

LED DOWNLIGHT PRIME K C

FOR RESIDENTIAL LIGHTING



DOWNLIGHT PRIME K C

LED Recessed Mounted Downlight

Use of modern LED technology in conventional downlight applications provides an optimal light distribution and extended life time all at an affordable price.

VS LED downlights are fully compatible with existing conventional downlight infrastructure, and are the perfect choice for both new and replacement markets.

■ PRIME K C

- COB technology
- High efficiency of up to 140 lm/W
- Slim design for easy installation in low false ceiling
- High flexibility by free choice of LED driver
- High colour rendering index CRI: ≥ 82



PRELIMINARY

LED Downlight Prime K C

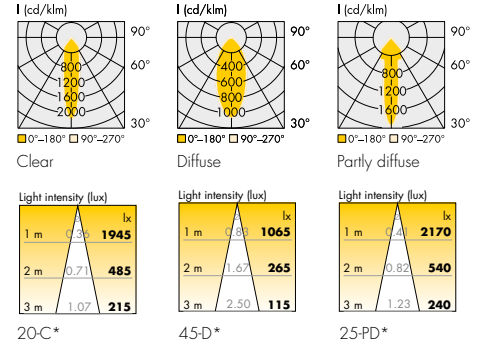
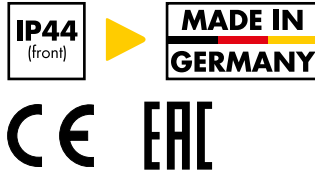
- **LONG SERVICE LIFE TIME: UP TO 80,000 hrs.**
- **UP TO 140 LM/W**
- **HIGH QUALITY COB TECHNOLOGY**
- **5 YEARS GUARANTEE**
more information under www.vossloh-schwabe.com
- **MADE IN GERMANY**



Prime K C – 4"

Indoor LED recessed mounted downlight with aluminium reflector

Reflector: Ø 118 mm, aluminium
 Material: aluminium diecast, powder coating: epoxid
 Flange colour: white (RAL 9003)
 Front part: glass
 Degree of protection: IP44 (casing: IP20, front part: IP44)
 Use of external LED constant current driver
 Operating current range: up to 700 mA
 Voltage range: 30–40 V DC
 Typ. colour accuracy initially: 3 SDCM
 Operating life:

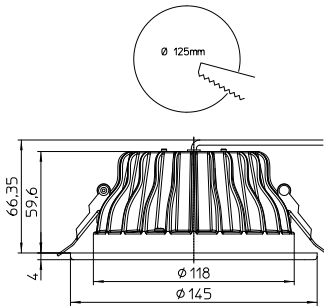


* $E_{true} = \Phi_{data\ sheet} \cdot E_{nominal} : 1000$
 E_{true} for example 570406 at $500\ mA / 3\ m$ distance
 $215\ lx \cdot 2160\ lm : 1000 = 464\ lx$

	$t_a = 25\ ^\circ C$			$t_a = 40\ ^\circ C$		
	350 mA in hrs.	500 mA in hrs.	700 mA in hrs.	350 mA in hrs.	500 mA in hrs.	700 mA in hrs.
L90/B10	61,000	52,000	42,000	58,000	48,000	38,000
L80/B10	66,000	56,000	44,000	62,000	51,000	40,000
L70/B10	76,000	65,000	54,000	71,000	61,000	49,000

Applied Standards

- EN 60598-1:2015
- EN 60598-2-2:1989
- EN 60598-2-2:2012
- EN 62471:2008



Electrical Characteristics

Type	Typ. voltage DC (V)			Typ. power consumption (W)		
	350 mA	500 mA	700 mA	350 mA	500 mA	700 mA
All types	33.1	33.9	36.4	11.6	17	24.4

Voltage and power tolerance: $\pm 10\%$

Maximum Ratings

Exceeding the maximum ratings can lead to reduction of service life or destruction of the modules.

Type	Max. operating current mA	Ambient temperature range		Storage temperature range		Max. allowed repetitive peak current mA
		$^\circ C$ min.	$^\circ C$ max.	$^\circ C$ min.	$^\circ C$ max.	
All types	700	-20	+45	-40	+60	1400

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

Optical Characteristics

Type	Ref. No.	Colour	Correlated colour temperature K	Typ. luminous flux* (lm) and efficiency* (lm/W) at						Beam angle °	Typ. CRI Ra
				350 mA		500 mA		700 mA			
				lm	lm/W	lm	lm/W	lm	lm/W		
Clear											
DL-PRIME-K-4-C-830-C-CC	570405	warm white	3000	1510	130	2095	123	2830	116	20	82
DL-PRIME-K-4-C-840-C-CC	570406	neutral white	4000	1555	134	2160	127	2910	119	20	82
DL-PRIME-K-4-C-850-C-CC	570407	cool white	5000	1585	137	2200	129	2970	122	20	82
DL-PRIME-K-4-C-857-C-CC	570461	cool white	5700	1570	135	2180	128	2940	121	20	82
Diffuse											
DL-PRIME-K-4-C-830-D-CC	570408	warm white	3000	1355	117	1880	111	2535	104	45	82
DL-PRIME-K-4-C-840-D-CC	570409	neutral white	4000	1395	120	1935	114	2610	107	45	82
DL-PRIME-K-4-C-850-D-CC	570410	cool white	5000	1420	122	1975	116	2665	109	45	82
DL-PRIME-K-4-C-857-D-CC	570462	cool white	5700	1405	121	1955	115	2640	108	45	82
Partificial Diffuse											
DL-PRIME-K-4-C-830-PD-CC	570411	warm white	3000	1455	125	2020	119	2730	112	25	82
DL-PRIME-K-4-C-840-PD-CC	570412	neutral white	4000	1500	129	2080	122	2810	115	25	82
DL-PRIME-K-4-C-850-PD-CC	570413	cool white	5000	1530	132	2125	125	2865	117	25	82
DL-PRIME-K-4-C-857-PD-CC	570463	cool white	5700	1515	130	2100	124	2835	116	25	82

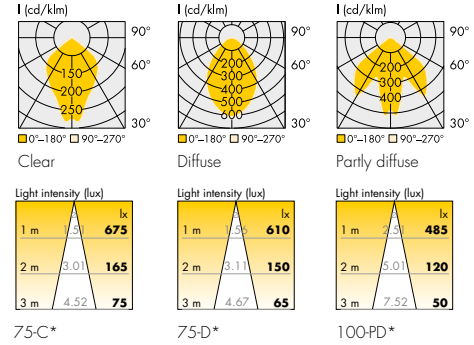
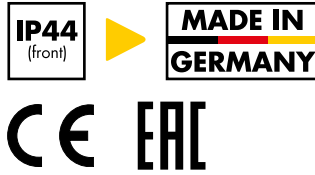
* Production tolerance of luminous flux and efficiency: ±10%

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Prime K C – 6"

Indoor LED recessed mounted downlight with aluminium reflector

Reflector: Ø 165 mm, aluminium
 Material: aluminium diecast, powder coating: epoxid
 Flange colour: white (RAL 9003)
 Front part: glass
 Degree of protection: IP44
 (casing: IP20, front part: IP44)
 Use of external LED constant current driver
 Operating current range: up to 700 mA
 Voltage range: 30–40 V DC
 Typ. colour accuracy initially: 3 SDCM
 Operating life:

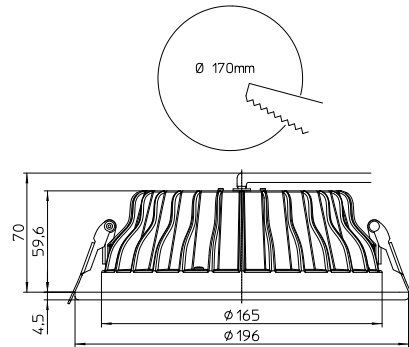


* $E_{true} = \Phi_{data\ sheet} \cdot E_{nominal} : 1000$
 E_{true} for example 570415 at 700 mA / 3 m distance
 $75\ lx \cdot 2995\ lm : 1000 = 225\ lx$

Lumen maintenance	$t_a = 25\ ^\circ C$			$t_a = 40\ ^\circ C$		
	350 mA in hrs.	500 mA in hrs.	700 mA in hrs.	350 mA in hrs.	500 mA in hrs.	700 mA in hrs.
L90/B10	63,000	54,000	46,000	60,000	51,000	43,000
L80/B10	68,000	59,000	49,000	64,000	54,000	45,000
L70/B10	78,000	68,000	60,000	74,000	64,000	55,000

Applied Standards

- EN 60598-1:2015
- EN 60598-2-2:1989
- EN 60598-2-2:2012
- EN 62471:2008



Electrical Characteristics

Type	Typ. voltage DC (V)			Typ. power consumption (W)		
	350 mA	500 mA	700 mA	350 mA	500 mA	700 mA
All types	33.1	33.9	36.4	11.6	17	24.4

Voltage and power tolerance: $\pm 10\%$

Maximum Ratings

Exceeding the maximum ratings can lead to reduction of service life or destruction of the modules.

Type	Max. operating current mA	Ambient temperature range		Storage temperature range		Max. allowed repetitive peak current mA
		$^\circ C$ min.	$^\circ C$ max.	$^\circ C$ min.	$^\circ C$ max.	
All types	700	-20	+45	-40	+60	1400

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Prime K C – 6"

Optical Characteristics

Type	Ref. No.	Colour	Correlated colour temperature K	Typ. luminous flux* (lm) and efficiency* (lm/W) at						Beam angle °	Typ. CRI R _a
				350 mA		500 mA		700 mA			
				lm	lm/W	lm	lm/W	lm	lm/W		
Clear											
DL-PRIME-K-6-C-830-C-CC	570414	warm white	3000	1550	134	2155	127	2910	119	20	82
DL-PRIME-K-6-C-840-C-CC	570415	neutral white	4000	1600	138	2220	131	2995	123	20	82
DL-PRIME-K-6-C-850-C-CC	570416	cool white	5000	1630	140	2265	133	3055	125	20	82
DL-PRIME-K-6-C-857-C-CC	570464	cool white	5700	1615	139	2240	132	3025	124	20	82
Diffuse											
DL-PRIME-K-6-C-830-D-CC	570417	warm white	3000	1420	122	1970	116	2660	109	45	82
DL-PRIME-K-6-C-840-D-CC	570418	neutral white	4000	1460	126	2030	119	2740	112	45	82
DL-PRIME-K-6-C-850-D-CC	570419	cool white	5000	1470	128	2070	122	2795	114	45	82
DL-PRIME-K-6-C-857-D-CC	570465	cool white	5700	1475	127	2050	121	2765	113	45	82
Partificial Diffuse											
DL-PRIME-K-6-C-830-PD-CC	570420	warm white	3000	1500	129	2080	122	2810	115	25	82
DL-PRIME-K-6-C-840-PD-CC	570421	neutral white	4000	1545	133	2145	126	2895	119	25	82
DL-PRIME-K-6-C-850-PD-CC	570422	cool white	5000	1575	136	2185	129	2950	121	25	82
DL-PRIME-K-6-C-857-PD-CC	570466	cool white	5700	1560	134	2165	127	2920	120	25	82

* Production tolerance of luminous flux and efficiency: ±10%

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Prime K C – 8"

Indoor LED recessed mounted downlight with aluminium reflector

Reflector: Ø 206 mm, aluminium

Material: aluminium diecast,
powder coating: epoxid

Flange colour: white (RAL 9003)

Front part: glass

Degree of protection: IP44

(casing: IP20, front part: IP44)

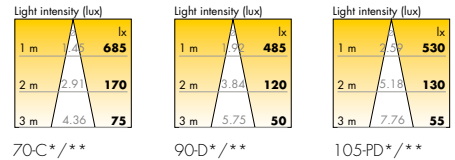
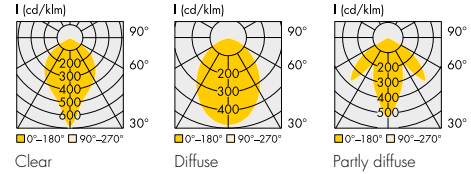
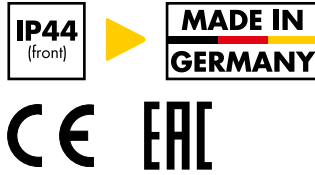
Use of external LED constant current driver

Operating current range: up to 1400 mA

Voltage range: 30–40 V DC

Typ. colour accuracy initially: 3 SDCM

Operating life:

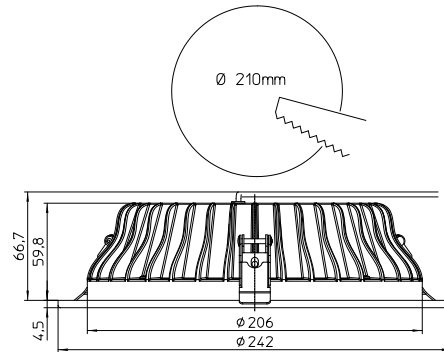


* $E_{true} = \Phi_{data\ sheet} \cdot E_{nominal} : 1000$
 E_{true} for example 570424 at 900 mA / 3 m distance
 $75\ lx \cdot 2965\ lm : 1000 = 222\ lx$

Lumen maintenance	$t_a = 25\ ^\circ C$				$t_a = 40\ ^\circ C$				$t_a = 35\ ^\circ C$			
	700 mA in hrs.	900 mA in hrs.	1050 mA in hrs.	1400 mA in hrs.	700 mA in hrs.	900 mA in hrs.	1050 mA in hrs.	1400 mA in hrs.	700 mA in hrs.	900 mA in hrs.	1050 mA in hrs.	1400 mA in hrs.
L90/B10	51,000	44,000	39,000	35,000	45,000	38,000	34,000	28,000				
L80/B10	55,000	47,000	43,000	37,000	49,000	41,000	37,000	31,000				
L70/B10	68,000	59,000	52,000	44,000	60,000	51,000	45,000	38,000				

Applied Standards

- EN 60598-1:2015
- EN 60598-2-2:1989
- EN 60598-2-2:2012
- EN 62471:2008



Electrical Characteristics

Type	Typ. voltage DC (V)				Typ. power consumption (W)			
	700 mA	900 mA	1050 mA	1400 mA	700 mA	900 mA	1050 mA	1400 mA
All types	33.8	34.2	35.1	36.4	23.7	30.8	36.9	51

Voltage and power tolerance: $\pm 10\%$

Maximum Ratings

Exceeding the maximum ratings can lead to reduction of service life or destruction of the modules.

Type	Max. operating current mA	Ambient temperature range $^\circ C$ min. $^\circ C$ max.		Storage temperature range $^\circ C$ min. $^\circ C$ max.		Max. allowed repetitive peak current mA
		-20	+45	-40	+60	
All types	1050 1400	-20	+45	-40	+60	2000

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Prime K C – 8"

Optical Characteristics

Type	Ref. No.	Colour	Correlated colour temp. K	Typ. luminous flux* (lm) and efficiency* (lm/W) at								Beam angle °	Typ. CRI Ra
				700 mA		900 mA		1050 mA		1400 mA			
				lm	lm/W	lm	lm/W	lm	lm/W	lm	lm/W		
Clear													
DL-PRIME-K-8-C-830-C-CC	570423	warm white	3000	2880	121	3600	117	4105	111	5220	102	70	85
DL-PRIME-K-8-C-840-C-CC	570424	neutral white	4000	2965	125	3710	120	4230	115	5375	105	70	85
DL-PRIME-K-8-C-850-C-CC	570425	cool white	5000	3020	128	3780	123	4310	117	5480	107	70	85
DL-PRIME-K-8-C-857-C-CC	570467	cool white	5700	2995	126	3750	122	4270	116	5425	106	70	85
Diffuse													
DL-PRIME-K-8-C-830-D-CC	570426	warm white	3000	2515	106	3130	102	3585	97	4560	89	88	85
DL-PRIME-K-8-C-840-D-CC	570427	neutral white	4000	2590	109	3230	105	3695	100	4695	92	88	85
DL-PRIME-K-8-C-850-D-CC	570428	cool white	5000	2640	111	3300	107	3765	102	4785	94	88	85
DL-PRIME-K-8-C-857-D-CC	570468	cool white	5700	2615	110	3260	106	3730	101	4740	93	88	85
Partificial Diffuse													
DL-PRIME-K-8-C-830-PD-CC	570429	warm white	3000	2610	110	3250	106	3720	101	4730	93	105	85
DL-PRIME-K-8-C-840-PD-CC	570430	neutralweiß	4000	2685	113	3350	109	3830	104	4870	95	105	85
DL-PRIME-K-8-C-850-PD-CC	570431	cool white	5000	2740	116	3400	110	3905	106	4965	97	105	85
DL-PRIME-K-8-C-857-PD-CC	570469	cool white	5700	2710	114	3380	110	3870	105	4915	96	105	85

* Production tolerance of luminous flux and efficiency: ±10%

LED Constant Current Drivers

You will find more information about our LED drivers on our website: www.vossloh-schwabe.com

Max. output W	Ref. No.	Type	Version	Output current mA	Output voltage DC V	Dimensions LxWxH (mm)	Max. service life hrs.
21	186925*	ECXe 500.381	ON/OFF	500	30–41	97x43x30	50,000
28	186927*	ECXe 700.383	ON/OFF	700	30–40	97x43x30	50,000
36	186929*	ECXe 900.385	ON/OFF	900	30–40	97x43x30	50,000
42	186930*	ECXe 1050.386	ON/OFF	1050	31–40	97x43x30	50,000
21	186843**	ECXe 500.346	ON/OFF / DIP switch	250–500	25–42	97x43x29.5	50,000
29.4	186842**	ECXe 700.345	ON/OFF / DIP switch	500–700	23–42	97x43x29.5	50,000
44.1	186841**	ECXe 1050.344	ON/OFF / DIP switch	800–1050	25–42	97x43x29.5	50,000
38	186763	ECXd 1050.299	DALI/PUSH / DIP switch	300–1050	10–36	146.5x43.2x30.1	100,000

* Cord grip 186942 for protection class II required | ** Cord grip 186845 for protection class II required

Logistic Details

Type	Packaging dimensions LxWxH (mm)	Packaging unit weight pcs. kg	MOQ/ Euro pallet pcs.
DL-PRIME-K-4-C-xxxx-CC	150x150x79	1 0,42	210
DL-PRIME-K-6-C-xxxx-CC	200x200x79	1 0,72	90
DL-PRIME-K-8-C-xxxx-CC	247x247x79	1 1,10	72

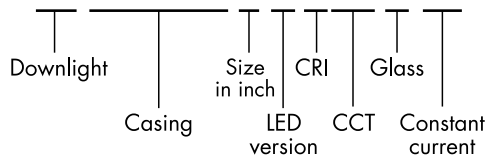
Comparison with Compact Fluorescent Lamps



Type	LED	CFL
Service lifetime	80,000 hrs.	10,000 hrs.
Prime K C – 4"	12 W	2 x 13 W
Prime K C – 6"	17 W	2 x 18 W
Prime K C – 8"	34 W	2 x 26 W

Product Code Description

DL-PRIME-K-4-C-xxx-x-CC



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Safety and Installation Instructions

General safety and installation Instructions for luminaires

The following instructions must be observed. Non-observance can result in personal injury and damage to property or can damage both luminaires and control gear. In such cases, the manufacturer's warranty as well as liability will be invalidated.

General Instructions

- Please read these instructions prior to installation/commissioning and keep them safe for future use.
- Any improper use or modification will invalidate the manufacturer's warranty and liability as well as any warranty claims.
- The luminaire contains integrated and non-exchangeable LED light sources. The light source of this luminaire cannot be replaced. When the light source has reached the end of its service life, the entire luminaire must be replaced.
- Care must be taken to ensure the luminaire is operated only using the supplied Vossloh-Schwabe control gear and accessories or using an alternative brand of approved control gear.
- If the luminaire is marked with SELV, only control gear with SELV characteristics may be used.
- Children must be prevented from playing with or near the luminaire.

Installation and operating instructions

- Installation of this luminaire may be undertaken only by authorised and suitably trained staff in accordance with any country-specific regulations.
- Installation must be carried out only after disconnecting the device from mains voltage, i.e. in a voltage-free state.
- Depending on the site of operation, the degree of protection (IPxx) will have to be observed during installation.
- Please ensure that the correct supply voltage is applied by checking it against the voltage requirements of the luminaire and the driver.
- For the purpose of commissioning, please ensure the correct polarity of the connecting leads. Incorrect polarity can destroy the modules.
- For trouble-free operation, it is important to ensure that the permissible ambient temperature range (t_a) as stipulated in the data-sheet is not exceeded. Exposure to sunlight can increase the ambient temperature.
- Only ever operate the luminaire with all protective covers in place.
- Given functional problems, please contact your Vossloh-Schwabe representative. Should the power supply cable be damaged, please scrap the luminaire and/or contact your VS representative.
- On contact with moisture or condensation, any resulting corrosive damage will not be recognised as a product flaw or manufacturer's defect.
- Connecting luminaires (LED modules) to supply units that are already connected to the mains can result in long-term damage. Secondary switching is not permissible.
- Touchable luminaire parts can reach high temperatures (risk of burning/injury.)
- Highly flammable materials (e.g. cladding or insulation material) must be kept away from the luminaire.

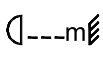
- Please ensure protective ESD (electrostatic discharge) measures are taken when handling and installing the luminaire – see VS "ESD Protection" application notes.

Cleaning instructions

- Depending on the conditions on site, the luminaire must be cleaned on a regular basis.
- Never use any flammable, abrasive, harsh or corrosive cleaning liquids.
- Prior to cleaning the luminaire, please ensure it is disconnected from the mains and is given time to cool down.
- Once it has cooled down, the luminaire can be cleaned with a damp cloth.
- Let the luminaire dry fully before switching it back on.

Answers to technical questions can be found on our website at www.vossloh-schwabe.com or ask your Vossloh-Schwabe representative.

Safety symbols

 Specifies the minimum clearance to flammable materials in the direction of radiation.



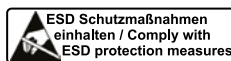
Indoor operation



Please ensure that the way the luminaire is positioned means there is no reason to expect anyone could look into it for a longer period of time with less clearance than stated in the datasheet.



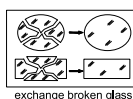
Caution: risk of electric shock.



Caution: components with a risk of electrostatic charge.



Luminaire/voltage supply unit must not be covered with any thermally insulating materials or similar.



Any cover with damage must be replaced.

Product guarantee

- 5 years
- The conditions for the Product Guarantee of the Vossloh-Schwabe Group shall apply as published on our homepage (www.vossloh-schwabe.com). We will be happy to send you these conditions upon request.

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