# LED STAR PAR16 20 36°827 GU10 Product description



Product Offering				
Type reference	Wattage	ССТ	lm	CRI
PAR16 20 36°	2W	2700K	130lm	>80

- Compact mains voltage LED reflector lamp in PAR16 shape
- GU10 base for easy replacement
- Equipped with high-efficiency patented LEDs, quality assured
- Shockproof and vibration-proof

## 1. Key Features and Benefits

- LED PAR16 lamp as replacement for Halopar 20W lamp
- Voltage: 100 240V
- GU10 base
- Warm white color (2700K)
- conform to 1194/2012 EU
- reduces energy consumption > 90%
- Energy Class A++
- shock-proof and vibration-proof
- 15,000 hours lifetime
- Non dimmable<sup>1</sup>
- UV and NIR radiation free
- Mercury free
- 3 years Osram Guarantee<sup>2</sup>



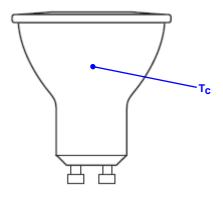
See www.osram.com/dim

<sup>&</sup>lt;sup>2</sup> See www.osram.com/guarantee

2. Common Characteristics <sup>3</sup>							
Average I	ifetime <sup>4</sup>	Switching cy (30s on, 30s		asing material	Starting time	Warm up time for 60% light	Power factor
15,000h		>100,000		plastic	<0.5s	<1s	0.4
Mercury max.	Base Type	Length	Diameter	Weight	Tc temperature max. <sup>5</sup>	Nominal current (230V/50Hz)	Beam angle
0.0mg	GU10	53mm	50mm	32g	60℃	1838	36°

3. Characteristic Range <sup>3</sup>							
Type reference	Wattage	Luminous flux	Luminous intensity	Correlated colour temperature	SDCM	CRI	
PAR16 20 36°	2W	130lm	320cd	2700	>6	>80	

### 4. Mounting information



<sup>&</sup>lt;sup>3</sup> Typical values. 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.

#### 5. Disposal information

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



<sup>&</sup>lt;sup>4</sup> 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.

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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. Application Information

## **Applications**

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

## **Application Notes**

- 1. Suitable for indoor application.
- 2. For outdoor applications and operation in damp locations special approved fixture are required.
- 3. Input voltage: AC: 100-240V
- 4. Operating temperature range between -20℃ and 40℃

7. Cost savings: example							
Reference product description	Similar halogen product	Watts saved	Cost saved after 2 year	Cost saved after 5 years	Cost saved after 15 years		
PAR16 20	HALOPAR 20W	18W	5,16€	18,80€	61,10€		
Based on the assumption of 2.7hours/day on and an energy cost of 0.21€/kWh							

8. Ordering Guide			
Type reference	Product Number – 1pcs	Product Number – 1 shipping unit	Number of pcs / ship. unit
LED STAR PAR16 20 36°	4052899910331	4052899910430	6

#### 9. Lamp conformity

2004/108/EC Electromagnetic compatibility (EMC)

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 suppl systems

FN61547 Flectromagnetic compatibility immunity requirements

