



**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<sub>2</sub> 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



## 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

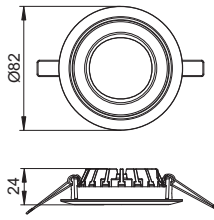
### Protection class III

Degree of protection: IP20  
 Service life time: > 35,000 hrs (L50)

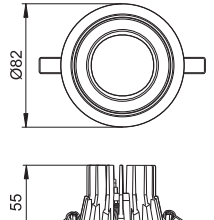


### DecoLED, 5 W

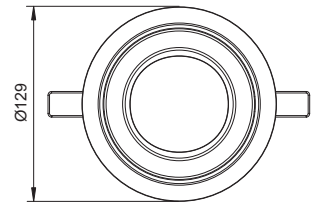
Design style: lens  
 Current supply: 350 mA DC  
 Beam angle: 20° and 40°  
 Adjustable angle: 0 to 45°



DecoLED 5 W



DecoLED 7 W



DecoLED 15 W

### DecoLED, 7 W

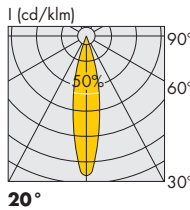
Design style: reflector  
 Current supply: 350 mA DC  
 Beam angle: 36°  
 Adjustable angle: 0 to 30°



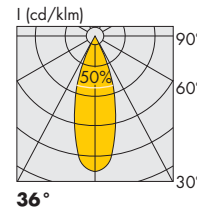
### Typical light distribution curves

### DecoLED, 15 W

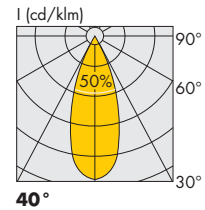
Design style: lens  
 Current supply: 700 mA DC  
 Beam angle: 20° and 40°  
 Adjustable angle: 0 to 45°



20°



36°



40°

Type	Ref. No.	Colour	Colour temperature K	CRI R <sub>a</sub>	Luminous flux lm	Light intensity cd	Beam angle °	Field angle °	Power W	Energy efficiency
<b>DecoLED, 5 W</b>										
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+
<b>DecoLED, 7 W</b>										
DecoLED-7-2700-36	552096	warm white	2700	85	600	1150	36	72	7	A+
<b>DecoLED, 15 W</b>										
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 K	DecoLED 5 W						DecoLED 7 W			DecoLED 15 W					
	20°			40°			36°			20°			40°		
	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 protection: IP20

Protection class II

SELV equivalent

Power factor: 0.6

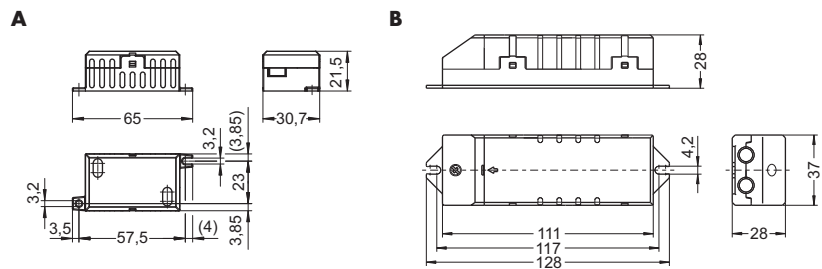
Screw terminals: 2.5 mm<sup>2</sup>

Quantity of screw terminals:

1x2-poles primary

1x2-poles secondary

Service life time: 50,000 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	Drawing	Weight g
<b>Driver for DecoLED, 5 W and 7 W</b>									
8	ECXe 350mA/8W	<b>186180</b>	60/40	350 ±5%/10%	2-24	-20 to 50	80	A	33
11	ECXe 350mA/11W	<b>186157</b>	122/117	350 ±5%	2-32	-20 to 50	70	B	71
<b>Driver for DecoLED, 15 W</b>									
17	ECXe 700mA/17W	<b>186159</b>	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 avoid flickering and/or noises.

Mains voltage: 220-240 V  $\pm$ 10%

Mains frequency: 50-60 Hz

Electronic short-circuit protection

Overload protection

Protection against "no load" operation

Degree of protection: IP20

Protection class II

SELV

Power factor: > 0.9

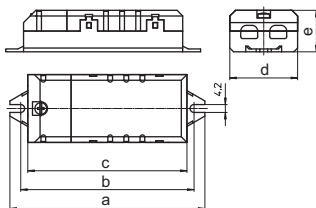
Screw terminals: 2.5 mm<sup>2</sup>

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					Weight g	Efficiency
								a	b	c	d	e		
10	ECXd 350.048	<b>186286</b>	70	330-350	25-35	-10 to 45	80	110	103	95	40	24	71	78
	ECXd 500.050	<b>186288</b>	60	470-500	12-20	-10 to 50	80	110	103	95	40	24	69	78
15	ECXd 350.049	<b>186287</b>	90	330-350	45-55	-10 to 40	80	120	112	105	42	27	101	81
18	ECXd 700.051	<b>186289</b>	100	660-700	15-23	-10 to 40	80	120	112	105	42	27	101	81
27	ECXd 700.052	<b>186290</b>	120	660-700	25-35	-10 to 40	80	120	112	105	42	27	102	83
36	ECXd 700.053	<b>186291</b>	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**

### Vossloh-Schwabe Deutschland GmbH

Hohe Steinert 8 · 58509 Lüdenscheid · Germany  
Phone +49/23 51/10 10 · Fax +49/23 51/10 12 17

[www.vossloh-schwabe.com](http://www.vossloh-schwabe.com)

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SCHWABE

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