

Why choose Philips for LED lamps

How do professional end users appreciate Philips LED lamps?

Together with TNS Infratest Philips investigated customer experiences in various countries in Europe.

Here is a summary of the results including customer quotes:

Best Product

- **Superior light and product quality:**
"Philips LED lamps were closest to what we had before... according to our experience a big difference compared to the other brands."
- **High energy saving results with a short ROI period:**
"We reached amortization much earlier than expected. The energy savings are amazing."



Best Partner

- **Close cooperation with Philips before, during, and after projects:**
"They really tried hard to satisfy our needs well. They really have cared a lot and showed a lot of commitment..."
- **Technical consulting and intense customer support:**
"Quick and competent responses to questions"
- **Close cooperation with local wholesalers was a key element of assuring on-time product availability:**
"Philips is flexible to offer different delivery options"

Best Portfolio

- **Philips LED expertise and portfolio:**
"Philips already has an image of being the LED specialist in the market"
- **A wide range of LED Lamps ensures various applications are possible:**
"Philips offers the best portfolio of LED Light compared to competitors"

In addition to above remarks, nearly all respondents would use Philips products and services in the future again and are also willing to recommend Philips to other companies in their business. Philips is very happy with this customer feedback. Nevertheless, LED lamp innovations as outlined in this brochure remain a key focus to ensure positive feedback also in the (near) future.

Warranty policy
















Philips improves its Warranty policy for LED lamps within the regions Europe, Middle East and Africa. For Philips branded professional LED lamps purchased as from 1st of March 2012, a warranty up to 5 years will apply.

See the table on the right for more details.

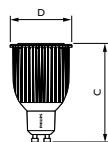
LED lamps/tubes warranty		Period
LED	Lamp life ≥ 25 khrs	
	MR16, GU10, AR111, LEDtube	5 year
	Others	3 year
Lamp life < 25 khrs		1 year



MASTER LEDlamps range

MASTER LEDspot		MV GU10 Dimmable	4		LV MR16 GU5.3 Dimmable	6		LV MR16 GU5.3 Non-Dimmable	7		LV MR11 GU4 Non-Dimmable	8
		LV AR111 G53 Dimmable	10		LV AR111 G53 Non-Dimmable	11		PAR Dimmable/ Non-Dimmable	15			
MASTER LEDcapsule		LV G4 Non-Dimmable	9									
MASTER LEDbulb		Designer Dimmable	12		Dimmable	14						
MASTER LEDcandle		E14 B15 Dimmable	16									
MASTER LEDluster		E14 E27 B22 Dimmable	17									
MASTER LEDtube		High lux requirement	20		Value over lifetime	20		Special	20			

Features explained	Halogen transformer compatibility	22
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Pay-back comparison LED	Halogen/Incandescent	24
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Product	8 W
C	80
D	50
Weight in kg	0.116
Dimensions in mm	



1) MASTER LEDspot MV 8-50 W+ provides High Performance Dimming

- broad dimmer compatibility supporting a wide range of normal phase-cut dimmers: wall box dimmers, panels, plug-in unit phase-cut dimming
- high dimming performance: smooth dimming curve, deeper dimming level, one to multiple lamps

8-50 W+ replaces 50 W halogen spots and reaches even higher light output (depending on the reference halogen lamp)

Application note:

To ensure high dimming performance the GU10 8 W should not be connected with other lamp types on the same dimmer ('mixed load')

Technical specification

Product description	Wattage	Comparable	Socket	Beam	Beam	Lifetime	Dimmable*	Lumen	Efficacy	Units	Color	Color	EOC	EOC
MASTER LEDspot MV		Halogen		intensity	angle			output		per	rendering	temp.	8727900	8718291
	W	W		cd	°	hours		lm	lm/W	pack	index	K		
8-50W+ DimTone GU10 2700K 25D	8	50+	GU10	1800	25	40,000	yes ¹⁾	430	54	6	>80	2700		21348200
8-50W+ DimTone GU10 2700K 40D	8	50+	GU10	900	40	40,000	yes ¹⁾	430	54	6	>80	2700		21350500
D 8-50W CRI90 GU10 2700K 25D	8	50	GU10	1400	25	40,000	yes ¹⁾	330	41	6	90	2700		19246600
D 8-50W CRI90 GU10 2700K 40D	8	50	GU10	700	40	40,000	yes ¹⁾	330	41	6	90	2700		19248000
D 8-50W+ GU10 2700K 25D	8	50+	GU10	1800	25	40,000	yes ¹⁾	430	54	6	>80	2700		19358600
D 8-50W+ GU10 2700K 40D	8	50+	GU10	900	40	40,000	yes ¹⁾	430	54	6	>80	2700		19360900
D 8-50W+ GU10 3000K 25D	8	50+	GU10	1900	25	40,000	yes ¹⁾	450	56	6	>80	3000		19362300
D 8-50W+ GU10 3000K 40D	8	50+	GU10	950	40	40,000	yes ¹⁾	450	56	6	>80	3000		19364700
D 8-50W+ GU10 4000K 25D	8	50+	GU10	1900	25	40,000	yes ¹⁾	450	56	6	>80	4000		19366100
D 8-50W+ GU10 4000K 40D	8	50+	GU10	950	40	40,000	yes ¹⁾	450	56	6	>80	4000		19368500

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



6 W



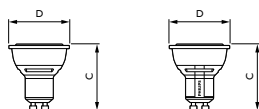
4 W

Features:

- low energy consumption: 4 W → 35 W, 6 W → 50 W, 8 W → 50 W, 8 W → 50 W+
- dimmable
- compatible with an extensive range of dimmers
- lifetime of 25,000 to 40,000 hours
- clearly defined beam spread
- UV- and IR-free light for less heat and protection for heat-sensitive objects

Benefits/applications:

- DimTone dimming: the light gets warmer when dimmed (for 8-50 W+ DimTone only)
- up to 80% energy saving compared with halogen lamps
- retrofittable
- lower maintenance costs
- 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	4 W	6 W
C	55	55
D	50	50
Weight in kg	0.035	0.05
Dimensions in mm		



Retail



Hospitality



Office

Technical specification

Product description	Wattage	Comparable	Socket	Beam	Beam	Lifetime	Dimmable*	Lumen	Efficacy	Units	Color	Color	EOC
MASTER LEDspot MV		Halogen		intensity	angle			output		per	rendering	temp.	8718291
	W	W		cd	°	hours		lm	lm/W	pack	index	K	
D 4-35W GU10 2700K 25D	4	35	GU10	700	25	25,000	yes	180	45	10	>80	2700	19234300
D 4-35W GU10 2700K 40D	4	35	GU10	350	40	25,000	yes	180	45	10	>80	2700	19236700
D 4-35W GU10 3000K 25D	4	35	GU10	700	25	25,000	yes	180	45	10	>80	3000	19238100
D 4-35W GU10 3000K 40D	4	35	GU10	350	40	25,000	yes	180	45	10	>80	3000	19240400
D 4-35W GU10 4000K 25D	4	35	GU10	760	25	25,000	yes	200	50	10	>80	4000	19242800
D 4-35W GU10 4000K 40D	4	35	GU10	380	40	25,000	yes	200	50	10	>80	4000	19244200
D 6-50W GU10 2700K 25D	6	50	GU10	1000	25	40,000	yes	300	50	10	>80	2700	21067200
D 6-50W GU10 2700K 40D	6	50	GU10	600	40	40,000	yes	300	50	10	>80	2700	21073300
D 6-50W GU10 3000K 25D	6	50	GU10	1100	25	40,000	yes	320	54	10	>80	3000	21069600
D 6-50W GU10 3000K 40D	6	50	GU10	600	40	40,000	yes	320	54	10	>80	3000	21075700
D 6-50W GU10 4000K 25D	6	50	GU10	1100	25	40,000	yes	320	54	10	>80	4000	21071900
D 6-50W GU10 4000K 40D	6	50	GU10	600	40	40,000	yes	320	54	10	>80	4000	21077100

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



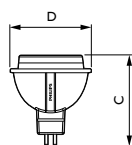
7 W / 10 W

Features:

- low energy consumption: 7 W → 35 W, 10 W → 50 W (12 V)
- dimmable
- patented intelligent driver
- air movement mechanism (active fan cooling) with very low sound levels
- retrofittable with low-voltage MR16 halogen lamps with GU5.3 socket

Benefits/applications:

- up to 80% energy saving compared with halogen lamp
- broad compatibility with transformers
- long lifetime
- 80% energy saving
- no IR- and UV radiation; ideal to illuminate heat sensitive objects
- air movement mechanism (active fan cooling) with very low sound levels
- minimizes maintenance costs
- short pay-back time
- ideal for accent lighting in hotels, hospitals, shops and museums (e.g. floors, elevators, displays) in open luminaires (with an open/free air gap of min. 10 mm)



Product	7 W / 10 W
C	54
D	50
Weight in kg	0.042
Dimensions in mm	



Hospitality



Retail



Office

Technical specification

Product description	Wattage	Comparable	Socket	Bulb	Beam	Beam	Lifetime	Dimmable*	Lumen	Efficacy	Units	Color	Color	EOC
MASTER LEDspot LV		Halogen		shape	intensity	angle			output		per	rendering	temp.	8718291
	W	W			cd	°	hours		lm	lm/W	pack	index	K	
D 7-35W 2700K MR16 24D	7	35	GU5.3	MR16	2140	24	40,000	yes	370	53	10	>80	2700	21039900
D 7-35W 2700K MR16 36D	7	35	GU5.3	MR16	1180	36	40,000	yes	370	53	10	>80	2700	21045000
D 7-35W 2700K MR16 60D	7	35	GU5.3	MR16	320	60	40,000	yes	370	53	10	>80	2700	21352900
D 7-35W 3000K MR16 24D	7	35	GU5.3	MR16	2200	24	40,000	yes	380	54	10	>80	3000	21041200
D 7-35W 3000K MR16 36D	7	35	GU5.3	MR16	1210	36	40,000	yes	380	54	10	>80	3000	21047400
D 7-35W 3000K MR16 60D	7	35	GU5.3	MR16	340	60	40,000	yes	380	54	10	>80	3000	21354300
D 7-35W 4000K MR16 24D	7	35	GU5.3	MR16	2340	24	40,000	yes	385	55	10	>80	4000	21043600
D 7-35W 4000K MR16 36D	7	35	GU5.3	MR16	1230	36	40,000	yes	385	55	10	>80	4000	21049800
D 10-50W 2700K MR16 24D	10	50	GU5.3	MR16	2720	24	30,000	yes	470	47	10	>80	2700	21051100
D 10-50W 2700K MR16 36D	10	50	GU5.3	MR16	1500	36	30,000	yes	470	47	10	>80	2700	21057300
D 10-50W 3000K MR16 24D	10	50	GU5.3	MR16	2840	24	30,000	yes	490	49	10	>80	3000	21053500
D 10-50W 3000K MR16 36D	10	50	GU5.3	MR16	1560	36	30,000	yes	490	49	10	>80	3000	21059700
D 10-50W 4000K MR16 24D	10	50	GU5.3	MR16	3010	24	30,000	yes	495	50	10	>80	4000	21055900
D 10-50W 4000K MR16 36D	10	50	GU5.3	MR16	1580	36	30,000	yes	495	50	10	>80	4000	21061000

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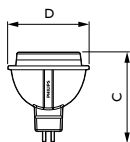
4 W

Features:

- low energy consumption: 4 W → 20 W (12 V)
- non-dimmable
- patented intelligent driver
- retrofittable with low-voltage MR16 halogen lamps with GU5.3 socket

Benefits/applications:

- up to 80% energy saving compared with halogen lamp
- broad compatibility with transformers
- ideal for accent lighting in hotels, hospitals, shops and museums (e.g. floors, elevators, displays) in open luminaires (with an open/free air gap of min. 10 mm)



Product	4 W
C	47.8
D	50
Weight in kg	0.046
Dimensions in mm	



Hospitality



Retail



Office

Technical specification

Product description	Wattage	Comparable	Socket	Bulb	Beam	Beam	Lifetime	Dimmable	Lumen	Efficacy	Units	Color	Color	EOC
MASTER LEDspot LV		Halogen		shape	intensity	angle			output		per	rendering	temp.	8718291
	W	W			cd	°	hours		lm	lm/W	pack	index	K	
4-20W 2700K MR16 24D	4	20	GU5.3	MR16	1000	24	45,000	no	210	53	10	>80	2700	19378400
4-20W 2700K MR16 36D	4	20	GU5.3	MR16	600	36	45,000	no	210	53	10	>80	2700	19222000
4-20W 3000K MR16 24D	4	20	GU5.3	MR16	1100	24	45,000	no	220	55	10	>80	3000	19380700
4-20W 3000K MR16 36D	4	20	GU5.3	MR16	660	36	45,000	no	220	55	10	>80	3000	19226800
4-20W 4000K MR16 24D	4	20	GU5.3	MR16	1150	24	45,000	no	240	60	10	>80	4000	19228200
4-20W 4000K MR16 36D	4	20	GU5.3	MR16	700	36	45,000	no	240	60	10	>80	4000	19230500



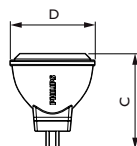
Features:

- low energy consumption: 4 W → 20 W (12 V)
- non-dimmable
- clearly defined beam spread
- UV- and IR-free light for less heat and protection for heat-sensitive objects
- CRI90
- retrofitable

Benefits/applications:

GOLD
SILVER

- CRI90 truly enhances the presentation of gold jewelry, bringing colors to life
- CRI80, 3000 K truly enhances the presentation of silver jewelry, adding sparkle to the items on display
- up to 80% energy saving compared with halogen lamps
- with low-voltage MR11 halogen lamps with GU4 socket
- lower maintenance costs
- ideal to create eye-catching displays (for e.g. in jewellery stores)



Product	4 W
C	40
D	35
Weight in kg	0.026
Dimensions in mm	



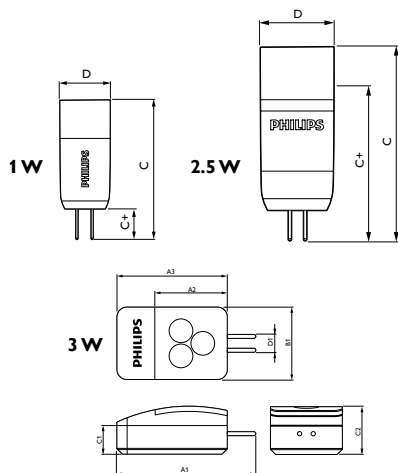
Retail



Hospitality

Technical specification

Product description	Wattage	Comparable	Socket	Bulb	Beam	Beam	Lifetime	Dimmable	Lumen	Efficacy	Units	Color	Color	EOC
MASTER LEDspot LV		Halogen		shape	intensity	angle			output		per	rendering	temp.	8718291
	W	W			cd	°	hours		lm	lm/W	pack	index	K	
4-20W GU4 2700K 24D	4	20	GU4	MR11	580	24	25,000	no	140	35	12	>80	2700	11923400
4-20W GU4 3000K 24D	4	20	GU4	MR11	650	24	25,000	no	150	38	12	>80	3000	19224400
4-20W GU4 4000K 24D	4	20	GU4	MR11	700	24	25,000	no	150	38	12	>80	4000	11925800
4-20W CRI90 MR11 2700K 24D	4	20	GU4	MR11	720	24	25,000	no	125	31	12	>90	2700	19220600



Product	1 W	2.5 W	3 W
A1			39.9
A3			32
B1			20
C	36.8	49.8	
C+	8	40.2	
C2			14.5
D	13.2	18.7	
Weight in kg	0.005	0.018	
Dimensions in mm			
Note: not a perfect fit retrofit size			

With lens


new
design

1 W

With lens



2.5 W

Without lens



3 W

Features:

- low energy consumption: 1 W → 5 W, 2.5 W → 10 W, 3 W → 20 W (12 V)
- patented intelligent driver (2.5 W only)
- removable lens cover (2.5 W version)
- warm white light
- lifetime of 20,000 to 25,000 hours
- UV- and IR-free light for less heat and protection for heat-sensitive objects

Benefits/applications:

- up to 75% energy saving compared with halogen lamps
- broad compatibility with transformers
- lower maintenance costs
- application areas: hotels, restaurants, bars, cafés (lobbies, corridors, stairwells, washrooms, reception areas)

Application note for the MASTER LEDcapsule 1-5 W:

- excludes patented intelligent driver to achieve smaller size and weight
- works with Magnetic Transformers
- works with a restricted set of Electronic Transformers (see below information for compatible Philips transformers)

The suggested maximum number of 1 W capsules of:

Certaline 60
12 pieces

Primaline 70
6 pieces


for the 1 W and 2.5 W



for the 3 W

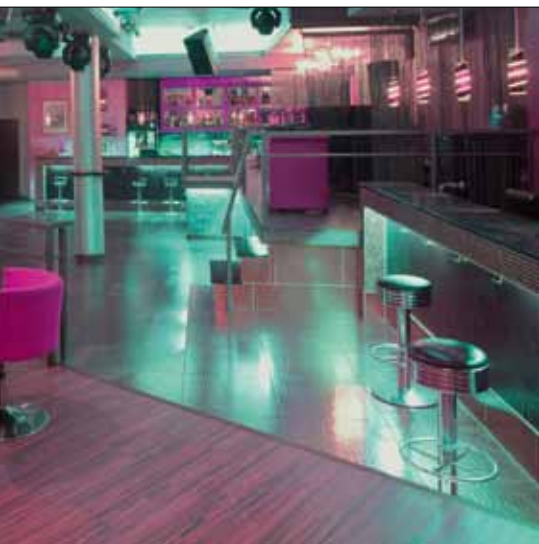


Hospitality

Technical specification

Product description	Wattage	Comparable	Socket	Beam	Lifetime	Dimmable	Lumen	Efficacy	Units	Color	Color	EOC
MASTER LEDcapsule LV		Halogen		angle			output		per	rendering	temp.	8718291
	W	W		°	hours		lm	lm/W	pack	index	K	
G4 2700K	1	5	G4	360	25,000	no	50	50	12	>80	2700	19202200
G4 2700K	2.5	10	G4	360	25,000	no	100	40	12	>80	2700	15535500
G4 2700K	3	20	G4	80	20,000	no	170	57	12	>80	2700	24283300

new



new
design

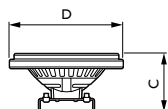
10 W / 15 W

Features:

- lower energy consumption: 10 W → 50 W , 15 → 75 W (12 V)
- dimmable
- patented intelligent driver
- lifetime of 45,000 hours
- low energy consumption
- clearly defined beam spread
- UV- and IR-free light for less heat and protection for heat-sensitive objects

Benefits/applications:

- up to 80% energy saving compared with halogen lamps
- broad compatibility with transformers
- retrofittable
- for galleries, museums, exhibitions, lobbies, corridors, stairwells, washrooms, reception areas



Product	10 W / 15 W
C	56
D	111
Weight in kg	0.114
Dimensions in mm	



Hospitality

Retail

Office

Supermarkets

Technical specification

Product description	Wattage	Comparable	Socket	Bulb	Beam	Beam	Lifetime	Dimmable	Lumen	Efficacy	Units	Color	Color	EOC
MASTER LEDspot LV		Halogen		shape	intensity	angle					per	rendering	temp.	8718291
	W	W			cd	°	hours		lm	lm/W	pack	index	K	
AR111 2700K 24D	10	50	G53	AR111	3360	24	45,000	yes	600	60	6	>80	2700	19204600
AR111 2700K 40D	10	50	G53	AR111	1220	40	45,000	yes	600	60	6	>80	2700	19206000
AR111 3000K 24D	10	50	G53	AR111	3470	24	45,000	yes	620	62	6	>80	3000	19208400
AR111 3000K 40D	10	50	G53	AR111	1270	40	45,000	yes	620	62	6	>80	3000	19210700
AR111 2700K 24D	15	75	G53	AR111	4560	24	45,000	yes	830	55	6	>80	2700	19212100
AR111 2700K 40D	15	75	G53	AR111	1660	40	45,000	yes	830	55	6	>80	2700	19214500
AR111 3000K 24D	15	75	G53	AR111	4700	24	45,000	yes	860	57	6	>80	3000	19216900
AR111 3000K 40D	15	75	G53	AR111	1700	40	45,000	yes	860	57	6	>80	3000	19218300

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



new
design

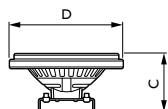
15 W

Features:

- lower energy consumption: 15 → 75 W (12 V)
- patented intelligent driver
- lifetime of 45,000 hours
- low energy consumption
- clearly defined beam spread
- UV- and IR-free light for less heat and protection for heat-sensitive objects

Benefits/applications:

- up to 80% energy saving compared with halogen lamps
- broad compatibility with transformers
- retrofittable
- for galleries, museums, exhibitions, lobbies, corridors, stairwells, washrooms, reception areas



Product	15 W
C	60.5
D	111
Weight in kg	0.12
Dimensions in mm	



Hospitality



Retail



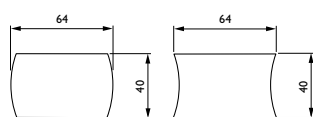
Office



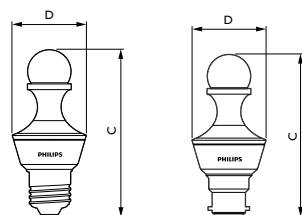
Supermarkets

Technical specification

Product description	Wattage	Comparable	Socket	Bulb	Beam	Beam	Lifetime	Dimmable	Lumen	Efficacy	Units	Color	Color	EOC
MASTER LEDspot LV		Halogen		shape	intensity	angle					per	rendering	temp.	8718291
	W	W			cd	°	hours		lm	lm/W	pack	index	K	
AR111 2700K 24D	15	75	G53	AR111	4560	24	45,000	no	830	55	6	>80	2700	15523200
AR111 2700K 40D	15	75	G53	AR111	1660	40	45,000	no	830	55	6	>80	2700	15525600
AR111 3000K 24D	15	75	G53	AR111	4240	24	45,000	no	745	50	6	>80	3000	15527000
AR111 3000K 40D	15	75	G53	AR111	1520	40	45,000	no	725	48	6	>80	3000	15529400



Product Convex Concave



Product	7 W E27	7 W B22
C	102	102
D	45	45
Weight in kg	0.088	0.088
Dimensions in mm		



7 W



Convex



Concave



Features:

- low energy consumption: 7 → 40 W
- customizable lamp covers
- dimmable
- lifetime of 25,000 hours

Benefits/applications:

- freedom to design your lamp with a choice of lamp covers
- dimming with validated leading edge dimmers
- 80% energy saving (short payback time)
- for indoor applications in open luminaires
- suitable for general lighting/ambiance creation in e.g. hotels, restaurants, shops and offices



Office



Hospitality



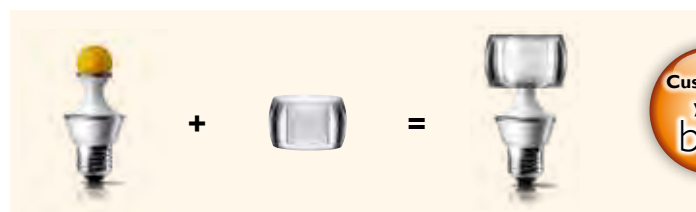
Retail

Technical specification

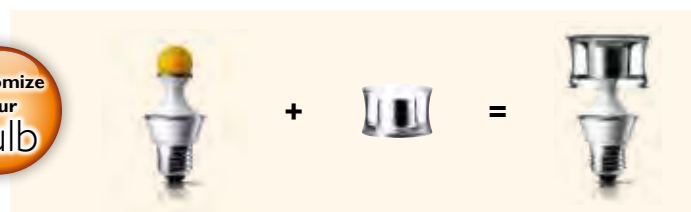
Product description	Wattage	Comparable	Socket	Beam	Lifetime	Dimmable*	Lumen	Efficacy	Units	Color	Color	EOC
MASTER LEDbulb		incandescent		angle			output		per	rendering	temp.	8718291
Designer		Wattage							pack	index		
	W	W		°	hours		lm	lm/W			K	
A) 7-40W E27 2700K Designer	7	40	E27	240	25,000	yes	470	67	6	>80	2700	15501000
A) 7-40W B22 2700K Designer	7	40	B22	240	25,000	yes	470	67	6	>80	2700	15503400
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
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/masterledlamps for the latest information about dimming MASTER LED lamps.

Designer bulb (A) + Convex shape (B)

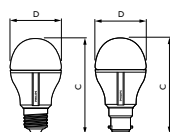


Designer bulb (A) + Concave shape (C)

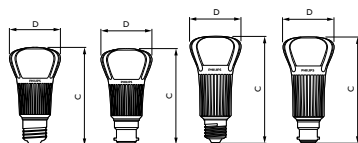


Important: always order a combination of A and B or A and C

Intellectual property number: 201120109172.4



Product	8 W E27	8 W B22
C	105.4	104.2
D	56.7	56.7
Weight in kg	0.138	0.138



Product	12 W E27	12 W B22	17 W E27	17 W B22
C	108	108	127.2	127.2
D	58	58	61	61
Weight in kg	0.182	0.182	0.224	0.224
Dimensions in mm				



Features:

- low energy consumption: 8 W → 40 W, 12 W → 60 W, 17 → 75 W
- dimmable
- compatible with an extensive range of dimmers
- warm white light
- lifetime of 25,000 hours
- UV- and IR-free light

Benefits/applications:

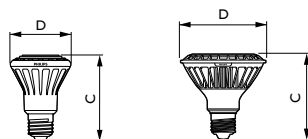
- DimTone dimming: the light gets warmer when dimmed
- dimmable with leading edge dimmers
- up to 80% energy saving compared with traditional incandescent lamps
- easy (retrofit) replacement
- lower maintenance costs
- suitable for general lighting/ambiance creation in e.g. hotels, restaurants, shops and offices



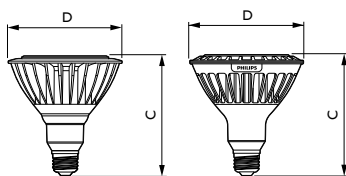
Technical specification

Product description	Wattage Comparable		Socket	Bulb	Beam	Lifetime	Dimmable*	Lumen	Efficacy	Units	Color	Color	EOC	EOC
MASTER LEDbulb	incandescent			shape	angle			output		per	rendering	temp.	8727900	8718291
	W	W			°	hours		lm	lm/W		index	K		
D 8-40W DimTone E27 2700K	8	40	E27	A60	>250	25,000	yes, DimTone	470	59	6	>80	2700		19200800
D 8-40W DimTone B22 2700K	8	40	B22	A60	>250	25,000	yes, DimTone	470	59	6	>80	2700		19198800
D 8-40W E27 2700K 230V	8	40	E27	A60	>225	25,000	yes	470	59	6	>80	2700		19350000
D 8-40W B22 2700K 230V	8	40	B22	A60	>225	25,000	yes	470	59	6	>80	2700		19348700
D 12-60W E27 2700K 230V	12	60	E27	A60	>300	25,000	yes	806	67	6	>80	2700	93448900	
D 12-60W B22 2700K 230V	12	60	B22	A60	>300	25,000	yes	806	67	6	>80	2700	93450200	
D 17-75W E27 2700K	17	75	E27	A67	>300	25,000	yes	1055	62	6	>80	2700		19346300
D 17-75W B22 2700K	17	75	B22	A67	>300	25,000	yes	1055	62	6	>80	2700		19344900

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



Product	7 W	12 W
C	90.2	91
D	63.7	92
Weight in kg	0.156	0.290
Dimensions in mm		



Product	17 W OD	18 W
C	133	132.5
D	121.5	121.6
Weight in kg	0.525	0.530
Dimensions in mm		



Features:

- low energy consumption: 7 W → 50 W, 12 W → 75 W, 17 W → 100 W, 18 W → 100 W
- lifetime of 45,000 hours
- dimmable (except PAR38 OD)
- UV- and IR-free light for less heat and protection for heat-sensitive objects
- free of mercury and hazardous materials

Benefits/applications:

- up to 80% energy saving compared to halogen lamps
- retrofittable and compatible with existing fixtures with E27 holder
- lower maintenance costs
- PAR20, PAR30 and PAR38 for indoor use in open luminaires (ventilated, min. 10 mm free air gap)
- PAR38 OD for outdoor use (please check the packaging guidelines for outdoor installation requirements)
- especially suitable for public areas like lobbies, corridors and stairwells



Technical specification

Product description	Wattage		Comparable	Socket	Bulb	Beam	Beam	Lifetime	Dimmable*	Lumen	Efficacy	Units	Color	Color	EOC	EOC
MASTER LEDspot	Wattage				shape	intensity	angle			output		per	rendering	temp.	8727900	8718291
	W	W				cd	°	hours		lm/W		pack	index	K		
D 7-50W 2700K PAR20 25D	7	50		E27	PAR20	1000	25	45,000	yes	250	36	6	>80	2700	93398700	
D 7-50W 2700K PAR20 40D	7	50		E27	PAR20	450	40	45,000	yes	250	36	6	>80	2700	93406900	
D 7-50W 3000K PAR20 25D	7	50		E27	PAR20	1050	25	45,000	yes	260	37	6	>80	3000	93400700	
D 7-50W 3000K PAR20 40D	7	50		E27	PAR20	500	40	45,000	yes	260	37	6	>80	3000	93408300	
D 7-50W 4000K PAR20 25D	7	50		E27	PAR20	1200	25	45,000	yes	280	40	6	>80	4000	93402100	
D 7-50W 4000K PAR20 40D	7	50		E27	PAR20	550	40	45,000	yes	280	40	6	>80	4000	93410600	
D 12-75W 2700K 230V PAR30S 25D	12	75		E27	PAR30S	2250	25	45,000	yes	630	53	6	>80	2700		11927200
D 17-100W 2700K 230V PAR38 OD	17	100		E27	PAR38	3500	25	25,000	no	810	48	6	>80	2700		11931900
D 18-100W 2700K 230V PAR38 25D	18	100		E27	PAR38	3400	25	45,000	yes	810	45	6	>80	2700		11929600

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



4W E14 / B35



4W B15 / B35



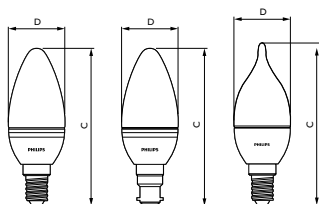
4W E14 / BA35

Features:

- low energy consumption: 4 W → 25 W
- retrofittable with existing E14 and B15 holders
- lifetime of 20,000 hours
- available in clear and frosted versions
- free of mercury and hazardous materials

Benefits/applications:

- warm white light
- up to 80% energy saving
- the flame shaped candle perfectly complements the modern LED candles
- lower maintenance costs
- for indoor applications in open luminaires (open/free air gap of min. 10 mm)
- applications in hotels, restaurants, homes and historical buildings

**Candle**

Product	4W E14	4W B15	4W E14
C	102.5	100.5	106.5
D	35.5	35.5	35.5
Weight in kg	0.04	0.04	0.04
Dimensions in mm			



Hospitality



Retail

Technical specification

Product description	Wattage	Comparable incandescent Wattage	Socket	Bulb shape	Lifetime	Dimmable*	Lumen output	Efficacy	Units per pack	Color rendering index	Color temp.	EOC
Novalure	W	W			hours		lm	lm/W			K	
D 4W E14 2700K 230V BA35 CL	4	25	E14	BA35	20,000	yes ¹⁾	250	63	10	>80	2700	21063400
D 4W E14 2700K 230V B35 CL	4	25	E14	B35	20,000	yes ¹⁾	250	63	10	>80	2700	19370800
D 4W E14 2700K 230V B35 FR	4	25	E14	B35	20,000	yes ¹⁾	250	63	10	>80	2700	19252700
D 4W B15 2700K 230V B35 CL	4	25	B15	B35	20,000	yes ¹⁾	250	63	10	>80	2700	19250300

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

¹⁾ Possible green effect at lowest dimming levels, depending on the dimmer. See also application guidelines.

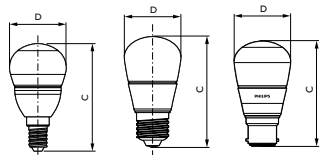


Features:

- low energy consumption: 4 W → 25 W
- retrofittable with existing E14, E27 and B22 holders
- lifetime of 20,000 hours
- available in clear and frosted versions
- free of mercury and hazardous materials

Benefits/applications:

- warm white light
- up to 80% energy saving
- lower maintenance costs
- for indoor applications in open luminaires (open/free air gap of min. 10 mm)
- applications in hotels, restaurants, homes and historical buildings



Luster

Product	4 W E14	4 W E27	4 W B22
C	86	91.5	90
D	43.5	46.5	46.5
Weight in kg	0.038	0.052	0.052
Dimensions in mm			



Technical specification

Product description	Wattage	Comparable	Socket	Bulb	Lifetime	Dimmable*	Lumen	Efficacy	Units	Color	Color	EOC
Novallure		incandescent		shape			output		per	rendering	temp.	8718291
	W	W			hours		lm	lm/W	pack	index	K	
D 4W E14 2700K 230V P45 CL	4	25	E14	P45	20,000	yes ¹⁾	250	63	10	>80	2700	19372200
D 4W E14 2700K 230V P45 FR	4	25	E14	P45	20,000	yes ¹⁾	250	63	10	>80	2700	19254100
D 4W E27 2700K 230V P45 CL	4	25	E27	P45	20,000	yes ¹⁾	250	63	10	>80	2700	19256500
D 4W E27 2700K 230V P45 FR	4	25	E27	P45	20,000	yes ¹⁾	250	63	10	>80	2700	19258900
D 4W B22 2700K 230V P45 CL	4	25	B22	P45	20,000	yes ¹⁾	250	63	10	>80	2700	21065800

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

¹⁾ Possible green effect at lowest dimming levels, depending on the dimmer. See also application guidelines.



MASTER LEDtube

The **new generation** of **energy saving** tube lighting

The Philips MASTER LEDtube integrates a LED light source into a traditional fluorescent form factor. Its unique design creates a perfectly uniform visual appearance which cannot be distinguished from traditional fluorescent. This product is the ideal solution for up lighting in general lighting applications.

Benefits

- Reduced operational cost
- Lower maintenance cost
- Unique safety in installation and application

Product features

- Only 50% energy consumption compared to fluorescent tubes
- Extra-long lifetime up to 50,000 hours
- Retrofit to existing T8 lamps on EM ballast installations
- No mercury
- The Protection Starter (EMP050) and the three safety fuses in the tube secure safety

Can be applied in:



MASTER LEDtubes come with all necessary industry certifications like KEMA, VDE.



Easy
installation



Outdoor



Supermarkets



Office



Parking



Warehouse and
cold store



Philips MASTER LEDtubes range overview



Parking



Supermarkets



Office

MASTER LEDtube GA300 / GA210



High lux requirements

- High bay applications
- Warehouses
- Transport and distribution areas



Technical specification

Product description	System Wattage	Comparable Lamp wattage
MASTER LEDtube	W	W

GA300 600 mm	11	18
GA300 600 mm	11	18
GA300 1200 mm	22	36
GA300 1200 mm	22	36
GA210 1500 mm	34	58

Accessory

EMP050	-	-
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MASTER LEDtube GA110



Value over lifetime

- Supermarket (food/retail)
- Parking lots / covered car parks
- Cold rooms
- Back office
- Warehouses
- Back of house areas



GA110 600 mm	11	18
GA110 600 mm	11	18
GA110 900 mm	15	30
GA110 900 mm	15	30
GA110 1200 mm	19	36
GA110 1200 mm	19	36
GA110 1500 mm	24	58
GA110 1500 mm	24	58

Accessory

EMP050	-	-
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Special (for luminaire based on EM gear, series operation) MASTER LEDtube GA200

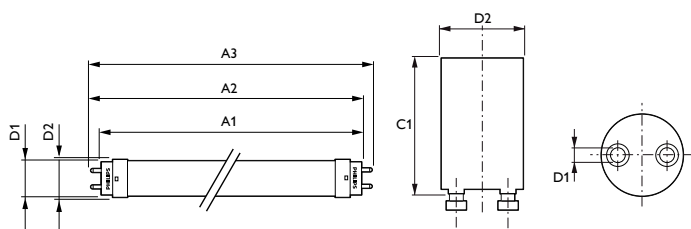


GA200 600 mm	13	18
GA200 1200 mm*	25	36

Accessory

EMP050	-	-
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* will be phased out in 2013



Product	A1	A2	A3	C1	D1	D2
MASTER LEDtube 600mm 840/865 G13	589	596	603		25.6	27.3
MASTER LEDtube 900mm 840/865 G13	894	901	908		25.6	27.3
MASTER LEDtube 1200mm 840/865 G13	1198	1205	1212		25.6	27.3
MASTER LEDtube 1500mm 840/865 G13	1498	1507	1514		25.6	27.3
EMP050 Protection starter				34,5	3	21,5
Dimensions in mm						

Color temp K	Exit window °	Lifetime hours	Lumen output lm	Cap base	Operation	CRI	1 piece		10 pieces	
							EOC	12NC	EOC	12NC
							8718291	929000	8718291	929000
							1 pcs (C) incl. EMP050		10 pcs (I) excl. EMP050	

4000	140	50,000	1050	G13	EM & Mains	85	238645 00	292701	238720 00	292702
6500	140	50,000	1050	G13	EM & Mains	85	238669 00	292801	238744 00	292802
4000	140	50,000	2100	G13	EM & Mains	85	238522 00	292902	238409 00	292901
6500	140	50,000	2100	G13	EM & Mains	85	238546 00	293102	238423 00	293101
4000	140	50,000	3000	G13	EM & Mains	85	198604 00	293202	n.a.	n.a.
-	-	-	-	-	-	-	-	-	1157205 00	489718

4000	140	40,000	825	G13	EM & Mains	85	238683 00	295201	238768 00	295202
6500	140	40,000	825	G13	EM & Mains	85	238706 00	295301	238782 00	295302
4000	140	40,000	1250	G13	EM & Mains	85	238805 00	295401	238843 00	295402
6500	140	40,000	1250	G13	EM & Mains	85	238829 00	295501	238867 00	295502
4000	140	40,000	1650	G13	EM & Mains	85	238560 00	295902	238447 00	295901
6500	140	40,000	1650	G13	EM & Mains	85	238584 00	296002	238461 00	296001
4000	140	40,000	2000	G13	EM & Mains	85	238607 00	296102	238485 00	296101
6500	140	40,000	2000	G13	EM & Mains	85	238621 00	296202	238508 00	296201
-	-	-	-	-	-	-	-	-	1157205 00	489718

4000	200	40,000	925	G13	EM only	85	178767 00	291202	n.a.	n.a.
4000	200	40,000	1850	G13	EM only	85	178781 00	291302	n.a.	n.a.
-	-	-	-	-	-	-	-	-	1157205 00	489718

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	MASTER LEDspots LV MR16 GU5.3	MASTER LEDspot LV AR111 G53	MASTER LEDspot LV MR11 GU4	MASTER LEDcapsule LV G4
Dimmable	Non-Dimmable	Dimmable & Non-Dimmable	Non-Dimmable	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 12 V Halogen transformers. The Halogen 12 V lamps are connected (alone or with a group of lamps) to Halogen transformers which have a typical load range from 20 W to 150 W and are powered in the range from one 20 W lamp to three 50 W 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 20 W 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. 4 W 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 ambience while further improving efficiency.

Without dimmer

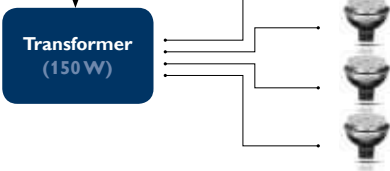
Calculation method of lamp number per transformer – without dimmer

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

$$\frac{\text{Transformer Rating (150 W)}}{\text{Equivalent Halogen (35 W)}} = \text{Branch Max (4.3)}$$

4 lamps per transformer

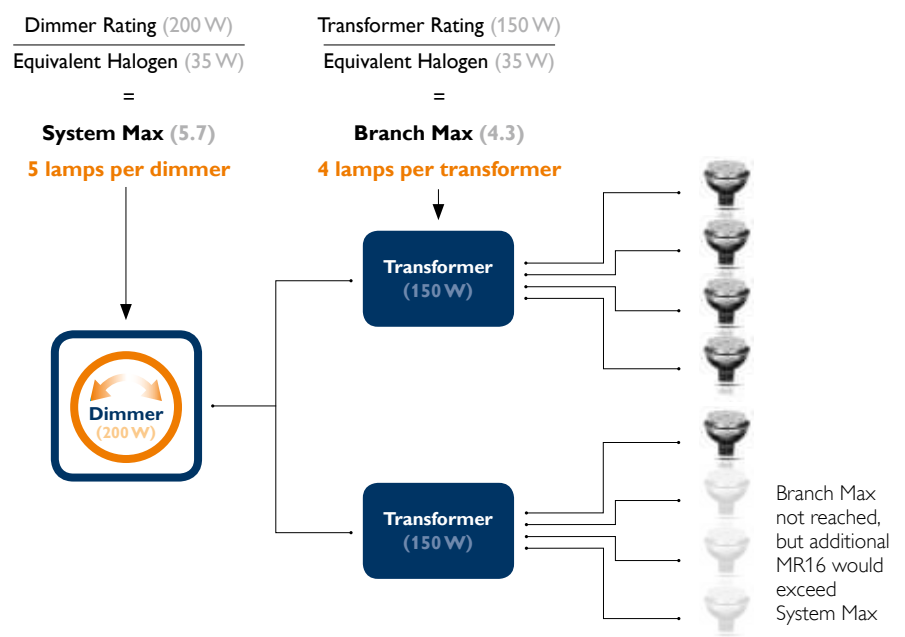


With dimmer

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.





Pay-back comparison LED - Halogen/Incandescent

Calculation based on: usage hr/day = 12, usage hrs/year = 4380, energy costs € 0.125/kWh, maintenance costs = € 5.-

Traditional	LED	
	page 4	
		
Halogen Twistline GU10	MASTER LEDspot MV	
50W	8-50W+ GU10	
Lifetime of the lamp (hours)	3,000	40,000
Yearly energy costs	€ 27.38	€ 4.38
Yearly replacement cost	€ 7.30	€ 0.55
Initial price per piece	€ 2.15	€ 49.50
Total costs per year	€ 37.82	€ 10.51
€ 27.47		
20.4 months		

Traditional	LED	
	page 5	
		
Twistline Alu 35W	MASTER LEDspot MV	
GU10	4-35W GU10	
Lifetime of the lamp (hours)	2,000	25,000
Yearly energy costs	€ 19.16	€ 2.19
Yearly replacement cost	€ 10.95	€ 0.88
Initial price per piece	€ 4.99	€ 25.50
Total costs per year	€ 41.04	€ 7.53
€ 33.51		
7.2 months		

Traditional	LED
	page 9
	
CAPSULEline	MASTER LEDcapsule LV
20W G4	3-20W 2700K
Lifetime of the lamp (hours)	2,000
Yearly energy costs	20,000
Yearly replacement cost	€ 1.64
Initial price per piece	€ 1.10
Total costs per year	€ 21.00
Saving per year	€ 7.84
€ 18.07	
13.2 months	

Traditional	LED
	page 10
	
Standard halogen	MASTER LEDspot LV
Aluline 111 75W	15-75W AR111 G53
3,000	45,000
€ 41.06	€ 8.21
€ 7.30	€ 0.49
€ 13.00	€ 95.00
€ 67.34	€ 17.95
€ 49.40	
20.4 months	

Traditional

LED

page 6



Accentline MR16 GU5.3 50W	MASTER LEDspot LV MR16 10-50W
3,000	30,000
€ 27.38	€ 5.48
€ 7.30	€ 0.73
€ 1.45	€ 49.50
€ 36.80	€ 13.44
€ 23.36	
25.2 months	

Traditional

LED

page 7



Accentline MR16 GU5.3 20W	MASTER LEDspot LV 4-20W MR16
3,000	45,000
€ 10.95	€ 2.19
€ 7.30	€ 0.49
€ 1.50	€ 22.50
€ 20.44	€ 4.87
€ 15.57	
15.6 months	

Traditional

LED

page 8



Halogen 20W GU4 12V MR11	MASTER LEDspot LV 4-20W CRI90
2,000	25,000
€ 10.95	€ 2.19
€ 10.95	€ 0.88
€ 1.30	€ 33.00
€ 24.75	€ 8.85
€ 15.90	
24 months	

Traditional

LED

page 14



Standard 75W E27 240V A60	MASTER LEDbulb D 17-75W E27
1,000	25,000
€ 41.06	€ 9.31
€ 21.90	€ 0.88
€ 2.30	€ 72.00
€ 73.04	€ 22.80
€ 50.24	
16.8 months	

Traditional

LED

page 15



PAR 38 100W	MASTER LEDspot PAR38 OD 17-100W
1,000	25,000
€ 54.75	€ 9.31
€ 21.90	€ 0.88
€ 26.00	€ 111.00
€ 190.53	€ 29.63
€ 160.90	
6 months	

Traditional

LED

page 16



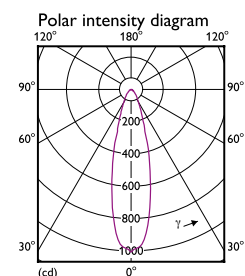
Standard 25W E14 230V B35	MASTER LEDcandle 4-25W
1,000	20,000
€ 13.69	€ 2.19
€ 21.90	€ 1.10
€ 3.90	€ 25.00
€ 52.67	€ 8.76
€ 43.91	
6 months	

Photometric diagrams for recently introduced products

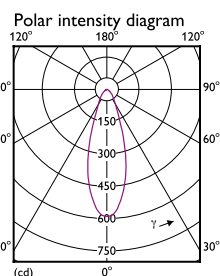
The polar diagram indicates the output distribution of a light source over a range of angles.

MASTER LEDspots MV GU10 Dimmable

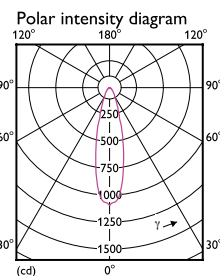
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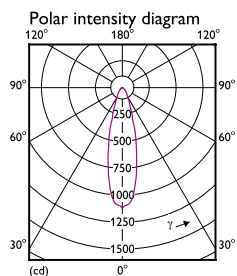
D 6-50W GU10 2700K 25D



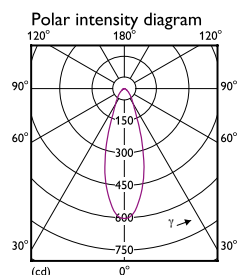
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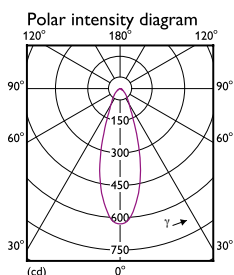
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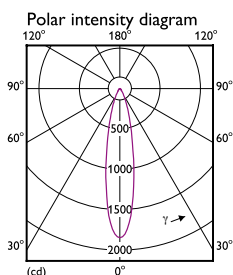
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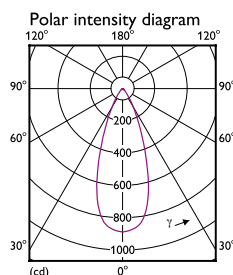
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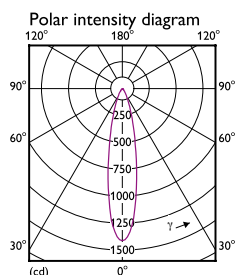
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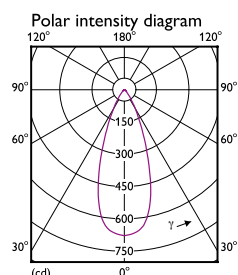
D 8-50W+ GU10 2700K 25D



D 8-50W+ GU10 2700K 25D



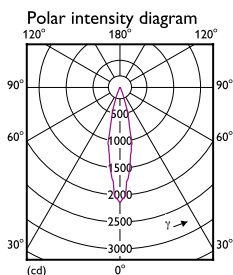
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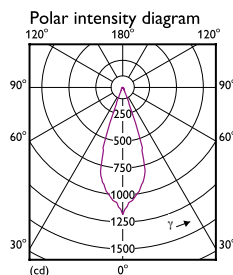
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MASTER LEDspot LV MR16 GU5.3 Dimmable

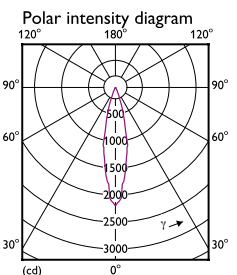
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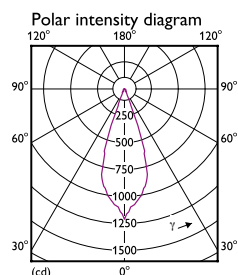
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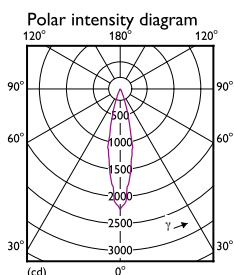
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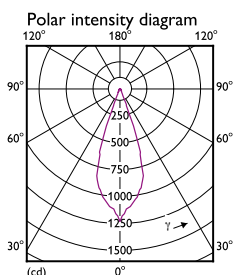
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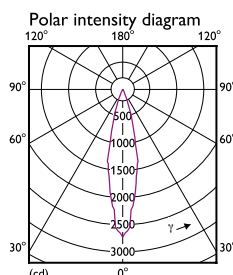
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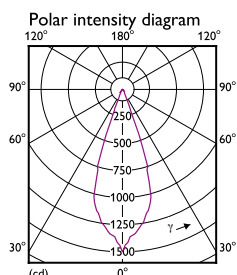
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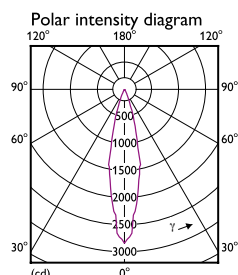
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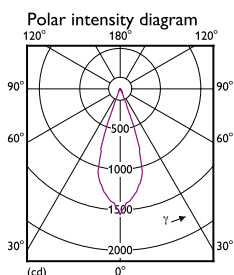
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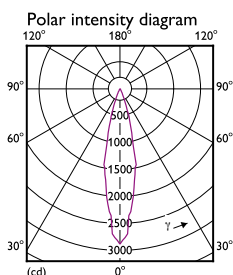
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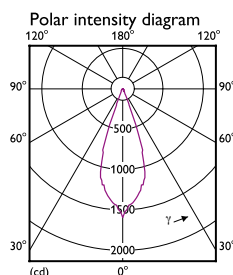
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7-35W MR16 3000K 36D



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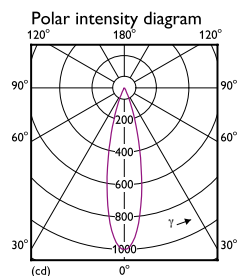


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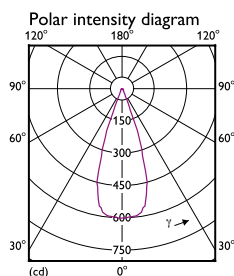
MASTER LEDspot LV MR16 GU5.3

Non-Dimmable

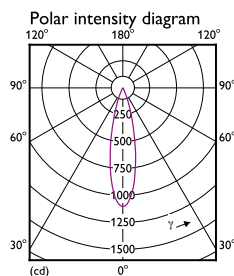
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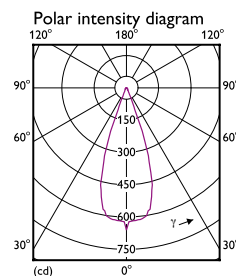
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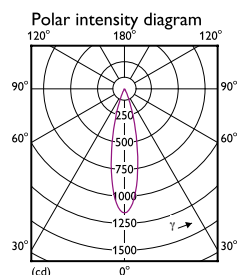
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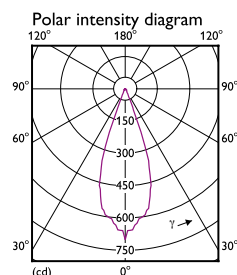
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4-20W MR16 3000K 36D



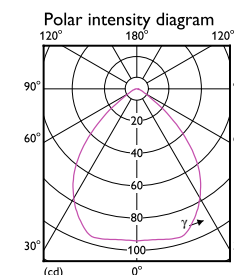
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4-20W MR16 4000K 36D

MASTER LEDcapsule LV G4 Non-Dimmable

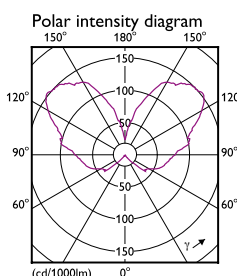
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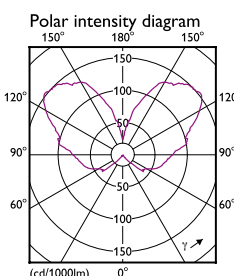
3W G4 2700K

MASTER LEDcandle Dimmable

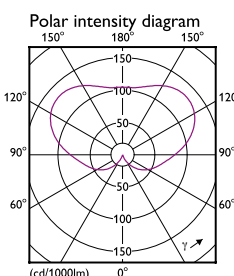
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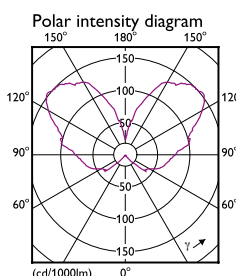
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4-25W E14 2700K B35 ER



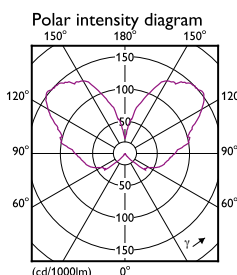
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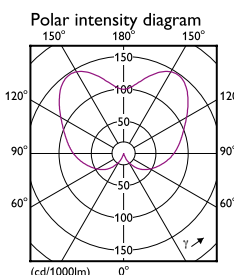
4-25W E14 2700K BA35 CL

MASTER LEDluster Dimmable

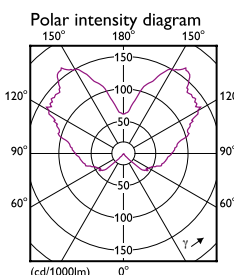
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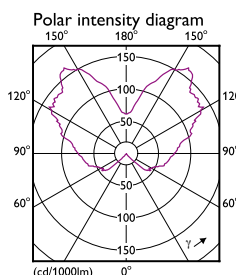
4-25W E14 2700K P45 CL



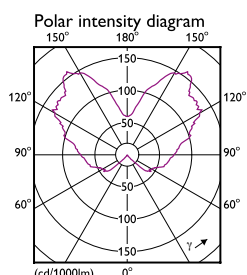
4-25W E14 2700K P45 FR



4-25W E27 2700K P45 CL



4-25W E27 2700K P45 FR



4-25W B22 2700K P45 CL