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VIVA Innovation.

- 1999** Mini Twist 13W
- 2002** Pin Based Ballasted Socket
- 2002** Line Voltage Socket
- 2004** Pin Based integrated CFL
- 2005** Low Profile Spiral Lamps
- 2005** Low Profile Pin Base integrated CFS
- 2006** Integrated Circline Systems
- 2007** Two wire Dimming Solutions





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Energy Star

Line-Voltage Socket Design History

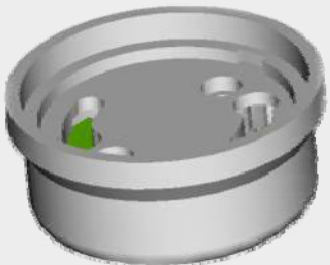
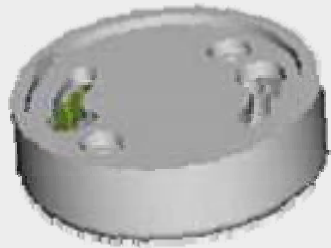
In the event we don't know or can't remember,
The LVS GU24 design and evolution history can
be viewed at:

<http://www.lrc.rpi.edu/programs/lightingTransformation/lineVoltage/index.asp>

Refer to the Final Version of Energy Star Specification,

Residential Light Fixtures Version 4.0, January 10, 2005,

page 30: "Line Voltage Socket Standardization"





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Solutions for Title 24



The California Energy Commission 2005 Building Energy Efficiency Standards (Title 24) went into effect October 2005.

The majority of **permanently installed lighting fixtures for newly built homes and ones to be remodeled must be high efficiency.**

Fixtures with screw based sockets will not be considered as high efficiency fixtures. **All high efficiency fixtures 13W or higher must use electronic ballasts.**

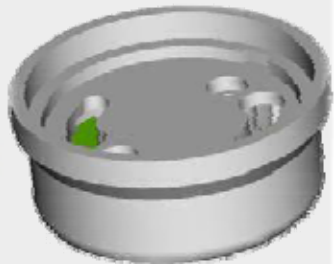
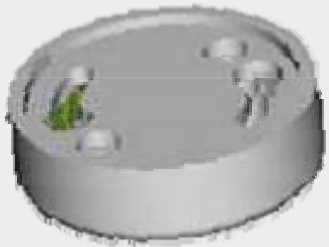
For more information: www.energy.ca.gov/title24/



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The Line Voltage Socket

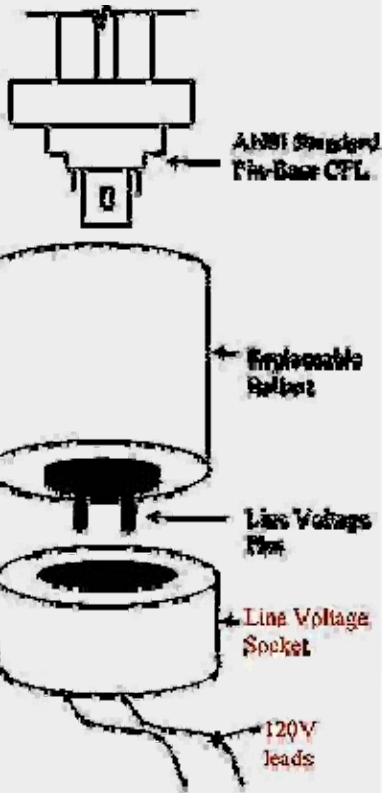
- New additional Designs Currently Available
- Capable of mounting in all categories of Lighting
- Versatile positioning with enhanced light output
- Engineered to support decorative components
- Standard wiring procedures to conform with UL
- Economic solution for inventory & manufacturing
- Convenient ballast replacement
- Meeting all Certification and Agency requirements
- Anticipate ANSI acceptance spring of 2006





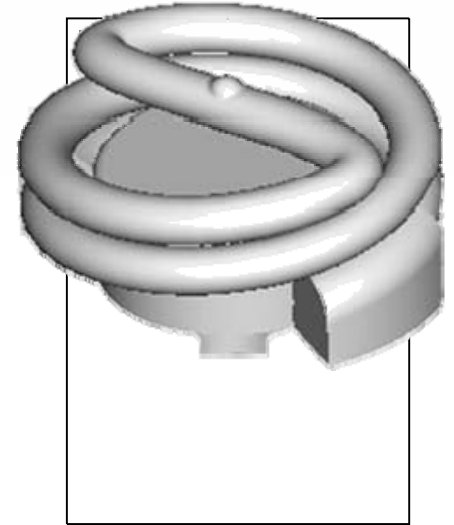
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The Concept



Pin Base GU24 Integrated Socket Ballast

- The Pin Base systems are widely accepted
- 1 million Socket Ballast systems applied in 2005
- 2006 is anticipating doubling the 2005 systems
- Designers are requesting new lamp configurations
- New Pin Base products are being designed
- Existing products redesigned to accept Pin Base
- Manufacturers support the use of Pin Base (GU24)
- GU24 is becoming a basic component in the industry

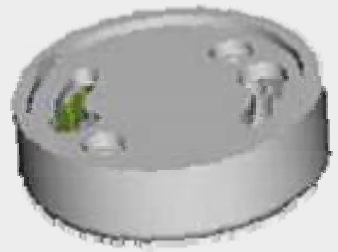




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GU24 (LVS) Socket Ballast Solutions for all applications

Available Wattage range from 10 to 42

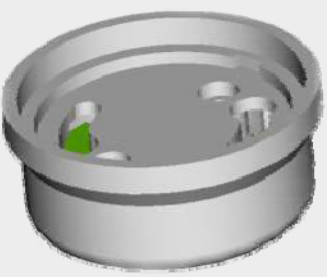


Low Profile



Medium Profile

Standard Profile



High Profile
not shown



Traditional



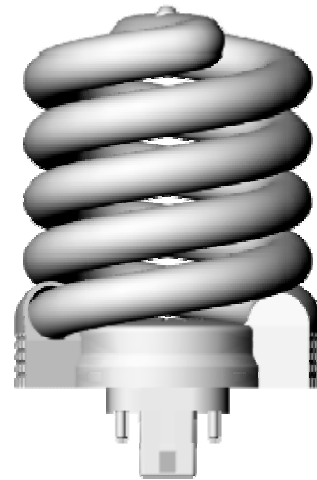
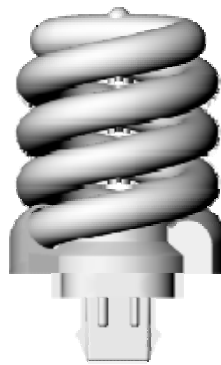
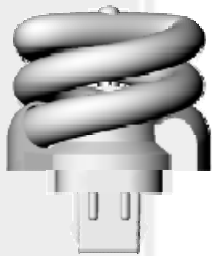
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Lamp Solutions for all GU24 Socket Ballast applications

Available Wattage range from 10 to 42 watts

Super compact as compared to current lamps

All Kelvin Ranges available



Wattage
Length
Diameter

10
44mm
50mm

13
55mm
50mm

18
66mm
50mm

26
71mm
70mm

32
82mm
70mm

42
93mm
70mm



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New Lamps for Integrated Socket Ballast

- Design applications demanded new configurations of CFL lamps
- Lamps that maintained all the required specifications
- Lamps that complemented the integrated Socket Ballast Systems

13 watt MOL 86mm

Diameter 75mm

18 watt MOL 55mm

Diameter 75mm

26 watt MOL 95mm

Diameter 75mm

- New lamps are now available for GU24 Socket Ballast
- Wattage range from 10 to 100 watts
- Various diameters available from 50mm to 80mm
- More compact when compared to similar incandescent wattage



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GU24 Pin Base Integrated Lamp and Ballast

Integrate the Lamp and Ballast to provide an economical solution for the consumer when purchasing replacement components.

Utilize Universal Pin Base Connection to accept all One Piece integrated lamp and Ballast wattages. 13 watt thru 55 watt

Create a simple solution that provides the consumer easy selection of replacement or wattage upgrades.

Provides easy installation of replacements.

Energy Star Version 4.0 Compliant.



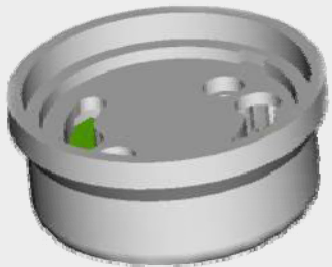
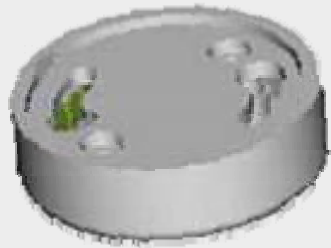


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GU24 (LVS) Integrated Lamp & Ballast Solutions

Available in 13 thru 42 watts in all Kelvin Levels

Currently listed on Energy Star Platforms.



13 watt

Diameter	MOL
55mm	82mm
75mm	50mm



18 watt

Diameter	MOL
55mm	90mm
75mm	55mm



26 watt

Diameter	MOL
75mm	95mm



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GU 24 Line Voltage Socket (LVS) Circline

Energy Star 4.0 Requires ballast be replaced without the cutting of wires.

GU24 (LVS) ballast systems that address this requirement.



Circline Ballast with
Terminal Block



GU24 Line Voltage
Socket



Ballast For T6- 40 watt-70 watt

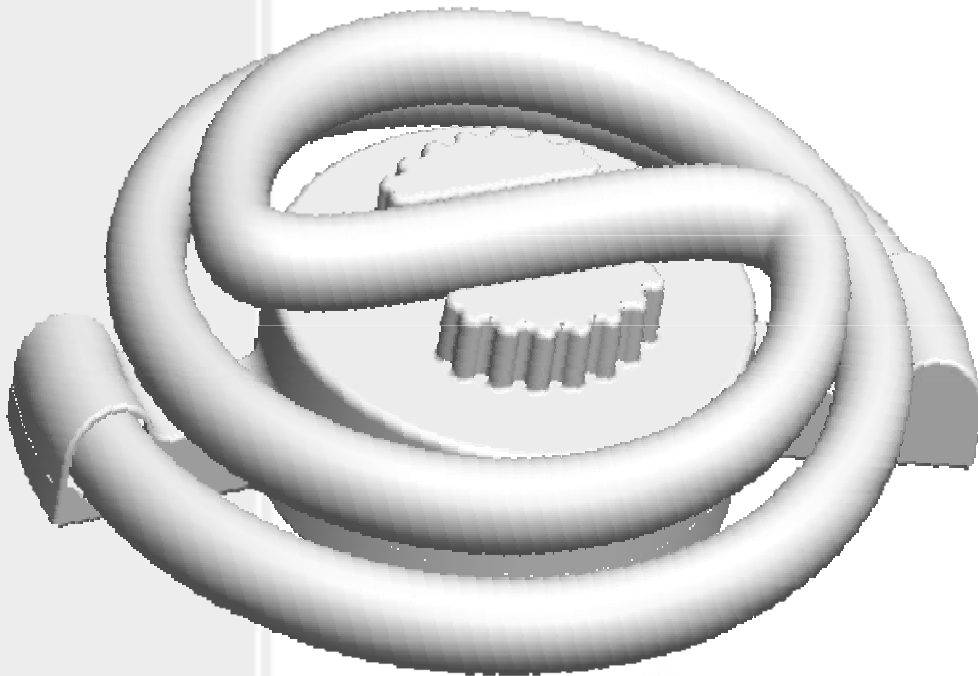
GU24 Circline Ballast



T9-22 watts to 70 watts.

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VIVA Dome Spiral Concept (VDSC) VIVA Dome Spiral System (VDSS)



**Full Spiral Lamps for
applications were more
decorative lamps
are desirable and
Circline is objectionable**

**Wattage range from
26 32 42 55 70 85 100**



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GU24 (LVS) Pin Base has Emerged for all applications

All Solutions are Energy Star Listed



Circline Solutions



Integrated Lamp & Ballast Solutions



Integrated Socket & Ballast Solutions





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The Dimming Solution

Currently Available:

- Remote 55 and 70 Circline full range dimming.
- On board (4 wire) 55 and 70 full range dimming.

Development Currently in Testing:

- Two wire 55 and 70 watt Circline dimming pending Test Completion
- Target availability late fall 2006
- Lower wattages undergoing redesign and testing





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Industry Associates...

- We Thank You for the opportunity to update you on our current and developing programs.
- We welcome all your inquires.
- Contact us! 1-888-898-8184 or @
- viva.solutions@lvcoxmail.com

