

Product Information

PARATHOM® MR16 35 36° & 24° Adv



Product Overview

Product	Wattage	CCT in K	lm	Beam Angle	Base
LED PARATHOM® MR16 35 24°	6,5	2700	350	24°	GU5.3
LED PARATHOM® MR16 35 36°	6,5	2700	350	36°	GU5.3
LED PARATHOM® MR16 35 36°	6,5	3000	350	36°	GU5.3
LED PARATHOM® MR16 35 36°	6,5	4000	350	36°	GU5.3

Benefits

- True replacement of low voltage halogen MR16W lamp
- One-to-one lamp size replacement
- Long lifetime
- Dimmable

Key Features

- 6,5W LED lamp as replacement of MR16 35W halogen lamp
- GU5.3 base
- 12V AC/DC input voltage
- dimmable
- available in light color warm white 2700°K & 3000°K, as well as cool white 4000°K
- reduces energy consumption ~ 80%
- light-to-the-back effect
- shock-proof and vibration-proof
- 25,000 hours lifetime
- UV and NIR radiation free
- mercury free
- Operates with conventional and electronic control gear
- 4 years Osram Guarantee¹

¹ See www.osram.com/guarantee

Product Information

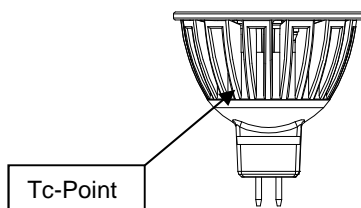
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Ordering Guide

Product	Wattage	CCT	lm	Candela	Diameter	Length	Weight	Beam Angle	EAN10	EAN40 (ship.unit)	Ship. unit
LED PARATHOM® MR16 35 24°	6,5	2700	350	1050	50 mm	48 mm	48 g	24°	4008321884985	4008321884992	10
LED PARATHOM® MR16 35 36°	6,5	2700	350	780	50 mm	48 mm	48 g	36°	4008321885135	4008321885142	10
LED PARATHOM® MR16 35 36°	6,5	3000	350	780	50 mm	48 mm	48 g	36°	4008321885166	4008321885173	10
LED PARATHOM® MR16 35 36°	6,5	4000	350	780	50 mm	48 mm	48 g	36°	4008321885197	4008321885203	10

Common Characteristics³

Type	Average lifetime ⁴	Switching cycles (30s on, 30s off)	Casing material	Starting time	Warm up time for 60% light	Power factor
LED PARATHOM® MR16 35 36° & 24°	25,000 hrs	100,000	Metal/plastic	<0.5s	none	0.7
	Nominal current	Max. inrush current	Tc temperature max. ⁵	CRI	Mercury max.	
LED PARATHOM® MR16 35 36° & 24°	0,6A		90°C	80	0.0 mg	



Disposal information

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

³ 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.

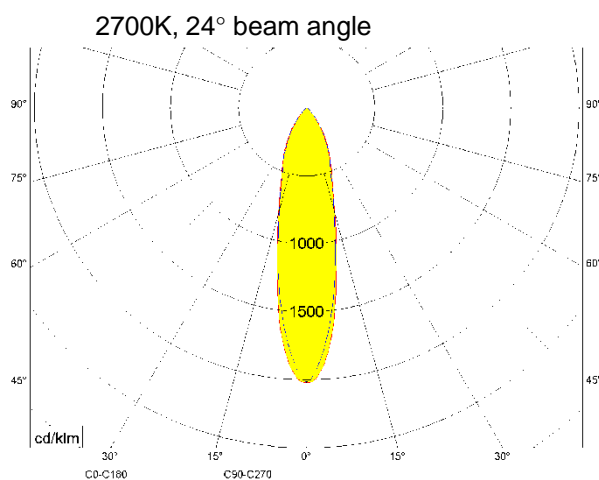
⁴ The average lifetime of LED lamps is defined as the number of hours when the light output of 50% of a large group of identical lamps goes below 70% of its initial luminous flux (L70B50, IEC60969). The lifetime is estimated at room temperature (25°C), free air burning, base up burning position and at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

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Light distribution

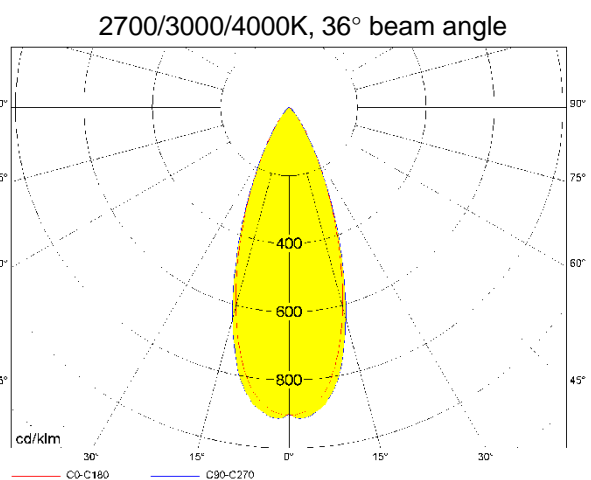


Application information

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

Lamp conformity

- 2004/108/EC Electromagnetic compatibility (EMC)
- 244/2009 Ecodesign requirements for non-directional household lamps
- IEC/ PAS 62612 Self ballasted LED-lamps for general lighting services – Performance requirements
- 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, Authorization 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
- EN61547 Electromagnetic compatibility immunity requirements
- 1194/2012 Eco design requirement for directional lamps, light emitting diode lamps and related equipment (DIM II)
- IEC 62560 self-ballasted LED-lamps for general lighting services by voltage >50V – Safety specifications
- 874/2012/EU Energy labeling of electrical lamps and luminaires



Application Notes

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

Product Information

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Compatibility performance with transformers without dimmer ⁶

Legend

ET / electronic transformers

MT / magnetic transformers

OT / optotronic transformers

G / good

NG / poor function N/A / not applicable

Brand	Model	Type	Wattage	Number of tested lamps (@230V input)				Note
				1	2	3	4	
OSRAM	ET-MZ 60/110-130	ET	20-60W	G	G	G	G	
OSRAM	ET-A 60/220-240	ET	20-60W	G	G	G	G	
OSRAM	ET-C 70/220-240	ET	20-70W	NG	G	G	G	
OSRAM	ET-Z 60/220-240	ET	20-60W	G	G	G	G	
OSRAM	ET-ZL 50/220-240	ET	50W	NG	G	G	G	
OSRAM	ET-ZE 60/220-240	ET	20-60W	NG	G	G	G	
OSRAM	ET-P 60/220-240 (Gen 1)	ET	20-60W	G	G	G	G	
OSRAM	ET-P 60/220-240 (Gen 2)	ET	20-60W	G	G	G	G	
OSRAM	ET-Parrot 70/220-240 I	ET	20-70W	G	G	G	G	
OSRAM	ET-Parrot 105/220-240 I	ET	35-105W	G	G	G	G	
OSRAM	TET-E60I/220-240	ET	20-60W	NG	G	G	G	
OSRAM	ET-Redback 60/230-240	ET	20-60W	NG	G	G	G	ET little noise
OSRAM	HTB 70/220-240	HT	20-70W	G	G	G	G	
OSRAM	HTB 105/220-240	HT	35-105W	G	G	G	G	
OSRAM	HTB 70/230-240	HT	20-70W	G	G	G	G	
OSRAM	HTN 75/230-240 I	HT	20-75W	G	G	G	G	
OSRAM	HTM 70/230-240	HT	20-70W	G	G	G	G	
OSRAM	HTM 105/230-240	HT	35-105W	G	G	G	G	
OSRAM	HTM 150/230-240	HT	50-150W	NG	G	G	G	
OSRAM	HTL105/230-240	HT	35-105W	NG	G	G	G	
OSRAM	HTL225/230-240	HT	50-225W	NG	NG	NG	G	
OSRAM	OT 12/220-240/10	OT	0.5-12W	G	N/A	N/A	N/A	
OSRAM	OT 15/220-240/10	OT	0.5-15W	G	G	N/A	N/A	
OSRAM	OTe 35/220-240/12	OT	1.0-35W	G	G	G	G	
SLV	461060	ET	10-60W	G				
BLOCK	HES 70K	ET	20-70W	G				Little noise can appear
EVN	TAB 50(0410)	ET	20-50W	G				
Berker	Igel 20-105w 2921	ET	20-105W	G				Little noise can appear
TCI	EF 70	ET	20-70W	G				Little noise can appear
TCI	PUMA 105	ET	20-105W	G				Little noise can appear
JUNG	SNT 40	ET	10-40W	G				
nobile	EN-60D	ET	20-60W	G				Little noise can appear
KTB	MBL 120	ET	20-120W	G				Little noise can appear
ABI	SET60T-EL AL50460	ET	10-60W	G				Little noise can appear

⁶ Typical values 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.

Product Information

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Compatibility performance with dimmer ⁶

Legend

L / leading edge T / trailing edge

Supplier	Model	Type	Min. amount of Lamps	Dimming range (%)		Comment
				Min	Max	
MR 16 LED lamp Dimming behaviour with OSRAM HTM 70						
EVERFLOURISH	EFM700DB	L	1	5%	99%	*
SCHNEIDER	ATD315(174200)	T	1	2%	100%	*
BERKER	Nr.281902	L	1	1%	99%	*
ABB	STD50-3	L	1	5%	100%	*
LEGRAND	775903	T	1	14%	100%	*
HE	T46	T	1	25%	100%	*
GIRA	0300 00/I01	L	1	1%	100%	*
EVERFLOURISH	EFM700DC	T	1	43%	99%	*
ELSO	ATD315(174200)	T	1	59%	100%	*

Supplier	Model	Type	Min. amount of Lamps	Dimming range (%)		Comment
				Min	Max	
MR 16 LED lamp Dimming behaviour with OSRAM Parrot 70						
BUSCH	2250	L	1	2%	98%	*
JUNG	225 NV DE	L	1	2%	98%	*
MEREN	577199	T	1	38%	98%	*
EVERFLOURISH	EF0700DC	T	1	30%	100%	*
BERKER	Nr.281902	L	1	1%	100%	*
MERTEN	5771-99	T	1	39%	98%	*
LEGRAND	775903	T	1	5%	100%	*
HE	T46	T	1	22%	100%	*
GIRA	0307 00/I01	L	1	1%	100%	*
GIRA	0307 00/I02	T	1	11%	100%	*
CONRAD	T46	T	1	21%	99%	*
EVERFLOURISH	EFM700DC	T	1	21%	99%	*
ELSO	ATD315(174200)	T	1	53%	99%	*

(*) Lamp may flicker in lower dimming range
Due to its limited functionality with leading edge dimmers, this kind of dimmer is not recommended

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