

The Consumer Product Safety Commission has documented at least 270 fires (some in dormitory rooms), 114 injuries, and 19 deaths related to halogen torchieres since 1992.



## Light up your life...but NOT with halogen torchiere lamps!

There's not enough light in my dorm room.

The ceiling lights cause glare on my computer screen, and don't work for reading in bed.

Fluorescent lights look institutional and make colors look strange.

I want to be able to vary the light level in my room.

Do any of these statements apply to your situation? Since the mid-1980s, a common solution has been the halogen torchiere lamp. Over 40 million of these lamps have been purchased, hundreds of thousands

by students. Halogen torchiere lamps are attractive, portable, adjustable, and inexpensive to purchase. They provide high quality, bright light without glare, and they are often marketed as "energy efficient". But many universities no longer allow them, and students need to find options. So, what's the fuss about?

The three big problems are:

- ◆ Fire danger
- ◆ Inefficient energy use
- ◆ Environmental costs

### Caring for the Earth

While the purchase price of a halogen torchiere lamp is cheap, the price extracted from our environment is not. Many students are concerned about the environment and want to do their part to help improve it. They may have even purchased halogen torchieres believing them to be "energy-efficient". In fact, the use of halogen torchiere lamps has completely undone all the progress made by compact fluorescent technology in reducing energy consumption (Calwell, 1996). The additional energy required to energize a halogen lamp costs more than just money. The generation of electricity contributes heavily to the accumulation of greenhouse gases in our atmosphere, as well as releasing mercury into the environment.

So, how should I add light to my room? An excellent path some schools have taken is to upgrade the lighting in dorms. Other schools supply students with more efficient lamps or make them available at a reduced price. If your school is not currently providing incentives such as these, perhaps you can encourage the school to do so. In the meantime, you have several options.

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## Use Compact Fluorescent Lamp Torchieres

If you need ambient room light, as well as reading light, the torchiere fixtures may still suit your needs, but choose the compact fluorescent lamp (CFL) instead of halogen. CFLs equivalent to 300-watt halogens operate at 100-200 degrees, use 50-80 watts, and have an efficacy of 60-70 lm/w.<sup>1</sup> The selection and availability of compact fluorescent torchieres is increasing, while prices are decreasing. Recently mass retailers offered "improved" halogen torchieres for twice the price of some 30- 55 watt compact fluorescent versions. The "improvements" were a wire fireguard installed over the bulb and an automatic cut-off switch in case it tips over, but no energy improvements.

## Use Standard Incandescent Torchieres

The least expensive for you, but costliest in energy consumption is to use standard incandescent lamps. Just be sure to turn them off when you're not using them. Replace standard incandescent bulbs with CFLs. A step up is to modify an existing, standard incandescent light fixture (table lamp or torchiere) with a self-ballasted, screw-in CFL.

These lamps burn cool, consume 1/5-1/3 the amount of electricity and have high efficacies. Many sizes, shapes, and wattages are available and the bulbs last years rather than months. It can take some experimenting to find one to fit your fixture, so unwrap them carefully and save the receipt and packaging in case you need to make a return or exchange.

To get equivalent light output, the number of lumens on the CFL should be very close to those of your old bulb; numbers are printed on all the packages now. The cost will be from \$4-\$25, depending on promotions, size, color quality, type of ballast, and whether it is dimmable. If a lamp does not state that it is dimmable, do not put it in a dimming fixture! Color quality should be high to avoid the familiar bluish-green cast of traditional fluorescent lamps. Electronic ballasts tend to be smaller, are lighter weight, have no flicker, and often cost more than magnetic ballasts.

<sup>1</sup> "Efficacy" measures the light output, in lumens (lm), against the energy consumed, in watts (w). When halogens are dimmed, their already low efficacy of 9.9-14.4 lm/w plummets to 1.7-3.2 lm/w.

The EnergyIdeas Clearinghouse provides information on a broad range of energy technologies for customers of Pacific Northwest utilities. EIC provides a searchable website and has a team of energy specialists ready to respond to technical information requests by phone or email. Funded by the Northwest Energy Efficiency Alliance.

Web: <http://www.EnergyIdeas.org>

Regional Hotline: 1-800-872-3568

Email: [info@energyideas.org](mailto:info@energyideas.org)

## Where can I find out more?

**LightSite** is dedicated exclusively to the torchiere lamps.  
<http://www.lightsite.net/main.html>

**ENERGY STAR™ Residential Lighting.** This program promotes ENERGY STAR-qualified lighting products to consumers in the Northwest. Products carrying the ENERGY STAR symbol, which use less energy than competing goods, save money on monthly energy bills and help protect the environment.  
[http://www.energyguide.com/about/ESTAR\\_lighting.asp](http://www.energyguide.com/about/ESTAR_lighting.asp)

**The Lighting Design Lab** offers resources for commercial customers who need help selecting and locating products.  
<http://lightingdesignlab.com>

**The EPA Energy Star** program established minimum energy efficiency standards for a variety of appliances, including fixtures and lamps.  
<http://www.energystar.gov>

**Lawrence Berkeley Labs:**  
<http://eetd.lbl.gov/>BTP/torchiere.html>

**Halogen Torchieres and Alternatives:**  
<http://www.ecosconsulting.com/>

**Brown University's** torchiere site:  
[http://www.brown.edu/Departments/Brown\\_Is\\_Green/energy/torchiere/clepnote.html#Heading19](http://www.brown.edu/Departments/Brown_Is_Green/energy/torchiere/clepnote.html#Heading19)

## References

Calwell, Chris and Teichert, Kurt, "The Campus Lighting Efficiency Project: The Halogen Torchiere Opportunity," 1997

Calwell, Chris, "Halogen Torchieres: Cold Facts and Hot Ceilings," E Source Tech Update, September 1996

Frost, David, Telephone interview, 1998, Housing and Dining Energy Management Coordinator, Stanford University

Peter, Harvey, Email correspondence, 1999, Manager of Housing Major Repairs & Planned Projects, Stanford University

Gould, Scott, Telephone interview, 1999, Energy Engineer, Stanford University

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