

Product Information Bulletin

# TRU-AIM® MR11 & MR16 FAMILY

## Low Voltage Halogen Lamps



- Six families of MR16 lamps to meet the need of virtually any application
- Bright, crisp light throughout lamp life
- UV-control capsule reduces UV-radiation up to 90%
- Superior lamp life: up to 6000-hour
- Exceptional reflector and filament design provides 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.



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SYLVANIA's TRU-AIM® family of halogen MR16 and MR11 reflector lamps provides the widest variety of extremely compact and highly directional light sources in the industry.

### TRU-AIM IR MR16

- Exclusive MR16 IR technology – increases light output or lowers energy consumption
- Hard dichroic reflector – consistent color over life
- Transmits heat through back of reflector

### TRU-AIM TITAN XP MR16

- Superior 6000-hour lamp life
- Hard coated dichroic reflector – consistent color over life
- Transmits heat through back of reflector

### TRU-AIM TITAN MR16

- Hard coated dichroic reflector – consistent color over life
- Transmits heat through back of lamp

### TRU-AIM Brilliant MR16

- Aluminized reflector – consistent color over life
- Transmits heat through front of lamp

### TRU-AIM Standard MR11 and MR16

- Economical dichroic reflector
- Transmits heat through back of lamp

### Product Availability

Product	Beam Angle			
	20W	35W	50W	65W
TRU-AIM MR11	SP 10° FL 35°	SP 10° FL 40°		
TRU-AIM MR16 STANDARD	NSP 8° FL 40°	NSP 8° SP 20° FL 40°	NSP 12° NFL 25° FL 40° WWFL 60°	NSP 10° NFL 25° FL 40°
TRU-AIM MR16 BRILLIANT	SP 8° FL 35°	NSP 10° FL 35°	NSP 11° NFL 25° FL 35°	NSP 10° NFL 25° FL 35°
TRU-AIM MR16 TITAN	NSP 10° FL 40° WWFL 60°	NSP 10° NFL 25°* FL 40°	NSP 10° NFL 25° FL 40° WWFL 60°	NSP 10° NFL 25° FL 40° WWFL 60°
TRU-AIM MR16 TITAN XP			NSP 10° NFL 25° FL 40° WWFL 60°	
TRU-AIM MR16 IR 37W & 50W		NSP 10° NFL 25° FL 40°	NSP 10° NFL 25°* FL 40°	

\*Available with covered lens



### Sample Specification

TRU-AIM Lamp(s) shall be (a) 12V TRU-AIM\_\_\_(Standard, Brilliant, Titan, Titan XP or IR) halogen lamp(s) with a UV-control capsule, an \_\_\_(axial or transverse) 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 \_\_\_ (NSP, SP, NFL, FL or VWFL) beam spread.

## Lamp Comparison

OSRAM SYLVANIA	Brand X	Brand Y
TRU-AIM MR11	STANDARD MR11 (uncovered only)	Continuum Pro MRC-11 (20W only)
TRU-AIM MR16 STANDARD	No competitive product available	Continuum MR16 (20W, 50W, 73W only)
TRU-AIM MR16 BRILLIANT	No competitive product available	Continuum Pro MRC-16 (50W only)
TRU-AIM MR16 TITAN	CONSTANT COLOR Precise	Continuum Color MRC-16 (20W and 50W)
TRU-AIM MR16 TITAN XP	CONSTANT COLOR Precise	No competitive product available
TRU-AIM MR16 IR	No competitive product available	No competitive product available

## 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-control capsule reduces fading on UV-sensitive merchandising and art.

#### TITAN XP

- Same technical performance of TRU-AIM Titan but with superior 6000-hour lamp life.

#### IR

- MR16 IR lamps offer a reduction in energy consumption or significantly higher luminous intensity.
- 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

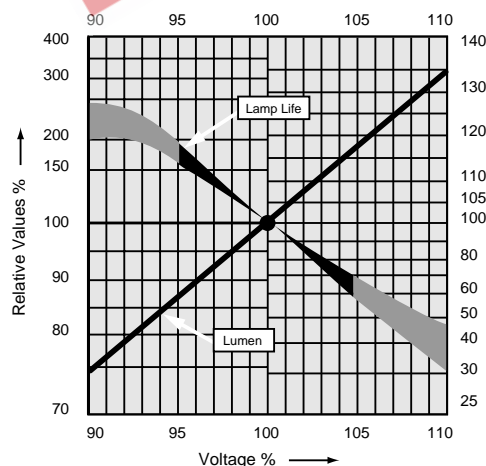
- Prevents fixtures overheating, short transformer life and socket problems.
- At a 5-foot distance the temperature of the beam is the same as dichroic coated lamps.
- UV-control capsule reduces fading on UV-sensitive merchandising and art.

#### MR11/STANDARD

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

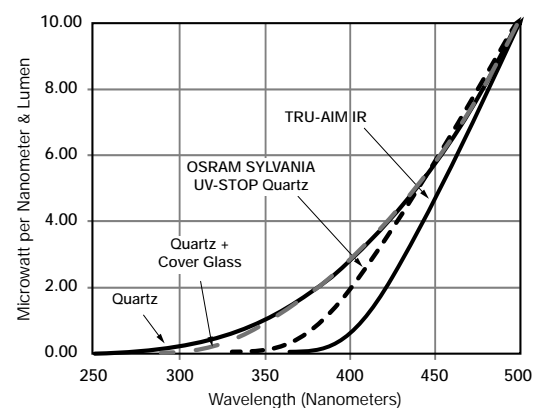
## Technical Information

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



The UV-control 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	
TRU-AIM MR11	55109	20MR11/SP10	20	12	GU4	3000	5500	10	
	55107	20MR11/FL35	20	12	GU4	3000	700	35	
	55113	35MR11/SP10	35	12	GU4	3000	8500	10	
	55111	35MR11/FL40	35	12	GU4	3000	1500	40	
Covered MR11	55119	20MR11/FL35/C	20	12	GU4	3000	700	35	
	55122	35MR11/SP10/C	35	12	GU4	3000	8500	10	
TRU-AIM STANDARD	54201	20MR16/NS/8	20	12	GU5.3	4000	6000	8	
	54200	20MR16/FL40	20	12	GU5.3	4000	700	40	
	54204	35MR16/NSP8	35	12	GU5.3	4000	11,000	8	
	54202	35MR16/SP20	35	12	GU5.3	4000	2800	20	
	54203	35MR16/FL40	35	12	GU5.3	4000	1400	40	
	54208	50MR16/NSP12	50	12	GU5.3	4000	11,000	12	
	54205	50MR16/NFL25	50	12	GU5.3	4000	3200	25	
	54207	50MR16/FL40	50	12	GU5.3	4000	2000	40	
	54206	50MR16/VWFL60	50	12	GU5.3	4000	1200	60	
	58563	65MR16/NSP10	65	12	GU5.3	4000	14,000	10	
	58565	65MR16/NFL25	65	12	GU5.3	4000	4000	25	
	58564	65MR16/FL40	65	12	GU5.3	4000	2100	40	
	TRU-AIM BRILLIANT	58589	20MR16/B/NSP8	20	12	GU5.3	4000	4650	8
		58590	20MR16/B/FL35	20	12	GU5.3	4000	625	35
		58591	35MR16/B/NSP10	35	12	GU5.3	4000	8700	10
		58593	35MR16/B/FL35	35	12	GU5.3	4000	1300	35
58594		50MR16/B/NSP11	50	12	GU5.3	4000	10,500	11	
58595		50MR16/B/NFL25	50	12	GU5.3	4000	3000	25	
58596		50MR16/B/FL35	50	12	GU5.3	4000	1900	35	
58559		65MR16/B/NSP10	65	12	GU5.3	4000	12,500	10	
58561		65MR16/B/NFL25	65	12	GU5.3	4000	3600	25	
58560		65MR16/B/FL35	65	12	GU5.3	4000	2100	35	
Covered BRILLIANT		58569	20MR16/B/NSP8/C	20	12	GU5.3	4000	4400	8
		58570	20MR16/B/FL35/C	20	12	GU5.3	4000	600	35
	58574	50MR16/B/NSP11/C	50	12	GU5.3	4000	10,000	11	
	58575	50MR16/B/FL35/C	50	12	GU5.3	4000	1800	35	
TRU-AIM TITAN	58550	20MR16/T/NSP10	20	12	GU5.3	4000	5000	10	
	58551	20MR16/T/FL40	20	12	GU5.3	4000	700	40	
	58562	20MR16/T/VWFL60	20	12	GU5.3	4000	350	60	
	58558	35MR16/T/NSP10	35	12	GU5.3	4000	8300	10	
	58547	35MR16/T/NFL25	35	12	GU5.3	4000	2300	25	
	58557	35MR16/T/FL40	35	12	GU5.3	4000	1250	40	
	58552	35MR16/T/VWFL60	35	12	GU5.3	4000	650	60	
	58556	50MR16/T/NSP10	50	12	GU5.3	4000	11,500	10	
	58555	50MR16/T/NFL25	50	12	GU5.3	4000	3200	25	
	58554	50MR16/T/FL40	50	12	GU5.3	4000	2000	40	
	58553	50MR16/T/VWFL60	50	12	GU5.3	4000	1000	60	
	58566	65 MR16/T/NSP10	65	12	GU5.3	4000	14,000	10	
	58567	65MR16/T/NFL25	65	12	GU5.3	4000	4000	25	
	58571	65MR16/T/FL40	65	12	GU5.3	4000	2100	40	
	58572	65MR16/T/VWFL60	65	12	GU5.3	4000	1050	60	
	Covered TITAN	58549	35MR16/T/NFL25/C	35	12	GU5.3	4000	1650	25
TRU-AIM MR16 TITAN XP	58541	50MR16/T/XP/NSP10	50	12	GU5.3	6000	10,000	10	
	58542	50MR16/T/XP/NFL25	50	12	GU5.3	6000	3200	25	
	58543	50MR16/T/XP/FL40	50	12	GU5.3	6000	2000	40	
	58544	50MR16/T/XP/VWFL60	50	12	GU5.3	6000	900	60	
	TRU-AIM MR16 IR	58641	37MR16/IR/NSP10	37	12	GU5.3	4000	11,500	10
		58634	37MR16/IR/NFL25	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	
Covered IR	58564	37MR16/IR/NFL25/C	37	12	GU5.3	4000	3500	25	

## Ordering Guide

50	MR	16	/	T	/	XP	/	SP	10	/	C
Wattage	Metalized Reflector	Diameter 11 = 11/8" 16 = 16/8"		Type IR = Infrared Capsule B = Aluminized Reflector T = Hard Dichroic Reflector		XP Extended Life 600 hr.		Beam Spread Spot NS NF VWF	Beam Angle 8° 10°, 11° 20°, 24°, 25°, 35° 38°, 40°, 60°		Covered

## Footcandle Cones

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

Footcandle cones for the other TRU-AIM® lamps are available in SYLVANIA's beam spread guide.

### 37W TRU-AIM IR

Distance from Source (in ft.)	10° NSP		24° NFL		38° FL	
	Diameter (in ft.)	Center FC 50W	Diameter (in ft.)	Center FC 50W	Diameter (in ft.)	Center FC 50W
0'						
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 50W	Diameter (in ft.)	Center FC 50W	Diameter (in ft.)	Center FC 50W
0'						
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

### 50W TRU-AIM IR

Distance from Source (in ft.)	10° NSP		25° NFL		40° FL		60° VWFL	
	Diameter (in ft.)	Center FC 50W	Diameter (in ft.)	Center FC 50W	Diameter (in ft.)	Center FC 50W	Diameter (in ft.)	Center FC 50W
0'								
3'	0.5	1111	1.3	356	2.2	222	3.5	100
6'	1.0	278	2.7	89	4.4	56	6.9	25
9'	1.6	123	4.0	40	6.6	25	10.4	11
12'	2.1	69	5.3	22	8.7	14	13.9	6
15'	2.6	44	6.7	14	10.9	9	17.3	4

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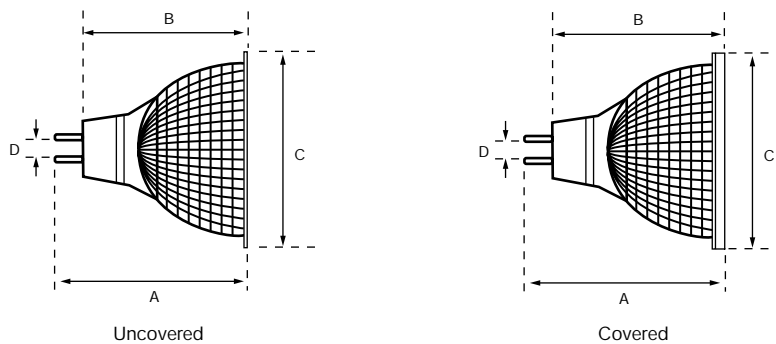
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## Dimensions



	MOL (A)	Max. Length w/o Pins (B)	Max. Diameter (C)	Max. Pin Spacing (D)
TRU-AIM MR16	1.77"	1.50"	2"	0.16"
TRU-AIM MR16 Covered	1.92"	1.65"	2"	0.16"
TRU-AIM MR11	1.45"	1.15"	1.38"	0.16"
TRU-AIM MR11 Covered	1.60"	1.30"	1.38"	0.16"