

PARATHOM[®] PRO LEDspot111 50 24° adv. Product description



- True replacement of AR111 50W halogen lamp
- One-to-one lamp size replacement
- Dimmable¹
- High quality light with a colour rendering index of 85

Product Offering

Type reference	Wattage	CCT	Beam Angle	CRI
LEDspot111 50 adv - 827	12W	2700K	24°	85
LEDspot111 50 adv - 830	12W	3000K	24°	85

1. Key Features and Benefits

- 12W LED lamp as high-quality replacement of AR111 50W halogen lamp
- G53 base
- 12V AC/DC input voltage
- Dimmable¹
- Available in two different colour temperatures:
 - 2700K – warm white
 - 3000K – warm white
- High colour consistency (standard deviation colour matching <5)
- Energy consumption reduced by 76%
- Shock-proof and vibration-proof
- 45,000 hours lifetime
- UV and NIR radiation free
- Mercury free
- Operates with conventional and electronic control gear
- 5 years Osram Guarantee²

¹ See www.osram.com/dim

² See www.osram.com/guarantee

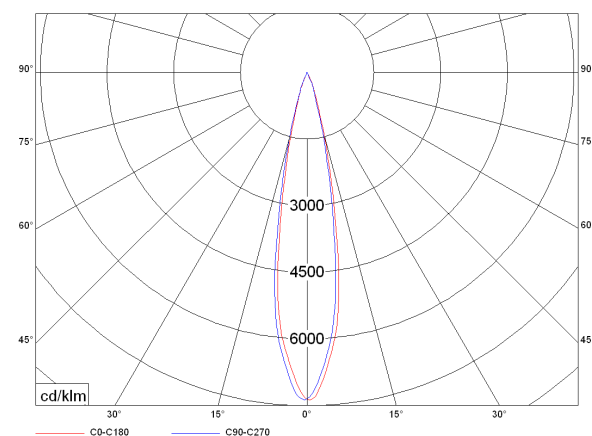
2. Common Characteristics³

Average lifetime ⁴		Switching cycles (30s on, 30s off)	Casing material	Starting time	Warm up time for 60% light	Power factor	
45,000h		1,000,000	Metal/plastic	0.0s	none	>0.9	
Mercury max.	Base Type	Length	Diameter	Weight	Tc temperature max. ⁵	Power	Nominal current (12V AC)
0.0mg	G53	58.5 mm	111mm	173g	85°C	12W	1A

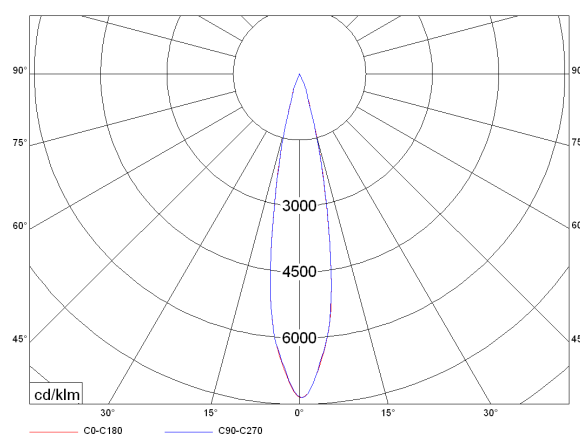
3. Characteristic Range³

Type reference	Luminous flux	Luminous intensity	Correlated colour temperature	Standard deviation colour matching	Colour rendering index	Beam angle
LEDspot111 50 adv 827	500lm	3600cd	2700K	<5	85	24°
LEDspot111 50 adv 830	550lm	4000cd	3000K	<5	85	24°

4. Technical information



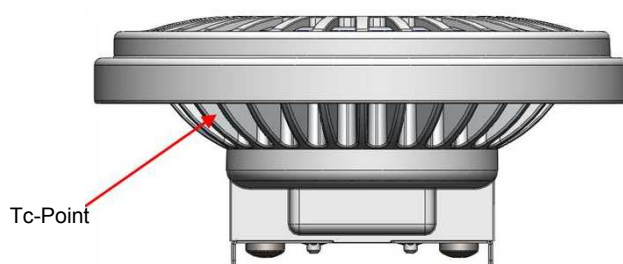
LEDspot111 50 adv 827



LEDspot111 50 adv 830

5. Mounting information

Good heat exchange supports ideal performance



³ Typical values, measured @12 V AC (50Hz). All the technical parameters apply to the entire lamp. In view of the complex manufacturing process for light emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values.

⁴ The average lifetime of LED lamps is defined as the number of hours when the light output of 50% of a large group of identical lamps goes below 70% of its initial luminous flux (L70B50, IEC60969). The lifetime is estimated at room temperature (25°C), free air burning, base up burning position and at rated voltage. To achieve a full lifetime a good heat exchange for the electronic components is required.

⁵ The Tc is defined as the highest permissible temperature which may occur on the outer surface of the LED lamp (in the indicated position) under normal operating conditions and at the rated voltage/current/power or the maximum of the rated voltage/current/power range (DIN EN 62031: 2009-01)

6. Disposal information

WEEE-lamps can be returned at specific collection points.
LED lamps have to be disposed as special waste.



7. Application Information

Applications

- hotels
- restaurant
- commercial areas
- residentials
- art galleries and museum
- office space

Application Notes

- suitable for indoor application.
- for outdoor applications and operation in damp locations special approved fixture are required.
- Input voltage:
 - AC: 11.5V...12V
 - DC: 12V...17V
- Operating temperature range between -20°C and 40°C

8. Cost savings: example

Reference product description	Similar halogen product	Watts saved	Cost saved after 1 year	Cost saved after 2 years	Cost saved after 5 years
LEDspot111 50 adv	AR111 50W	38W	6.5 €	57 €	244 €

*Based on the assumption of 12hours/day and an energy cost of 0.19€/kWh

9. Ordering Guide

Type reference	Product Number – 1pcs	Product Number – 1 shipping unit	Number of pcs / ship. unit
LEDspot111 50 adv 827	4008321972392	4008321972408	6
LEDspot111 50 adv 830	4008321972415	4008321972422	6

10. Lamp conformity

2004/108/EC Electromagnetic compatibility (EMC)
2009/125/EC Ecodesign requirements for energy related products
2011/65/EC Restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)
1907/2006 Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH Regulation)
2002/96/EC Waste Electrical and Electronic Equipment Directive (WEEE)
EN 62471 Photobiological safety of lamps and lamp systems
IEC/TR 62471-2 Photobiological safety of lamps and lamp systems - Part 2: Guidance on manufacturing requirements relating to non-laser optical radiation safety
EN 55015 Limits and methods of measurement of radio disturbance
EN 61000-3-2 Electromagnetic compatibility – Limits for harmonic current emission
EN 61000-3-3 Electromagnetic compatibility – Limitation of voltage changes, voltage fluctuations, flicker in public low voltage supply systems
EN 61547 Electromagnetic compatibility immunity requirements

11. Compatibility performance with transformers without dimmer ⁶

Legend

ET / electronic transformers MT / magnetic transformers G / good NG / poor function N/A / not applicable

Transformer information			Number of tested lamps (@230V input)				Note
Brand	Model	Type	1	2	3	4	
NA	200VA	MT	G	G	G	G	
OSRAM	ET-ZE 60/220-240	ET	G	N/A	N/A		
OSRAM	HTN 75/230-240 I	ET	G	N/A	N/A	N/A	
OSRAM	HTB 105/220-240	ET	G	NG	N/A	N/A	
OSRAM	HTB 70/230-240	ET	G	N/A	N/A	N/A	
OSRAM	HTL 225/230-240	ET	NG	G	G	G	
OSRAM	HTL 105/230-240	ET	G	G	N/A	N/A	
OSRAM	HTM 70/230-240	ET	G	N/A	N/A	N/A	
OSRAM	HTM 105/230-240	ET	G	G	N/A	N/A	Not released for UK
OSRAM	HTM 150/230-240	ET	G	G	G	N/A	
Philips	Primaline 105W/230-240	ET	NG	G	N/A	N/A	
SELF	SET60M/220-240	ET	G	N/A	N/A	N/A	
VS	Topline EST70/230-240	ET	G	N/A	N/A	N/A	
Kopp	YT7C/230	ET	G	N/A	N/A	N/A	
EVN	PD.2/60/230-240	ET	G	N/A	N/A	N/A	
EVN	MINIJOKER 70/230	ET	G	N/A	N/A	N/A	
Busch-Jaeger	6575-70/230-240	ET	G	N/A	N/A	N/A	
Brumberg	Trafo 54271/230-240	ET	NG	G	N/A	N/A	
ABB	Speedy 50/230-204	ET	G	N/A	N/A	N/A	
ABB	Speedy 70/230-240	ET	G	N/A	N/A	N/A	
ABB	Speedy 105/230-240	ET	G	G	N/A	N/A	
Spider	60S/240	ET	G	N/A	N/A	N/A	
Jung	SNT 105F/230	ET	G	G	N/A	N/A	
Jung	SNT 70F/230	ET	G	N/A	N/A	N/A	Not released for UK

⁶ Typical values. Test performed exemplary on PARATHOM® PRO LEDspot111 50 24° advanced

The test results reflect the measurement of the individual devices that were used in tests. OSRAM does not take over any responsibility, warranty or liability that this results can also be achieved by using the devices under other conditions or when using successor models of the tested devices or different models of the same manufacturer.

The test results were achieved by using the above mentioned LED-lamp types. OSRAM does not take over any responsibility, warranty or liability that this results can also be achieved by using the devices under other conditions or when using other LED-lamp types.

12. Dimming behaviour ⁶

Status: Nov 2011

Legend	
L / leading edge	T / trailing edge
Y / yes	N / no

Dimming behaviour with OSRAM HTM 70 @ Vin= 230V, 50Hz						
Dimmer info			Number of lamp	Dimming range		Note
Brand	Model	Type		Min	Max	
Gira	030700 / 102	T	1	30	100	*
Busch-Jäger	6513 U-102	T	1	55	100	*
Berker	2874	T	1	32	100	*
Busch-Jäger	6519 U	T	1	62	100	*
Everflourisch	EF 700 DC	T	1	54	100	*
Conrad	T46	T	1	27	100	*
Merten	577199	T	1	54	100	*

(*) Lamp may flicker in lower dimming range

Dimming behaviour with OSRAM HTM 105 @ Vin= 230V, 50Hz						
Dimmer info			Number of lamp	Dimming range		Note
Brand	Model	Type		Min	Max	
Gira	030700 / 102	T	1	30	100	*
Berker	2874	T	1	32	100	*
Busch-Jäger	6519 U	T	1	62	100	*
Merten	577199	T	1	55	100	*

(*) Lamp may flicker in lower dimming range

Due to its limited functionality with leading edge dimmers, this kind of dimmer is not recommended.