



Technical application guide

PHILIPS MR11 LED Lamps (3.5W)

Philips 12V MR11 LED Lamps is the latest product in series of low voltage (12VAC), Halogen MR11 replacement



PHILIPS



Design Highlights

- Up to 80% energy savings when compared to a 20 W halogen lamp
- Long lifetime of 40,000 hours (B50,L70)
- Retrofits into a vast majority of luminaires with GU4 sockets
- Virtually no UV and Cool Beam
- Environmental friendly, without mercury or any other hazardous substances
- RoHS compliant

Application Areas

- Hotels, restaurants, bars, cafes
- Lobbies, corridors, stairwells, washrooms, reception areas

Application Notes

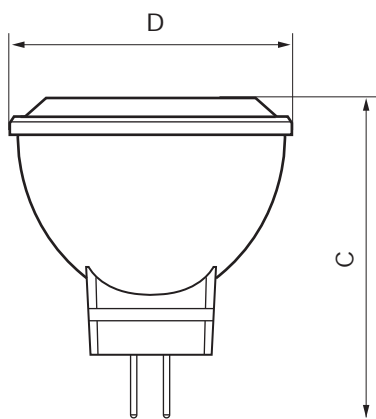
- Operating temperature range is between -20°C and 40°C (ambient)
- Suitable for indoor environments and open Luminaire (at least 10mm free air space)
- Suitable for use in enclosed luminaires where the case temperature (Tc) remains below the Tc indicated in this application guide
- Compatible with existing halogen transformers (refer to the recommended transformer table)
- Do not use or install the lamp in wet environment
- Suitable for damp locations
- For use in fixtures that can structurally support weight of the lamp
- Can be used in outdoor applications where protected from direct water exposure

Technical Specifications

Product type	Voltage	Power Watts	Base	Total Lumen	Beam Angle	CCT	Intensity	Lifetime	CRI	Dimmable
	(V)	(W)		(lm)	($^{\circ}$)	(K)	(Cd)	(Hrs)		
MAS LEDspotLV 3.5W 827 MR11 24D	12	3.5	GU4	200	24	2700	1,000	40,000	80	No

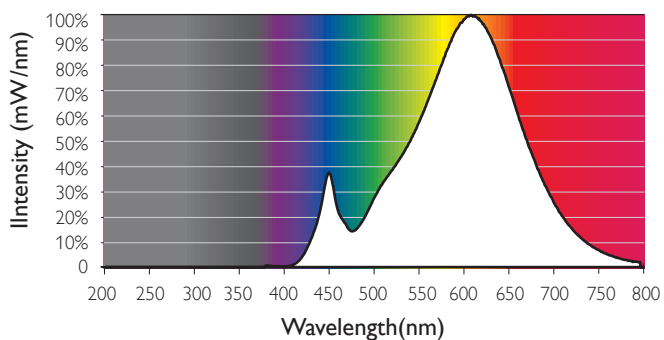
Fixture Compatibility

Type	C max. Overall Length	D max. Diameter	max. Weight
	(mm)	(mm)	(gram)
MR11 LED Lamp	40	35	28



Spectral Power Distribution

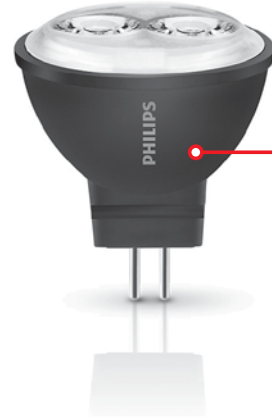
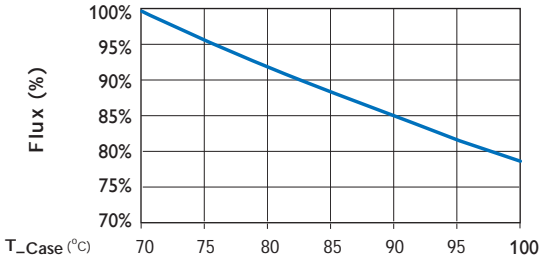
Spectrum of MR11 2700K



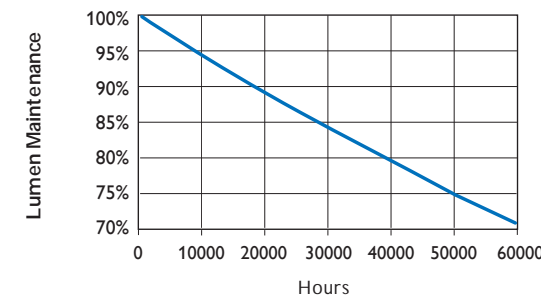
Temperature

To ensure a long operating life, Philips recommends that the lamp is installed in a open luminaire with at least 10 mm of free air space around the lamp housing.

MR11 3.5W



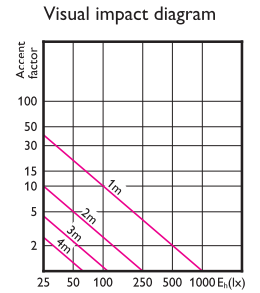
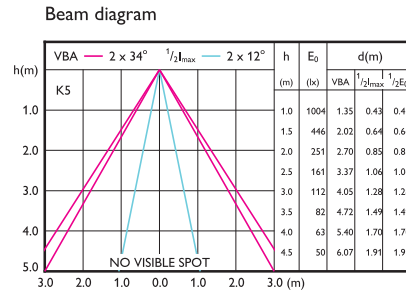
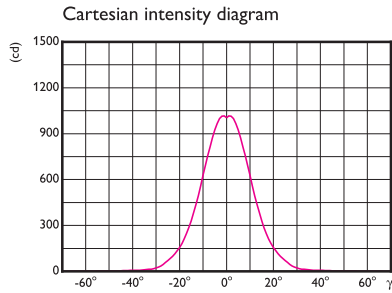
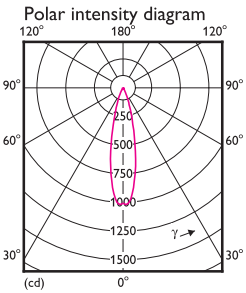
T_c
T_c Max: 80 °C



Photometric Diagrams

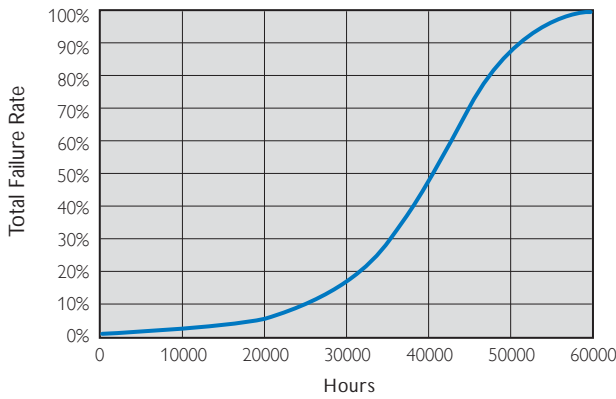
MR11 2700K 24D

1000 cd 200 lm



Lifetime + Sustainability

Failure Rate Curve of MR11 3.5W



PHILIPS 12V MR11 LED lamp has a lifetime of 40.000 hours, defined as the number of hours when 50% of a large group of identical lamps below 70% of its initial lumens.

Maximum Case temperature for rated 40,000 hrs lifetime: 80°C

Recommended Transformer List

Region: APR

NO	Brand	Model	load min	load max	ET Compatibility		
					1 lamp	2 lamps	3 lamps
1	Philips	ET-E60	20W	60W	pass	pass	pass
2	Philips	ET-S60	20W	60W	pass	pass	pass
3	Philips	ET-E105	50W	105W	N/A	pass	pass
4	Philips	ET-C60	NA	60W	pass	pass	pass
5	Philips	ET-E10LED (new)	4W (LED)	10W (LED)	pass	pass	pass
6	Philips	ET-R50A26S	NA	45W	pass	pass	pass
7	Philips	ET-E50 A26	20W	50W	pass	pass	pass
8	OSRAM	ET-P60	20W	60W	pass	pass	pass
9	OSRAM	Redback 60VA	20W	60W	pass	pass	pass
10	Tridonic	Speedy TE-0050	20W	50W	N/A	flicker	pass
11	Tridonic	POSSUM	NA	60W	N/A	flicker	pass
12	LONON	LNDET-50	20W	50W	pass	pass	pass
13	NVC	ET60E	20W	60W	pass	pass	pass
14	ENDO	X224B	35W	75W	pass	pass	pass
15	Daiko	DP36283	10W	75W	pass	pass	pass
16	三雄极光	PAK070601	20W	60W	pass	pass	pass



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