

# Panasonic

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## THE NATURAL EVOLUTION OF LIGHT



PROFESSIONAL LED LIGHT BULBS 2014

# LED

# MORE COMFORT FOR CUSTOMERS – HIGHER SALES FOR YOU

Panasonic is renowned around the world for providing cutting-edge products for professionals – and its energy-saving LED lamps are no exception. Expertise gathered over years of research and development has enabled us to offer a design that your customers have come to appreciate with traditional light bulbs, while ensuring lower energy and maintenance costs over the long term for you. Whether for hotels, shops or restaurants, the range of Panasonic LED light bulbs will make your customers want to return – ensuring an excellent ROI.

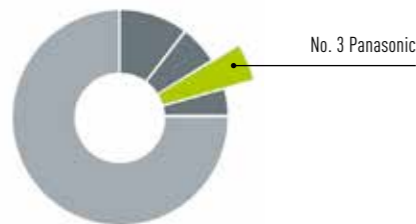


Maritim Hotel Frankfurt, Lobby

## BOOST YOUR ECO-FRIENDLY IMAGE

Panasonic has gained over 75 years of experience in lighting technology. Thanks to this technological expertise, we are the world's third-largest lighting manufacture and the number one provider of LED light bulbs in Japan. Panasonic is doing its part in making the world a better place to live – and your business a better place for customers. By making the switch to LED technology, Panasonic is providing eco-friendly, energy-saving light that is comfortable for customers and features a truly attractive design that they appreciate.

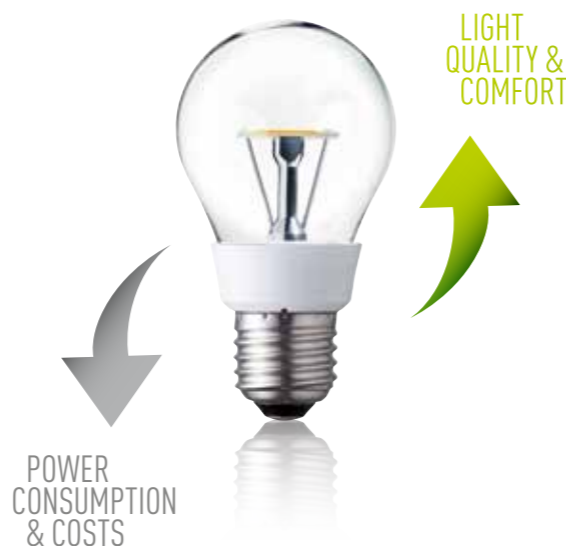
Panasonic is No. 3, based on global sales value



## SAVE TIME AND COSTS

During the course of research and development, Panasonic has thought of what businesses need to stay competitive – like energy-saving bulbs that customers enjoy, inspiring them to come back again and again, while keeping replacement costs low. There are several arguments that speak for Panasonic LED:

- Needs only approx. 6W to produce 40W of light 
- Provides up to 40,000 hours of use\*
- Requires less maintenance and replacement 
- Delivers instant full brightness within 1 second
- Ensures fewer insects and less fabric discolouration 
- Comes with a 3-year warranty\*\*



Panasonic LED bulbs with unique Centre Mount Technology

## INNOVATIVE LED BULB DESIGN

As an independent survey by the Lighting Research Center shows, customers prefer LED lighting to fluorescent lighting, as it is more comfortable, brighter and more eye-catching, among others. With this in mind, Panasonic has developed genuinely warm-atmosphere LED light bulbs that recreate the nostalgic ambience customers enjoy. The range of Panasonic LED bulbs featuring Centre Mount Technology provide all the benefits of LED lighting – long lifespan and friendly, immediate lighting – while ensuring an appealing clear- or frost-type design that reminds us of the beauty and warmth of traditional light bulbs.

## ENLARGED LIGHT-EMITTING PART



## CENTRE MOUNT TECHNOLOGY

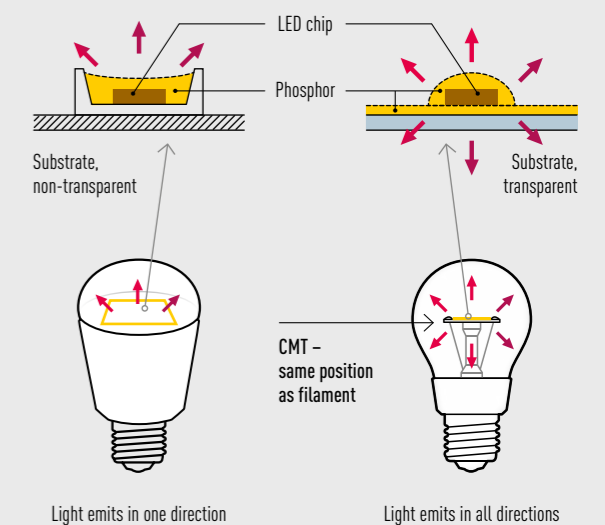
### EXCLUSIVE TECHNOLOGY

The Panasonic LED light bulb range represents the pinnacle of modern lighting, both in terms of performance and design. For instance, our Modern Classic series features new Centre Mount Technology. This unique innovation enables the centre of the bulb to glow, similar to the filament core of incandescent light bulbs – but with up to 85% efficiency and instant warm, natural light for up to 40 years\*. It offers all the advantages of cutting-edge technology, without compromising on style and a warm-light feel.

### THE CLEAR WINNER

As the Centre Mount Technology (CMT) within the 20W Nostalgic Clear bulb (LDAHV4L27CG) uses a transparent material, that lets light through for the substrate, light from the bulb can be emitted both above and below much in the same way as filaments. This technology enables the LED light to produce the nearly full illumination and warm glow of a traditional incandescent bulb that customers have come to enjoy and appreciate – in a nostalgic design they are familiar with.

## TRADITIONAL LED vs. NOSTALGIC CLEAR LED



\*\*Based on an estimated daily use of 2.7 hours

\*When used 2.7 hours per day

AWARD-WINNING DESIGN

# THE CLASSIC LIGHT BULB – REINVENTED

The Modern Classic from Panasonic has already received many awards for its outstanding design. It is the new, high-tech interpretation of the classic light bulb – simply beautiful and now highly efficient too.

## NOSTALGIC DESIGN THAT EVERYONE LOVES

The Panasonic LED Nostalgic Clear light bulb has won a host of awards, confirming its outstanding design and performance. The first LED bulb to reproduce the classic clear design of a traditional bulb, the Nostalgic Clear has most recently been honoured with the red dot design award 2012 and the iF gold design award 2012.



reddot design award  
winner 2012



## TECHNOLOGICAL EXCELLENCE & OUTSTANDING DESIGN



# MARITIM HOTELS GET A NEW LEASE ON LIGHT

Germany's leading hotel chain, Maritim prides itself on providing a comfortable ambience to its guests, ranging from holiday-goers to business travellers, which goes beyond customer service, furnishings and the dining experience. The Maritim Hotel Group realises that lighting also plays a huge role in how a hotel looks and feels to its guests.

## A MORE COMFORTABLE EXPERIENCE



### The lighting challenge

The Maritim hotels had previously used halogen spots and compact fluorescent bulbs (CFL) to light the hotel. However, halogen bulbs were proving to be costly and not very energy efficient. In addition, the CFL bulbs were of poor lighting quality and did not achieve the atmosphere required. As a result, the Maritim Hotel Group sought a lighting solution that would meet its standards in terms of quality and atmosphere, while reducing the cost of lighting for up to over 500 rooms, executive suites, junior suites, restaurants, elevators, lobby and reception areas.

### Maritim Hotel Group chooses Panasonic

Maritim engaged with several key lighting manufacturers: the right vendor was expected to offer consultation, ongoing support, quality solutions, cost savings, energy-efficient lighting and competitive market rates. After an in-depth procurement process, Maritim chose Panasonic to supply approximately 80,000 LED light bulbs throughout some 30 hotels.

"We needed a partner who would guide us through the process; identifying and proving cost savings while responding to any implementation issues quickly. Panasonic proved it could do all of this," said Matthias Schaefer, Assistant Technical Director of Maritim Hotelgesellschaft mbH.

"The implementation was technically challenging, as the 12V LED bulbs with a GU5.3 socket had to be made compatible with the halogen transformers. However, Panasonic rose to the task and provided a solution that was compatible – ensuring the implementation was as seamless as possible," added Mr Schaefer.

### The results speak volumes

The Panasonic LED light bulbs installed at Maritim are not only 90 percent more energy-efficient than the previous halogen lights, they also provide a better experience and atmosphere for guests to the hotel. "On average, Panasonic LED light bulbs last 40 times longer than the halogen light bulbs we were using. In addition, within one year we started to gain a good return on investment. Therefore, this did and does make great business sense for us and, most importantly, allows us to provide a better experience for our customers," commented Mr Schaefer.

### What next for Maritim Hotels?

Following the success at its Frankfurt hotel, Maritim is now currently installing Panasonic solutions at around 30 Maritim hotels throughout Germany. "We are confident that Panasonic can not only equip our hotels with solutions we need, but also remain competitive as a partner by providing us with leading innovative products that meet our business needs," commented Mr Schaefer.



Matthias Schaefer  
Assistant Technical Director  
of Maritim Hotelgesellschaft mbH

# NOSTALGIC RAYS OF LIGHT FOR THE PRAGUE CASTLE

The Prague Castle is the largest ancient castle in the world and, with the President of the Czech Republic ruling from within its walls, serves as a historical and political centre for both the city and the country. Consequently, it is the premier tourist attraction in Prague, welcoming over six million visitors every year. The administrators at Prague Castle recognise that lighting plays a key role in illuminating its historic walls and sought to reduce costs without leaving its visitors in the dark.

## A BRIGHTER IMPRESSION



### Illuminating the challenges

Due to the historical nature of the Castle, the atmosphere of the ancient rooms needed to be maintained, while ensuring the lighting did not have a detrimental effect on the antique and precious artefacts, unlike traditional incandescent bulbs, which can cause discolouration. In addition, areas such as the courtyards need to be well lit at all times, and require bulbs that provide near full-circle illumination. With many light fittings located in hard-to-reach places, the frequency of changing the bulbs must also be minimised.

### Blazing a trail for an energy-efficient future

Panasonic, as the sole supplier of over 10,000 LED light bulbs, was entrusted to replace existing incandescent fluorescent bulbs around the site. Different types of bulb were chosen from the wide range of Panasonic LED models, based on the particular needs of the various locations around the Castle. The bulbs selected were the 15W Candle LED, 300-degree distribution LED light bulbs, and the 40W Nostalgic Clear LED with unique Centre Mount Technology.

Ivo Velisek, Administration Director at Prague Castle, said: "We had experimented with fluorescent and LED bulbs in the past, but these didn't meet our exacting standards. However, the installation of Panasonic LED light bulbs, following a close collaborative process with our new partners, has fundamentally changed our opinion on the use of LED bulbs. Not only do they produce virtually no heat, they provide natural light and are more economical than original light bulbs. In fact, the visual effect and overall feel was indistinguishable from traditional incandescent light bulbs."

"On average, Panasonic LED light bulbs last 40 times longer than the traditional bulbs we had been using. Not only will this help us achieve energy savings for longer, but the maintenance and upkeep of the bulbs is minimal. All in all, the choice of LED bulbs for our needs was exemplary, and we are confident that we will be enjoying the results for years to come," said Mr Velisek.

### Results that shine brightly

By installing 10,000 LED bulbs from Panasonic, Prague Castle saw an energy savings of 77 percent. Furthermore, with a lifespan of up to 40 years, the bulbs reduce the maintenance costs associated with replacement, also as they do not use mercury and thus do not need to be disposed of in line with hazardous waste regulations.

"We are delighted with the lighting solution from Panasonic. Not only have they provided us with LED bulbs that suit all our requirements, they have chosen bulbs which allow us to enjoy energy and cost savings. I am confident that our partnership will expand to other areas in the future, while ensuring that the Prague Castle is illuminated in the most energy efficient and atmospheric way," commented Mr Velisek.

### Highlights behind the choice of bulbs include:

- **St. Vitus Cathedral:** 40W Nostalgic Clear and 15W Candle LED bulbs were installed to pleasantly illuminate the large space, while simultaneously keeping the sacred and historic atmosphere of the beautiful church.
- **The First Courtyard:** Panasonic Nostalgic Clear bulbs were chosen for their energy-saving properties. With a lifespan of up to 40,000 hours (equivalent to 40 years), the frequency of changing the bulbs is reduced dramatically.
- **The Third Courtyard:** As the main path through the Castle complex, the Third Courtyard is required to be well lit at all times. The Panasonic LED range includes 300-degree light distribution to ensure nearly full illumination.



Ivo Velisek  
Administration Director at Prague Castle

# ENHANCED IN-SHOP SALES

With our stylish and eye-catching PoS displays for Panasonic LED lighting products, we support you in boosting your sales. Regardless of your shop's layout, there is a display to fit it: from small countertop displays to large shelves with a TV monitor, a lighting demo tester or promotion carton shelf, made from long-lasting metal or wooden shelves to meet your needs. We can also provide demo videos – simply ask your local Panasonic contact for details.



- [1] **TOWER DISPLAY:**  
Made of strong, high-quality cardboard and is large enough to present the entire array of products.
- [2] **COUNTERTOP DISPLAY:**  
Compact enough to fit on any shelf or countertop, making it ideal for smaller shops or checkout areas.
- [3] **LIGHTING DEMO:**  
Perfectly presents the LED light bulbs by providing a real-life demonstration of their lighting properties.
- [4] **METAL DISPLAY:**  
Made of high-quality, robust metal and featuring a built-in lighting demo tester as well as euroslot hooks.



# ULTIMATE ENERGY-SAVING PARTNER

By making the switch to Panasonic LED light bulbs throughout your business, you can benefit from enhanced energy savings and an environmentally friendly image among customers.

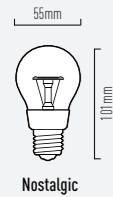
Whether classic clear type in any shape and size or high- and low-voltage halogen, Panasonic has just the right LED light bulb for your needs. We offer large E27 to small E14 sockets in different bulb designs – as well as 220–240V and 12V halogens that fit into any standard socket. This makes switching to LED easy and cost-efficient, as there is no need to replace the entire lamp fitting.

What's more, thanks to LED's long lifespan of up to 40,000 hours or 40 years\*, you will not need to replace these light bulbs as often as traditional incandescent bulbs, which traditionally have a lifespan of 1,000 to 2,000 hours or 1 to 2 years\*. The energy savings speak for themselves: up to 88%. A savings you will not only notice with the next electricity bill, but also in the long run thanks to an excellent ROI of approximately one year.



# AWARD-WINNING NOSTALGIA

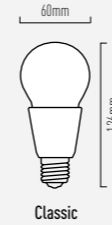
- 20W-equivalent illumination
- Extra-wide illumination angle
- Clear design and Centre Mount Technology for a nice atmosphere
- True soft warm light of an incandescent bulb (2,700 Kelvin)
- Energy savings of up to 78% with Class A energy efficiency
- Extra-long lifespan: up to 40,000 hours or 40 years\*



UP TO **78%** ENERGY SAVINGS

# TRADITIONAL DESIGN

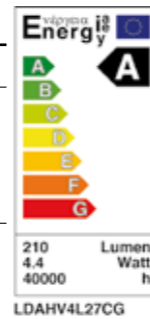
- 40W/50W/60W-equivalent illumination options
- Extra-wide illumination angle
- Clear design and Centre Mount Technology for a nice atmosphere
- True soft warm light of an incandescent bulb (2,700 Kelvin)
- Energy savings of up to 85% with Class A+ energy efficiency
- Long lifespan: up to 25,000 hours or 25 years\*



UP TO **85%** ENERGY SAVINGS

## CLEAR CLASSIC | E27 LARGE SOCKET

Model Number	Equivalent	Light Angle	Lifetime	Light Colour (Kelvin)	Lumen	Dimmable	Energy Efficiency	Energy Savings
<b>LDAHV4L27CG</b>	4.4W = 20W	Xtra Wide	40,000h	2,700K soft warm	210	-	<b>Class A</b>	78%



## COMPARISON: INCANDESCENT VS. NOSTALGIC LED

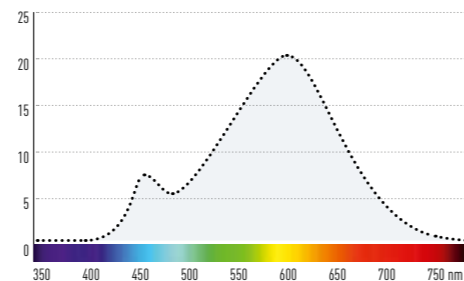
A Nostalgic Clear LED bulb from Panasonic offers the same warm-white brightness, as an incandescent light bulb, with the same comfortable look and feel – but at an energy savings of up to 78%.



Traditional incandescent light bulb / 20W

Panasonic Nostalgic Clear LED bulb / 4.4W

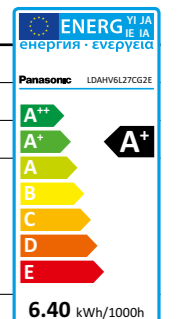
Spectral Distribution Curve



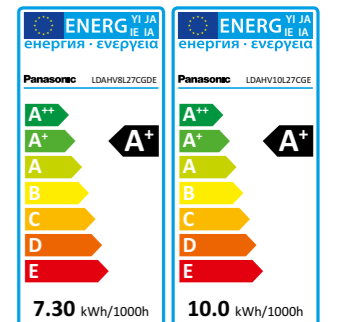
LDAHV4L27CG

## CLEAR CLASSIC | E27 LARGE SOCKET

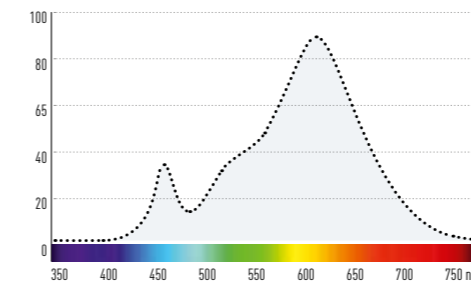
Model Number	Equivalent	Light Angle	Lifetime	Light Colour (Kelvin)	Lumen	Dimmable	Energy Efficiency	Energy Savings
<b>LDAHV6L27CG2E</b>	6.4W = 40W	Xtra Wide	25,000h	2,700K soft warm	470	-	<b>Class A+</b>	84%
<b>LDAHV8L27CGDE**</b>	7.3W = 50W	Xtra Wide	25,000h	2,700K soft warm	638	✓	<b>Class A+</b>	85%
<b>LDAHV10L27CGE</b>	10W = 60W	Xtra Wide	25,000h	2,700K soft warm	806	-	<b>Class A+</b>	83%



6.40 kWh/1000h



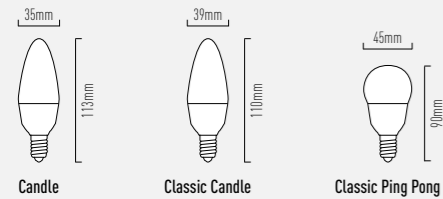
Spectral Distribution Curve



LDAHV6L27CG2E / LDAHV8L27CGDE / LDAHV10L27CGE

# SPECIAL DESIGNS

- 25W/30W-equivalent illumination
- New dimmable bulbs for more flexibility
- Extra-wide illumination angle
- Clear design and Centre Mount Technology<sup>1</sup> for a nice atmosphere
- True soft warm light of an incandescent bulb (2,700 Kelvin)
- Energy savings of up to 83% with Class A+ energy efficiency
- Long lifespan: up to 25,000 hours or 25 years\*



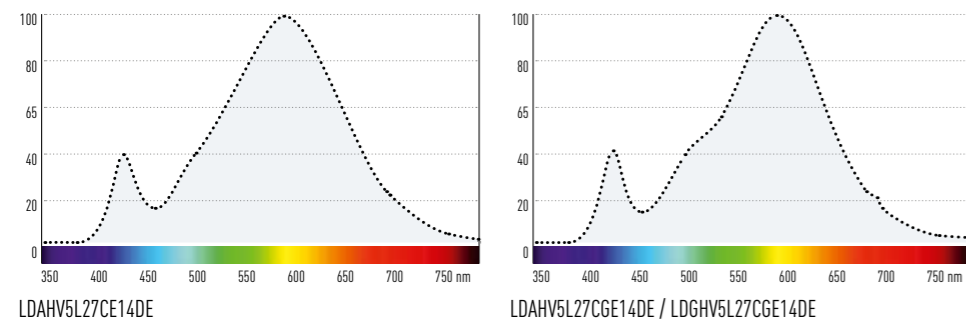
## CLEAR CANDLE | E14 SMALL SOCKET

Model Number	Equivalent	Light Angle	Lifetime	Light Colour (Kelvin)	Lumen	Dimmable	Energy Efficiency	Energy Savings
LD4HV5L27CE14DE	4.5W = 25W	Xtra Wide	25,000h	2,700K soft warm	250	✓	Class A	82%

## CLEAR CLASSIC: CANDLE & PING PONG | E14 SMALL SOCKET

Model Number Candle	Equivalent	Light Angle	Lifetime	Light Colour (Kelvin)	Lumen	Dimmable	Energy Efficiency	Energy Savings
LD4HV5L27CGE14DE	5.0W = 30W	Xtra Wide	15,000h	2,700K soft warm	330	✓	Class A+	83%
Model Number Ping Pong	Equivalent	Light Angle	Lifetime	Light Colour (Kelvin)	Lumen	Dimmable	Energy Efficiency	Energy Savings
LD6HV5L27CGE14DE	5.0W = 30W	Xtra Wide	15,000h	2,700K soft warm	330	✓	Class A+	83%

### Spectral Distribution Curves

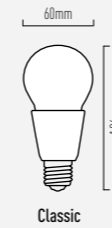


LD4HV5L27CE14DE

LD4HV5L27CGE14DE / LD6HV5L27CGE14DE

# SOFT LIGHTING

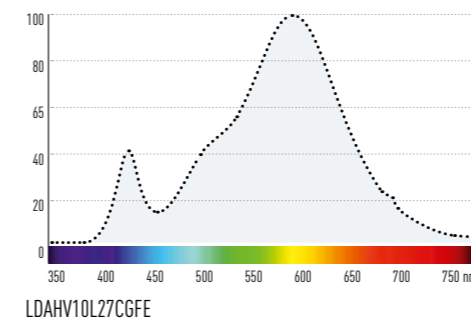
- 55W-equivalent illumination
- New, large E27 socket
- Opaque design for high-quality, soft lighting
- Centre Mount Technology for softer atmosphere
- True soft warm light of an incandescent bulb (2,700 Kelvin)
- Energy savings of up to 82% with Class A+ energy efficiency
- Extra-long lifespan: up to 25,000 hours or 25 years\*



## FROST CLASSIC | E27 LARGE SOCKET

Model Number	Equivalent	Light Angle	Lifetime	Light Colour (Kelvin)	Lumen	Dimmable	Energy Efficiency	Energy Savings
LD4HV10L27CGFE	9.6W = 55W	180°	25,000h	2,700K soft warm	715	-	Class A+	82%

### Spectral Distribution Curve



LD4HV10L27CGFE

1) Only for LD4HV5L27CGE14DE, LD6HV5L27CGE14DE \*When used 2.7 hours per day



## 4.4W LOW-VOLTAGE HALOGEN

UP TO 78% ENERGY SAVINGS

- 20W-equivalent illumination
- For 12V installations
- 100% lighting power immediately after switching on
- Available in two light temperatures: 2,700 and 4,000 Kelvin
- Real soft warm light of a halogen bulb (2,700 Kelvin)
- Energy savings of up to 78% with Class A+ energy efficiency
- Extra-long lifespan: up to 40,000 hours or 40 years\*

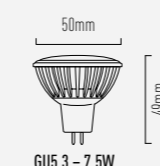


GU5.3 - 4.4W

## 7.5W LOW-VOLTAGE HALOGEN

UP TO 83% ENERGY SAVINGS

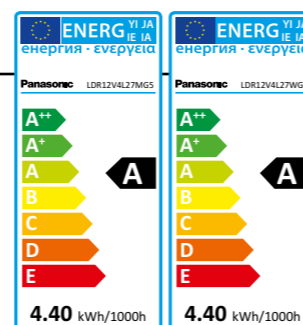
- 45W-equivalent illumination
- For 12V installations
- 100% lighting power immediately after switching on
- Available in two light temperatures: 2,700 and 4,000 Kelvin
- Real soft warm light of a halogen bulb (2,700 Kelvin)
- Energy savings of up to 83% with Class A+ energy efficiency
- Extra-long lifespan: up to 25,000 hours or 25 years\*



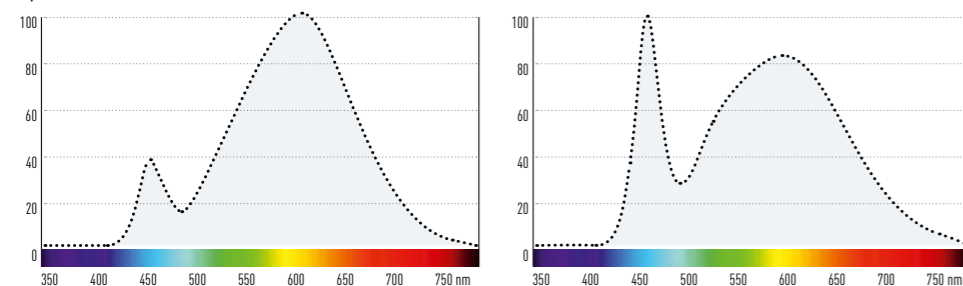
GU5.3 - 7.5W

### GU5.3 REFLECTOR | 4.4W LOW-VOLTAGE 12V

Model Number	Equivalent	Light Angle	Lifetime	Light Colour (Kelvin)	Lumen	Dimmable	Energy Efficiency	Energy Savings
LDR12V4L27MG5	4.4W = 20W	24°	40,000h	2,700K soft warm	210	-	Class A	78%
LDR12V4L27WG5	4.4W = 20W	36°	40,000h	2,700K soft warm	210	-	Class A	78%
LDR12V4W40MG5	4.4W = 20W	24°	40,000h	4,000K cool white	240	-	Class A+	78%
LDR12V4W40WG5	4.4W = 20W	36°	40,000h	4,000K cool white	240	-	Class A+	78%



### Spectral Distribution Curves

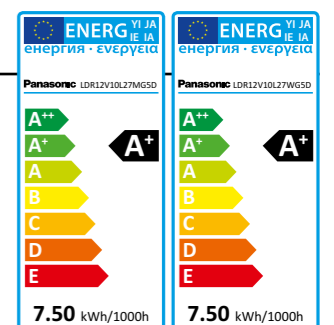


LDR12V4L27MG5 / LDR12V4L27WG5

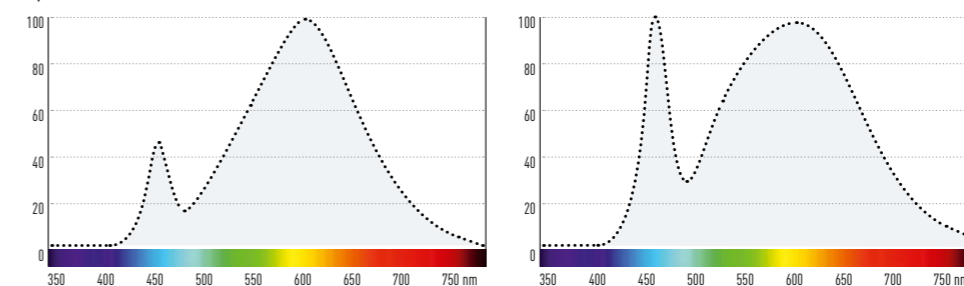
LDR12V4W40MG5 / LDR12V4W40WG5

### GU5.3 REFLECTOR | 7.5W LOW-VOLTAGE 12V

Model Number	Equivalent	Light Angle	Lifetime	Light Colour (Kelvin)	Lumen	Dimmable	Energy Efficiency	Energy Savings
LDR12V10L27MG5D	7.5W = 45W	24°	25,000h	2,700K soft warm	540	✓	Class A+	83%
LDR12V10L27WG5D	7.5W = 45W	36°	25,000h	2,700K soft warm	540	✓	Class A+	83%
LDR12V10W40MG5D	7.5W = 45W	24°	25,000h	4,000K cool white	580	✓	Class A+	83%
LDR12V10W40WG5D	7.5W = 45W	36°	25,000h	4,000K cool white	580	✓	Class A+	83%



### Spectral Distribution Curves



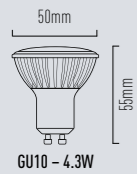
LDR12V10L27MG5D / LDR12V10L27WG5D

LDR12V10W40MG5D / LDR12V10W40WG5D

## 4.3W HIGH-VOLTAGE HALOGEN

UP TO 87% ENERGY SAVINGS

- 35W-equivalent illumination
- For 220V to 240V installations
- 100% lighting power immediately after switching on
- Available in two light temperatures: 2,700 and 4,000 Kelvin
- Energy savings of up to 87% with Class A+ energy efficiency
- Extra-long lifespan: up to 40,000 hours or 40 years\*

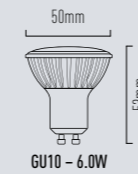


GU10 - 4.3W

## 6.0W HIGH-VOLTAGE HALOGEN

UP TO 88% ENERGY SAVINGS

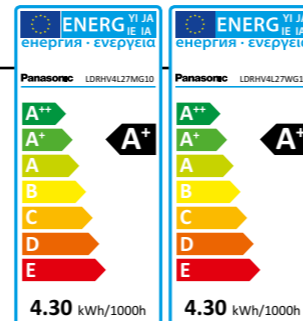
- 50W-equivalent illumination
- New dimmable bulbs for more flexibility
- For 220V to 240V installations
- 100% lighting power immediately after switching on
- Available in two light temperatures: 2,700 and 4,000 Kelvin
- Energy savings of up to 88% with Class A+ energy efficiency
- Extra-long lifespan: up to 25,000 hours or 25 years\*



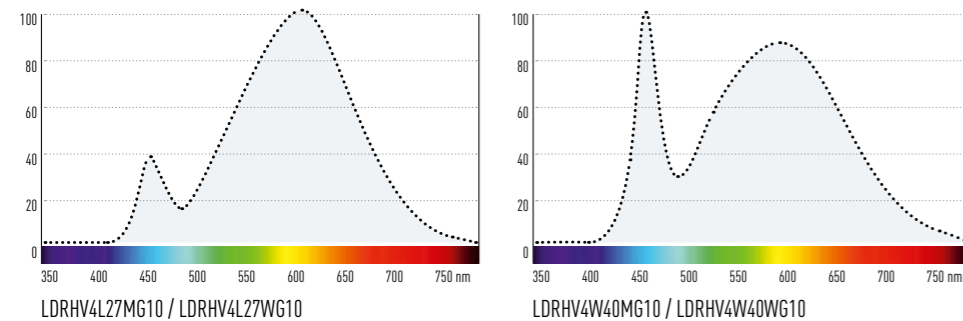
GU10 - 6.0W

### GU10 REFLECTOR | 4.3W HIGH-VOLTAGE 220-240V

Model Number	Equivalent	Light Angle	Lifetime	Light Colour (Kelvin)	Lumen	Dimmable	Energy Efficiency	Energy Savings
LDRHV4L27MG10	4.3W = 35W	24°	40,000h	2,700K soft warm	250	-	Class A+	87%
LDRHV4L27WG10	4.3W = 35W	36°	40,000h	2,700K soft warm	250	-	Class A+	87%
LDRHV4W40MG10	4.3W = 35W	24°	40,000h	4,000K cool white	270	-	Class A+	87%
LDRHV4W40WG10	4.3W = 35W	36°	40,000h	4,000K cool white	270	-	Class A+	87%

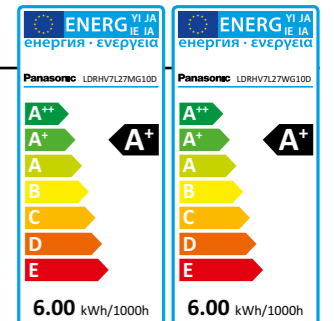


#### Spectral Distribution Curves

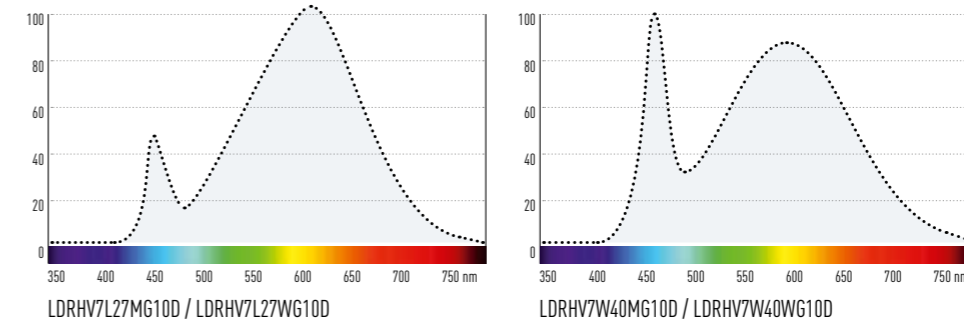


### GU10 REFLECTOR | 6.0W HIGH-VOLTAGE 220-240V

Model Number	Equivalent	Light Angle	Lifetime	Light Colour (Kelvin)	Lumen	Dimmable	Energy Efficiency	Energy Savings
LDRHV7L27MG10D	6.0W = 50W	24°	25,000h	2,700K soft warm	355	✓	Class A+	88%
LDRHV7L27WG10D	6.0W = 50W	36°	25,000h	2,700K soft warm	355	✓	Class A+	88%
LDRHV7W40MG10D	6.0W = 50W	24°	25,000h	4,000K cool white	400	✓	Class A+	88%
LDRHV7W40WG10D	6.0W = 50W	36°	25,000h	4,000K cool white	400	✓	Class A+	88%



#### Spectral Distribution Curves





**MODERN CLASSIC LED**

	CLEAR CLASSIC					CLEAR CANDLE	CLEAR CLASSIC: CANDLE & PING PONG			FROST CLASSIC
Model Number	LDAHV4L27CG	LDAHV6L27CG2E	LDAHV8L27CGDE	LDAHV10L27CGE	Model Number	LDAHV5L27CE14DE	LDAHV5L27CGE14DE	LDGHV5L27CGE14DE	LDAHV10L27CGFE	
Wattage equivalent compared to incandescent or halogen	20W	40W	50W	60W	Wattage equivalent compared to incandescent or halogen	25W	30W	30W	55W	
Energy savings compared to incandescent or halogen	78%	84%	85%	83%	Energy savings compared to incandescent or halogen	82%	83%	83%	82%	
EU Label energy rating	A	A+	A+	A+	EU Label energy rating	A	A+	A+	A+	
Colour type	soft warm	soft warm	soft warm	soft warm	Colour type	soft warm	soft warm	soft warm	soft warm	
Colour temperature	2,700 Kelvin	2,700 Kelvin	2,700 Kelvin	2,700 Kelvin	Colour temperature	2,700 Kelvin	2,700 Kelvin	2,700 Kelvin	2,700 Kelvin	
Bulb dimensions: diameter / length	55mm / 101mm	60mm / 126mm	60mm / 126mm	60mm / 126mm	Bulb dimensions: diameter / length	35mm / 113mm	39mm / 110mm	45mm / 90mm	60 mm / 126 mm	
Base socket type	E27	E27	E27	E27	Base socket type	E14	E14	E14	E27	
Frequency	50/60Hz	50/60Hz	50/60Hz	50/60Hz	Frequency	50/60Hz	50/60Hz	50/60Hz	50/60 Hz	
Input voltage	220-240V	220-240V	220-240V	220-240V	Input voltage	220-240V	220-240V	220-240V	220-240 V	
Input current	0.040A	0.050A	0.036A	0.080A	Input current	N/A	N/A	N/A	0.080 A	
Nominal and rated lamp wattage consumption	4.4W	6.4W	7.3W	10W	Nominal and rated lamp wattage consumption	4.5W	5.0W	5.0W	9.6W	
Nominal and rated lamp luminous flux	210lm	470lm	638lm	806lm	Nominal and rated lamp luminous flux	250lm	330lm	330lm	715 lm	
Efficiency lumen per Watt	47 lm/W	73lm/W	87lm/W	80lm/W	Efficiency lumen per Watt	55lm/W	66lm/W	66lm/W	74 lm/W	
Luminous intensity at specified angle	N/A	N/A	N/A	N/A	Luminous intensity at specified angle	N/A	N/A	N/A	N/A	
Light angle	Xtra Wide	Xtra Wide	Xtra Wide	Xtra Wide	Light angle	Xtra Wide	Xtra Wide	Xtra Wide	180°	
Nominal and rated lamp lifetime / long life up to ...	40,000 hours / 40 years*	25,000 hours / 25 years*	25,000 hours / 25 years*	25,000 hours / 25 years*	Nominal and rated lamp lifetime / long life up to ...	25,000 hours / 25 years*	15,000 hours / 15 years*	15,000 hours / 15 years*	25,000 hours / 25 years*	
Lamp power factor	0.55	0.62	0.54	0.54	Lamp power factor	0.85	0.8	0.8	0.52	
Lumens maintenance factor at the end of nominal life	70%	70%	70%	70%	Lumens maintenance factor at the end of nominal life	70%	70%	70%	70%	
Lamp mercury content	0mg	0mg	0mg	0mg	Lamp mercury content	0mg	0mg	0mg	0mg	
Ambient temperature at which the lamp was designed to maximise its luminous flux	25°C	25°C	25°C	25°C	Ambient temperature at which the lamp was designed to maximise its luminous flux	25°C	25°C	25°C	25°C	
Start-up time	0.1 sec	0.1 sec	0.4 sec	0.4 sec	Start-up time	0.1 sec	0.4 sec	0.4 sec	0.4 sec	
Time to reach 60% of light output	Instant full light	Instant full light	Instant full light	Instant full light	Time to reach 60% of light output	Instant full light	Instant full light	Instant full light	Instant full light	
Colour rendering index (CRI)	80 Ra	80 Ra	80 Ra	80 Ra	Colour rendering index (CRI)	80 Ra	80 Ra	80 Ra	80 Ra	
Colour consistency	6 SDCM	6 SDCM	6 SDCM	6 SDCM	Colour consistency	6 SDCM	6 SDCM	6 SDCM	6 SDCM	
Number of switching cycles before premature lamp failure	100,000	100,000	100,000	100,000	Number of switching cycles before premature lamp failure	100,000	100,000	100,000	100,000	
Dimmable	-	-	✓	-	Dimmable	✓	✓	✓	-	
Individual EAN code	5025232641758	5025232755707	5025232745777	5025232745722	Individual EAN code	5025232755684	5025232767366	5025232767410	5025232745746	

# TECHNICAL SPECIFICATIONS



## HALOGEN LED

Low-voltage Halogen 12V GU5.3 REFLECTOR – 4.4W					GU5.3 REFLECTOR – 7.5W				
Model Number	LDR12V4L27MG5	LDR12V4L27WG5	LDR12V4W40MG5	LDR12V4W40WG5	Model Number	LDR12V10L27MG5D	LDR12V10L27WG5D	LDR12V10W40MG5D	LDR12V10W40WG5D
Wattage equivalent compared to incandescent or halogen	20W	20W	20W	20W	Wattage equivalent compared to incandescent or halogen	45W	45W	45W	45W
Energy savings compared to incandescent or halogen	78%	78%	78%	78%	Energy savings compared to incandescent or halogen	83%	83%	83%	83%
EU Label energy rating	A	A	A+	A+	EU Label energy rating	A+	A+	A+	A+
Colour type	soft warm	soft warm	cool white	cool white	Colour type	soft warm	soft warm	cool white	cool white
Colour temperature	2,700 Kelvin	2,700 Kelvin	4,000 Kelvin	4,000 Kelvin	Colour temperature	2,700 Kelvin	2,700 Kelvin	4,000 Kelvin	4,000 Kelvin
Bulb dimensions: diameter / length	50mm / 49mm	50mm / 49mm	50mm / 49mm	50mm / 49mm	Bulb dimensions: diameter / length	50mm / 49mm	50mm / 49mm	50mm / 49mm	50mm / 49mm
Base socket type	GU5.3	GU5.3	GU5.3	GU5.3	Base socket type	GU5.3	GU5.3	GU5.3	GU5.3
Frequency	50/60Hz	50/60Hz	50/60Hz	50/60Hz	Frequency	50/60Hz	50/60Hz	50/60Hz	50/60Hz
Input voltage	12V	12V	12V	12V	Input voltage	12V	12V	12V	12V
Input current	0.51A	0.51A	0.51A	0.51A	Input current	0.7A	0.7A	0.7A	0.7A
Nominal and rated lamp wattage consumption	4.4W	4.4W	4.4W	4.4W	Nominal and rated lamp wattage consumption	7.5W	7.5W	7.5W	7.5W
Nominal and rated lamp luminous flux	210lm	210lm	240lm	240lm	Nominal and rated lamp luminous flux	540lm	540lm	580lm	580lm
Efficiency lumen per Watt	47lm/W	47lm/W	54lm/W	54lm/W	Efficiency lumen per Watt	72lm/W	72lm/W	77lm/W	77lm/W
Luminous intensity at specified angle	1,000cd	520cd	1,050cd	600cd	Luminous intensity at specified angle	3,050cd	1,640cd	3,310cd	1,740cd
Light angle	24°	36°	24°	36°	Light angle	24°	36°	24°	36°
Nominal and rated lamp lifetime / long life up to ...	40,000 hours / 40 years*	40,000 hours / 40 years*	40,000 hours / 40 years*	40,000 hours / 40 years*	Nominal and rated lamp lifetime / long life up to ...	25,000 hours / 25 years*	25,000 hours / 25 years*	25,000 hours / 25 years*	25,000 hours / 25 years*
Lamp power factor	0.5	0.5	0.5	0.5	Lamp power factor	0.7	0.7	0.7	0.7
Lumens maintenance factor at the end of nominal life	70%	70%	70%	70%	Lumens maintenance factor at the end of nominal life	70%	70%	70%	70%
Lamp mercury content	0mg	0mg	0mg	0mg	Lamp mercury content	0mg	0mg	0mg	0mg
Ambient temperature at which the lamp was designed to maximise its luminous flux	25°C	25°C	25°C	25°C	Ambient temperature at which the lamp was designed to maximise its luminous flux	25°C	25°C	25°C	25°C
Start-up time	0.1 sec	0.1 sec	0.1 sec	0.1 sec	Start-up time	0.1 sec	0.1 sec	0.1 sec	0.1 sec
Time to reach 60% of light output	Instant full light	Instant full light	Instant full light	Instant full light	Time to reach 60% of light output	Instant full light	Instant full light	Instant full light	Instant full light
Colour rendering index (CRI)	80 Ra	80 Ra	80 Ra	80 Ra	Colour rendering index (CRI)	80 Ra	80 Ra	80 Ra	80 Ra
Colour consistency	6 SDCM	6 SDCM	6 SDCM	6 SDCM	Colour consistency	6 SDCM	6 SDCM	6 SDCM	6 SDCM
Number of switching cycles before premature lamp failure	100,000	100,000	100,000	100,000	Number of switching cycles before premature lamp failure	100,000	100,000	100,000	100,000
Dimmable	-	-	-	-	Dimmable	✓	✓	✓	✓
Individual EAN code	5025232652778	5025232652808	5025232765386	5025232765393	Individual EAN code	5025232765331	5025232765348	5025232765362	5025232765379



High-voltage Halogen 220–240V GU10 REFLECTOR – 4.3W					GU10 REFLECTOR – 6.0W				
Model Number	LDRHV4L27MG10	LDRHV4L27WG10	LDRHV4W40MG10	LDRHV4W40WG10	Model Number	LDRHV7L27MG10D	LDRHV7L27WG10D	LDRHV7W40MG10D	LDRHV7W40WG10D
Wattage equivalent compared to incandescent or halogen	35W	35W	35W	35W	Wattage equivalent compared to incandescent or halogen	50W	50W	50W	50W
Energy savings compared to incandescent or halogen	87%	87%	87%	87%	Energy savings compared to incandescent or halogen	88%	88%	88%	88%
EU Label energy rating	A+	A+	A+	A+	EU Label energy rating	A+	A+	A+	A+
Colour type	soft warm	soft warm	cool white	cool white	Colour type	soft warm	soft warm	cool white	cool white
Colour temperature	2,700 Kelvin	2,700 Kelvin	4,000 Kelvin	4,000 Kelvin	Colour temperature	2,700 Kelvin	2,700 Kelvin	4,000 Kelvin	4,000 Kelvin
Bulb dimensions: diameter / length	50mm / 55mm	50mm / 55mm	50mm / 55mm	50mm / 55mm	Bulb dimensions: diameter / length	50mm / 53mm	50mm / 53mm	50mm / 53mm	50mm / 53mm
Base socket type	GU10	GU10	GU10	GU10	Base socket type	GU10	GU10	GU10	GU10
Frequency	50/60Hz	50/60Hz	50/60Hz	50/60Hz	Frequency	50/60Hz	50/60Hz	50/60Hz	50/60Hz
Input voltage	220–240V	220–240V	220–240V	220–240V	Input voltage	220–240V	220–240V	220–240V	220–240V
Input current	0.03A	0.03A	0.03 A	0.03A	Input current	0.032A	0.032A	0.032A	0.032A
Nominal and rated lamp wattage consumption	4.3W	4.3W	4.3W	4.3W	Nominal and rated lamp wattage consumption	6.0W	6.0W	6.0W	6.0W
Nominal and rated lamp luminous flux	250lm	250lm	270lm	270lm	Nominal and rated lamp luminous flux	355lm	355lm	400lm	400lm
Efficiency lumen per Watt	58lm/W	58lm/W	62lm/W	62lm/W	Efficiency lumen per Watt	59lm/W	59lm/W	66lm/W	66lm/W
Luminous intensity at specified angle	1,200cd	600cd	1,250cd	650cd	Luminous intensity at specified angle	1,500cd	880cd	1,600cd	1,000cd
Light angle	24°	36°	24°	36°	Light angle	24°	36°	24°	36°
Nominal and rated lamp lifetime / long life up to ...	40,000 hours / 40 years*	40,000 hours / 40 years*	40,000 hours / 40 years*	40,000 hours / 40 years*	Nominal and rated lamp lifetime / long life up to ...	25,000 hours / 25 years*	25,000 hours / 25 years*	25,000 hours / 25 years*	25,000 hours / 25 years*
Lamp power factor	0.5	0.5	0.5	0.5	Lamp power factor	0.5	0.5	0.5	0.5
Lumens maintenance factor at the end of nominal life	70%	70%	70%	70%	Lumens maintenance factor at the end of nominal life	70%	70%	70%	70%
Lamp mercury content	0mg	0mg	0mg	0mg	Lamp mercury content	0mg	0mg	0mg	0mg
Ambient temperature at which the lamp was designed to maximise its luminous flux	25°C	25°C	25°C	25°C	Ambient temperature at which the lamp was designed to maximise its luminous flux	25°C	25°C	25°C	25°C
Start-up time	0.1 sec	0.1 sec	0.1 sec	0.1 sec	Start-up time	0.1 sec	0.1 sec	0.1 sec	0.1 sec
Time to reach 60% of light output	Instant full light	Instant full light	Instant full light	Instant full light	Time to reach 60% of light output	Instant full light	Instant full light	Instant full light	Instant full light
Colour rendering index (CRI)	80 Ra	80 Ra	80 Ra	80 Ra	Colour rendering index (CRI)	80 Ra	80 Ra	80 Ra	80 Ra
Colour consistency	6 SDCM	6 SDCM	6 SDCM	6 SDCM	Colour consistency	6 SDCM	6 SDCM	6 SDCM	6 SDCM
Number of switching cycles before premature lamp failure	100,000	100,000	100,000	100,000	Number of switching cycles before premature lamp failure	100,000	100,000	100,000	100,000
Dimmable	-	-	-	-	Dimmable	✓	✓	✓	✓
Individual EAN code	5025232652655	5025232652686	5025232765256	5025232765263	Individual EAN code	5025232691357	5025232691388	5025232768110	5025232768127