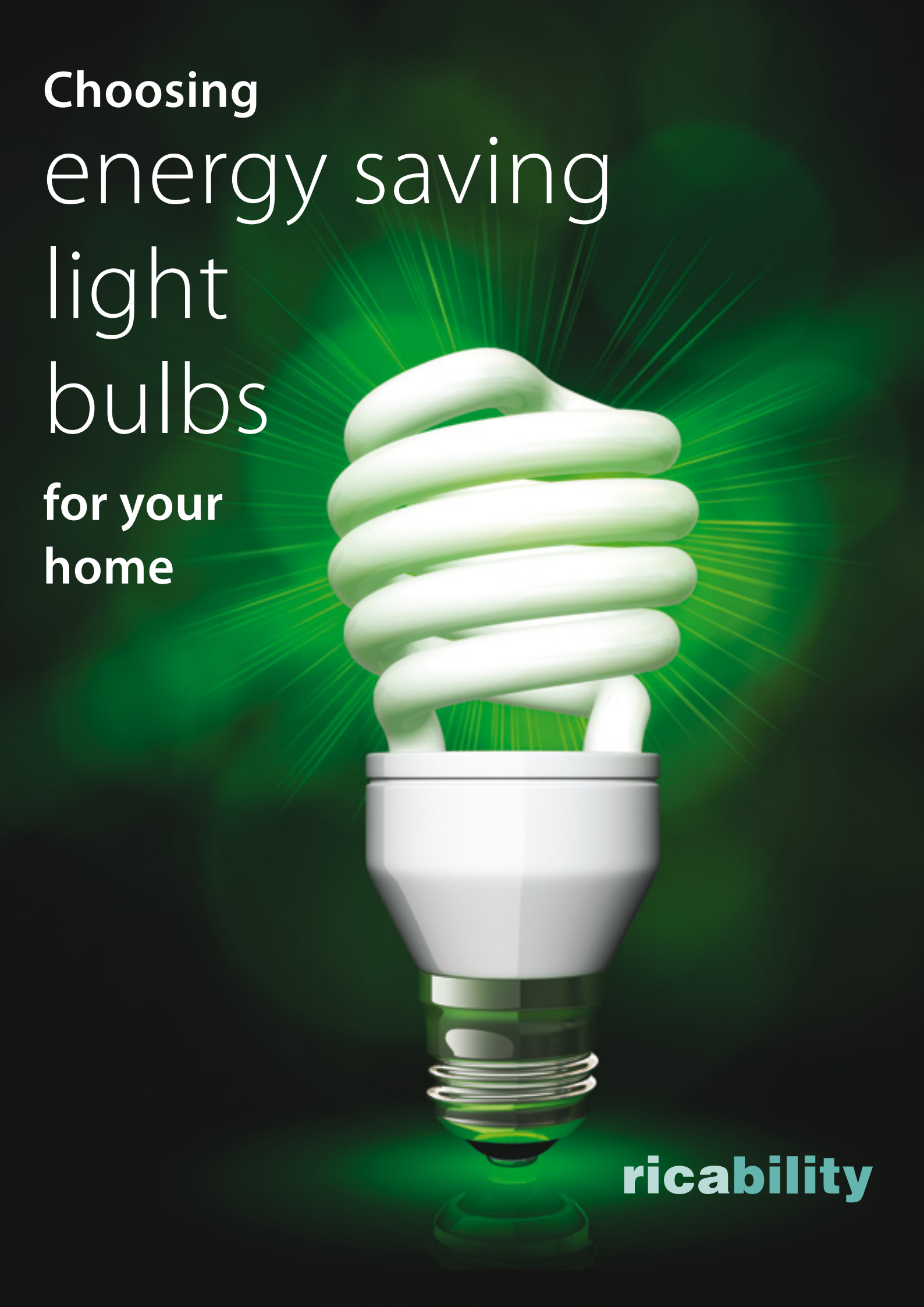
Choosing energy saving light bulbs for your home



ricability

Choosing energy saving light bulbs for your home

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Introduction

Energy saving light bulbs are good for the environment and cheaper to run and they last longer too.

Old-fashioned light bulbs will be withdrawn from sale in September 2012, so you will have to buy energy saving light bulbs after that date.

There were problems with energy saving bulbs when they first came out, but they have improved a lot since then and as the technology has advanced the range of bulbs has grown.

TIPS

Get a new bulb
If you've got a problem with an existing energy saving bulb, just replace it. It may be wearing out, or it may be an early model. You will almost certainly be able to find a bulb that is more suited to your needs.

Get a brighter bulb
A bright energy saving bulb only costs about £1.50 more per year to run than a less bright one, so if you want the extra light get the brighter bulb.

Eye tests
Many people find it harder to see as they get older. Some of the causes of this can be treated. If you are finding it harder, think about an eye test – it may not be your lighting that needs a change!

This guide tells you what you need to know about the different types of bulb that are available and how to choose the right one. We also have the results of some tests carried out by Which?. Full test results are available to subscribers at which.co.uk, where you can also find free advice on energy saving.

Lighting

It's important to get the lighting in your home right, especially if you can't see well. RNIB and Thomas Pocklington Trust (see back cover) have a useful booklet called *Make the most of your sight – Improve the lighting in your home*.

Light bulb types

There are three main types of energy saving light bulb:

Compact fluorescent lamps (CFLs)
These are the most common energy saving light bulbs.

Halogen bulbs
These are the cheapest energy saving light bulbs. They are also the least energy efficient and the least durable.

Light emitting diode (LED) lights
These are the most expensive energy saving light bulbs. They are also the most energy efficient and the most durable. An LED light should pay for itself in 5-10 years.

Type of bulb and energy savings to be made*

	CFL	Halogen	LED
Price	£2-10	£2-3	£10-35
Energy saving*	up to 80%	up to 30%	up to 90%
Durability – years	10	2	20

*as compared to an old-fashioned bulb

Light bulb issues

Things you need to know about when choosing energy saving light bulbs

Light and brightness

Most people are used to choosing a bulb by its wattage but the wattage is really a measure of the power consumption of the bulb, so it is not a good measure of light brightness.

Lumens (lm) is the measure of light output and this is the one to use when choosing a bulb. The table shows how many lumens you need for different uses.

Colour

Different bulbs give different colour light. Old-fashioned bulbs give a quite yellow light and most people are used to this. When the first CFL bulbs came out, they gave a more blue/white light which many people found unpleasant. It is possible that you have some of these bulbs at home, or that you got some when they came out and have gone back to traditional bulbs.

New CFL bulbs have been designed to give light in the same colour as old-fashioned bulbs, so they should be much more acceptable.

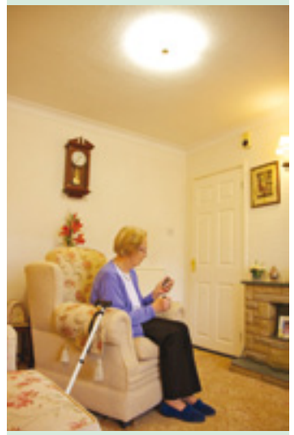
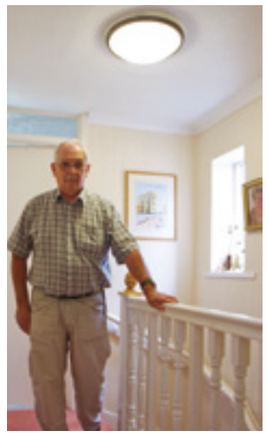
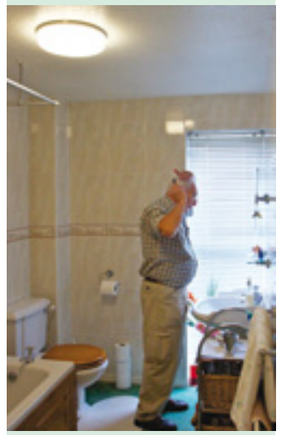
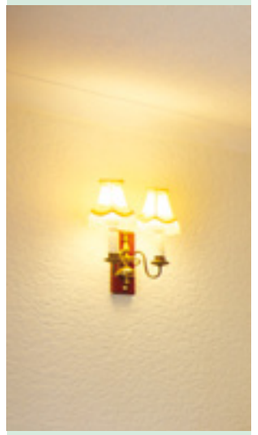
Halogen bulbs give very similar light to old-fashioned bulbs. LED bulbs can give light in just about any colour. Check the packaging and look for the colour light you prefer.

Some people need light in very specific colours to see clearly. You may need to take some advice from a sight loss specialist, such as an ophthalmologist or orthoptist.

Lumens are here to stay

Many manufacturers give a 'watts equivalent' figure on their packaging to indicate the brightness level. However, from September 2012 they should all give brightness in lumens.

Choosing the right bulb for the right place

location/use	large rooms	stairways	average-sized rooms	large rooms with more than one fitting	lamps or fittings with more than one bulb	specialist fittings (under kitchen cabinets etc)
						
Lumens (approx.)	at least 1,000	at least 1,000	600-700	600-700	300-400	up to 250
watts (approx.)						
old-fashioned	100	100	60	60	30	25
halogen	80	80	50	50	40	20
CFL	20	20	10	10	7	4
LED	10	10	6	6	4	2

Light bulb issues

Start-up time

Halogen and LED bulbs, like old-fashioned bulbs, light up immediately as soon as you switch them on. CFL bulbs take some time to come on, and to get up to full brightness, though they have improved since the first CFL bulbs came out. There is a wide range in performance with the fastest bulbs reaching full brightness in around 30 seconds and others taking over 5 minutes.

In bathrooms, halls and stairways it is important for the light to come on quickly. Get a 'quick start' CFL bulb for these areas (they come on in less than 30 seconds). They are likely to cost an extra pound or two, but they may keep you safe.

Dimmers

Halogen bulbs can be used with dimmer switches, but most LEDs and CFL bulbs cannot. You can now get dimmable CFL and LED bulbs, which you should be able to identify by the packaging.

If you want really good dimming performance, it may be better to stick to halogen bulbs.

Timers

Both halogen and LED bulbs can be used with timers and light or movement sensitive (photocell) lights. CFL bulbs cannot currently be used with timers or photocell circuits.

Shapes and sizes

There's no difference between the different shaped bulbs, so you can get whichever one you prefer.

For some light fittings you will need to be careful to get a bulb that fits, and for some you want a specific shape (a candle say). You can get energy saving light bulbs in most shapes – even spotlight bulbs.

Glare

All bulbs will cause glare if you can see the bulb directly. If this is a problem for you, make sure you have a good shade (*Make the most of your sight* has information on this). If a long, stick shaped CFL bulb pokes out of the top or bottom of a shade – get a shorter bulb or a taller shade.

These different shaped bulbs are the same, so you can get whichever one you prefer.

Disposal/recycling

All bulbs should be recycled rather than disposed of in the general waste.

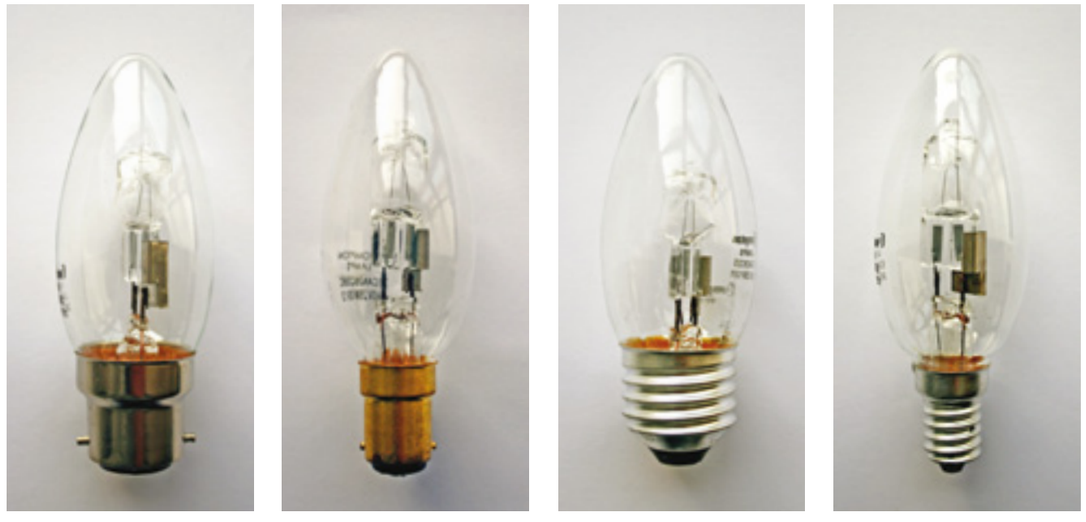
CFL bulbs in particular need to be treated carefully as they contain mercury, which could be dangerous. If your council provides collection points for CFL bulbs, you should use these. Alternatively your electrical shop should accept a used bulb from you. Most will do this quite happily as long as you are buying a replacement bulb from them. It's a good idea to take the old bulb along to the shop anyway, so that they can help you find something similar (or different!).

Fittings

Old-fashioned bulbs had either a bayonet or a screw cap (there are three sizes of each), and energy saving bulbs that are designed to replace them have the same range of fittings. UK ceiling lights generally have bayonet fittings, but some lamps and lamp holders have screw fittings.

CFL, halogen and LED bulbs are available in a two pin fitting for use in specialist lamp holders.

Two pin fitting (GU10)



Above, from left:
Standard sized bayonet fitting (BC/B22);
Small bayonet fitting (BS/B15);
Standard screw fitting (ES/E27);
Small screw fitting (SES/E14)

Bulbs FAQs

Frequently asked questions

Don't energy saving light bulbs flicker?
No they don't. Some of the old ones might do if they are broken. If you have got a bulb that flickers, replace it.

Does it use more electricity to turn the light off and on again than to leave it on?
No it doesn't. You should always turn the light off if you don't need it. However, you should leave energy saving bulbs on in places where you need the light to keep you safe (on the stairs etc), so you don't have to wait for them to warm up.

Can I use a 75 watts equivalent CFL bulb in a lamp shade that can only take bulbs up to 40 watts?
Yes you can. It is the actual wattage that matters here (and most CFL bulbs use much less than 40 watts). As we say on p4, the 'watts equivalent' figure is just a not very good measure of how bright the light is.

Can I use energy-saving light bulbs in cold areas?
CFLs take longer to start up when they are cold. If you need light quickly in colder areas – outside or in a garage or pantry, for example – a halogen or LED bulb is better.

Buying bulbs

Most shops carry a wide range of bulbs from different manufacturers, which can be daunting, but if you know what you want you should be able to find it.

- Think about what type you want, the fitting and how bright you want it (best to think in lumens).
- Then think about anything else you might need like a specific shape, colour of light, quick start or dimmability.

It is a good idea to go to a specialist electrical shop to buy a bulb. They are more likely to have what you are looking for, and you will be able to ask for advice and check if the packaging isn't clear. They may be the same price as other retailers and will have help on hand.

You can, of course, buy bulbs online. Check all the features meet your needs before making your order.

Price

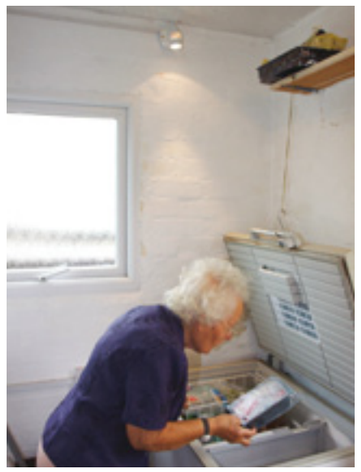
Halogen bulbs cost around £2 or £3. CFL bulbs cost from about £2 up to almost £30 for very specialist bulbs – most are less than £10. LED bulbs cost between about £10 and £35. Of course this isn't cheap, but they do last longer than old-fashioned bulbs and use much less electricity. If you buy a CFL bulb for £5, it should pay for itself in a year.

Features like dimmability and quick start usually cost a few extra pounds. But don't forget you may be using the bulb for around 10 years, so if you want the extra features it's worth paying for them.

Quick reference table

Bulb type	CFL	Halogen	LED
			
Price (guide)	£2-10	£2-3	£10-35
Energy saving[1]	up to 80%	up to 30%	up to 90%
Durability	10 years	2 years	20 years or more
Dimmable	some	yes	some
Instant start	no	yes	yes
Timers, photocells	no	yes	no
Cold areas	no	yes	yes
Saving over 10 years[2]	£72.51	£13.50	£62.91

[1] as compared to old-fashioned bulb
[2] estimate, as compared to old-fashioned bulb, includes cost of replacement bulbs



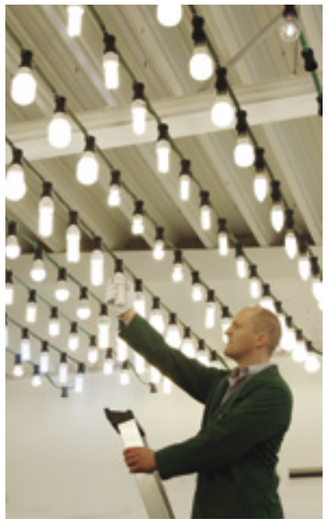
In cold places use a halogen or LED bulb

Kitchen unit lights can be CFL, halogen or LED

Lights in cupboards are usually less than 250 lumens

Buying bulbs Best on test

These are the best performing energy saving bulbs, as identified by Which? in their testing programme. Full test results, including the best bulbs for different energy-saving lightbulb types, are available to subscribers at which.co.uk, where you can also find free advice on energy saving.



In the lab: the Which? testing programme identifies the best performing bulbs

Best bright (>800 lm) bulb

Osram Duluxstar 21W
£2.81

Osram Dulux Superstar 30W
£12.86

Best medium brightness (600–800 lm) bulb

Osram Parathom Pro Classic A60
£28.49

GE General Electric Electronic 12W
£8.48

Best low brightness (<600 lm) bulb

Sylvania ToLEDo GLS A60
£37.52

Sylvania Mini-Lynx Fast-Start
£3.23

Best quickstart CFL

Osram Dulux Superstar 22W
£9.99

Osram Dulux Intelligent 11W
£14.04

More information

ricability

Independent research and information on products and services for older and disabled people.
www.ricability.org.uk

RNIB

supporting blind and partially sighted people

RNIB is a national organisation providing information and services for people with sight problems.
Helpline: 0303 123 9999
rnib.org.uk

Thomas Pocklington Trust

Housing and support for people with sight loss

Thomas Pocklington Trust have carried out extensive research highlighting the importance of good lighting for people with sight loss. You can find this on their website:
www.pocklington-trust.org.uk

Macular Disease Society

The Macular Disease Society is the only national charity dedicated to supporting everyone affected by macular disease.
Helpline: 0300 30 30 111
www.maculardisease.org

The information contained in this guide is correct at the time of going to print (July 2012). It will be reviewed every two years.

This leaflet is also available in audio or braille formats. To order a copy, please call 020 8995 0880 or email research@pocklington-trust.org.uk.

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