



Philips MASTER LEDlamps Summer 2012

See what light can do



PHILIPS

sense and simplicity

www.philips.com/masterledlamps

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 payback period much earlier than expected. The energy savings are amazing"



Best Partner

- **Close cooperation with Philips before, during, and after projects:**

"Philips satisfied our needs well. They really cared 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 has improved its warranty policy for branded professional LED lamps purchased as from 1st March 2012, see adjacent table for more details. The Warranty only covers products applied within their 'intended' or 'normal use' in accordance with the information on the products and its packaging. For a full overview and more details please visit:

www.philips.co.uk/proflightingwarranties

LED lamps/tubes warranty		Period
LED	Lamp life \geq 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 Non-Dimmable	6		LV MR16 GU5.3 Dimmable	7		LV MR11 GU4 Non-Dimmable	8
		LV AR111 G53 Non-Dimmable	10		LV AR111 G53 Dimmable	11		PAR Dimmable/ Non-Dimmable	16			
MASTER LEDcapsule		LV G4 Non-Dimmable	9									
MASTER LEDbulb		Designer Dimmable	12		Dimmable	13						
MASTER LEDcandle		E14 B15 Dimmable	14									
MASTER LEDluster		E14 E27 B22 Dimmable	15									
MASTER LEDtube		Industry	17									

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MASTER LEDspots MV GU10



4 W



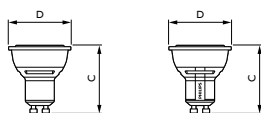
6 W

Features:

- low energy consumption: 4 W → 35 W, 6 W → 50 W, 8 W → 50 W, 8 W → 50 W+ (230 V -240 V)
- 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
- 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

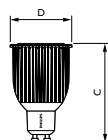


Office

Technical specification

Product description MASTER LEDspot MV	Wattage	Comparable Halogen Wattage	Socket	Beam intensity	Beam angle	Lifetime	Dimmable*	Lumen output	Efficacy	Units per pack	Colour rendering index	Colour temp.	EOC 8718291
	W	W		cd	°	hours		lm	lm/W			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
new D 6-50W GU10 2700K 25D	6	50	GU10	1000	25	40,000	yes	300	50	10	>80	2700	21067200
new D 6-50W GU10 2700K 40D	6	50	GU10	600	40	40,000	yes	300	50	10	>80	2700	21069600
new D 6-50W GU10 3000K 25D	6	50	GU10	1100	25	40,000	yes	320	54	10	>80	3000	21071900
new D 6-50W GU10 3000K 40D	6	50	GU10	600	40	40,000	yes	320	54	10	>80	3000	21073300
new D 6-50W GU10 4000K 25D	6	50	GU10	1100	25	40,000	yes	320	54	10	>80	4000	21075700
new 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.



Product	8 W
C	80
D	50
Weight in kg	0.116
Dimensions in mm	



8 W DimTone



8 W CRI 90



8 W high output

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

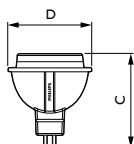


Features:

- 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 lamps
- broad compatibility with existing electronic and electromagnetic halogen transformers (IC controlled transformers are a potential exception)
- 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 halogen wattage	Socket	Bulb shape	Beam intensity	Beam angle	Lifetime	Dimmable	Lumen output	Efficacy	Units per pack	Colour rendering index	Colour temp.	EOC 8718291
MASTER LEDspot LV	W	W			cd	°	hours		lm	lm/W			K	
new 4-20V 2700K MR16 24D	4	20	GU5.3	MR16	1000	24	45,000	no	210	53	10	>80	2700	19378400
new 4-20V 2700K MR16 36D	4	20	GU5.3	MR16	600	36	45,000	no	210	53	10	>80	2700	19222000
new 4-20V 3000K MR16 24D	4	20	GU5.3	MR16	1100	24	45,000	no	220	55	10	>80	3000	19380700
new 4-20V 3000K MR16 36D	4	20	GU5.3	MR16	660	36	45,000	no	220	55	10	>80	3000	19226800
new 4-20V 4000K MR16 24D	4	20	GU5.3	MR16	1150	24	45,000	no	240	60	10	>80	4000	19228200
new 4-20V 4000K MR16 36D	4	20	GU5.3	MR16	700	36	45,000	no	240	60	10	>80	4000	19230500



improved performance
and new design

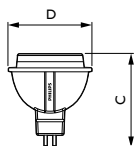
7 W / 10 W

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 lamps
- broad compatibility with existing electronic and electromagnetic halogen transformers (IC controlled transformers are a potential exception)
- 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
- minimises 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	



Technical specification

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

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



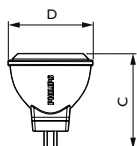
4 W

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
- retrofitable

Benefits/applications:

- up to 80% energy saving compared with halogen lamps
- broad compatibility with existing electronic and electromagnetic halogen transformers (IC controlled transformers are a potential exception)
- retrofit for low-voltage MR11 halogen lamps with GU4 socket
- lower maintenance costs
- ideal to create eye-catching displays (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 MASTER LEDspot LV	Wattage	Comparable halogen wattage	Socket	Bulb shape	Beam intensity	Beam angle	Lifetime	Dimmable	Lumen output	Efficacy	Units per pack	Colour rendering index	Colour temp.	EOC 8718291
	W	W			cd	°	hours		lm	lm/W			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



With lens



Without lens



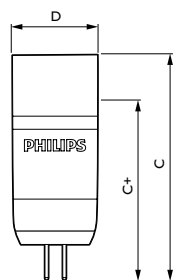
2.5 W

Features:

- low energy consumption: 2.5 W → 10 W (12 V)
- patented intelligent driver
- removable lens cover
- warm white light
- lifetime of 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 existing electronic and electromagnetic halogen transformers (IC controlled transformers are a potential exception)
- lower maintenance costs
- application areas: hotels, restaurants, bars, cafés (lobbies, corridors, stairwells, washrooms, reception areas)



Product	2.5 W
C	49.8
C+	40.2
D	18.7
Weight in kg	0.018
Dimensions in mm	
Note: not a perfect fit retrofit size	



Hospitality

Technical specification

Product description MASTER LEDcapsule LV	Wattage W	Comparable halogen wattage W	Socket	Beam angle °	Lifetime hours	Dimmable	Lumen output lm	Efficacy lm/W	Units per pack	Colour rendering index	Colour temp. K	EOC 8718291
G4 2700K	2.5	10	G4	360	25,000	no	100	40	12	>80	2700	15535500



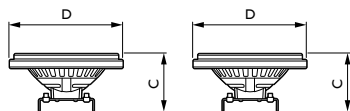
10 W / 15 W

Features:

- lower energy consumption: 10 W → 50 W , 15 → 75 W (12 V)
- patented intelligent driver
- lifetime of 45,000 hours
- 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 existing electronic and electromagnetic halogen transformers (IC controlled transformers are a potential exception)
- retrofitable
- for galleries, museums, exhibitions, lobbies, corridors, stairwells, washrooms, reception areas



Product	10 W	15 W
C	60	60.5
D	111	111
Weight in kg	0.12	0.12
Dimensions in mm		



Hospitality

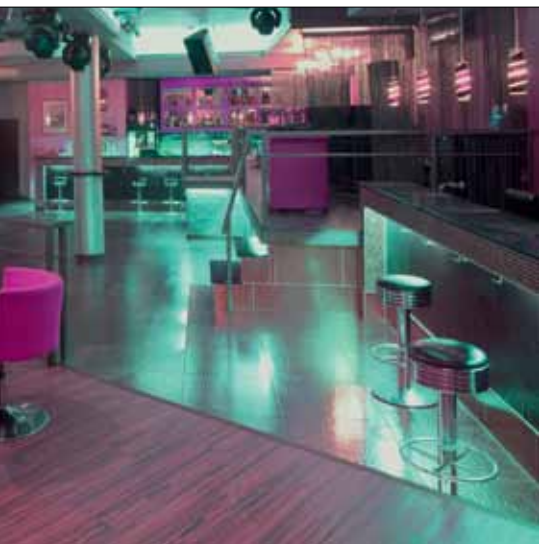
Retail

Office

Supermarkets

Technical specification

Product description MASTER LEDspot LV	Wattage	Comparable halogen wattage	Socket	Bulb shape	Beam intensity	Beam angle	Lifetime	Dimmable	Lumen	Efficacy	Units per pack	Colour rendering index	Colour temp.	EOC 8718291
	W	W			cd	°	hours		lm	lm/W			K	
AR111 2700K 24D	10	50	G53	AR111	3200	24	45,000	no	550	55	6	>80	2700	11935700
AR111 2700K 40D	10	50	G53	AR111	1150	40	45,000	no	547	55	6	>80	2700	11939500
AR111 3000K 24D	10	50	G53	AR111	3370	24	45,000	no	578	58	6	>80	3000	11937100
AR111 3000K 40D	10	50	G53	AR111	1210	40	45,000	no	572	57	6	>80	3000	11941800
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



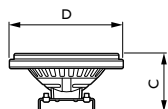
10 W / 15 W

Features:

- lower energy consumption: 10 W → 50 W , 15 → 75 W (12 V)
- dimmable
- patented intelligent driver
- lifetime of 45,000 hours
- 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 existing electronic and electromagnetic halogen transformers (IC controlled transformers are a potential exception)
- 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

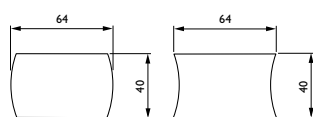
Office

Supermarkets

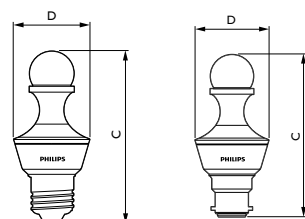
Technical specification

Product description MASTER LEDspot LV	Wattage	Comparable halogen wattage	Socket	Bulb shape	Beam intensity	Beam angle	Lifetime	Dimmable	Lumen	Efficacy	Units per pack	Colour rendering index	Colour temp.	EOC 8718291
	W	W			cd	°	hours		lm	lm/W			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.



Product	Convex	Concave
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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
- customisable 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/ambience creation in e.g. hotels, restaurants, shops and offices



Office



Hospitality



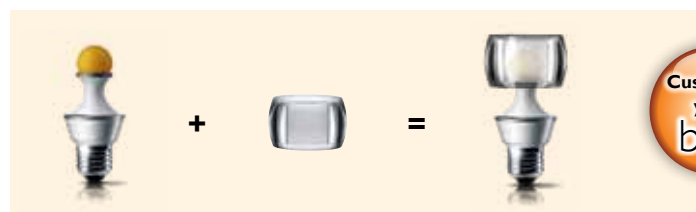
Retail

Technical specification

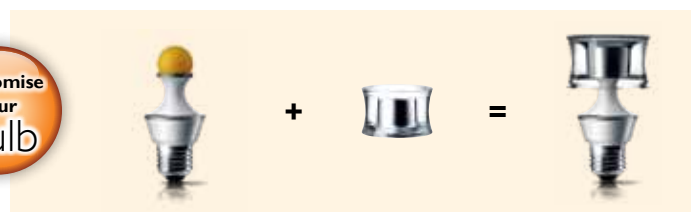
Product description MASTER LEDbulb Designer	Wattage	Comparable incandescent wattage	Socket	Beam angle	Lifetime	Dimmable*	Lumen output	Efficacy	Units per pack	Colour rendering index	Colour temp.	EOC 8718291
	W	W		°	hours		lm	lm/W			K	
A) 7-40W E27 2700K Designer	7	40	E27	240	25,000	yes	470	67	6	>80	2700	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)

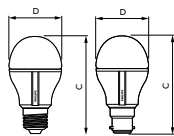


Designer bulb (A) + Concave shape (C)

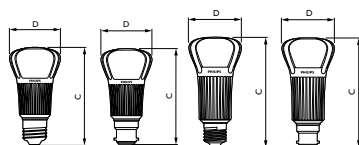


Important: always order a combination of A and B or A and C

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 W → 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/ambience creation in e.g. hotels, restaurants, shops and offices



Technical specification

Product description MASTER LEDbulb	Wattage	Comparable incandescent wattage	Socket	Bulb shape	Beam angle	Lifetime	Dimmable*	Lumen Efficacy output	Units per pack	Colour rendering index	Colour temp.	EOC 8727900	EOC 8718291
	W	W			°	hours		lm	lm/W		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
new D 8-40W E27 2700K 230V	8	40	E27	A60	>225	25,000	yes	470	59	6	>80	2700	19350000
new 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	1050	62	6	>80	2700	19346300
D 17-75W B22 2700K	17	75	B22	A67	>300	25,000	yes	1050	62	6	>80	2700	19344900

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



4 W E14 / B35



4 W B15 / B35



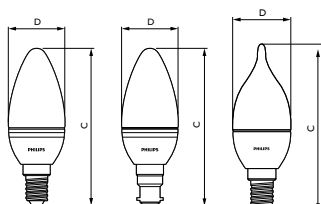
4 W E14 / BA35

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	4 W E14	4 W B15	4 W 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			

**Technical specification**

Product description MASTER LEDcandle		Wattage	Comparable incandescent wattage	Socket	Bulb shape	Lifetime	Dimmable*	Lumen output	Efficacy	Units per pack	Colour rendering index	Colour temp.	EOC 8719291
		W	W			hours		lm	lm/W			K	
new	D 4W E14 2700K 230V BA35 CL	4	25	E14	BA35	20,000	yes ¹⁾	250	63	10	>80	2700	21063400
new	D 4W E14 2700K 230V B35 CL	4	25	E14	B35	20,000	yes ¹⁾	250	63	10	>80	2700	19370800
new	D 4W E14 2700K 230V B35 FR	4	25	E14	B35	20,000	yes ¹⁾	250	63	10	>80	2700	19252700
new	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.

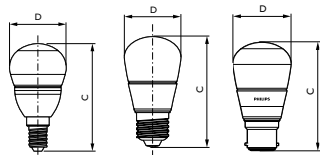


Features:

- 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			

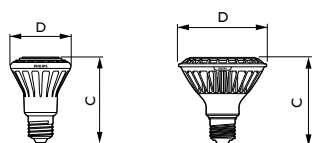


Technical specification

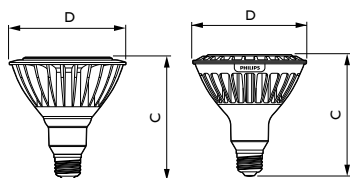
Product description MASTER LEDlustre		Wattage	Comparable incandescent wattage	Socket	Bulb shape	Lifetime	Dimmable*	Lumen output	Efficacy	Units per pack	Colour rendering index	Colour temp.	EOC 8719291
		W	W			hours		lm	lm/W			K	
new	D 4W E14 2700K 230V P45 CL	4	25	E14	P45	20,000	yes ¹⁾	250	63	10	>80	2700	19372200
new	D 4W E14 2700K 230V P45 FR	4	25	E14	P45	20,000	yes ¹⁾	250	63	10	>80	2700	19254100
new	D 4W E27 2700K 230V P45 CL	4	25	E27	P45	20,000	yes ¹⁾	250	63	10	>80	2700	19256500
new	D 4W E27 2700K 230V P45 FR	4	25	E27	P45	20,000	yes ¹⁾	250	63	10	>80	2700	19258900
new	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.



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		



7 W



12 W



17 W OD



18 W

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



Outdoor



Supermarkets



Office



Hospitality



Retail

Technical specification

Product description MASTER LEDspot	Wattage	Comparable wattage	Socket	Bulb shape	Beam intensity	Beam angle	Lifetime	Dimmable*	Lumen output	Efficacy	Units per pack	Colour rendering index	Colour temp.	EOC 8727900	EOC 8718291
	W	W			cd	°	hours			lm/W			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.



GA100 Specifier



GA210 Light Industry



EMP050 Protection starter

Product features:

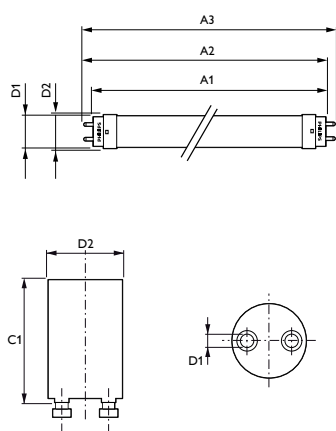
- low energy consumption
- extreme low failure rates
- operates on any installation (EM & Mains)
- robust aluminium plastic design

Product benefits:

- significantly lower energy cost
- less replacement cycles lowering maintenance cost
- easy installation: maintain your fixture

Applications:

- car parks
- cold rooms
- warehouses
- transport and distribution areas



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						



Outdoor



Supermarkets



Office



Parking



Warehouse and cold store

Technical specification

Product description MASTER LEDtube	Wattage	Comparable lamp wattage	Voltage	Cap base	Exit window	Lifetime	Lumen output	Compa-tibility	Units per pack	Colour rendering index	Colour temp.	EMP050 included	12NC 929000	EOC 8718291
	W	W	V		°	hours	lm				K			
1 unit per pack														
GA100 600 mm	10		100-240	G13	120	40,000	825	EM & mains	1	85	4000	yes	291802	20066600
GA100 600 mm	10		100-240	G13	120	40,000	825	EM & mains	1	85	6500	yes	291902	20068000
GA 900 mm	17		100-240	G13	120	40,000	1250	EM & mains	1	85	4000	yes	181432	17678700
GA 900 mm	17		100-240	G13	120	40,000	1250	EM & mains	1	85	6500	yes	181532	17680000
GA100 1200 mm	19		100-240	G13	120	40,000	1650	EM & mains	1	85	4000	yes	292002	20070300
GA100 1200 mm	19		100-240	G13	120	40,000	1650	EM & mains	1	85	6500	yes	292102	20072700
GA 1500 mm	25		100-240	G13	120	40,000	1900	EM & mains	1	85	4000	yes	290432	17686200
GA 1500 mm	25		100-240	G13	120	40,000	1900	EM & mains	1	85	6500	yes	290532	17688600
GA210 1500 mm	34	58	200-240	G13	140	40,000	3000	EM & mains	1	85	4000	yes	293202	19860400

Accessories MASTER LEDtube	Minimum order quantity	Units per pack	12NC 929000	EOC 8718291
Protection Starter EMP 050 CP	40	10	489718	15720500

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 electronic 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 customisable 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 customisable design. It is particularly suited to the hospitality and retail industry, where aesthetic design is especially important.



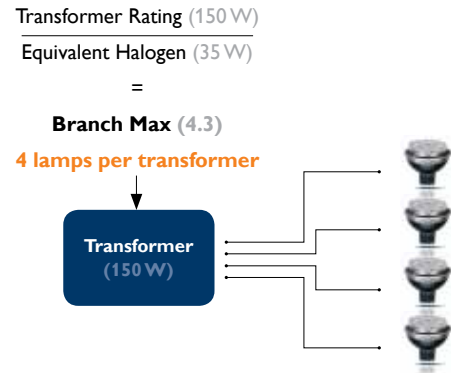
The elegant MASTER LEDlamp covers can be individually selected and installed by the user to match the surrounding décor, also as it changes over the extended lifetime of the lamp. The innovative lamp design ensures excellent light quality, and the broadly compatible dimmable driver helps create the desired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

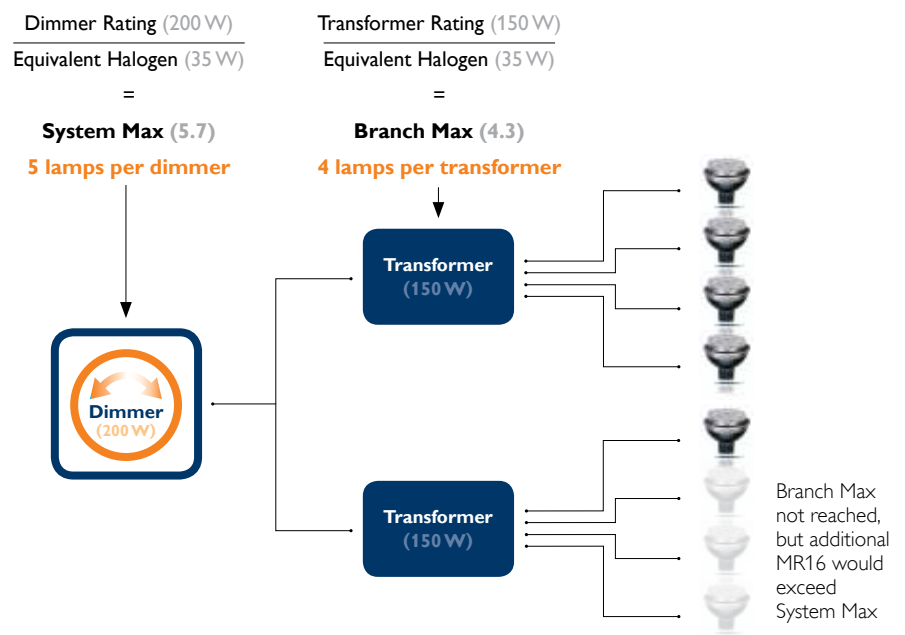


With dimmer

Calculation method of lamp number per transformer – with dimmer

When 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 the 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 colour temperature, which remains constant throughout the dimming process. And this is perfectly sufficient for many applications. But now, with DimTone, the colour 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, cosy 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 centres. 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 £ 0.10/kWh, maintenance costs = £2.

	Traditional	LED
		page 5
		
	Halogen Twistline GU10 50W	MASTER LEDspot MV 8-50W+ GU10
Lifetime of the lamp (hours)	2,000	40,000
Yearly energy costs	£21.90	£3.50
Yearly replacement cost	£4.38	£0.22
Initial price per piece	£1.00	£30.00
Total costs per year	£28.47	£7.01
Saving per year		£21.46
Pay-back time		16 months

	Traditional	LED
		page 4
		
	Twistline Alu 35W GU10	MASTER LEDspot MV 4-35W GU10
Lifetime of the lamp (hours)	2,000	25,000
Yearly energy costs	£21.10	£2.40
Yearly replacement cost	£6.00	£0.48
Initial price per piece	£1.20	£16.00
Total costs per year	£30.60	£6.72
Saving per year		£23.88
Pay-back time		7.4 months

	Traditional	LED
		page 9
		
	CAPSULEline 5W G4	MASTER LEDcapsule LV 10W 2700K
Lifetime of the lamp (hours)	2,000	25,000
Yearly energy costs	£6.00	£1.50
Yearly replacement cost	£6.00	£0.48
Initial price per piece	£1.50	£15.00
Total costs per year	£16.50	£5.58
Saving per year		£10.92
Pay-back time		14.8 months

	Traditional	LED
		page 10
		
	Standard halogen Aluline 111 75W	MASTER LEDspot LV 15-75W AR111 G53
Lifetime of the lamp (hours)	3,000	45,000
Yearly energy costs	£45.00	£9.00
Yearly replacement cost	£4.00	£0.27
Initial price per piece	£10.00	£60.00
Total costs per year	£68.00	£17.27
Saving per year		£51.73
Pay-back time		12 months

Traditional

LED

page 7



Accentline MR16 GU5.3 50W

MASTER LEDspot LV MR16 10-50W

3,000

30,000

£30.00

£6.00

£4.00

£0.40

£1.00

£28.00

£36.00

£12.00

£24

13 months

Traditional

LED

page 6



Accentline MR16 GU5.3 20W

MASTER LEDspot LV 4-20W MR16

2,000

40,000

£8.80

£1.80

£4.38

£0.19

£1.00

£16.00

£15.37

£3.55

£11.82

15 months

Traditional

LED

page 8



Halogen 20W GU4 12V MR11

MASTER LEDspot LV 4-20W

2,000

25,000

£12.00

£2.40

£12.00

£0.48

£1.00

£24.00

£30.00

£8.64

£21.36

24 months

Traditional

LED

page 13



Standard 75W E27 240V A60

MASTER LEDbulb D 17-75W E27

1,000

25,000

£45.00

£10.20

£12.00

£0.48

£1.00

£43.00

£63.00

£21.00

£42.00

12 months

Traditional

LED

page 16



PAR 38 100W

MASTER LEDspot PAR38 OD 17-100W

2,000

25,000

£60.00

£10.80

£6.00

£0.48

£10.00

£75.00

£96.00

£29.28

£66.72

12 months

Traditional

LED

page 14



Standard 25W E14 230V B35

MASTER LEDcandle 4-25W

1,000

20,000

£11.00

£1.80

£8.76

£0.44

£1.00

£12.00

£24.14

£4.38

£19.27

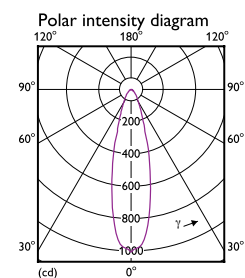
6 months

Photometric diagrams for new products

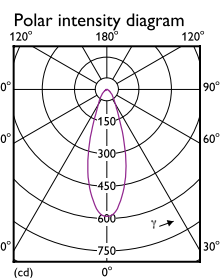
The polar diagram indicates the output distribution of a light source over a range of angles.

MASTER LEDspots MV GU10 Dimmable

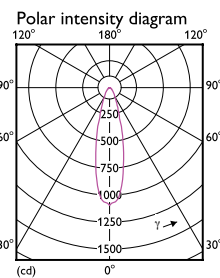
Page 4



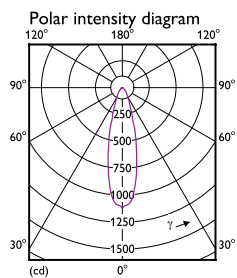
D 6-50W GU10 2700K 25D



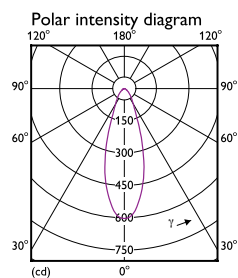
D 6-50W GU10 2700K 40D



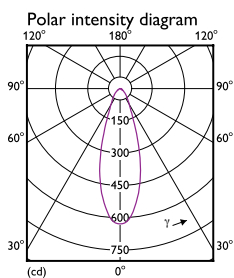
D 6-50W GU10 3000K 25D



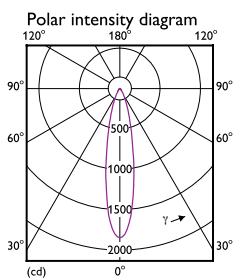
D 6-50W GU10 3000K 40D



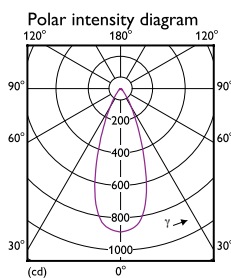
D 6-50W GU10 4000K 25D



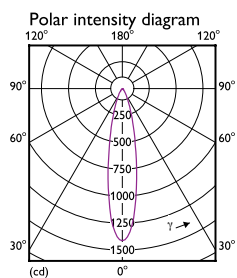
D 6-50W GU10 4000K 40D



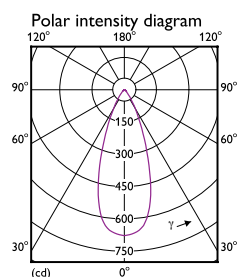
D 8-50W+ GU10 2700K 25D



D 8-50W+ GU10 2700K 25D



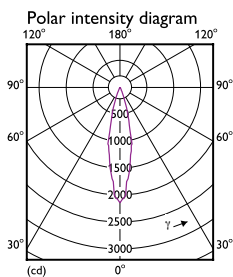
D 8-50W CRI90 GU10 3000K 25D



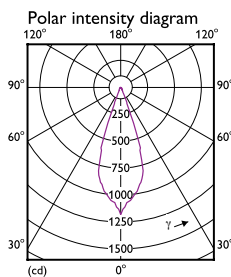
D 8-50W CRI90 GU10 3000K 40D

MASTER LEDspot LV MR16 GU5.3 Dimmable

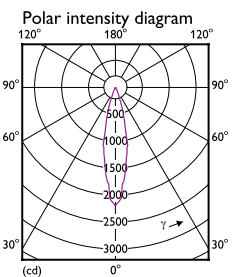
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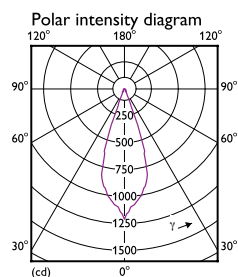
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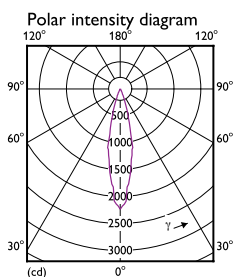
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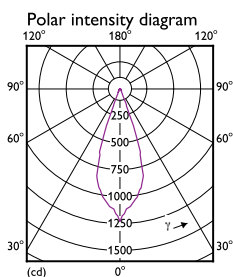
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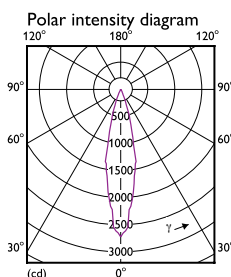
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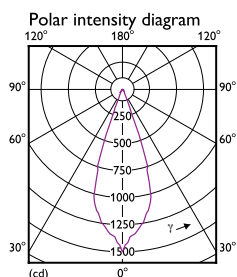
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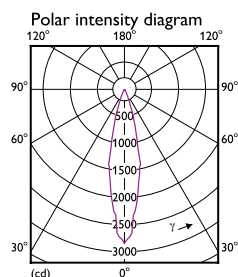
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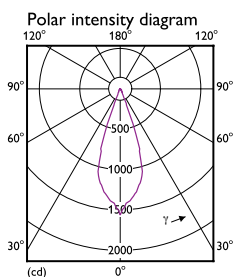
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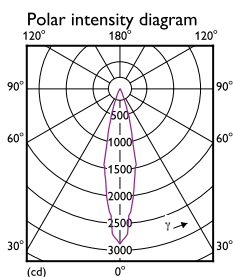
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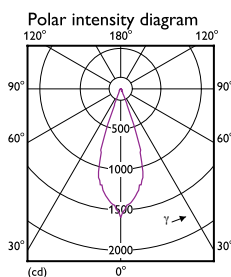
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7-35W MR16 3000K 36D



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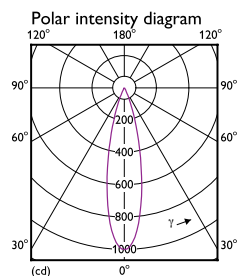


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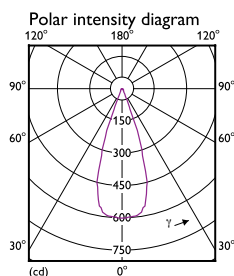
MASTER LEDspot LV MR16 GU5.3

Non-Dimmable

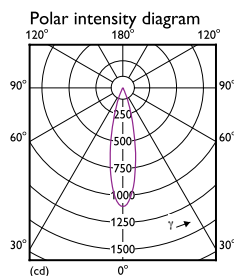
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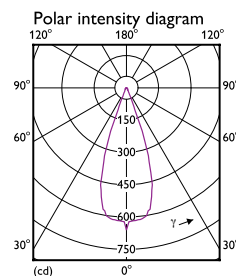
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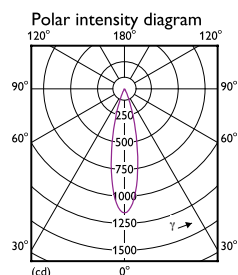
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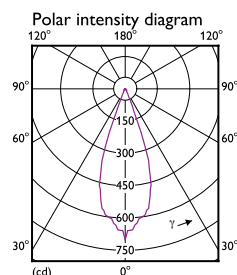
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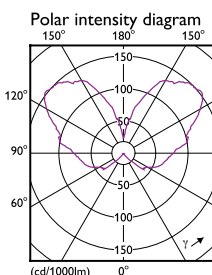
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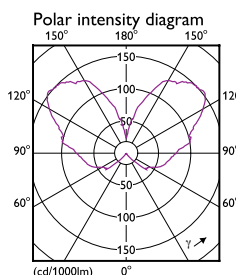
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MASTER LEDcandle Dimmable

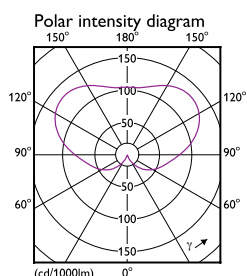
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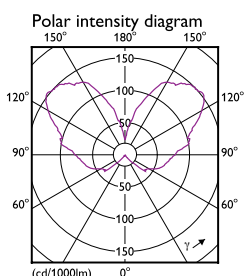
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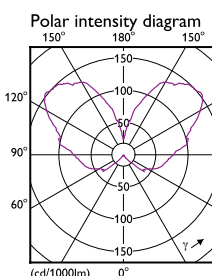
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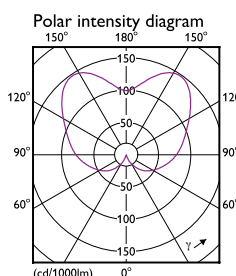
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MASTER LEDlustre Dimmable

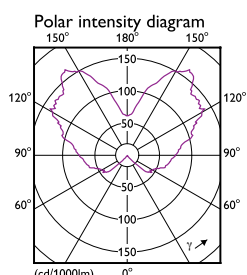
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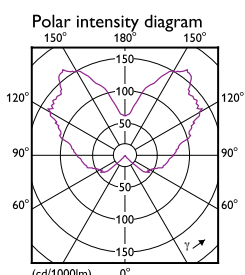
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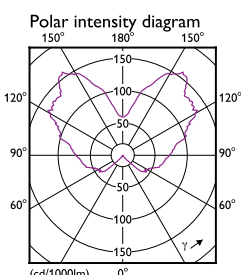
4-25W E14 2700K P45 FR



4-25W E27 2700K P45 CL



4-25W E27 2700K P45 FR



4-25W B22 2700K P45 CL



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