

### Simply brilliant! Ensto eLED



Eco. Logical. Ensto eLED.

# Visually vibrant, economically efficient and ecologically sustainable.

Luckily there are still things that lighten you up without fail – like Ensto's high-quality eLED luminaires. The Ensto eLED luminaire range covers both indoor and outdoor needs. LED, in addition to meaning an energy efficient long life luminaire, stands for Ensto's Leadership, Excellence and Design.

#### Ensto eLED

- Tenfold energy efficiency
- Multiple lifetime
- Maintenance free
- Expanding product range for a variety of end uses

#### See the future in a new light

LED is a solution that appeals to the heart and the mind alike: Tenfold energy efficiency combined with an unbelievably long lifetime.

The life time of tens of thousands of hours ensures you a carefree future as well as low electricity bills without nasty surprises.

#### Install and forget – save and enjoy

In addition to saving electricity, LED also means less work and lower costs for house builders, contractors and real-estate service companies. When looking for an optimal lighting solution, LED is the most logical and ecological choice. You can improve energy efficiency and user convenience even further by choosing PIR and radar motion detectors. All parts of Ensto eLED luminaires are replaceable, so even accidental break ups will be sorted with minimum costs.

#### **Expanding product range**

We are continually developing our eLED range. For more information about our latest products, please visit www.ensto.com

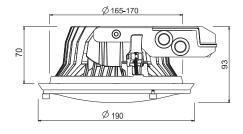


### Ensto eLED. A flash of genius that stays on.

#### AVD190 LED

Materials/ construction	Body die-cast aluminium, <b>n</b> control gear box polycarbonate,	Installation	Fixed installation 5x2,5 mm <sup>2</sup> -O- 230V/50Hz
	diffuser class, constant current	Safety class	
	driver 700 mA	IP class	IP44/IP21
Colour	White RAL9010	Total power	15 W
Optics	Opal glass diffuser / clear flat glass	Luminous flux	540/680/710 lm
Mounting	Recessed mounting in ceiling,	Economic lifetime	50 000 h / 70 %
	surface mounting with	Colour temperature	3 000 K
	accessory kit	CRI index	>80
		Ambient temp.	-20 +25 °C





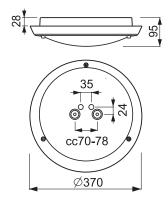
ТҮРЕ	EAN CODE	DESCRIPTION
AVD190.115LG	6418677623875	LED 15W opal glass, IP44
AVD190.1159LG	6418677623882	LED 15W RADAR opal glass, IP44
AVD190.115LDG	6418677623899	LED 15W dimmable, opal glass, IP44
AVD190.115LSG	6418677623905	LED 15W clear flat glass, IP44
AVD190.1159LSG	6418677623912	LED 15W RADAR clear flat glass, IP44
AVD190.1154LSG	6418677623929	LED 15W PIR clear flat glass, IP44
AVD190.115LDSG	6418677623936	LED 15W dimmable, clear flat glass, IP44
AVD190.1155LDSG	6418677623943	LED 15W PIR dimmable, clear flat glass, IP44
AVD190.115L	6418677623950	LED 15W without glass, IP21
AVD190.1159L	6418677623967	LED 15W RADAR without glass, IP21
AVD190.115LD	6418677623974	LED 15W dimmable without glass, IP21

#### AVD370 LED

Materials/	Body aluminium, diffuser poly-
construction	carbonate or glass, replaceable
	LED module, constant current
	driver 700 mA
Colour	White RAL9010
Optics	Opal plastic or glass diffuser
Mounting	Surface mounting on wall or ceil-
	ing or semi recessed
Installation	Fixed installation 3/5x2,5 mm <sup>2</sup> -O-
	230V/50Hz

Safety class	
IP class	IP21
Total power	18,7 W
Luminous flux	1 300 lm
Economic lifetime	30 000 h / 70 %
Colour temperature	4 200 K
CRI index	>70
Ambient temp.	-20 +25 °C





ТҮРЕ	EAN CODE	DESCRIPTION
AVD370.120LG	6418677623424	LED 20W opal glass
AVD370.120DLG	6418677623448	LED 20W dimmable opal glass
AVD370.1209LG	6418677623462	LED 20W RADAR opal glass
AVD370.1209DLG	6418677623486	LED 20W RADAR dimmable, opal glass
AVD370.1204L	6418677623455	LED 20W PIR opal plastic
AVD370.1205DL	6418677623479	LED 20W PIR dimmable, opal plastic
AVD370.120DL	6418677623431	LED 20W dimmable, opal plastic
AVD370.120L	6418677623417	LED 20W opal plastic

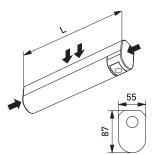


#### AVR66 LED Jono

Materials/ construction	Body aluminium profile, diffuser polycarbonate, replaceable LED module, constant current driver 350 mA	,
Colour	White or aluminium	
Optics	Opal plastic diffuser	
Mounting	Surface mounting on wall or	
	ceiling	
Installation	Fixed installation 5x2,5 mm <sup>2</sup> -O-	
	230V/50Hz	

Safety class IP class Total power Luminous flux Economic lifetime Colour temperature CRi index Ambient temperature





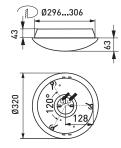
ТҮРЕ	EAN CODE	DESCRIPTION
AVR66.1121L	6418677622304	LED 12W 4000K switch, white, 644 mm
AVR66.1121L/3K	6418677622564	LED 12W 3000K switch, white, 644 mm
AVR66.1121LP	6418677622328	LED 12W 4000K switch and socket outlet, white, 721 mm
AVR66.1121LP/3K	6418677622588	LED 12W 3000K switch and socket outlet, white, 721 mm
AVR66.1121LPAL	6418677622465	LED 12W 4000K switch and socket outlet, aluminium, 721 mm
AVR66.1124L	6418677622335	LED 12W 4000K PIR, white, 657 mm
AVR66.1124L/3K	6418677622595	LED 12W 3000K PIR, white, 657 mm
AVR66.1124LP	6418677622342	LED 12W 4000K PIR and socket outlet, white, 734 mm
AVR66.112L	6418677622298	LED 12W 4000K white, 600 mm
AVR66.112L/3K	6418677622540	LED 12W 3000K white, 600 mm
AVR66.112LAL	6418677622458	LED 12W 4000K aluminium, 600 mm
AVR66.112LAL/3K	6418677622557	LED 12W 3000K aluminium, 600 mm
AVR66.112LP	6418677622311	LED 12W 4000K socket outlet, white, 677 mm
AVR66.112LP/3K	6418677622571	LED 12W 3000K socket outlet, white, 677 mm
AVR66.1181L	6418677622366	LED 18W 4000K switch, white, 944 mm
AVR66.1184L	6418677622380	LED 18W 4000K PIR, white, 957 mm
AVR66.1184LP	6418677622397	LED 18W 4000K PIR and socket outlet, white, 1034 mm
AVR66.118L	6418677622359	LED 18W 4000K white, 900 mm
AVR66.118L/3K	6418677622601	LED 18W 3000K white, 900 mm
AVR66.118LAL	6418677622472	LED 18W 4000K aluminium, 900 mm
AVR66.118LAL/3K	6418677622618	LED 18W 3000K aluminium, 900 mm
AVR66.118LP	6418677622373	LED 18W 4000K socket outlet, white, 977 mm
AVR66.1244L	6418677622410	LED 24W 4000K PIR, white, 1257 mm
AVR66.1249L	6418677622427	LED 24W 4000K RADAR, white, 1257 mm
AVR66.124L	6418677622403	LED 24W 4000K white, 1200 mm
AVR66.124LAL	6418677622489	LED 24W 4000K aluminium, 1200 mm
AVR66.161L	6418677622267	LED 6W 4000K switch, white, 344 mm
AVR66.161LP	6418677622281	LED 6W 4000K switch and socket outlet, white, 421 mm
AVR66.161LPAL	6418677622441	LED 6W 4000K switch and socket outlet, aluminium, 421 mm
AVR66.16L	6418677622250	LED 6W 4000K white, 300 mm
AVR66.16LAL	6418677622434	LED 6W 4000K aluminium, 300 mm
AVR66.16LP	6418677622274	LED 6W 4000K socket outlet, white, 377 mm

#### AVR320 LED

Materials	Body and diffuser polycarbo- nate, replaceable LED module, constant current driver 700 mA	Safety class IP class Total power	II IP44 18,7 W
Colour	White	Luminous flux	1 300 lm
Optics	Opal plastic diffuser	Economic lifetime	30 000 h / 70%
Mounting	Surface mounting on wall or	Colour temperature	4 200 K
	ceiling or semi recessed	CRi index	>70
Installation	Fixed installation 3/4x2,5 mm <sup>2</sup> -O- 230V/50Hz	Ambient temperature	-20 +25 °C

DESCRIPTION





AVR320.1204L	6418677622113	LED 20W PIR
AVR320.1205DL	6418677623615	LED 20W PIR dimmable
AVR320.1206DL	6418677623752	LED 20W PIR dimmable
AVR320.1209DL	6418677623622	LED 20W RADAR dimmable
AVR320.1209L	6418677622045	LED 20W RADAR
AVR320.120DL	6418677623608	LED 20W dimmable
AVR320.120DLR	6418677623769	LED 20W dimmable, relay
AVR320.120L	6418677622038	LED 20W

#### AVR254 LED

ТҮРЕ

EAN CODE

-0-230V/50Hz

Materials	Body polycarbonate, diffuser acrylic, replaceable LED module, constant current driver 350 mA	Safety class IP class Total power Luminous flux	ll IP54 10 W 360 lm
Colour	White/grey	Economic lifetime	60 000 h / 70%
Optics	Opal plastic diffuser	Colour temperature	4 000/3 000 K
Mounting	Surface mounting on wall or	CRi index	>80
	ceiling or semi recessed	Ambient temperature	-20 +25 °C
Installation	Fixed installation 3/4x2,5 mm <sup>2</sup>		

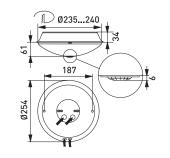
ТҮРЕ	EAN CODE	DESCRIPTION
AVR254.194L	6418677622755	LED 9W 4000K PIR
AVR254.194L/3K	6418677623561	LED 9W 3000K PIR
AVR254.199L	6418677622762	LED 9W 4000K RADAR
AVR254.199L/3K	6418677623578	LED 9W 3000K RADAR
AVR254.19L	6418677622748	LED 9W 4000K
AVR254.19L/3K	6418677623554	LED 9W 3000K

#### AVR51/52 LED

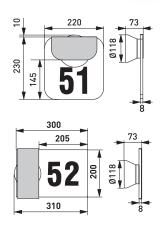
Materials	Body die-cast aluminium and	Safety class	l
	blade impact resistant acrylic	IP class	IP65
	where the information can be	Total power	2 W
	engraved or added as stickers.	Luminous flux	40 lm
	Power LED 1,2 W.	Economic lifetime	50 000 h / 70%
Colour Optics Mounting Installation	White or black LED Mounting on ceiling Fixed installation 3×2,5 mm <sup>2</sup> 230V/50Hz	Colour temperature CRi index Impact resistance (J) Ambient temperature	6 000 K >70 IK08 -25 … +25 ℃

ТҮРЕ	EAN CODE	DESCRIPTION
AVR51.11L	6418677617928	LED luminaire 1 W square black
AVR51.11LV	6418677617935	LED luminaire 1 W square white
AVR52.11L	6418677617942	LED luminaire 1 W rectangular black
AVR52.11LV	6418677617959	LED luminaire 1 W rectangular white









#### **AVR70/71 LED**

Materials	Body and diffuser polycarbon- ate, replaceable LED module, constant current driver 350 mA	Safety class IP class Total power	II IP44 10 W
Colour	White	Luminous flux	360 lm
Optics	Opal plastic diffuser	Economic lifetime	60 000 h / 70%
Mounting	Surface mounting on wall or	Colour temperature	4 000 K
	ceiling	CRi index	>80
Installation	Fixed installation 3×2,5 mm <sup>2</sup> -O- 230V/50Hz	Ambient temperature	-40 +25 °C
	230 1/ 301 12		

EAN CODE

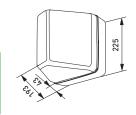
6418677622793

6418677622779

6418677622786

225 120 43







#### AVR72 LED

AVR70.194L

AVR70.19L

AVR71.19L

Materials	Body and diffuser polycarbo- nate, replaceable LED module, constant current driver 350 mA	Safety class IP class Total power	II IP44 10 W
Colour	White	Luminous flux	360 lm
Optics	Opal plastic diffuser	Economic lifetime	60 000 h / 70%
Mounting	Surface mounting on wall or	Colour temperature	4 000 K
	ceiling	CRi index	>80
Installation	Fixed installation 3×2,5 mm <sup>2</sup> -O- 230V/50Hz	Ambient temperature	-40 +25 °C

DESCRIPTION

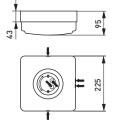
LED 9W PIR

LED 9W

LED 9W

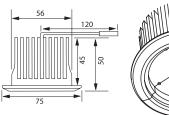
ТҮРЕ	EAN CODE	DESCRIPTION
AVR72.194L	6418677622816	LED 9W PIR
AVR72.19L	6418677622809	LED 9W

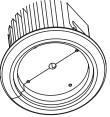












#### **AVR55 LED**

Materials/constructionFColourVOpticsFMountingFInstallationFSafety classFIP classF

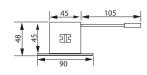
Body aluminium White/aluminium Prismatic plastic Recessed mounting Constant current driver 350 mA III IP20 Total poweraLuminous fluxaEconomic lifetimeaColour temperatureaCRi indexaAmbient temperaturea

8,4 W 588 lm 30 000h / 70% 3 200 K >70 -10 ... +35

ТҮРЕ	EAN CODE	DESCRIPTION
AVR55.18LV	6418677621741	AVR55 LED8W/3200 E VA
AVR55.18LAL	6418677621772	AVR55 LED8W/3200 E AL
AVR55.18LVO	6418677623684	AVR55 LED8W/3200 E O VA
AVR55.18LALO	6418677623691	AVR55 LED8W/3200 E O AL







#### AVR56 LED

Materials/construction	Body aluminium
Colour	White/aluminium
Mounting	Recessed mounting
Installation	Constant current driver 350 mA
Safety class	
IP class	IP20

Total power7,2 'Luminous flux504Economic lifetime30 0Colour temperature3 20CRi index>70Ambient temperature-10

7,2 W 504 lm 30 000h / 70% 3 200 K >70 -10 ... +35

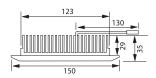
ТҮРЕ	EAN CODE	DESCRIPTION
AVR56.13LVO	6418677623707	AVR56 LED3W/3200 E VA
AVR56.13LALO	6418677623714	AVR56 LED3W/3200 E AL



#### AVR57 LED

Materials/constructionBody aluminiumColourWhite/aluminiumOpticsPrismatic plasticMountingRecessed mountingInstallationConstant current driver 700 mASafety classIIIIP classIP20





	Total power	16,4 W
	Luminous flux	1 148 lm
	<b>Economic lifetime</b>	30 000h / 70%
g	Colour temperature	3 200 K
river 700 mA	CRi index	>70
	Ambient temperature	-10 +35

ТҮРЕ	EAN CODE	DESCRIPTION
AVR57.116LV	6418677621840	AVR57 LED16W/3200 E VA
AVR57.116LAL	6418677621871	AVR57 LED16W/3200 E AL

#### **Drivers**

ТҮРЕ	DESCRIPTION	COMPATIBLE
AVL170	LED driver 10W 350mA	AVR55, AVR56
AVL171	LED driver 20W/24V	AVR57
AVL182	LED driver 16,8W 350 mA	AVR55, AVR56
AVL183	LED driver 21W 700 mA	AVR57

# See the future in a new light!





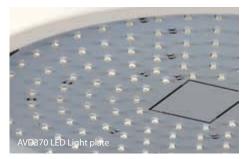
### Stylish luminaire family One luminaire, many looks

The LED downlights of the AVD family – AVD190 LED and AVD370 LED – are designed as ambient luminaires for homes as well as public spaces.

The AVD luminaire family covers both dry and wet spaces, and when equipped with a motion detector, are excellent staircase lights. The light source is either a LED-module or a LED light plate.

AVD190 Decor ring (optional accessory)









## Successful swap to Ensto eLED-luminaires

#### Light level multiplied in staircases

In staircase lighting, replacing old in-candescent lights with motion-activated compact fluorescent lights is a big step towards energyefficiency, but an even better solution exists. The sensor-controlled eLED luminaire from Ensto, designed specifically for staircases, is the most cost-effective alternative thanks to its energy saving capacity and low maintenance needs.

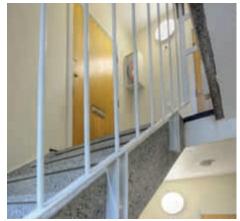
eLED luminaires, designed for new apartment buildings, as well as for renovation sites, were installed in the staircases of the city-owned Orakas apartment building on Pehtorinkatu Street in Kaarina. New 19 W eLED luminaires replaced the old 55 W incandescent luminaires in the building without adding any new light fittings. Following the installation, the illuminance in the staircase was 3.5 times brighter when compared to the original level, while electricity consumption is now a mere 35 % of what it used to be. The estimated annual electricity consumption for the staircase dropped by two thirds, from 990 kWh to 342 kWh.

The Orakas apartment building was built in 1974, and it is a perfect example of how a simple change of the luminaires can improve the quality of life of the residents, as well as cut energy consumption and spendings. This is why that the new AVR320 LED luminaire is also the luminaire of choice in many large apartment buildings in Vantaa and Helsinki.

The AVR320 LED's superior luminous intensity, as well as its even light distribution, makes it ideal for all spaces, ranging from attics to storage areas.

The savings will start to increase immediately following installation. The increased light level provides a sense of security, as well as a beautiful focal point and way to highlight the architectural features of the building. eLED lighting is ideal for a myriad of sites, including a senior citizen center in Hakunila, Vantaa, as well as the glass facade staircases in Jakomäki, Helsinki.





In the future, people will want more light, indoors and outside, to feel safe and comfortable. At the same time, they will want to reduce energy consumption even further. eLED lighting is designed specifically to meet the needs of housing cooperatives, to improve safety and energy-efficiency – also on sites where no other renovations are being made.

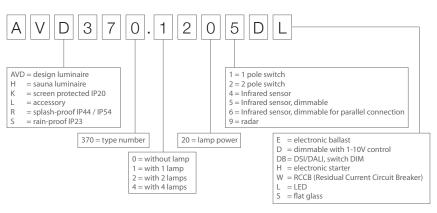


STAIRCASE LIGHTING	BEFORE	AFTER
Lighting	9 incandescent bulbs, 55 W each	9 Ensto AVR320 LED, 9 W each
Average illuminance in staircase compared to initial situation	100 %	350 %
Maximum power of staircase lighting	495 W	171 W
Estimated annual electricity consumption of staircase lighting	990 kWh	342 kWh

Compared to the initial situation, electricity consumption is 35% and illuminance 350%. The total energy efficiency of lighting increases 10-fold.

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# Code key





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