

TRU-AIM® MR11 & MR16 FAMILY

Low Voltage Halogen Lamps



- Four families of MR16 lamps to meet the need of virtually any application
- Bright, crisp light throughout lamp life
- UV-filter capsules reduce UV-radiation up to 90%
- Up to 5000-hour average rated life
- Exceptional reflector and filament design provides a superior, smooth beam pattern
- GU4 and GU5.3 base for a solid socket connection

ECOLOGIC® is a comprehensive program of OSRAM SYLVANIA focused on addressing environmental issues at all stages of lamp life.



SYLVANIA's TRU-AIM family of halogen MR16 and MR11 reflector lamps provides a wide variety of extremely compact and highly directional light sources.

TRU-AIM IR MR16

- 5000 hour life
- Exclusive MR16 IR technology – lowers energy consumption compared to standard MR16 lamps
- Hard dichroic reflector – consistent color throughout life
- Cover lens for use in unshielded fixtures

TRU-AIM TITAN® MR11 and MR16

- 4000 hour life
- Hard coated dichroic reflector – consistent color throughout life
- Transmits heat through back of lamp
- Cover lens for use with unshielded fixtures

TRU-AIM BRILLIANT MR16

- Aluminized reflector – consistent color throughout life
- Transmits heat through front of lamp
- 4000 hour life

TRU-AIM MR16

- Economical dichroic reflector
- Transmits heat through back of lamp
- 2000 hour life
- Cover lens for use with unshielded fixtures

Product Availability

Product	Beam Angle			
	20W	35W	50W	65W
TRU-AIM MR11 TITAN	SP 10° FL 35°	SP 10° FL 35°		
TRU-AIM MR16	NSP 10° FL 35°	NSP 10° NFL 25° FL 35°	NSP 10° NFL 25° FL 35° VWFL 60°	
TRU-AIM MR16 BRILLIANT	SP 10° FL 35°	NSP 10° FL 35°	NSP 10° NFL 25° FL 35°	
TRU-AIM MR16 TITAN	NSP 10° FL 35° VWFL 60°	NSP 10° NFL 25° FL 35° VWFL 60°	NSP 10° NFL 25° FL 35° VWFL 60°	NSP 10° NFL 25° FL 35°
Product	20W	37W	50W	
TRU-AIM MR16 IR	NSP 10° NFL 25° FL 35° WFL 60°	NSP 10° NFL 25° FL 35° WFL 60°	NSP 10° NFL 25° FL 35° WFL 60°	

Sample Specification

Lamp(s) shall be (a) 12V TRU-AIM___(Standard, BRILLIANT, TITAN or IR) halogen lamp(s) with a UV filter capsule, an axial filament, a ___ (consistent color-hard dichroic, semi-hard coat dichroic or aluminized) reflector. Lamp(s) shall be ___ (20, 35, 37, 50 or 65) watts with a ___ (SP, NFL, FL or VWFL) beam spread.

Application Information

Applications

Highlight merchandise
Accent / display lighting
Highlight heat sensitive merchandise
High end retail
Art galleries
Hotels, restaurants
Decorative room lighting
Ambient lighting

Fixture Availability

Track
Strips for case lighting
Adjustable downlighting
Landscape lighting
Recessed lighting

Application Notes

TITAN

- The best choice when constant crisp white light is required.
- Hard dichroic coating makes these lamps ideal for heat sensitive merchandising.
- UV filter capsule reduces fading on UV-sensitive merchandising and art.

IR

- MR16 IR lamps offer a reduction in energy consumption.
- All the technical advantages and performance of the 50W TRU-AIM TITAN for only 37 watts. The 50W TRU-AIM IR lamp is a replacement for 65W or 71W consistent color reflector lamps.

BRILLIANT

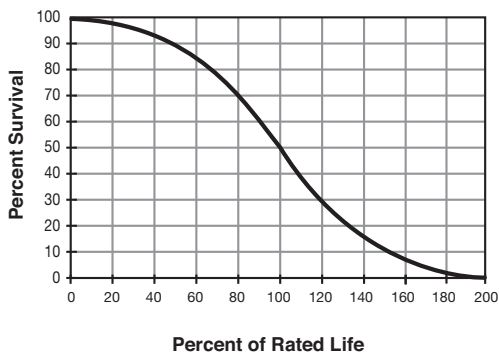
- Prevents fixtures overheating, short transformer life and socket problems.
- At a 5-foot distance the temperature of the beam is the same as dichroic coated lamps.
- UV filter capsule reduces fading on UV-sensitive merchandising and art.

MR11/STANDARD

- A cost competitive product that provides a smooth, even beam.
- UV filter capsule reduces fading on UV-sensitive merchandising and art.

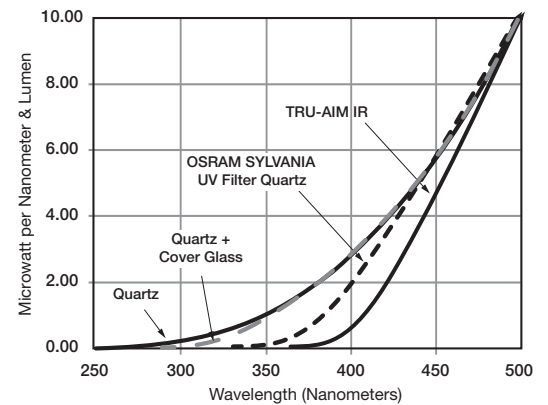
Technical Information

Mortality Curve



This chart shows the expected percentage of lamp failures based on percentage of rated life.

UV-Transmission Curves of Quartz Halogen Capsules



The UV filter quartz capsule in TRU-AIM lamps reduces UV radiation.

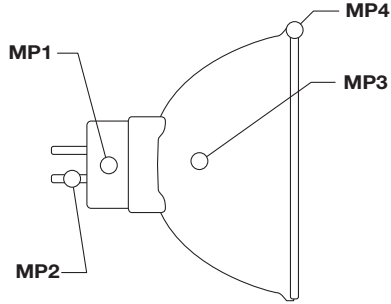
Ordering and Specification Information

	Item Number	Ordering Abbreviation	Watts	Volts	Base	Average Rated Life (hrs.)	CBCP (cd)	Beam Angle
TITAN MR11	55133	20MR11/T/SP10/C/FTB	20	12	GU4	4000	4000	10
	55134	20MR11/T/FL35/C/FTD	20	12	GU4	4000	700	35
	55135	35MR11/T/SP10/C/FTE	35	12	GU4	4000	6200	10
	55136	35MR11/T/FL35/C/FTH	35	12	GU4	4000	1350	35
Standard MR16	54305	20MR16/NSP10/ESX/C	20	12	GU5.3	2000	3000	10
	54306	20MR16/FL35/BAB/C	20	12	GU5.3	2000	510	35
	54307	35MR16/NSP10/FRB/C	35	12	GU5.3	2000	6000	10
	58322	35MR16/NFL25/FRA/C	35	12	GU5.3	2000	2000	25
	58324	35MR16/FL35/FMW/C	35	12	GU5.3	2000	1000	35
	58325	50MR16/NSP10/EXT/C	50	12	GU5.3	2000	7800	10
	58326	50MR16/NFL25/EXZ/C	50	12	GU5.3	2000	2800	25
	58327	50MR16/FL35/EXN/C	50	12	GU5.3	2000	1450	35
	58328	50MR16/VWFL60/FNV/C	50	12	GU5.3	2000	690	60
	BRILLIANT MR16	58314	20MR16/B/NSP10	20	12	GU5.3	4000	5000
58315		20MR16/B/FL35	20	12	GU5.3	4000	700	35
58316		35MR16/B/NSP10	35	12	GU5.3	4000	9100	10
58317		35MR16/B/FL35	35	12	GU5.3	4000	1100	35
58319		50MR16/B/NSP10	50	12	GU5.3	4000	11500	10
58320		50MR16/B/NFL25	50	12	GU5.3	4000	4400	25
58321		50MR16/B/FL35	50	12	GU5.3	4000	1800	35
TITAN MR16		58300	20MR16/T/NSP10/ESX/C	20	12	GU5.3	4000	5000
	58301	20MR16/T/FL35/BAB/C	20	12	GU5.3	4000	780	35
	58302	20MR16/T/VWFL60/C	20	12	GU5.3	4000	350	60
	58303	35MR16/T/NSP10/FRB/C	35	12	GU5.3	4000	9100	10
	58304	35MR16/T/NFL25/C	35	12	GU5.3	4000	3100	25
	58305	35MR16/T/FL35/FMW/C	35	12	GU5.3	4000	1500	35
	58306	35MR16/T/VWFL60/C	35	12	GU5.3	4000	700	60
	58307	50MR16/T/NSP10/EXT/C	50	12	GU5.3	4000	11500	10
	58308	50MR16/T/NFL25/EXZ/C	50	12	GU5.3	4000	4400	25
	58309	50MR16/T/FL35/EXN/C	50	12	GU5.3	4000	2200	35
	58310	50MR16/T/VWFL60/FNV/C	50	12	GU5.3	4000	1100	60
	58311	65MR16/T/NSP10/FPA/C	65	12	GU5.3	4000	14000	10
	58312	65MR16/T/NFL25/C	65	12	GU5.3	4000	5600	25
	58313	65MR16/T/FL35/FPB/C	65	12	GU5.3	4000	2800	35
	IR MR16	58531	20MR16/IR/SP10/C	20	12	GU5.3	5000	6000
58532		20MR16/IR/NFL25/C	20	12	GU5.3	5000	2300	25
58533		20MR16/IR/FL35/C	20	12	GU5.3	5000	1000	35
58838		20MR16/IR/WFL60/C	20	12	GU5.3	5000	450	60
58641		37MR16/IR/SP10/C	37	12	GU5.3	5000	12500	10
58634		37MR16/IR/NFL25/C	37	12	GU5.3	5000	4400	25
58633		37MR16/IR/FL35/C	37	12	GU5.3	5000	2200	35
58837		37MR16/IR/WFL60/C	37	12	GU5.3	5000	1100	60
54175		50MR16/IR/SP10/C	50	12	GU5.3	5000	15000	10
54174		50MR16/IR/NFL25/C	50	12	GU5.3	5000	5700	25
54173		50MR16/IR/FL35/C	50	12	GU5.3	5000	2850	35
54237		50MR16/IR/WFL60/C	50	12	GU5.3	5000	1430	60

Ordering Guide

50	MR	16	/	T	/	SP	10	/	C
Wattage	Multifaceted Reflector	Diameter		Type		Beam Spread	Beam Angle		Covered
		11 = 11/8"		IR = Infrared Capsule		NSP	10°		
		16 = 16/8"		B = Aluminized Reflector		SP	20°		
				T = Hard Dichroic Reflector		NFL	25°		
				__ = Standard Reflector		FL	35°		
						WFL, VWFL	60°		

Thermal Performance



Temperature measurements were made in open air with an ambient temperature of 25°C (77°F) using a Bender & Worth 884 socket. Temperature measurements are provided for reference only.

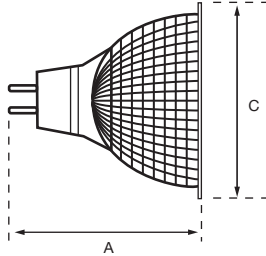
	Press	Pin	Reflector	Rim
Measurement Point	MP1	MP2	MP3	MP4
Max Allowed	370°C	250°C*	—	240°C*
20W TITAN	160°C	110°C	120°C	110°C
20W IR	170°C	125°C	125°C	115°C
35W TITAN	230°C	150°C	140°C	140°C
37W IR	270°C	170°C	160°C	145°C
50W TITAN	295°C	195°C	165°C	160°C
50W IR	325°C	220°C	200°C	180°C

*20W Max is 220°C

* Covered lamps ONLY

50 watt TRU-AIM® IR MR16 lamps should not be used in semi-enclosed or enclosed fixtures that will inhibit air flow in the neck area or in sockets that will inhibit air flow in this area (MP1 above). Infrared conserving halogen capsules recycle their heat by using a coating on the outside of the halogen capsule. Because of this, all the recycled heat must pass through the capsule glass twice, and the IR capsule will operate at a higher temperature than a standard halogen capsule of the same wattage would. Due to this additional heating, 50W TRU-AIM IR MR16 lamps may have short lamp life when the neck of the lamp is not well ventilated, and should not be used as a direct replacement for standard 50W MR16 lamps.

Dimensions



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	MOL (A)	Max. Length w/o Pins (B)	Max. Diameter (C)	Max. Pin Spacing (D)
TRU-AIM MR16	1¾"	1½"	2"	7/32" (5.33mm)
TRU-AIM MR11	1¼"	1⅛"	1¾"	5/32" (4mm)