

# TRU-AIM® IR™ MR16

## Low Voltage Halogen Lamps



- All the technological advances of standard MR16's with significant reduction in energy consumption
- Bright, crisp light throughout lamp life
- A high efficacy directional lamp which combines IR technology with a hard coated dichroic reflector for consistent color throughout life
- UV-control capsule combined with IR coating eliminates UV-B and UV-C radiation
- 4000-hour average rated lamp life
- Axial filament for exceptionally smooth beam pattern
- GU 5.3 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 Exclusive TRU-AIM® IR MR16 lamps are the first low voltage infrared coated reflector lamps in the industry.**

The high luminous efficacy of the TRU-AIM IR lamp is achieved via thermal recovery. The ellipsoidal tungsten halogen capsule and its special infrared reflective coating ensure that the radiated heat which otherwise would be wasted is reflected back to the lamp filament. Because the heat is recycled within the lamp capsule, less energy is required to bring the filament up to its optimal operating temperature.

### Product Availability

Product	Beam Angle
37W TRU-AIM IR	Narrow Spot 10° Narrow Flood 25°** Flood 40°
50W TRU-AIM IR	Narrow Spot 10° Narrow Flood 25° Flood 40°

\*Available with covered lens

### Application Information

#### Applications

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

#### Application Notes

1. Direct replacement for all standard dichroic MR16s.
  - TRU-AIM MR16 IR lamps offer a reduction in energy consumption or significantly higher luminous intensity.
3. TRU-AIM IR 37W offers all the technical advantages and performance of the 50W TRU-AIM TITAN.
3. The 50W TRU-AIM IR lamp can replace 65W or 71W consistent color reflector lamps.
4. The best choice when constant crisp, white light and energy savings are required.
5. Hard dichroic coating eliminates color shift over the life of the lamp and makes these lamps ideal for heat sensitive merchandising.
6. The elimination of UV-B and UV-C greatly reduces fading on UV-sensitive merchandise and artwork.

#### Fixture Availability

Track  
Strips for case lighting  
Adjustable downlight  
Landscape lighting



**Sample Specification**

**TRU-AIM IR**

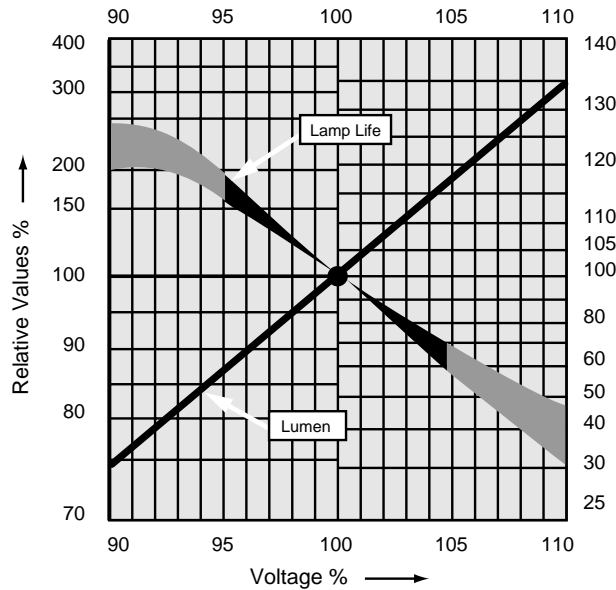
Lamp(s) shall be (a) 12V TRU-AIM IR halogen lamp(s) with a UV-stop capsule, an axial filament, a consistent color, hard dichroic reflector coating, and an infrared reflective coating on the lamp capsule. Lamp(s) shall be (37 or 50) watts with a \_\_ beam spread (NSP, NFL or FL).

**Lamp Comparison**

Item No.	Lamp Type	Beam Angle	Color Temperature (K)	CBCP (cd)
58633	37MR16/IR/FL40	40	3000	2050
	Brand X Q35MR16/C/FL40	40	3000	1000
	Brand X Q50MR16/C/FL40	40	3050	1700
54173	50MR16/IR/FL40	40	3000	2500
	Brand X Q50MR16/C/FL40	40	3050	1700
	Brand X Q71MR16/C/FL40	40	3050	2200

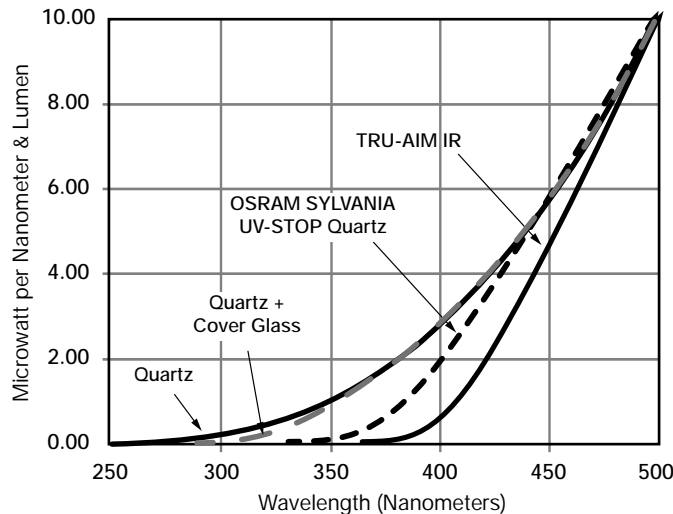
**Technical Information**

**Life/Lumen-Volt Characteristic**



This chart shows that increasing the operating voltage above the rated value increases the light output but significantly reduces lamp life. On the other hand, reducing operating voltage increases lamp life, but reduces light output and energy efficacy.

**UV-Transmission Curves of Quartz Halogen Capsules**



TRU-AIM IR lamps eliminate UV-B and UV-C radiation.

## Footcandle

TRU-AIM® IR lamps are available in three ranges of beam angles to meet the demand of virtually any display or accent lighting application. For each TRU-AIM IR lamp, this table shows how lamp output — in candelas — varies as a function of distance.

### 37W TRU-AIM IR

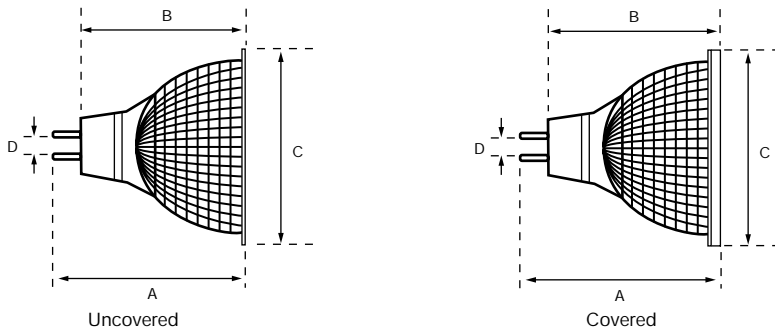
Distance from Source (in ft.)	10° NSP		24° NFL		38° FL	
	Diameter (in ft.)	Center FC	Diameter (in ft.)	Center FC	Diameter (in ft.)	Center FC
0'		50W		50W		50W
3'	0.5	1278	1.3	489	2.2	244
6'	1.0	319	2.6	122	4.4	61
9'	1.6	142	3.8	54	6.6	27
12'	2.1	80	5.1	31	8.7	15
15'	2.6	51	6.4	20	10.9	10

### 50W TRU-AIM IR

Distance from Source (in ft.)	10° NSP		24° NFL		38° FL	
	Diameter (in ft.)	Center FC	Diameter (in ft.)	Center FC	Diameter (in ft.)	Center FC
0'		50W		50W		50W
3'	0.5	1667	1.3	567	2.2	278
6'	1.0	417	2.6	142	4.4	69
9'	1.6	185	3.8	63	6.6	31
12'	2.1	104	5.1	35	8.7	17
15'	2.6	67	6.4	23	10.9	11

Distance and diameter are measured in feet. Candle power distribution curves are available on disc in IES format. Please contact your commercial engineer.

## Dimensions



	MOL (A)	Max. Length w/o Pins (B)	Max. Diameter (C)	Max. Pin Spacing (D)
TRU-AIM IR	1.77"	1.50"	2"	0.16"
TRU-AIM IR Covered	1.92"	1.65"	2"	0.16"

## Quartz IR Capsule



The ellipsoidal tungsten halogen capsule has been designed to allow optimal reflection of infrared energy back to the filament. The filament has been axially aligned between the focal points of the ellipsoidal capsule and features a return lead wire which runs back down the center of the filament to optimize infrared reflection and to avoid photometric interference. Xenon fill gas in the burner also contributes to the increase in luminous intensity and efficacy.

### Ordering and Specification Information

Item Number	Ordering Abbreviation	Watts	Volts	Base	Avg. Rated Life	CBCP (cd)	Beam Angle
58641	37MR16/IR/NSP10	37	12	GU5.3	4000	11,500	10
58634	37MR16/IR/NFL25	37	12	GU5.3	4000	3500	25
58564	37MR16/IR/NFL25/C	37	12	GU5.3	4000	3500	25
58633	37MR16/IR/FL40	37	12	GU5.3	4000	2050	40
54175	50MR16/IR/NSP10	50	12	GU5.3	4000	15,000	10
54174	50MR16/IR/NFL25	50	12	GU5.3	4000	5100	25
54173	50MR16/IR/FL40	50	12	GU5.3	4000	2500	40

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### Ordering Guide

37	MR	16	/	IR	/	SP	10	/	C
Wattage	Multifaceted	Diameter		Type		Beam Spread	Beam Angle		Covered
37W/50W	Reflector	16=16/8		Infrared		NSP=Narrow Spot	10°		
						NFL= Narrow Flood	25°		
						FL=Flood	40°		