



# Communications Material Library

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*[lites.asia](http://lites.asia)*



# Objective

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To provide a library of 'communications materials' related to lighting for domestic, commercial and industrial consumers to enable exchange of experience between countries and potential harmonisation of some items (e.g. equivalence)

# Coverage

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- Training packages
- Consumer information
- Packaging
- Equivalence requirements
- Etc.

# Functionality

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- Searchable database
- Both submitted documents and links to documents on originating agency website
- Information in a number of formats:
  - Word documents
  - Excel spreadsheets
  - PDFs
  - Image files
  - Links to other sites/specific web pages

# Cataloguing documents

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- Short descriptive sentence for each item
- Information 'tagged' by:
  - Country of origination
  - Target audience
  - Content of item
  - Date of information origination
  - Language
  - Type of file/link

# Searching library

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Library

Search

Results

Date of publication: 1 Aug 2010 - 27 Sep 2012

Match:

► Document Type

▼ Target Audience

☐ All

☒ Consumers

☐ Manufacturers

☒ Government/Regulators/Polycymakers

☒ Retailers

☐ Testing laboratories

► Type of publication

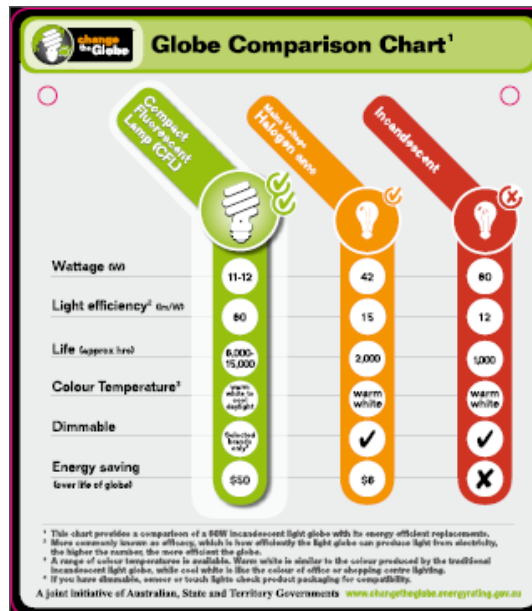
Matching Documents (2)

		Name	Publication Date
#123	PDF	Some Document	21 Sep 2012
#2245	IMG	Some Image	14 Feb 2011

- Database searchable by a combination of these tags or will display all the information items within a particular tag

# For example... Consumer education material

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# For example... packaging images

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# For example... training material

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## The Basics of Efficient Lighting

A Reference Manual for Training in Efficient Lighting Principles  
First Edition, December 2009



**National Framework**  
for Energy Efficiency

ENERGY USE

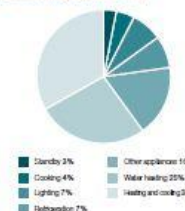
190

6.3 LIGHTING

## Lighting

Household lighting energy use in Australia has been rapidly increasing in recent years due to the construction of larger homes and the installation of more light fittings per home. Most homes could reduce the amount of energy they use for lighting by 50 per cent or more by making smarter lighting choices and moving to more efficient technologies.

Home energy use  
(Baseline Energy Estimates, 2009)



In February 2007 the Australian Government announced plans to phase out inefficient lighting technologies where viable energy efficient alternatives exist by introducing minimum energy performance standards (MEPS).

A range of lighting types are, or will be, required to meet these MEPS and be registered with relevant state regulatory authorities to be legally sold in Australia.

Under the first stage of the phase-out of inefficient incandescent lighting, an import restriction on traditional pear shaped light bulbs used for general lighting services came into effect from 1 February 2009, followed by a sales restriction from 1 November 2009. This sales restriction also applies to compact fluorescent lamps (CFLs) and extra low voltage (ELV) halogen non-reflector lamps that are not compliant with Australian Standards.

Other lamp types were required to meet the Standards from October 2010. The phase-out schedule can be viewed at [www.climatechange.gov.au/what-you-need-to-know/lighting](http://www.climatechange.gov.au/what-you-need-to-know/lighting).

Good lighting is about more than just light levels. The same level of light can provide attractive or ineffective lighting. Some lighting can make rooms feel and feel less even when it's bright. A lighting designer will be able to help you design more effective lighting, but make sure they know you also want an energy efficient system.

- An efficient and effective lighting system will:
- > Provide a high level of visual comfort.
  - > Make use of natural light.
  - > Provide the best light for the task.
  - > Provide controls for flexibility.
  - > Have low energy requirements.

### TYPES OF LIGHTS

#### Incandescent lamps

Incandescent lamps or bulbs have for many years been the most commonly used type of lighting. They work by heating an electric element to white hot. They are inexpensive to buy and are available in a wide range of shapes and sizes, but their running costs are high.

Incandescent lamps are the least energy efficient type of lighting, and are being phased out where ever possible over the next few years.

Almost all of the electrical energy used by incandescent lamps is converted into heat rather than light. Standard incandescent bulbs only last about a thousand hours and must be regularly replaced. Incandescent lamps are most suitable for areas where lighting is used infrequently and for short periods, such as laundries and toilets.

Incandescent spotlights have built-in reflectors that reflect the light forward. Light output decreases over time as some of the tungsten in the filament evaporates and coats the glass bulb.

Halogen lights are also a type of incandescent lamp. The halogen gas in the bulbs prevents evaporated tungsten from depositing on the glass bulb. They are more expensive to buy but last up to four thousand hours. They can be either mains voltage bulbs (240V) or low voltage bulbs (typically used in downlighting).

A number of manufacturers are now producing traditional pear shaped lamps containing a halogen bulb. Although more efficient than traditional incandescent lamps, these still use much more energy than a fluorescent lamp. A 60 Watt standard lamp can be replaced by a 42 Watt halogen or a 12 Watt CFL for the same light output.

Coating fires have increased significantly with the more common use of downlights that penetrate the ceiling. Care must be taken to ensure that minimum clearances around downlights are maintained and that transformers are not underneath the insulation. Whenever possible, avoid recessed light fittings as these are a major source of heat loss. (See: 6.6 Insulation Installation)

Low voltage halogen lamps (commonly known as downlights) are not low energy lamps. While they are slightly more efficient than standard incandescent lamps of the same wattage, large numbers of these lamps are required to light a room because they emit a narrow beam of light. Each downlight also requires a transformer that can consume an additional 10 to 15 Watts on top of the bulb energy.

More efficient electronic transformers are available which use only a few Watts.

Because they are designed to be spot lights, downlights are not appropriate for general room illumination. They are most suitable for highlighting features such as paintings or for task lighting directly over a cooking area or study desk. If using downlights, fit lower wattage and more efficient bulbs. Efficient 35W lamps are available that produce as much light as a standard 60W lamp. You may even be able to replace a 60W lamp with a 20W lamp. Compact fluorescent lamps and LEDs designed for down lighting are an energy efficient alternative that should be considered.

# Discussion

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- Searching the database?
- Additional tags?
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# Discussion cont...

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- Additional material?
  - Training packages
  - Consumer information
  - Packaging
  - Equivalence requirements



Thank you!

