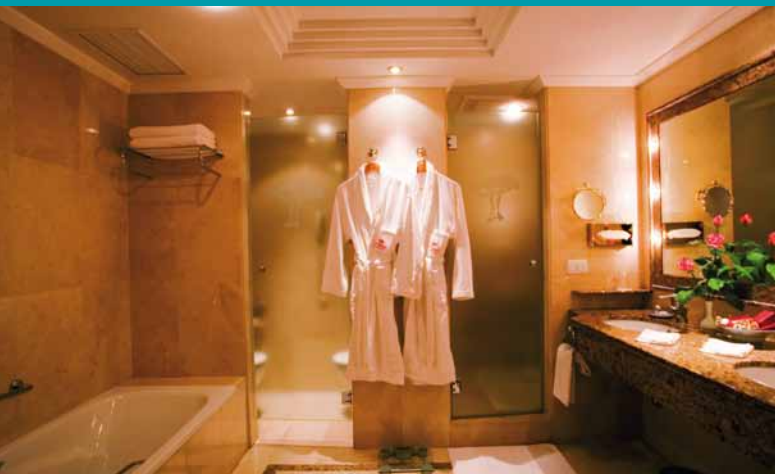


MASTER LEDspots MV GU10

3 year guarantee

Dimmable



Features/applications:

- low energy consumption: 4 W → 35 W, 7 W → 50 W
- LED lamps suitable for simple (retrofit) replacement of halogen lamps (230V-240V)
- available in different color shades of white
- very good color rendering
- temperature range: -20 °C to +45 °C ambient temperature
- suitable for Voltage fluctuations of +/- 10%
- suitable for indoor applications in open luminaires (with an open/free air gap of min. 10 mm)
- for accent and general lighting (e.g. hotels, shops and offices)

Product benefits:

- long lifetime
- 80%-90% energy saving
- dimmable with leading edge dimmers*
- good light distribution
- no IR- and UV radiation, low heat radiation
- high quality, robust housing
- minimizes maintenance costs
- short pay-back time

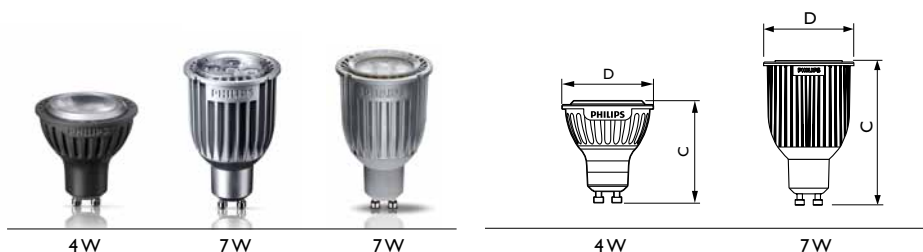


DimTone explained: check page 17

Technical specification

Product description	Wattage	Comparable	Socket	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam	Beam
MASTER LEDspot MV		Halogen		intensity	angle	hours	Dimmable*	Lumen	Efficacy	Units	Color	Color	EOC	EOC						
	W	W		cd	°	hours		lm	lm/W	per	rendering	temp.	8727900	8718291						
										pack	index	K								
D 4-35W GU10 2700K 25D	4	35	GU10	600	25	25,000	yes	165	41	10	>80	2700		12264700						
D 4-35W GU10 2700K 40D	4	35	GU10	310	40	25,000	yes	165	45	10	>80	2700		12268500						
D 4-35W GU10 3000K 25D	4	35	GU10	600	25	25,000	yes	180	41	10	>80	3000		11899200						
D 4-35W GU10 3000K 40D	4	35	GU10	310	40	25,000	yes	180	45	10	>80	3000		11901200						
D 7-50W GU10 2700K 25D	7	50	GU10	1250	25	40,000	yes	300	45	6	>80	2700	86033700							
D 7-50W GU10 2700K 40D	7	50	GU10	500	40	40,000	yes	300	46	6	>80	2700	86035100							
D 7-50W GU10 3000K 25D	7	50	GU10	1400	25	40,000	yes	310	45	6	>80	3000	86039900							
D 7-50W GU10 3000K 40D	7	50	GU10	650	40	40,000	yes	310	46	6	>80	3000	86041200							
D 7-50W GU10 4000K 25D	7	50	GU10	1400	25	40,000	yes	310	46	6	>80	4000	86043600							
D 7-50W GU10 4000K 40D	7	50	GU10	650	40	40,000	yes	310	46	6	>80	4000	86045000							
new 7-50W DimTone GU10 2700K 25D	7	50	GU10	1100	25	40,000	yes	270	40	6	>80	2700		15507200						

* Please refer to the site www.philips.com/masterled for the latest information about dimming MASTER LED lamps.



Dimensions (mm) / weight (kg)

Product	C	D	Weight
4W	55.7	50	0.050
7W	81	50	0.125

MASTER LEDbulbs Designer bulb

3 year guarantee

Dimmable



Features/applications:

- low energy consumption: 7 → 40 W
- easy (retrofit) replacement of incandescent bulbs
- warm white light of 2700 K - truly incandescent-like
- very good color rendering
- temperature range: -20 °C to +45 °C ambient temperature
- for indoor applications in open luminaires
- suitable for general lighting/ambiance creation in e.g. hotels, restaurants, shops and offices

Product benefits:

- design your lamp with a choice of lamp covers
- long lifetime
- 80% energy saving
- incandescent-like light distribution
- no IR- and UV radiation, low heat radiation
- minimize maintenance costs
- short pay-back period

Designer bulb explained: check page 16

Technical specification

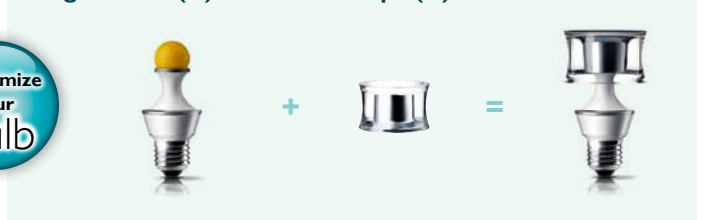
Product description	Wattage	Comparable	Socket	Bulb	Light	Beam	Lifetime	Dimmable*	Lumen	Efficacy	Units	Color	Color	EOC
MASTER LEDbulb		incandescent		shape	output	angle			output		per	rendering	temp.	8718291
Designer		Wattage			lm	°	hours		lm	lm/W	pack	index	K	
new A) 7-40W E27 2700K Designer	7	40	E27			240	25,000	yes	470	67	6	>80	2700	15501000
new A) 7-40W B22 2700K Designer	7	40	B22			240	25,000	yes	470	67	6	>80	2700	15503400
new B) Designer bulb lamp cover Convex shape	n.a.	n.a.	n.a.			n.a.	25,000	n.a.	n.a.	n.a.	6	n.a.	n.a.	17176800
new C) Designer bulb lamp cover Concave shape	n.a.	n.a.	n.a.			n.a.	25,000	n.a.	n.a.	n.a.	6	n.a.	n.a.	17180500

* Please refer to the site www.philips.com/masterled for the latest information about dimming MASTER LED lamps.

Designer bulb (A) + Convex shape (B)

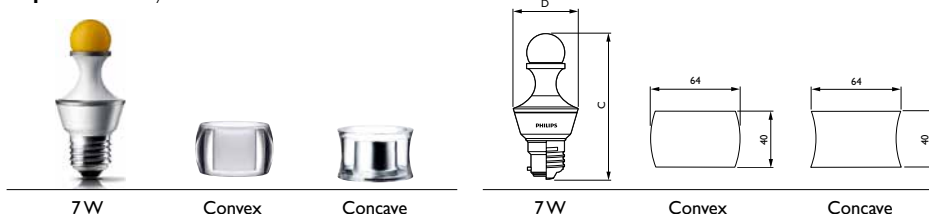


Designer bulb (A) + Concave shape (C)



Important: always order a combination of A and B or A and C

Intellectual property number: 201120109172.4



Dimensions (mm) / weight (kg)

Product	C	D	Weight
7W E27	102	45	0,088
7W B22	102	45	0,088

Features explained

First class halogen transformer compatibility thanks to intelligent electronics within low voltage LED Lamps

				
7W / 10W	4W	10W / 15W	4W	2.5W
MASTER LEDspots LV MR16 GU5.3 Dimmable	MASTER LEDspots LV MR16 GU5.3 Non-Dimmable	MASTER LEDspot LV AR111 G53 Non-Dimmable	MASTER LEDspot LV MR11 GU4 Non-Dimmable	MASTER LEDcapsule LV G4 Non-Dimmable

Philips designed a unique (patent protected) intelligent driver concept for low voltage (12 V) LED lamps, which enables broad compatibility with existing electronic and electromagnetic Halogen transformers. Therefore, Philips low voltage (12 V) LED lamps universally replace 12 V Halogen spot lamps with unique first class transformer compatible electronics.

Philips is the first to have fundamentally solved the ubiquitous challenge of making an extremely low energy consuming lamp work on the wide variety (hundreds of types worldwide) of standard 12V Halogen transformers. The Halogen 12V lamps are connected (alone or with a group of lamps) to Halogen transformers which have a typical load range from 20W to 150W and are powered in the range from one 20W lamp to three 50W lamps. For a simple plug and play replacement, low voltage LED lamps should work normally when connecting to such a Halogen transformer. This is not easy since most Halogen transformers require a certain minimum load of 20W or higher to power the lamp and function properly. This patented electronics solution makes Halogen transformers perceive the lamp as

a normal Halogen lamp to operate normally, while only delivering the required low power to the LED lamp (e.g. 4W MR16).

Not having the right driver (electronics) solution in LED lamps could result in compatibility issues with the existing installed base of transformers once these LED lamps are installed, such as:

- Lamp not starting up
- Flicker in the light beam
- Transformer overheating or saturation, which can lead to shortened transformer lifetime
- Transformer replacement

MASTER LEDbulb Designer



MASTER LEDbulb Designer combines warm, incandescent-like light with customizable MASTER LEDlamp covers to offer design freedom in a simple retrofit LED bulb like never before. Ideal for open fixtures where the bulb is fully visible, it offers the excellent light performance, dimming and energy savings of MASTER LEDbulbs along with a uniquely customizable design. It is particularly suited to the hospitality and retail industry, where aesthetic design is especially important.

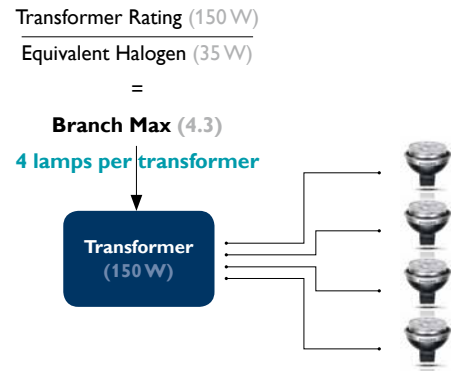
The elegant MASTER LEDlamp covers can be individually selected and installed by the user to match the surrounding décor, also as it changes over the extended lifetime of the lamp. The innovative lamp design ensures excellent light quality, and the broadly compatible dimmable driver helps create the desired ambiance while further improving efficiency.

Without dimmer

Calculation method of lamp number per transformer – without dimmer

To estimate how many LED lamps can be connected to an existing halogen transformer, the rated power of the transformer needs to be divided by the LED lamp replacement Wattage.

For example there is a 150 W transformer available, and the MR16 7 W (replacing a 35 W halogen lamp) is going to be installed. The calculation in this case is as shown

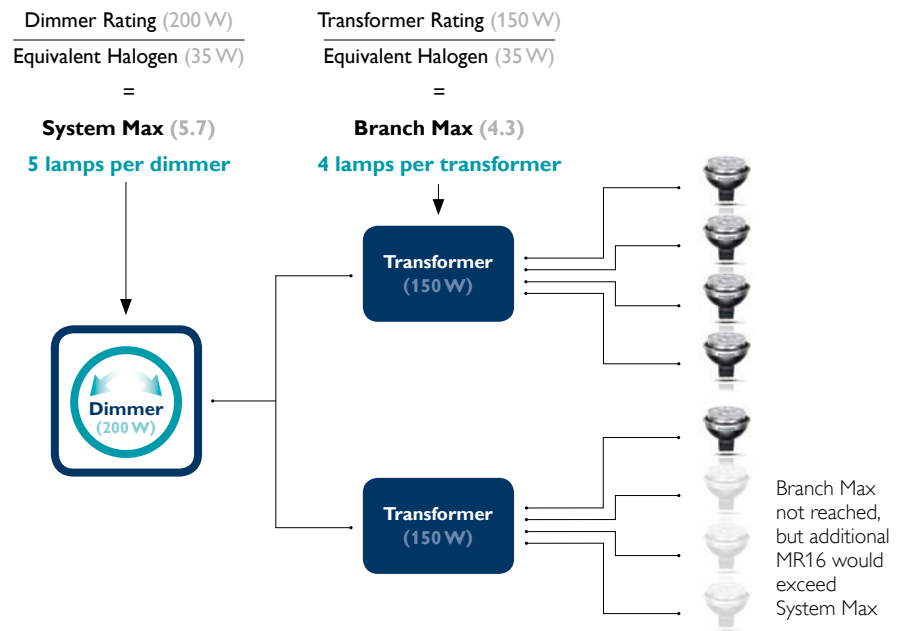


With dimmer

Calculation method of lamp number per transformer – with dimmer

In case dimmable low voltage LED lamps have to be connected to a dimmer, the following approach has to be followed:

- 1) Determine the max loading of both your transformer(s) and your dimmer: either in Watts (W) or Volt-Amps (VA).
- 2) Use the ratios below to determine a 'System Max' and 'Branch Max'
- 3) Limit total lamps you can install by 'System Max'...
- 4) ...and ensure transformer load is sufficient to allow for each individual 'Branch'



Unique 'DimTone' dimming

DimTone takes LED lamp dimming to an exciting new level, creating a pleasant, warm 'sunset' effect as the light is dimmed. Regular LED lamp dimming reduces the intensity of the light output but not the color temperature, which remains constant throughout the dimming process. And this is perfectly sufficient for many applications. But now, with DimTone, the color temperature is also reduced as the lamp is dimmed. This creates a warm, intimate lighting effect at lower intensities, identical to the 'sunset' effect of a dimmed halogen or incandescent lamp. This means that hoteliers, bar and restaurant owners can now take advantage of energy-efficient LED lighting and still create a natural, cozy ambience when the light is dimmed.

Ideal for hotels, bars and restaurants

Market research has shown DimTone to be a highly appreciated breakthrough in LED lighting. It is seen as a 'must have' option for facility managers who want to create a warm, inviting atmosphere in bars, restaurants, lobbies, conference rooms and leisure centers. It enables hospitality managers to answer the urgent need to convert to energy-efficient lighting throughout their establishments, without any compromise to their guests' visual comfort and sense of well-being.

