

Precise™ Excellence

Energy efficient low voltage dichroic mirror
halogen reflector lamps from GE



GE imagination at work



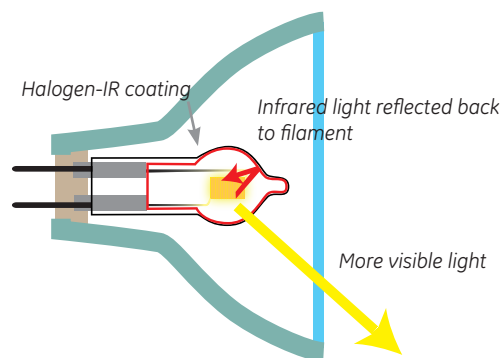
Energy saving MR16 IR

GE halogen IR (infrared) range of low voltage reflector lamps provide up to 43% energy savings over conventional MR16 lamps and – with the addition of the patented GE reflector coating technology – unparalleled colour rendering throughout life.

Available in two versions, the high performance MR16 ConstantColor™ IR offers low energy use, superior lumen and color maintenance, while the MR16 IR delivers savings using a standard dichroic reflector.

Halogen-IR Technology

Standard incandescent and halogen lamps lose approximately 76% of the input energy by radiating heat, and convert only 8% into useful light. The Precise™ IR halogen capsule has multiple layers of very durable, thin, interference film which redirects heat, which would otherwise be wasted, back onto the lamp filament. This increases the filament temperature and allows it to give off more visible light for the same input power. The increased burning efficiency provides the same light performance with a significantly reduced power input, alternatively allows a longer lamp operating life or a combination of both.



The benefits of Precise™ IR

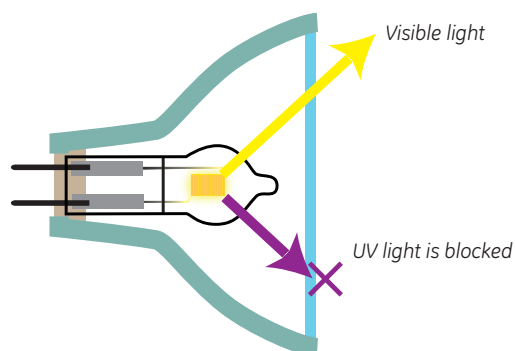
- Up to 43% energy savings compared to standard products
- Cool beam
- Long 5000 hour life, 2.5x longer than standard MR16's
- UV control reduces fading and discolouration

	Performance (W)	Annual consumption (kWh, 1000 hours/year)	Annual energy cost (£)	Savings	
kWh costs: £ 0.12					
Standard MR16	35	35	£4.20		
▼					
MR16 IR	20	20	£ 2.40	£1.80	43%
Standard MR16	50	50	£6.00		
▼					
MR16 IR	35	35	£4.20	£1.80	30%
Standard MR16	50	50	£6.00		
▼					
Precise™ ConstantColor™ MR16 IR	30	30	£3.60	£2.40	40%



UV control

The UV control technology allows the lamp to fully comply with the stringent requirements of IEC 60432-3 standard.



Energy saving high performance halogen

Instant, crisp and powerful light

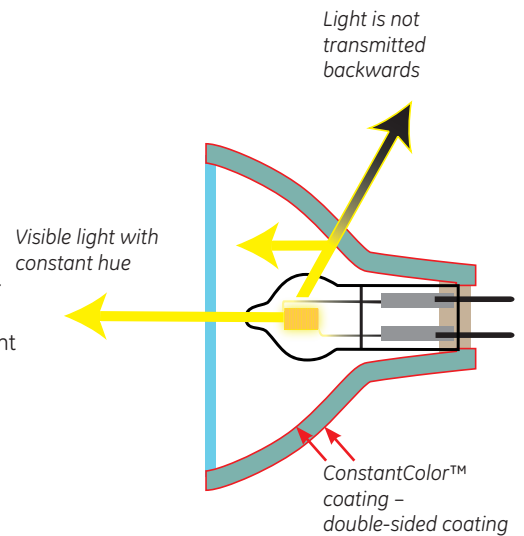
Environmentally friendly with no lead or mercury

ConstantColor™ – bright colour display throughout product life

GE ConstantColor™ halogen lamps have a unique glass reflector coating technology that provide consistent colour performance throughout their rated life.

It is GE's Thin Film Technology that makes this possible. Colour performance of MR16 lamps largely depends on the quality of the reflector coating used. Conventional halogen products utilize reflector coating that is gradually degraded by the heat emitted by the filament. Unlike any other product on the market, the GE ConstantColor™ MR16 IR lamp coated with durable titania and silica oxides withstand temperatures of 500°C without a change in reflector qualities. The result is close to 90% maintained light output over life and identical colour temperature from lamp to lamp. With coating applied to both inside and outside the reflector, wasted backlight is virtually eliminated. The small amount of light that does escape through the reflector is a consistent hue which will not vary from lamp to lamp through life, ensuring replacements do not appear different from existing lamps.

Excess heat is handled the opposite way. The coating allows 66% of the infrared light (i.e. heat) to pass through the back of the reflector, so that it is not projected onto displays.



The benefits of Precise™ ConstantColor™ IR

All the benefits of Precise™ IR

&

- Constant, dependable colour output throughout its 5000 hours life
- Eliminates backlight
- Long-term reliability
- Precise optical control
- Close to 90% lumen maintenance
- Evenly lit surfaces



Precise™ ConstantColor™ MR16 IR

Second coating of 'Titania and Silica' on rear of reflector reduces transmitted light. Infrared light is still efficiently transmitted, giving the cool beam effect.

Standard MR16

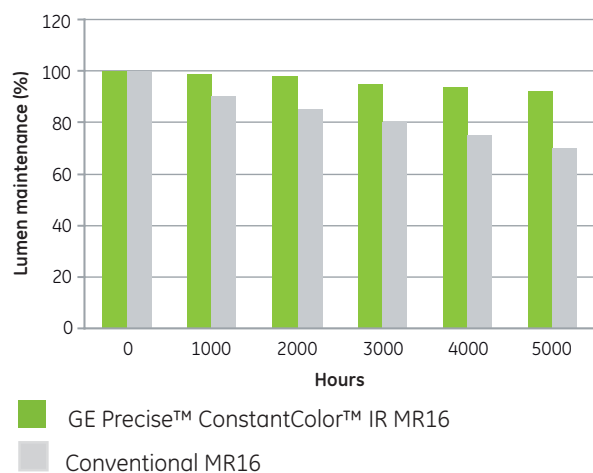
Light emerging from the rear is wasted.

The lighting scheme colour will not change through life

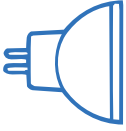


Lumen maintenance

- Close to 90% lumen maintenance over life
- Conventional coating can lose one third lumens over life



Specifying Precise™ MR16 IR



Wattage [W]	Volts [V]	Cap	Product Description	Candela [cd]	Beam Angle [°]	CCT [K]	Life [h]	Diameter [mm]	Length [mm]	Box Packaging		Blister Packaging	
										Pack Qty	Product Code	Pack Qty	Product Code

Precise™ MR16 IR

20	12	GU5.3	MR16 IR 20W 12V WFL	1000	36	2900	5000	50.7	50.5	10	77657	10	77659
30	12	GU5.3	MR16 IR 30W 12V WFL	1600	36	2950	5000	50.7	50.5	10	62163	-	-
35	12	GU5.3	MR16 IR 35W 12V WFL	2000	36	2950	5000	50.7	50.5	10	77658	10	77670

Precise™ ConstantColor™ MR16 IR

20	12	GU5.3	Q20MR16HIR/CCG10	6000	10	2900	5000	50.7	50.5	20	77900	-	-
20	12	GU5.3	Q20MR16HIR/CCG24	2300	24	2900	5000	50.7	50.5	20	77901	-	-
20	12	GU5.3	Q20MR16HIR/CCG36	1000	36	2900	5000	50.7	50.5	20	77902	-	-
30	12	GU5.3	Q30MR16HIR/CCG10	10000	10	2950	5000	50.7	50.5	20	79584	-	-
30	12	GU5.3	Q30MR16HIR/CCG24	3350	24	2950	5000	50.7	50.5	20	79585	-	-
30	12	GU5.3	Q30MR16HIR/CCG36	1600	36	2950	5000	50.7	50.5	20	79586	-	-
35	12	GU5.3	Q35MR16HIR/CCG10	12000	10	2950	5000	50.7	50.5	20	77904	-	-
35	12	GU5.3	Q35MR16HIR/CCG24	4200	24	2950	5000	50.7	50.5	20	77905	-	-
35	12	GU5.3	Q35MR16HIR/CCG36	2000	36	2950	5000	50.7	50.5	20	77906	-	-
45	12	GU5.3	Q45MR16HIR/CCG10	14000	10	3000	5000	50.7	50.5	20	77907	-	-
45	12	GU5.3	Q45MR16HIR/CCG24	5200	24	3000	5000	50.7	50.5	20	77908	-	-
45	12	GU5.3	Q45MR16HIR/CCG36	2300	36	3000	5000	50.7	50.5	20	77909	-	-

