

# TRU-AIM® MR11 & MR16 Family

## Low Voltage Halogen Lamps



SYLVANIA 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 with 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

## Application Information

### Applications

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

## Key Features & Benefits

- 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 focused on addressing environmental issues at all stages of lamp life.



## Product Offering

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

### Fixture Availability

- Adjustable downlighting
- Landscape lighting
- Recessed lighting
- Strips for case lighting
- Track



## Specification Data

|             |      |
|-------------|------|
| Catalog #   | Type |
| Project     |      |
| Comments    |      |
| Prepared by |      |

## Ordering Information

| Item Number           | Ordering Abbreviation | Watts | Volts | Base  | Beam Angle | Lumens | CBCP (cd) | Average Rated Life | CCT (K) | CRI |
|-----------------------|-----------------------|-------|-------|-------|------------|--------|-----------|--------------------|---------|-----|
| <b>TITAN MR11</b>     |                       |       |       |       |            |        |           |                    |         |     |
| 55133                 | 20MR11/T/SP10/C/FTB   | 20    | 12    | GU4   | 10         | 270    | 4000      | 4000               | 3000    | 100 |
| 55134                 | 20MR11/T/FL/35/C/FTD  | 20    | 12    | GU4   | 35         | 270    | 700       | 4000               | 3000    | 100 |
| 55135                 | 35MR11/T/SP10/C/FTE   | 35    | 12    | GU4   | 10         | 580    | 6200      | 4000               | 3000    | 100 |
| 55136                 | 35MR11/T/FL35/C/FTH   | 35    | 12    | GU4   | 35         | 580    | 1350      | 4000               | 3000    | 100 |
| <b>Standard MR16</b>  |                       |       |       |       |            |        |           |                    |         |     |
| 54305                 | 20MR16/NSP10/ESX/C    | 20    | 12    | GU5.3 | 10         | 250    | 3000      | 2000               | 3000    | 100 |
| 54306                 | 20MR16/FL35/BAB/C     | 20    | 12    | GU5.3 | 35         | 250    | 510       | 2000               | 3000    | 100 |
| 54307                 | 35MR16/NSP10/FRB/C    | 35    | 12    | GU5.3 | 10         | 500    | 6000      | 2000               | 3000    | 100 |
| 58322                 | 35MR16/NFL25/FRA/C    | 35    | 12    | GU5.3 | 25         | 500    | 2000      | 2000               | 3000    | 100 |
| 58324                 | 35MR16/FL35/FMW/C     | 35    | 12    | GU5.3 | 35         | 500    | 1000      | 2000               | 3000    | 100 |
| 58325                 | 50MR16/NSP10/EXT/C    | 50    | 12    | GU5.3 | 10         | 700    | 7800      | 2000               | 3000    | 100 |
| 58326                 | 50MR16/NFL25/EXZ/C    | 50    | 12    | GU5.3 | 25         | 700    | 2800      | 2000               | 3000    | 100 |
| 58327                 | 50MR16/FL35/EXN/C     | 50    | 12    | GU5.3 | 35         | 700    | 1450      | 2000               | 3000    | 100 |
| 58328                 | 50MR16/VWFL60/FNV/C   | 50    | 12    | GU5.3 | 60         | 700    | 690       | 4000               | 3000    | 100 |
| <b>BRILLIANT MR16</b> |                       |       |       |       |            |        |           |                    |         |     |
| 58314                 | 20MR16/B/NSP10        | 20    | 12    | GU5.3 | 10         | 250    | 5000      | 4000               | 3000    | 100 |
| 58315                 | 20MR16/B/FL35         | 20    | 12    | GU5.3 | 35         | 250    | 780       | 4000               | 3000    | 100 |
| 58317                 | 35MR16/B/FL35         | 35    | 12    | GU5.3 | 35         | 500    | 1500      | 4000               | 3000    | 100 |
| 58319                 | 50MR16/B/NSP10        | 50    | 12    | GU5.3 | 10         | 700    | 11,500    | 4000               | 3000    | 100 |
| 58320                 | 50MR16/B/NFL25        | 50    | 12    | GU5.3 | 25         | 700    | 4400      | 4000               | 3000    | 100 |
| 58321                 | 50MR16/B/FL35         | 50    | 12    | GU5.3 | 35         | 700    | 2200      | 4000               | 3000    | 100 |
| <b>TITAN MR16</b>     |                       |       |       |       |            |        |           |                    |         |     |
| 58300                 | 20MR16/T/NSP10/ESX/C  | 20    | 12    | GU5.3 | 10         | 300    | 5000      | 4000               | 3000    | 100 |
| 58301                 | 20MR16/T/FL35/BAB/C   | 20    | 12    | GU5.3 | 35         | 300    | 780       | 4000               | 3000    | 100 |
| 58302                 | 20MR16/T/VWFL60/C     | 20    | 12    | GU5.3 | 60         | 300    | 350       | 4000               | 3000    | 100 |
| 58303                 | 35MR16/T/NSP10/FRB/C  | 35    | 12    | GU5.3 | 10         | 700    | 9100      | 4000               | 3000    | 100 |
| 58304                 | 35MR16/T/NFL25/C      | 35    | 12    | GU5.3 | 25         | 700    | 3100      | 4000               | 3000    | 100 |
| 58305                 | 35MR16/T/FL35/FMW/C   | 35    | 12    | GU5.3 | 35         | 700    | 1500      | 4000               | 3000    | 100 |
| 58306                 | 35MR16/T/VWFL60/C     | 35    | 12    | GU5.3 | 60         | 700    | 700       | 4000               | 3000    | 100 |
| 58307                 | 50MR16/T/NSP10/EXT/C  | 50    | 12    | GU5.3 | 10         | 900    | 11,500    | 4000               | 3000    | 100 |
| 58308                 | 50MR16/T/NFL25/EXZ/C  | 50    | 12    | GU5.3 | 25         | 900    | 4400      | 4000               | 3000    | 100 |
| 58309                 | 50MR16/T/FL35/EXN/C   | 50    | 12    | GU5.3 | 35         | 900    | 2200      | 4000               | 3000    | 100 |
| 58310                 | 50MR16/T/VWFL60/FNV/C | 50    | 12    | GU5.3 | 60         | 900    | 1100      | 4000               | 3000    | 100 |
| <b>IR MR16</b>        |                       |       |       |       |            |        |           |                    |         |     |
| 58531                 | 20MR16/IR/SP10/C      | 20    | 12    | GU5.3 | 10         | 380    | 6000      | 5000               | 3000    | 100 |
| 58532                 | 20MR16/IR/NFL25/C     | 20    | 12    | GU5.3 | 25         | 380    | 2300      | 5000               | 3000    | 100 |
| 58533                 | 20MR16/IR/FL35/C      | 20    | 12    | GU5.3 | 35         | 380    | 1000      | 5000               | 3000    | 100 |
| 58838                 | 20MR16/IR/WFL60/C     | 20    | 12    | GU5.3 | 60         | 380    | 450       | 5000               | 3000    | 100 |
| 58641                 | 37MR16/IR/SP10/C      | 37    | 12    | GU5.3 | 10         | 800    | 12,500    | 5000               | 3000    | 100 |
| 58634                 | 37MR16/IR/NFL25/C     | 37    | 12    | GU5.3 | 25         | 800    | 4400      | 5000               | 3000    | 100 |
| 58633                 | 37MR16/IR/FL35/C      | 37    | 12    | GU5.3 | 35         | 800    | 2200      | 5000               | 3000    | 100 |
| 58837                 | 37MR16/IR/WFL60/C     | 37    | 12    | GU5.3 | 60         | 800    | 1100      | 5000               | 3000    | 100 |
| 54175                 | 50MR16/IR/SP10/C      | 50    | 12    | GU5.3 | 10         | 1100   | 15,000    | 5000               | 3000    | 100 |
| 54174                 | 50MR16/IR/NFL25/C     | 50    | 12    | GU5.3 | 25         | 1100   | 5700      | 5000               | 3000    | 100 |
| 54173                 | 50MR16/IR/FL35/C      | 50    | 12    | GU5.3 | 35         | 1100   | 2850      | 5000               | 3000    | 100 |
| 54237                 | 50MR16/IR/WFL60/C     | 50    | 12    | GU5.3 | 60         | 1100   | 1430      | 5000               | 3000    | 100 |

## Ordering Guide

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

Application Information

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

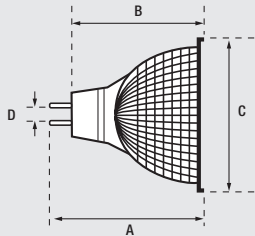
- Prevents fixtures overheating, short transformer life and socket problems.
- At a 5-foot distance the temperature of the beam is the same as dichroic coated lamps.
- UV filter capsule reduces fading on UV-sensitive merchandising and art.

MR11/STANDARD

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

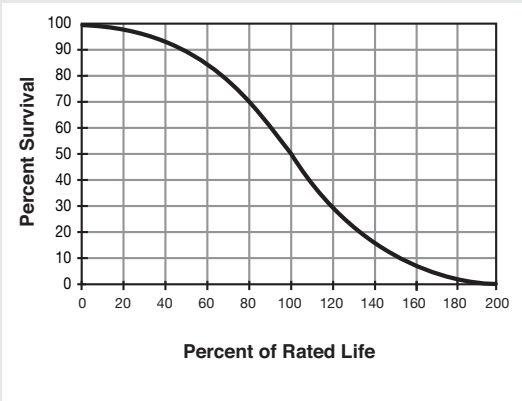
Lamp Dimensions

|              | Maximum Overall Length (A) | Max. Length w/o Pins (B) | Maximum Diameter (C) | Max. Pin Spacing (D) |
|--------------|----------------------------|--------------------------|----------------------|----------------------|
| TRU-AIM MR16 | 1 3/4"                     | 1 1/2"                   | 2"                   | 7/32" (5.33mm)       |
| TRU-AIM MR11 | 1 7/16"                    | 1 1/8"                   | 1 3/8"               | 5/32" (4mm)          |



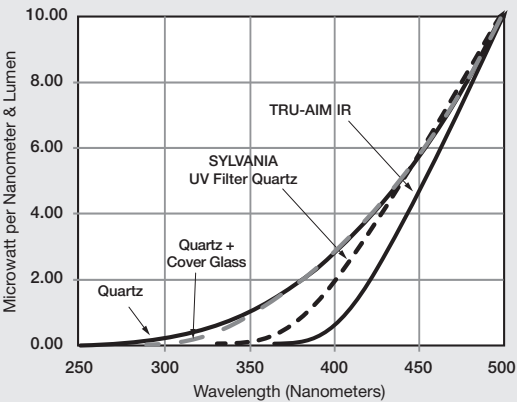
Technical Information

Mortality Curve



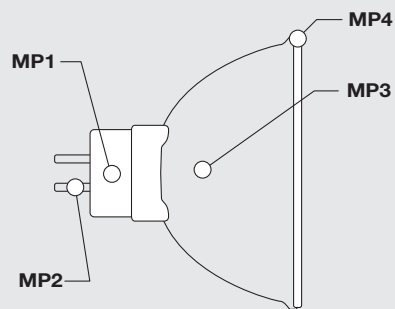
This chart shows the expected percentage of lamp failures based on percentage of rated life.

UV-Transmission Curves of Quartz Halogen Capsules



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

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

The maximum recommended operating temperature for the moly seal (MP1 above) of the 50W TRU-AIM® IR MR16 lamp is 370 degrees C. Using the 50W IR MR16 lamp in a fixture where there is an elevated ambient installation temperature or a socket that inhibits air flow in the neck area of the lamp resulting in a moly seal temperature above 370 degrees C, can lead to short lamp life. 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. 50W IR MR16 lamps should not be used as a direct replacement for standard 50W MR16 lamps.

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.

LEDVANCE LLC  
200 Ballardvale Street  
Wilmington, MA 01887 USA  
Phone 1-800-LIGHTBULB (1-800-544-4828)  
www.sylvania.com

SYLVANIA and LEDVANCE are registered trademarks.  
All other trademarks are those of their respective owners.  
Product Licensee of Trademark SYLVANIA in General Lighting.  
Specifications subject to change without notice.

/sylvania /sylvania

