **554580** | warm white | 3000 | 80 | 315 | 800 | 40 | 60 | 5 | A+ |
| DecoLED-5-4000-60-II | **554581** | neutral white | 4000 | 75 | 360 | 950 | 40 | 60 | 5 | A+ |
| DecoLED-5-6000-60-II | **554582** | cool white | 6000 | 70 | 475 | 1250 | 40 | 60 | 5 | A+ |
| **DecoLED, 7 W** | | | | | | | | | | |
| DecoLED-7-2700-36 | **552096** | warm white | 2700 | 85 | 600 | 1150 | 36 | 72 | 7 | A+ |
| **DecoLED, 15 W** | | | | | | | | | | |
| DecoLED-15-2700-38-II | **554583** | warm white | 2700 | 80 | 700 | 5250 | 20 | 38 | 15 | A |
| DecoLED-15-3000-38-II | **554584** | warm white | 3000 | 80 | 780 | 5850 | 20 | 38 | 15 | A |
| DecoLED-15-4000-38-II | **566041** | neutral white | 4000 | 75 | 900 | 6750 | 20 | 38 | 15 | A |
| DecoLED-15-6000-38-II | **566042** | cool white | 6000 | 70 | 1150 | 8650 | 20 | 38 | 15 | A |
| DecoLED-15-2700-60-II | **566043** | warm white | 2700 | 80 | 700 | 1750 | 40 | 60 | 15 | A |
| DecoLED-15-3000-60-II | **566044** | warm white | 3000 | 80 | 780 | 1950 | 40 | 60 | 15 | A |
| DecoLED-15-4000-60-II | **566045** | neutral white | 4000 | 75 | 900 | 2250 | 40 | 60 | 15 | A |
| DecoLED-15-6000-60-II | **566046** | cool white | 6000 | 70 | 1150 | 2875 | 40 | 60 | 15 | A |

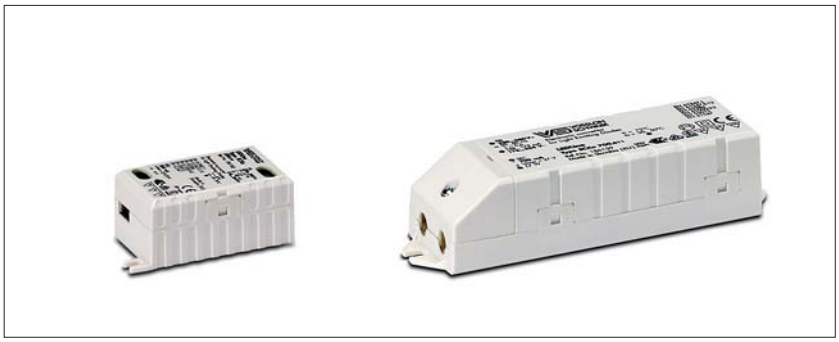
**Typical luminance of DecoLED at 1, 2 and 3 meters**

| Intensity (lux) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Colour temperature | **DecoLED 5 W** | | | | | | **DecoLED 7 W** | | | **DecoLED 15 W** | | | | | |
| | **20°** | | | **40°** | | | **36°** | | | **20°** | | | **40°** | | |
| K | 1 m | 2 m | 3 m | 1 m | 2 m | 3 m | 1 m | 2 m | 3 m | 1 m | 2 m | 3 m | 1 m | 2 m | 3 m |
| Warm White 2700 K | 1600 | 400 | 178 | 580 | 145 | 65 | 1200 | 300 | 133 | 4500 | 1125 | 500 | 1500 | 375 | 165 |
| Warm White 3000 K | 1800 | 450 | 200 | 650 | 163 | 72 | – | – | – | 5000 | 1250 | 556 | 1650 | 413 | 183 |
| Neutral White 4000 K | 2500 | 625 | 278 | 750 | 188 | 83 | – | – | – | 6500 | 1625 | 722 | 2300 | 575 | 256 |
| Cool White 6000 K | 3000 | 750 | 333 | 940 | 235 | 104 | – | – | – | 7000 | 1750 | 778 | 2550 | 638 | 283 |

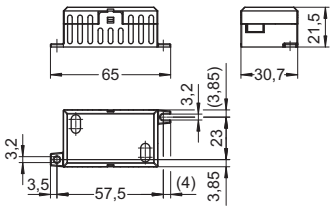
# LED Constant Current Drivers

**Non dimmable**

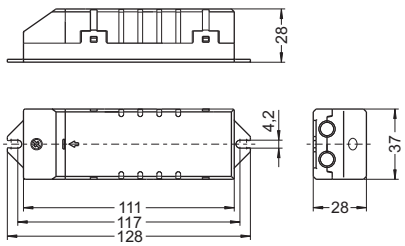
Mains voltage: 220 – 240 V ±10 %
Mains frequency: 0 Hz, 50 – 60 Hz
Electronic short-circuit protection
Overload protection
Protection against "no load" operation
Degree of proteciton: IP20
Protection class II
SELV equivalent
Power factor: 0.6
Screw terminals: 2.5 $mm^2$
Quantity of screw terminals:
1x2-poles primary
1x2-poles secondary
Service life time: 50,000 hrs



**A**




**B**



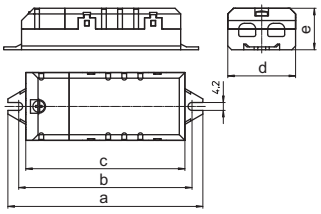

| Max. output W | Type | **Ref. No.** | Mains current mA | Output current DC mA | Voltage output DC V | Ambient temperature $t_a$ °C | Casing temperature $t_c$ °C | Drawing | Weight g |
|---|---|---|---|---|---|---|---|---|---|
| **Driver for DecoLED, 5 W and 7 W** | | | | | | | | | |
| 8 | ECXe 350mA/8W | **186180** | 60/40 | 350 ±5%/-10% | 2-24 | -20 to 50 | 80 | A | 33 |
| 11 | ECXe 350mA/11W | **186157** | 122/117 | 350 ±5% | 2-32 | -20 to 50 | 70 | B | 71 |
| **Driver for DecoLED, 15 W** | | | | | | | | | |
| 17 | ECXe 700mA/17W | **186159** | 188/178 | 700 ±5% | 2-25 | -20 to 50 | 70 | B | 71 |

# Dimmable LED Constant Current Drivers



The constant current driver of the ECXd series features a dimming range of 1 to 100%. If no dimming interface is connected, brightness will stay at 100%.

Dimmable with phase-cutting leading- and trailing-edge dimmer (phase-cutting trailing-edge is recommended). Minimum dimmer load has to be observed.
The compatibility of the driver and the dimmer has to be confirmed prior to installation to avoide flickering and/or noises.




L, C

Mains voltage: 220–240 V ±10%
Mains frequency: 50–60 Hz
Electronic short-circuit protection
Overload protection
Protection against "no load" operation
Degree of proteciton: IP20
Protection class II
SELV
Power factor: > 0.9
Screw terminals: 2.5 mm²
Quantity of screw terminals:
  2x2-poles primary
  2x2-poles secondary
Service life time: 35,000 hrs

| Max. output W | Type | **Ref. No.** | Mains current mA | Output current DC mA | Voltage output DC V | Ambient temperature $t_a$ °C | Casing temperature $t_c$ °C | Dimensions mm a | b | c | d | e | Weight g | Efficiency |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10 | ECXd 350.048 | **186286** | 70 | 330–350 | 25–35 | –10 to 45 | 80 | 110 | 103 | 95 | 40 | 24 | 71 | 78 |
| | ECXd 500.050 | **186288** | 60 | 470–500 | 12–20 | –10 to 50 | 80 | 110 | 103 | 95 | 40 | 24 | 69 | 78 |
| 15 | ECXd 350.049 | **186287** | 90 | 330–350 | 45–55 | –10 to 40 | 80 | 120 | 112 | 105 | 42 | 27 | 101 | 81 |
| 18 | ECXd 700.051 | **186289** | 100 | 660–700 | 15–23 | –10 to 40 | 80 | 120 | 112 | 105 | 42 | 27 | 101 | 81 |
| 27 | ECXd 700.052 | **186290** | 120 | 660–700 | 25–35 | –10 to 40 | 80 | 120 | 112 | 105 | 42 | 27 | 102 | 83 |
| 36 | ECXd 700.053 | **186291** | 160 | 660–700 | 35–45 | –10 to 40 | 80 | 122 | 115 | 109 | 50 | 29 | 135 | 85 |

# DecoLED — Eco-friendly Lighting

Vossloh-Schwabe's new DecoLED downlight is ideal for many indoor applications and offers numerous advantages:

- **INSTANTANEOUS LIGHT**
  Starts with immediate full brightness
- **GENTLE ON PRODUCTS AND USERS**
  UV- and IR-free light
- **LONG SERVICE LIFE**
  Up to 35,000 hours
- **ADJUSTABLE LUMINAIRE FOCUS**
  Up to 45° rotation
- **HIGHLY ENERGY EFFICIENCY**
- **DIMMABLE BY USING DIMMABLE CONSTANT CURRENT DRIVER**

**Highly flexible to suit many applications**
The compact design allows the luminaire to be mounted at very low ceiling depths. DecoLED is available with 20°, 36° and 40° beam angles and colour temperatures of 2700, 3000, 4000 and 6000 K to meet different applications.

DecoLED is also dimmable when driven by a dimmable constant current driver.

**Reduction of failure rate**
The integrated thermal management ensures that components are subjected to less thermal stress, thus helping to minimise the failure rate and prolong service life.

| Type | **DecoLED 5 W** | **Halogen lamp 35 W** |
|---|---|---|
| Brightness at 1 m | 2,500 lux | 2,400 lux |
| Service life time | 35,000 hrs. (L50) | 2,000 hrs. |
| System power (incl. driver/transformer) | 7 W | 40 W |
| 12 hrs operation per day | 31 kWh/year | 175 kWh/year |
| Energy savings | 144 kWh/year | |



# HEARTBEAT CITY

## D-CUBE CITY MALL
## SEOUL, KOREA






### D-CUBE CITY

The brand-new D-Cube City Mall in Seoul, Korea, opened its doors at the end of August 2011. With its exceptional size and spectacular design, the latest landmark in the south-west of Seoul stands out from all other buildings in the proximity.

The complex consists of a 51-storey apartment building as well as a 42-storey mega-mall, which is home to a hotel, office space, department stores, an arts and culture centre, restaurants, relaxing green spaces, a theatre as well as a theme park for children. A park-like outdoor area, designed with much attention to detail, is available for everyone to enjoy.

The challenge of harmoniously blending traditional, Korean elements with a modern ambience was readily accepted by the architecture firm, The Jerde Partnership. The architects succeeded in creating something that really stands out from the crowd: a 6-storey indoor waterfall. The mall's "nature and culture" theme is reflected throughout the entire huge complex. Far from being another conventional shopping centre, the D-Cube City Mall is an experience in itself for young and old.

### VOSSLOH-SCHWABE ADDS THAT SPECIAL TOUCH

Without doubt, the lighting concept inside the mall also adds to the experience. The possibility of blending two white tones (2700 K and 4500 K) to create numerous different colour temperatures was decisive for using Vossloh-Schwabe's DualWhite AluLED modules. 1,320 AluLED dual white modules were used to generate the indirect lighting effect. Warm white begins the day in the mornings, cool white takes over around midday and warm white finishes the day in the evenings.

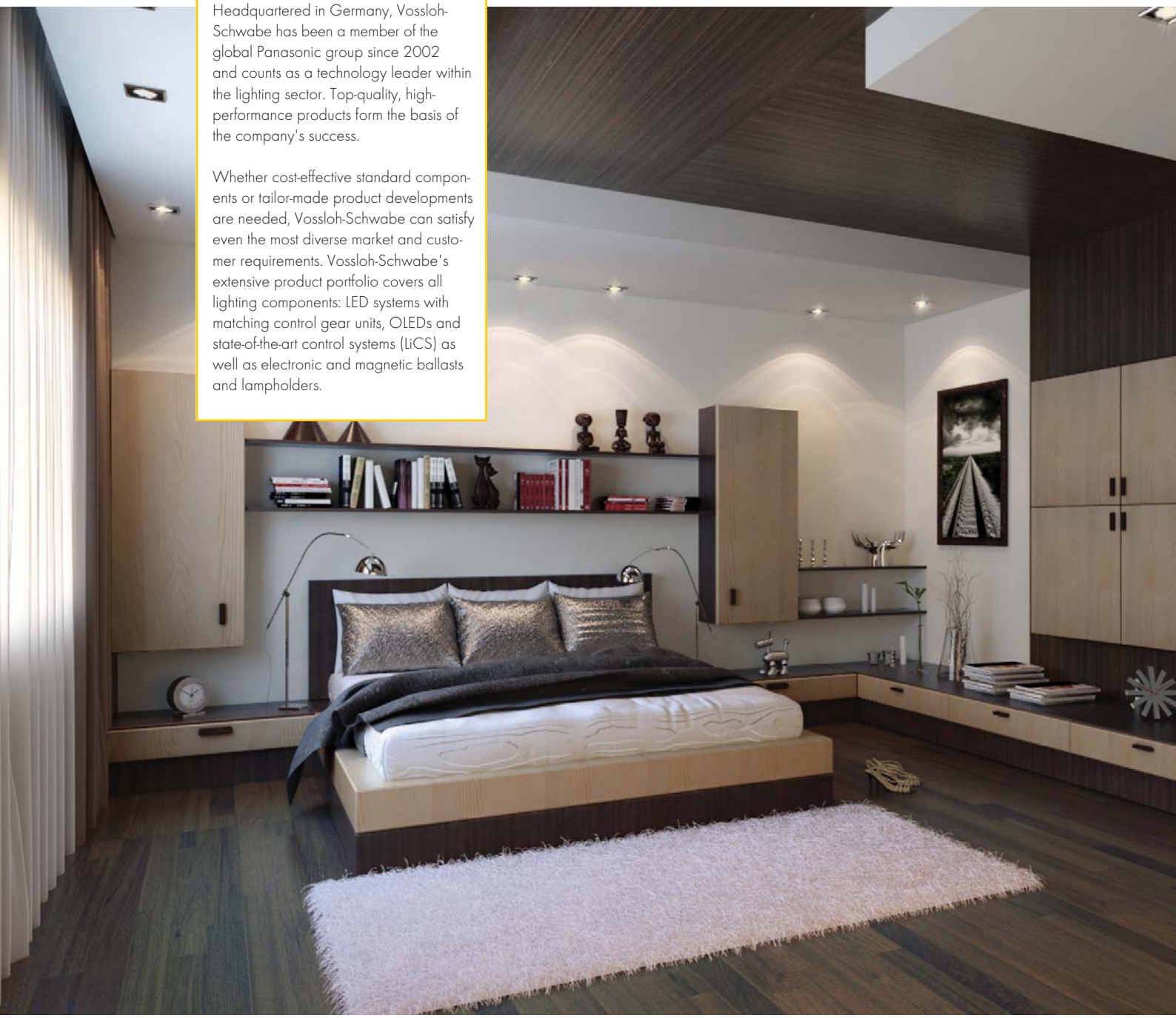
Along with the dual white AluLED modules for indirect ceiling lighting, 410 15 W DecoLED downlight modules with a 3000 K colour temperature and a 40° beam angle were installed to light up the corridors on every floor, which not only serves generate a welcoming environment, but also succeeds in providing optimum lighting levels right down to the floor.

Customer: Daesung Industrial co., LTD.
Architects: Jerde Partnership, Samwoo Architects & Engineers
Light planning: Design Luna
VS distributor: JK Lighting
Photos: Daesung Industrial co., LTD and Design Luna

Whenever an electric light goes on around the world, Vossloh-Schwabe is likely to have made a key contribution to ensuring that everything works at the flick of a switch.

Headquartered in Germany, Vossloh-Schwabe has been a member of the global Panasonic group since 2002 and counts as a technology leader within the lighting sector. Top-quality, high-performance products form the basis of the company's success.

Whether cost-effective standard components or tailor-made product developments are needed, Vossloh-Schwabe can satisfy even the most diverse market and customer requirements. Vossloh-Schwabe's extensive product portfolio covers all lighting components: LED systems with matching control gear units, OLEDs and state-of-the-art control systems (LiCS) as well as electronic and magnetic ballasts and lampholders.



A member of the Panasonic group Panasonic

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