

# 星亮系列 LED STAR MR16

*We bring innovation to light!*

Product licensee of trademark  
OSRAM in general lighting



# 产品信息

## LED 星亮 MR16



### 产品综览

产品型号	基础码	功率	色温	光通量	光束角
MR16 20 S 3W 2700K 36° GU5.3	AC03697	3W	2700K	250	36°
MR16 35 S 5W 2700K 36° GU5.3	AC03698	5W	2700K	380	36°
MR16 35 S 5W 6500K 36° GU5.3	AC03699	5W	6500K	400	36°
MR16 35 S 5W 2700K 24° GU5.3	AC03700	5W	2700K	380	24°
MR16 50 S 6.5W 2700K 36° GU5.3	AC03701	6.5W	2700K	500	36°
MR16 50 S 6.5W 6500K 36° GU5.3	AC03702	6.5W	6500K	540	36°
MR16 50 S 6.5W 2700K 24° GU5.3	AC03703	6.5W	2700K	500	24°

### 产品优势

- 光斑无重影，完美实现重点照明与基础照明
- 节能87%，小投入大回报
- 高度色温一致性，避免色差
- 安装简便、可实现低预算和维修、无须更换全套照明系统
- 12V 直流/交流输入电压操作更安全
- 德国品质保证

### 技术特点

- 均匀和干净的光束仰赖创新的TIR和复眼单镜头光学设计
- 高照度，更高品质地替换传统光源
- 高光色一致性 (SDCM<6)
- 12V 直流/交流输入电压保障便捷安装的1: 1卤素灯外观
- 长寿命，低光衰 (15,000H)
- 无紫外和红外辐射
- 无汞

<sup>1</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.

<sup>2</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, IEC62612). The lifetime is estimated at room temperature (25° C), free air burning, base up burning position and at rated voltage.

For lamps with a weight significantly higher than that of the lamps for which they are a replacement, attention should be drawn to the fact that the increased weight may reduce the mechanical stability of certain luminaires and lampholders and may impair contact making and lamp retention.

# 产品信息

## LED 星亮 MR16

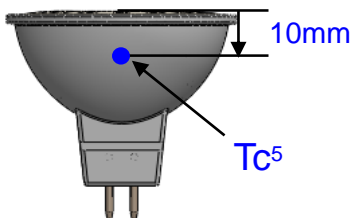
### 订购信息

产品型号	功率	显色	光通量	光强	直径	长度	重量	光束角	EAN10	EAN40 (ship unit)	最小 包装
LED5MR162036 3W/827 12V GU5.310X1G5OSRAM	3W	2700K	250	550cd	50mm	45mm	32g	36°	4058075052840	4058075052857	10
LED5MR163536 5W/827 12V GU5.310X1G5OSRAM	5W	2700K	380	900cd	50mm	45mm	35g	36°	4058075052949	4058075052956	10
LED5MR163536 5W/865 12V GU5.310X1G5OSRAM	5W	6500K	400	1000cd	50mm	45mm	35g	36°	4058075052963	4058075052970	10
LED5MR163524 5W/827 12V GU5.310X1G5OSRAM	5W	2700K	380	1400cd	50mm	45mm	35g	24°	4058075052987	4058075052994	10
LED5MR1650366.5W/82712V GU5.310X1G5OSRAM	6.5W	2700K	500	900cd	50mm	45mm	36g	36°	4058075053007	4058075053014	10
LED5MR1650366.5W/86512V GU5.310X1G5OSRAM	6.5W	6500K	540	1000cd	50mm	45mm	36g	36°	4058075053021	4058075053038	10
LED5MR1650246.5W/82712V GU5.310X1G5OSRAM	6.5W	2700K	500	2000cd	50mm	45mm	36g	24°	4058075053045	4058075053052	10

### 其他通用产品信息

产品型号	平均寿命	开关次数 (30s开, 30s关)	外壳材料	启动速度	点亮至95% 所需时间	功率 因数
LED STAR MR16 20	15,000 hrs	100,000	Plastics	<0.5 s	<1 s	0.7
LED STAR MR16 35	15,000 hrs	100,000	Plastics	<0.5 s	<1 s	0.9
LED STAR MR16 50	15,000 hrs	100,000	Plastics	<0.5 s	<1 s	0.9

产品型号	一般电流	外壳最大温度	显色指数	汞含量	色容差	环境温度
LED STAR MR16 20	355 mA	≤75°C @ Ta 40°C	80	0.0 mg	≤6 SDCM	-20..+40 °C
LED STAR MR16 35	450 mA	≤86°C @ Ta 40°C	80	0.0 mg	≤6 SDCM	-20..+40 °C
LED STAR MR16 50 24°/36°	620 mA/ 590 mA	≤85°C @ Ta 40°C	80	0.0 mg	≤6 SDCM	-20..+40 °C



#### 废弃处理建议

- 带有WEEE标识的产品可以在固定收集点被回收。
- LED光源类产品需遵循当地有关法规。

<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.

<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, IEC62612). The lifetime is estimated at room temperature (25° C), free air burning, base up burning position and at rated voltage.

<sup>5</sup> 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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## LED 星亮 MR16

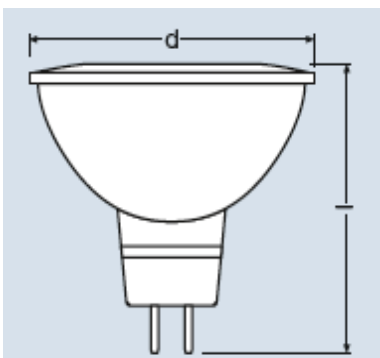
### 应用建议

- 家居
- 商住综合体
- 餐饮
- 公寓别墅
- 艺术馆及博物馆

### 整灯标准符合性声称

- CISPR15 (Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment)
- IEC 60038 (IEC standard voltages)
- IEC 60061 (Lamp caps and holders)
- IEC 60357 (Tungsten halogen lamps (non vehicle) - Performance specifications)
- IEC 60432 (Incandescent lamps - Safety specifications)
- IEC 60630 (Maximum lamp outlines for incandescent lamps)
- IEC 60968 (Self-ballasted lamps for general lighting services - Safety requirements)
- IEC 60969 (Self-ballasted lamps for general lighting services - Performance requirements)
- EN 61000-2004/108/EC Electromagnetic compatibility
- IEC 61000-3-2 Limits for harmonic current emissions (equipment input current  $\leq 16$  A per phase)
- IEC 61000-3-3 Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current  $\leq 16$  A per phase and not subject to conditional connection
- IEC 61341 (Method of measurement of centre beam intensity and beam angle(s) of reflector lamps)
- EN 61347-1 Lamp control gear - Safety requirements
- IEC 61547 (Equipment for general lighting purposes - EMC immunity requirements)
- IEC 62560 Self ballasted LED lamps for GL services
- EN 62471 Photo biological safety of lamps
- IEC 62493 Assessment of lighting equipment related to human exposure to electromagnetic fields
- IEC 62612 (Self-ballasted LED-lamps for general lighting services  $> 50$  V - Performance requirements)
- EC 874/2012 Energy labelling of electrical lamps and luminaires
- EN 244/ 2009 Eco design requirements for non-directional household lamps (DIM1)
- EC 1194/2012 Eco design requirement for directional lamps, light emitting diode lamps and related equipment (DIM2)
- Commission Regulation No 244/2009 (1194/2012) implementing Directive 2005/32/EC (2009/125/EC) of the European Parliament and of the Council with regard to eco design requirements for non-directional household lamps (directional household lamps)

### 光源尺寸



	MR 16
D (mm)	50
l (mm)	45

# 产品信息

## LED 星亮 MR16 20

### 变压器兼容性匹配

Legend																	
G / Good		GD / Good & Dark		FW / Flicker weakly		F / Flicker		FS / Flicker strongly		FD / Flicker & Dark		NGF / Not Good as Flicker		NG / not Good as light		N/A / Not applicable	
No.	Transformer Inf		Country	Type	Voltage	Wattage	Lamp Qty /Nominal low voltage 1time		Lamp Qty /Nominal low voltage 0.9times		Lamp Qty /Nominal high voltage 1.06times						
	Brand	Model					1	2	1	2	1	2					
1	OSRAM	ET-A 60/220-240--Kelite	APAC	ET	220-240, 50-60Hz	20-60W	G	G	G	G	G	F					
2	OSRAM	ET-L 30/220-240	APAC	ET	220-240, 50-60Hz	2-30W	G	G	G	G	G	G					
3	OSRAM	IZ-A50/240	India	ET	240,50-60Hz	50W	G	G	G	G	G	G					
4	PHILIPS	ET-E 60 220-240	China	ET	220-240,50-60Hz	20-60W	G	G	G	G	G	G					
5	NVC	ET60E	China	ET	220,50Hz	20-60W	G	G	G	G	G	G					
6	PAK三雄极光	PAK-070601/ PAK-070600	China	ET	220,50Hz	20-60W	G	G	G	G	G	G					
7	Tridonic	ATCO Possum 60VA	Australia	ET	230-240V,50-60Hz	20-60W	F	G	F	F	G	F					
8	PHILIPS	ET-E10 LED	China	ET	220-240V, 50Hz	2-10W	G	G	G	G	G	G					
9	Opplle	DB602-220/12	China	ET	220, 50Hz	20-60W	G	G	G	G	G	G					
10	LEDVANCE	LVED VAL 20/220-240/12 CE (Q)	LKR/LSG/LHK/LSA/TH/LME	ET	220-240, 50-60Hz	2-20W	G	G	G	G	G	G					
11	LEDVANCE	LVED VAL 20/220-240/12 (K)	LCN/LMY/LVN/LHK	ET	220-240, 50-60Hz	2-20W	G	G	G	G	G	G					
12	LEDVANCE	LVED VAL 40/230-240/12 CE (Q)	LAU/LSG	ET	220-240, 50-60Hz	10-40W	G	G	G	G	G	G					
13	OSRAM	ET-Parrot 70/220-240 I	APAC	ET	220-240, 50-60Hz	20-70W	G	G	G	G	G	F					
14	OSRAM	ET-Parrot 105/220-240 I	APAC	ET	220-240, 50-60Hz	35-105W	G	G	G	G	G	G					
15	OSRAM	ET-Redback 60/230-240	APAC	ET	230-240, 50Hz	20-60W	G	G	G	G	G	G					
16	OSRAM	ET-P 60/220-240 (Gen 2)	APAC	ET	220-240, 50-60Hz	20-60W	G	G	G	G	G	G					
17	PHILIPS	ET-S 60 220-240	China	ET	220-240,50-60Hz	20-60W	G	G	G	G	G	G					
18	nVc	ET60DS	China	ET	220,50Hz	35-60W	G	G	G	G	G	G					
19	Tridonic	ATCO Viper 60VA	Australia	ET Australia	230-240V,50-60Hz	20-60W	G	G	G	G	G	G					
20	Nelson	Tradesman 65	Australia	ET Australia	220-240V,50Hz	65W	G	G	G	G	G	G					
21	Nelson	Mtecougar60	Australia	ET Australia	230-240V,50Hz	60W	G	G	G	G	G	G					
22	OSRAM	ET-Z 60	APAC	ET	220-240, 50-60Hz	20-60W	G	G	G	G	G	G					
23	OSRAM	ET-MZ 60/110-130	Taiwan	ET	110-130, 50-60Hz	20-60W	G	G	G	G	G	G					

<sup>6</sup> Typical values.

The compatibility test is based upon testing conducted by the manufacturer in a lab simulated environment, and the results can vary in certain field applications due to a number of factors. 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 successor models of the tested devices or different models of the same manufacturer, or when using other LED lamp types.

LED lamps contain several electronic components. Under unfavorable conditions these can lead to acoustic noise. In case of resonance even low noise can cause audible effect. Possible factors influencing this are the installation, the design of the lamp holder and the luminaries (acoustic resonance effect) as well as the dimmer or the transformer (harmonics or electronic resonance).

Subject to change without notice.

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# 产品信息

## LED 星亮 MR16 35

### 变压器兼容性匹配

Legend																	
G / Good		GD / Good & Dark		FW / Flicker weakly		F / Flicker		FS / Flicker strongly		FD / Flicker & Dark		NGF / Not Good as Flicker		NG / not Good as light		N/A / Not applicable	
No.	Transformer Inf						Lamp Qty /Nominal low voltage 1time		Lamp Qty /Nominal low voltage 0.9times		Lamp Qty /Nominal high voltage 1.06times						
	Brand	Model	Country	Type	Voltage	Wattage	1	2	1	2	1	2					
1	OSRAM	ET-A 60/220-240--Kelite	APAC	ET	220-240, 50-60Hz	20-60W	G	G	FW	G	G	G					
2	OSRAM	ET-L 30/220-240	APAC	ET	220-240, 50-60Hz	2-30W	G	G	G	G	G	G					
3	OSRAM	IZ-A50/240	India	ET	240,50-60Hz	50W	G	G	G	G	G	G					
4	PHILIPS	ET-E 60 220-240	China	ET	220-240,50-60Hz	20-60W	G	G	G	G	G	G					
5	NVC	ET60E	China	ET	220,50Hz	20-60W	G	G	G	G	G	G					
6	PAK三雄极光	PAK-070601/ PAK-070600	China	ET	220,50Hz	20-60W	F	G	F	G	G	G					
7	PHILIPS	ET-E10 LED	China	ET	220-240V, 50Hz	2-10W	G	NA	G	NA	G	NA					
8	Opplle	DB602-220/12	China	ET	220, 50Hz	20-60W	G	NA	G	NA	G	NA					
9	Tridonic	ATCO Possum 60VA	Australia	ET	230-240V,50-60Hz	20-60W	NG	G	NG	G	G	G					
10	LEDVANCE	LVED VAL 20/220-240/12 CE (Q)	LKR/LSG/LHK/LSA/TH/LME	ET	220-240, 50-60Hz	2-20W	G	G	G	G	G	G					
11	LEDVANCE	LVED VAL 20/220-240/12 (K)	LCN/LMY/LVN/LHK	ET	220-240, 50-60Hz	2-20W	F	G	F	G	F	G					
12	LEDVANCE	LVED VAL 40/230-240/12 CE (Q)	LAU/LSG	ET	220-240, 50-60Hz	10-40W	G	G	G	G	G	G					
13	OSRAM	ET-Parrot 70/220-240 I	APAC	ET	220-240, 50-60Hz	20-70W	G	G	G	G	G	G					
14	OSRAM	ET-Parrot 105/220-240 I	APAC	ET	220-240, 50-60Hz	35-105W	G	G	G	G	G	G					
15	OSRAM	ET-Redback 60/230-240	APAC	ET	230-240, 50Hz	20-60W	G	G	G	G	G	G					
16	OSRAM	ET-P 60/220-240 (Gen 2)	APAC	ET	220-240, 50-60Hz	20-60W	G	G	G	G	G	G					
17	OSRAM	ET-Z 60	APAC	ET	220-240, 50-60Hz	20-60W	G	G	G	G	G	G					
18	OSRAM	ET-MZ 60/110-130	Taiwan	ET	110-130, 50-60Hz	20-60W	G	G	G	G	G	G					
19	PHILIPS	ET-S 60 220-240	China	ET	220-240,50-60Hz	20-60W	F	F	F	F	F	F					
20	nVc	ET60DS	China	ET	220,50Hz	35-60W	G	G	G	G	G	G					
21	Tridonic	ATCO Viper 60VA	Australia	ET	230-240V,50-60Hz	20-60W	G	G	G	G	G	G					
22	Nelson	Tradesman 65	Australia	ET	220-240V,50Hz	65W	G	G	G	G	G	G					
23	Nelson	Mtecougar60	Australia	ET	230-240V,50Hz	60W	F	G	F	G	F	G					

<sup>6</sup> Typical values.

The compatibility test is based upon testing conducted by the manufacturer in a lab simulated environment, and the results can vary in certain field applications due to a number of factors. 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 successor models of the tested devices or different models of the same manufacturer, or when using other LED lamp types.

LED lamps contain several electronic components. Under unfavorable conditions these can lead to acoustic noise. In case of resonance even low noise can cause audible effect. Possible factors influencing this are the installation, the design of the lamp holder and the luminaries (acoustic resonance effect) as well as the dimmer or the transformer (harmonics or electronic resonance).

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# 产品信息

## LED 星亮 MR16 50

### 变压器兼容性匹配

Legend																	
G / Good		GD / Good & Dark		FW / Flicker weakly		F / Flicker		FS / Flicker strongly		FD / Flicker & Dark		NGF / Not Good as Flicker		NG / not Good as light		N/A / Not applicable	
No.	Transformer Inf						Lamp Qty /Nominal low voltage 1time		Lamp Qty /Nominal low voltage 0.9times		Lamp Qty /Nominal high voltage 1.06times						
	Brand	Model	Country	Type	Voltage	Wattage	1	2	1	2	1	2					
1	OSRAM	ET-A 60/220-240--Kelite	APAC	ET	220-240, 50-60Hz	20-60W	G	G	FW	G	G	G	G				
2	OSRAM	ET-L 30/220-240	APAC	ET	220-240, 50-60Hz	2-30W	FW	G	G	G	G	G	G				
3	OSRAM	IZ-A50/240	India	ET	240,50-60Hz	50W	G	G	G	G	G	G	G				
4	PHILIPS	ET-E 60 220-240	China	ET	220-240,50-60Hz	20-60W	G	G	G	G	G	G	G				
5	NVC	ET60E	China	ET	220,50Hz	20-60W	G	G	G	G	G	G	G				
6	PAK三雄极光	PAK-070601/ PAK-070600	China	ET	220,50Hz	20-60W	F	G	G	G	F	G	G				
7	PHILIPS	ET-E10 LED	China	ET	220-240V, 50Hz	2-10W	G	N/A	G	N/A	G	N/A	N/A				
8	Opplle	DB602-220/12	China	ET	220, 50Hz	20-60W	G	N/A	G	N/A	G	N/A	N/A				
9	Tridonic	ATCO Possum 60VA	Australia	ET	230-240V,50-60Hz	20-60W	NG	G	NG	G	G	G	G				
10	LEDVANCE	LVED VAL 20/220-240/12 CE (Q)	LKR/LSG/LHK/LSA/TH/LME	ET	220-240, 50-60Hz	2-20W	G	G	G	G	G	G	G				
11	LEDVANCE	LVED VAL 20/220-240/12 (K)	LCN/LMY/LVN/LHK	ET	220-240, 50-60Hz	2-20W	F	G	F	G	F	G	G				
12	LEDVANCE	LVED VAL 40/230-240/12 CE (Q)	LAU/LSG	ET	220-240, 50-60Hz	10-40W	G	G	G	G	G	G	G				
13	OSRAM	ET-Parrot 70/220-240 I	APAC	ET	220-240, 50-60Hz	20-70W	G	G	G	G	G	G	G				
14	OSRAM	ET-Parrot 105/220-240 I	APAC	ET	220-240, 50-60Hz	35-105W	G	G	G	G	G	G	G				
15	OSRAM	ET-Redback 60/230-240	APAC	ET	230-240, 50Hz	20-60W	G	G	G	G	G	G	G				
16	OSRAM	ET-P 60/220-240 (Gen 2)	APAC	ET	220-240, 50-60Hz	20-60W	G	G	G	G	G	G	G				
17	OSRAM	ET-Z 60	APAC	ET	220-240, 50-60Hz	20-60W	G	G	G	G	G	G	G				
18	OSRAM	ET-MZ 60/110-130	Taiwan	ET	110-130, 50-60Hz	20-60W	G	G	G	G	G	G	G				
19	PHILIPS	ET-S 60 220-240	China	ET	220-240,50-60Hz	20-60W	F	G	G	G	F	G	G				
20	nVc	ET60DS	China	ET	220,50Hz	35-60W	G	G	G	G	G	G	G				
21	Tridonic	ATCO Viper 60VA	Australia	ET	230-240V,50-60Hz	20-60W	G	G	G	G	G	G	G				
22	Nelson	Tradesman 65	Australia	ET	220-240V,50Hz	65W	G	G	G	G	G	G	G				
23	Nelson	Mtecougar60	Australia	ET	230-240V,50Hz	60W	F	G	F	G	F	G	G				

<sup>6</sup> Typical values.

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