



THE ECONOMICAL ALTERNATIVE

**OSRAM DULUX® EL
ELECTRONIC
ENERGY SAVING LAMPS**

THERE IS LIGHT. AND THERE IS OSRAM.

OSRAM

LIGHTING THAT MAKES SENSE

BRIGHTER LIGHT WITHOUT EXTRA LIGHTS

OSRAM DULUX® EL lamps provide you with a lot more light wherever you need it. The amount of light you can get from a conventional bulb is restricted by its wattage – a restriction that doesn't apply with the OSRAM DULUX® EL. Because they generate a lot less heat than conventional bulbs, you never need to worry about keeping within the recommended wattage rating again.

Take the example of a light fitting that has a 60 W restriction. Fit a 23 W OSRAM DULUX® EL LONGLIFE and you'll get a light output that is equivalent to a 120 W incandescent.

This means you can get twice the brightness – without having to add another lamp.



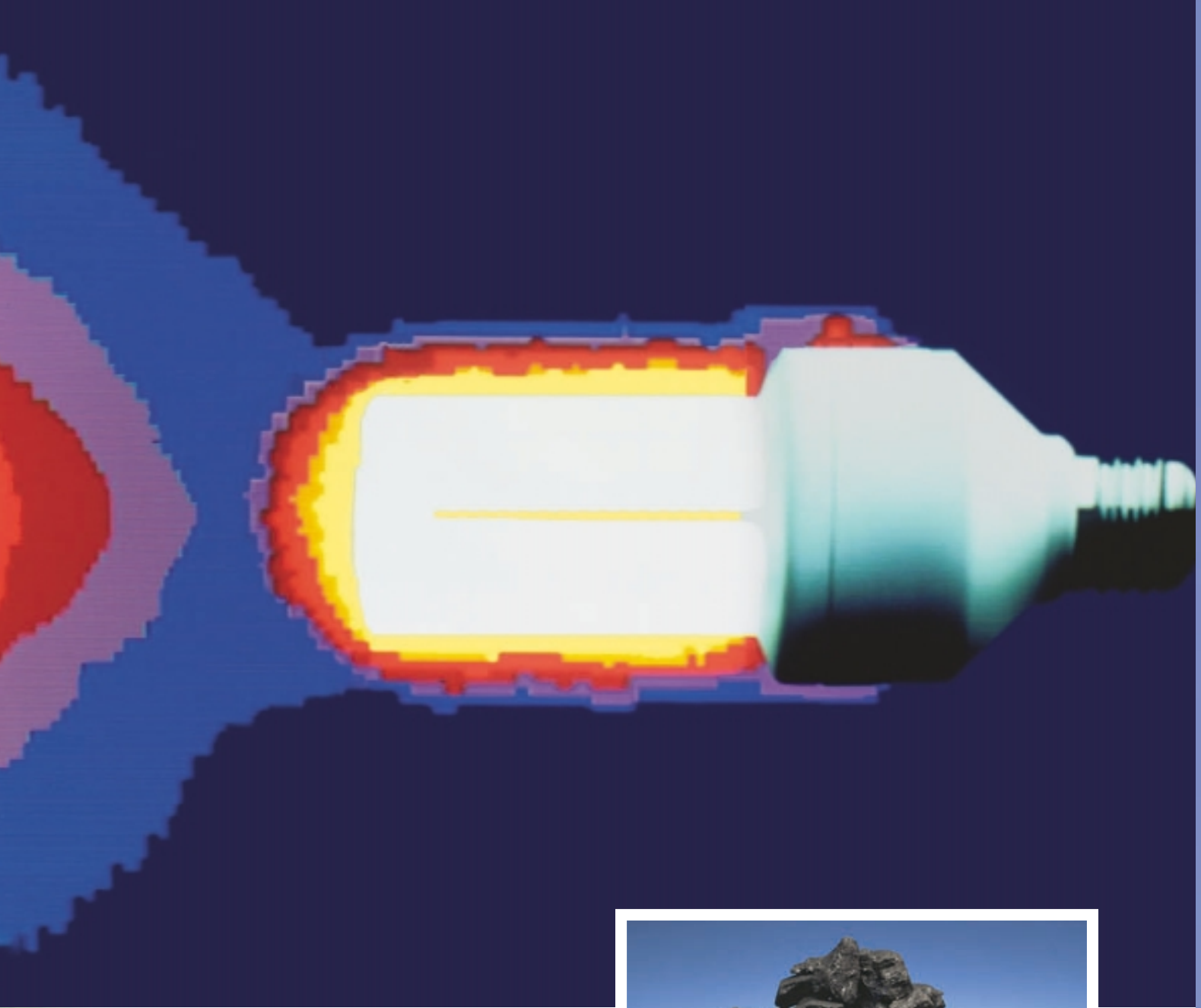
LIGHT NOT HEAT

Because of the way it works, the OSRAM DULUX® EL generates a lot less heat. Whilst the surface of a conventional bulb can reach temperatures of 100 °C, the OSRAM DULUX® EL never gets above 70 °C.

OSRAM DULUX® EL FOR DC OPERATION

The electronic control gear in OSRAM DULUX® EL LONGLIFE bulbs from 5 to 11 W permits DC operation between 176 and 340 V. This makes them ideal for permanent operation in emergency lighting, where they offer substantial reductions in additional installation costs.

SE – ENVIRONMENTALLY FRIENDLY TOO



OSRAM DULUX® EL - HELP- ING THE ENVIRONMENT

In comparison with a conventional bulb, a single OSRAM DULUX® EL LONGLIFE 20 W will save around 1,200 kW of electricity during its lifetime. To produce this amount of power takes over half a ton of coal, or roughly 280 litres of fuel oil. That's how much the OSRAM DULUX® EL

LONGLIFE contributes to the environment. Lower energy consumption means lower emissions and less contamination of the atmosphere. The OSRAM DULUX® EL LONGLIFE thus helps to slow global warming caused by CO₂ emissions from the burning of fossil fuels.



OSRAM DULUX® EL WITH ECO CONTROL.

NOT ALL ENERGY SAVING LAMPS ARE THE SAME

Even though they may look similar at first glance – don't be fooled: not all energy saving lamps are the same.

Only OSRAM DULUX® EL energy saving lamps have ECO CONTROL, the quality guarantee you get only from OSRAM.

ECO CONTROL is the control technology built into the electronic control gear – with these great benefits:

- Energy cost savings
- Longer life
- Silent operation
- Reliability
- Economy
- Flicker-free light

ECO CONTROL guarantees that only premium quality electronic components are used which are precisely matched to the electronic control gear and lamps.

EXCEPTIONAL QUALITY – IN TWO PERFORMANCE CLASSES

Commercial and domestic users place different demands on lighting equipment. That's why OSRAM DULUX® EL energy saving lamps from OSRAM are available in two versions: OSRAM DULUX® EL LONGLIFE and OSRAM DULUX® EL ECONOMY. Both with legendary OSRAM quality and with ECO CONTROL.



OSRAM DULUX® EL LONGLIFE



IT DELIVERS ITS PROMISES.



OSRAM DULUX® EL LONGLIFE HAS BEEN SPECIALLY DEVELOPED FOR THE DEMANDING REQUIREMENTS OF COMMERCIAL USE

No energy saving lamp lasts longer – up to 15,000 hours, or 12 years at around 3 hours a day. The clear benefit is that they don't need changing nearly as often. OSRAM DULUX® EL LONGLIFE are ideal for all commercial applications, such as restaurants, hotels, lobbies, ticket offices, medical centres and offices – or even in the home, in those areas where it is especially important to have reliable, long-lasting lighting. OSRAM provides a five-year guarantee specifically for domestic use. Any OSRAM DULUX® EL LONGLIFE lamp that fails within five years will be instantly replaced.

OSRAM DULUX® EL ECONOMY IS DESIGNED FOR THE HOME

This is OSRAM's best value range of energy saving lamps, with a typical life expectancy of 6 years at 3 hours use a day. OSRAM DULUX® EL ECONOMY will fit in virtually any type of luminaire with a screw fitting and is especially valuable where economical permanent lighting is needed.

OSRAM DULUX® EL ECONOMY



**OSRAM DULUX® EL
LONGLIFE E27**

**OSRAM DULUX® EL
LONGLIFE E14**



**AN EXTENSIVE RANGE FOR
DOMESTIC AND COMMERCIAL APPLICATIONS**

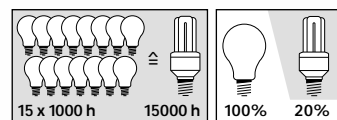
OSRAM DULUX® EL LONGLIFE with an E27 base is a line of energy saving replacement bulbs with near unlimited possibilities. These compact lamps fit in just about every luminaire. Thanks to their low weight, they make the ideal replacement for lighting in pendant luminaires.

- 12-year service life at approx. 3 hours use per day
- Ideal for those applications which place demands on long life and reliability
- Extensive range from 5 W to 23 W, some available in 3 colours
- High level of brightness – energy savings up to 80%
- Superb colour rendering and light dispersion
- Universal burning position
- Low weight
- Flicker-free start and flicker-free operation
- Start capability to -30 °C (5 W to -20 °C)
- 5 W to 11 W versions are also suitable for DC operation and continuous service in emergency lighting systems
- Also available with B22d base

**FOR PARTICULARLY SMALL
LUMINAIRES**

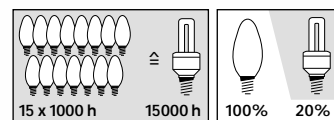
You can also replace E14 bulbs with power-saving OSRAM DULUX® EL LONGLIFE. They will save both energy and money – whether in slim wall or ceiling-mounted fittings, or in table or same benefits as the “larger” OSRAM DULUX® EL LONGLIFE: 15 times the service life and up to 80% savings on energy compared with conventional bulbs.

- 12-year service life at approx. 3 hours use per day
- Particularly suitable for small luminaires
- A total of four wattages covers the range of E14 applications
- You can gain the equivalent brightness of a 60 W incandescent lamp, in luminaires restricted to 40 W, by fitting the OSRAM DULUX® EL LONGLIFE E14 11 W
- The OSRAM DULUX® EL LONGLIFE E14 3 W is the world’s smallest, most economical lamp with a screw base
- Perfect for permanent operation in emergency lighting systems (except 3 W and 11 W)
- Particularly lightweight





Service life



Energy consumption



Service life

Energy consumption

	25 W	→	5 W	
	40 W	→	7 W	
	60 W	→	11 W	
	75 W	→	15 W	
	100 W	→	20 W	
	120 W	→	23 W	

	15 W	→	3 W	
	25 W	→	5 W	
	40 W	→	7 W	
	60 W	→	11 W	

OSRAM DULUX® EL CLASSIC

OSRAM DULUX® EL SENSOR

OSRAM DULUX® EL VARIO



CLASSIC BULB AND CANDLE SHAPES

The OSRAM DULUX® EL CLASSIC combines the advantages of incandescent bulbs with the advantages of compact fluorescents. The attractive shape of these energy saving lamps makes for an especially soft, comfortable light, whilst retaining all the OSRAM DULUX® EL LONGLIFE benefits.

- 12-year service life at approx. 3 hours use per day
- Ideal for decorative or exposed applications
- The opal exterior produces a uniquely soft light
- Available in 4 power ratings and with E14, E27 and B22d bases
- New: OSRAM DULUX® EL CLASSIC 7 W in actual bulb size
- Perfect for low temperature outside use in sealed, vented luminaires

AUTOMATIC ON - AUTOMATIC OFF

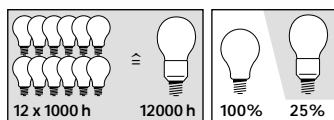
The OSRAM DULUX® EL SENSOR is the perfect solution for economical, reliable permanent lighting both inside and out. Two built-in sensors provide light when you need it - without the need for timers or expensive electronic detectors.

- OSRAM DULUX® EL SENSOR automatically switches on at dusk and switches off again dawn
- The dimmer value can be adjusted as required. On/off timers can also be adjusted to suit different locations (e.g. exposed or encased under glass)
- The light sensor recognises the light spectrum of daylight and is not effected by the output of the lamp itself

DIMMING WITHOUT A DIMMER SWITCH

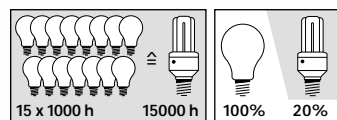
At last! With the new OSRAM DULUX® EL VARIO, you can now control your energy saving lights. The integrated, 2-stage dimming function allows you to decide whether you have full output or, simply by flicking the light switch, whether you have more subdued, atmospheric lighting.

- Reduce brightness by 50%, simply by flicking the switch
- Power consumption will be reduced by the same percentage
- You can switch the OSRAM DULUX® EL VARIO on and off as many times as you like, without any "delay time" switching back on again
- The OSRAM DULUX® EL VARIO cannot be used with external dimmer circuits but offers built-in "dimmability" in all other applications
- Range of temperature 15 °C to 50 °C



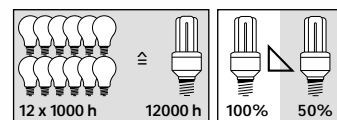
Service life

Energy consumption



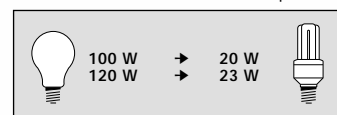
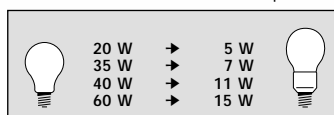
Service life

Energy consumption



Service life

Energy consumption



**OSRAM DULUX® EL
GLOBE**

**OSRAM DULUX® EL
REFLECTOR**

**OSRAM
CIRCOLUX® EL**



LOOKS GREAT ON ITS OWN

On the outside it's a decorative globe, but on the inside it's a OSRAM DULUX® EL. With its generous opal bulb, the OSRAM DULUX® EL GLOBE is the ideal energy saving solution for luminaires in which the lamp is visible. It has an attractive appearance and produces a sympathetic, glare-free light.

- 12-year service life at approx. 3 hours use per day
- The plastic globe reduces weight and improves resistance to breakage
- OSRAM DULUX® EL GLOBE has the same convenient and economical features as the OSRAM DULUX® EL LONGLIFE
- Perfect for low temperature outside use in sealed, vented luminaires

DIRECTED ACCENT LIGHTING

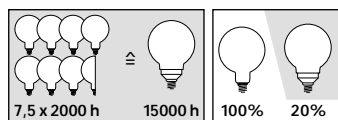
For use in downlights or spotlights, the OSRAM DULUX® EL REFLECTOR combines a technically optimised reflector and a lamp in a single unit. It will direct a carefully controlled beam of light exactly where you want it. Now you can save energy when you illuminate objects or walls.

- 12-year service life at approx. 3 hours use per day
- OSRAM DULUX® EL REFLECTOR replaces conventional reflectors, whilst directing much less heat at the object it is illuminating
- Textured, smear resistant reflector
- OSRAM DULUX® EL REFLECTOR has the same convenient and economical features as the other OSRAM DULUX® EL LONGLIFE units

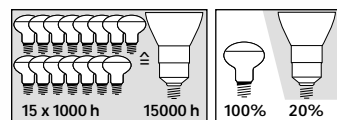
THE CIRCULAR OPTION

OSRAM CIRCOLUX® EL is the brightest of all the energy saving lamps. Its low weight and small mounting height is well suited to all types of shallow lampshades and pendant light fittings. The OSRAM CIRCOLUX® EL 28 W, with its very high luminous flux is especially recommended for larger shades.

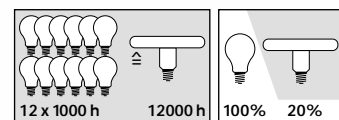
- 12-year service life at approx. 3 hours use per day
- The most powerful energy saving lamp
- Warm, comfortable incandescent-type light
- Excellent colour rendering. Ideal light dispersion characteristics for general lighting applications
- Its slim, round shape is perfect for pendant lamps
- Low weight
- The OSRAM CIRCOLUX® EL has the same convenient and economical features as the other OSRAM DULUX® EL LONGLIFE units
- Also suitable for DC operation



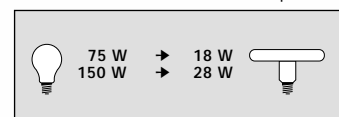
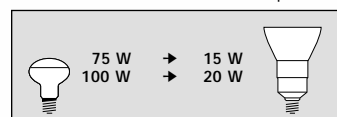
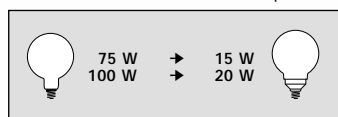
Service life Energy consumption



Service life Energy consumption



Service life Energy consumption



**OSRAM DULUX® EL
ECONOMY**

**OSRAM DULUX® EL
ECONOMY
CLASSIC + GLOBE**

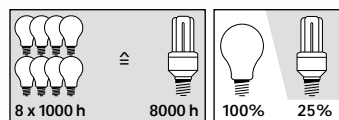


THE LOW-COST BRAND-QUALITY - ENERGY SAVING LAMPS FOR STANDARD BULB HOLDERS

- 6-year service life at approx. 3 hours use per day
- Sets the standard in high quality lamps for the home
- Saves around 75% on electricity compared with conventional bulbs
- Excellent colour rendering
- Low weight
- Instant, flicker-free starting – just like a standard bulb and flicker-free operation
- Clearly specified range, with two E14 and four E27 wattages
- Ideal for economical permanent lighting

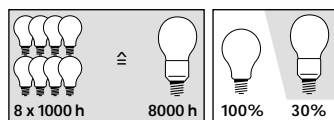
THE LOW-COST BRAND-QUALITY - ENERGY SAVING LAMPS THAT LOOK LIKE LIGHTBULBS

- 6-year service life at approx. 3 hours use per day
- All the advantages of a compact fluorescent with the usual light bulb (standard and large bulb versions)
- The lamps have the same convenient and economical features as the other OSRAM DULUX® EL ECONOMY lamps



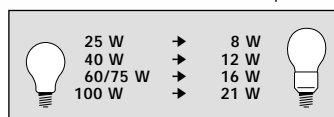
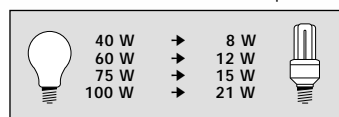
Service life

Energy consumption



Service life

Energy consumption





LAMPS THAT PAY THE

SAVE ENERGY AND SAVE MONEY

Just compare the costs of buying and using a normal light bulb with those of a OSRAM DULUX® EL and you'll soon see that despite the initially higher purchase price, the OSRAM DULUX® EL will save you hard cash.

For example, a single OSRAM DULUX® EL LONGLIFE 20 W will save you 342 DM!

In the commercial sector, there is a further important benefit; because the OSRAM DULUX® EL LONGLIFE lasts 15 times as long, the cost of having bulbs changed is reduced dramatically.

IR WAY

A single OSRAM DULUX® EL LONGLIFE 20 W will replace 15 conventional 100 W bulbs with equivalent light output. During its lifetime of 15,000 hours, it will use 300 kWh of electricity – at 0.28 DM per kWh. That's 84.00 DM for electricity in total. The 15 incandescent bulbs, over the same period, will use a total of 1,500 kWh, which will cost 420.00 DM. Even if the cost of buying the lamps is taken into account:

Each OSRAM DULUX® EL LONGLIFE 20 W will save 342.00 DM.

EXAMPLE 1

Lamp	OSRAM DULUX® EL LONGLIFE	Normal light bulb
Wattage	20 W	100 W
Number	1	1
Period	15,000 hours	15,000 hours
Service life	15,000 hours	1,000 hours
Energy used during period	300 kWh	1,500 kWh
Energy cost at 0.28 DM per kWh	84.00 DM	420.00 DM
+ Cost of lamp*	22.50 DM	28.50 (15×1.90) DM
= Total cost	106.50 DM	448.50 DM
Saving per OSRAM DULUX® EL LONGLIFE 342.00 DM		

EXAMPLE 2

Lamp	OSRAM DULUX® EL ECONOMY	Normal light bulb
Wattage	21 W	100 W
Number	1	1
Period	8,000 hours	8,000 hours
Service life	8,000 hours	1,000 hours
Energy used during period	168 kWh	800 kWh
Energy cost at 0.28 DM per kWh	47.04 DM	224.00 DM
+ Cost of lamp*	16.95 DM	15.20 (8×1.90) DM
= Total cost	63.99 DM	239.20 DM
Saving per OSRAM DULUX® EL ECONOMY 175.21 DM		

A single OSRAM DULUX® EL ECONOMY 21 W will replace 8 conventional 100 W bulbs with equivalent light output. During its lifetime of 8,000 hours, it will use 168 kWh of electricity – at 0.28 DM per kWh. That's 47.04 DM for electricity in total. The 8 incandescent bulbs, over the same period, will use a total of 800 kWh, which will cost 224.00 DM. Even if the cost of buying the lamps is taken into account:

Each OSRAM DULUX® EL ECONOMY 21 W will save 175.21 DM.

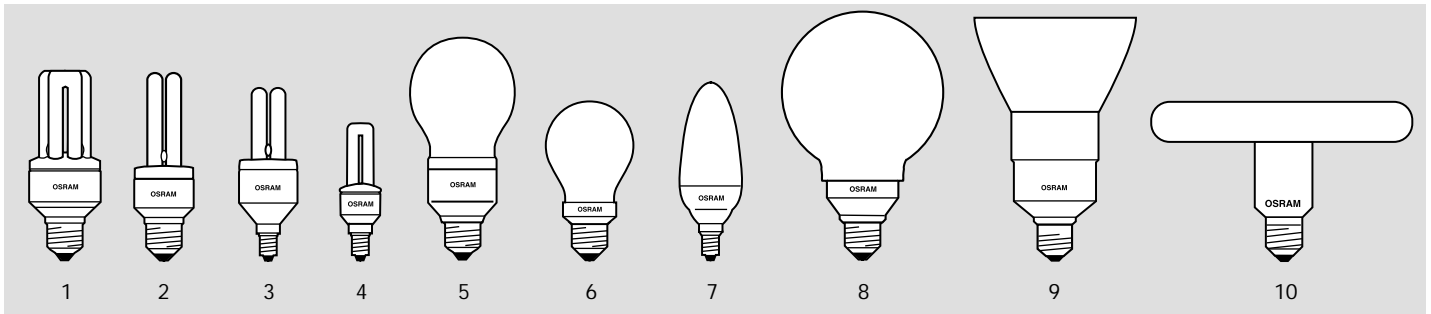
EXAMPLE 3

A single OSRAM DULUX® EL CLASSIC 5 W will replace 12 conventional 20 W bulbs with equivalent light output. During its lifetime of 12,000 hours, it will use 60 kWh of electricity – at 0.28 DM per kWh. That's 16.80 DM for electricity in total. The 12 incandescent bulbs, over the same period, will use a total of 240 kWh, which will cost 67.20 DM. Even if the cost of buying the lamps is taken into account:

Each OSRAM DULUX® EL CLASSIC 5 W will save 50.95 DM.

Lamp	OSRAM DULUX® EL CLASSIC	Normal light bulb
Wattage	5 W	20 W
Number	1	1
Period	12,000 hours	12,000 hours
Service life	12,000 hours	1,000 hours
Energy used during period	60 kWh	240 kWh
Energy cost at 0.28 DM per kWh	16.80 DM	67.20 DM
+ Cost of lamp*	19.95 DM	20.40 (12×1.70) DM
= Total cost	36.75 DM	87.60 DM
Savings per OSRAM DULUX® EL CLASSIC 50.85 DM		

*) recommended prices, as at 3/00



Model/ lamp reference	Fig. no.	Wattage	Base	Luminous flux	Colour rendering group	Length	Dia- meter	Weight	Light colour
OSRAM DULUX® EL LONGLIFE									
DEL LL 5	2	5 W	E27/B22d	240 lm	1B	121 ± 2 mm	36 mm	60 g	41-827
DEL LL 7	2	7 W	E27/B22d	400 lm	1B	129 ± 3 mm	45 mm	70 g	41-827, 21-840
DEL LL 11	2	11 W	E27/B22d	600 lm*	1B	138 ± 3 mm	45 mm	75 g	41-827, 21-840, 11-860
DEL LL 15	1	15 W	E27/B22d	900 lm*	1B	140 ± 3 mm	52 mm	100 g	41-827, 21-840, 11-860
DEL LL 20	1	20 W	E27/B22d	1200 lm*	1B	153.5 ± 3 mm	52 mm	105 g	41-827, 21-840, 11-860
DEL LL 23	1	23 W	E27/B22d	1500 lm*	1B	173 ± 3 mm	58 mm	150 g	41-827, 21-840, 11-860
DEL LL 3 E14	4	3 W	E14	100 lm	1B	115 ± 2 mm	30 mm	35 g	41-827
DEL LL 5 E14	3	5 W	E14	240 lm	1B	124 ± 2 mm	36 mm	55 g	41-827
DEL LL 7 E14	3	7 W	E14	400 lm	1B	134 ± 3 mm	45 mm	70 g	41-827
DEL LL 11 E14	3	11 W	E14	600 lm	1B	143 ± 3 mm	45 mm	75 g	41-827
OSRAM DULUX® EL CLASSIC									
DEL CL B 5 E14	7	5 W	E14	150 lm	1B	131 ± 2 mm	46 mm	65 g	41-827
DEL CL A 5	6	5 W	E27/B22d	150 lm	1B	111 ± 2 mm	60 mm	70 g	41-827
DEL CL A 7	6	7 W	E27/B22d	350 lm	1B	111 ± 2 mm	60 mm	70 g	41-827
DEL CL A 11	5	11 W	E27/B22d	500 lm	1B	147 ± 2 mm	70 mm	90 g	41-827
DEL CL A 15	5	15 W	E27/B22d	800 lm	1B	149.5 ± 2 mm	70 mm	150 g	41-827
OSRAM DULUX® EL SENSOR									
DEL 15 SENSOR	1	15 W	E27/B22d	900 lm	1B	148 ± 3 mm	52 mm	125 g	41-827
OSRAM DULUX® EL VARIO									
DEL VAR 20	1	20 W	E27/B22d	1200 lm	1B	154.5 ± 3 mm	58 mm	110 g	41-827
DEL VAR 23	1	23 W	E27/B22d	1500 lm	1B	173 ± 3 mm	58 mm	110 g	41-827
OSRAM DULUX® EL GLOBE									
DEL GL 15	8	15 W	E27/B22d	700 lm*	1B	169 ± 2 mm	100 mm	150 g	41-827, 11-860
DEL GL 20	8	20 W	E27/B22d	1000 lm*	1B	190 ± 2 mm	120 mm	170 g	41-827, 11-860
OSRAM DULUX® EL REFLECTOR									
DEL REFL 15	9	15 W	E27	335 cd	1B	143 ± 2 mm	102 mm	145 g	41-827
DEL REFL 20	9	20 W	E27	450 cd	1B	161 ± 2 mm	117.5 mm	170 g	41-827
OSRAM DULUX® EL ECONOMY									
DEL ECO 8 E14	3	8 W	E14	400 lm	1B	134 ± 3 mm	45 mm	65 g	41-827
DEL ECO 12 E14	3	12 W	E14	600 lm	1B	143 ± 3 mm	45 mm	70 g	41-827
DEL ECO 8	2	8 W	E27	400 lm	1B	129 ± 3 mm	45 mm	65 g	41-827, 21-840
DEL ECO 12	2	12 W	E27/B22d	600 lm*	1B	138 ± 3 mm	45 mm	70 g	41-827, 21-840, 11-860
DEL ECO 16	1	16 W	E27/B22d	900 lm*	1B	140 ± 3 mm	52 mm	100 g	41-827, 21-840, 11-860
DEL ECO 21	1	21 W	E27/B22d	1200 lm*	1B	153.5 ± 3 mm	52 mm	105 g	41-827, 21-840, 11-860
OSRAM DULUX® EL ECONOMY CLASSIC									
DEL ECO CL A 8	5	8 W	E27	340 lm	1B	147 ± 2 mm	70 mm	90 g	41-827
DEL ECO CL A 12	5	12 W	E27/B22d	450 lm	1B	147 ± 2 mm	70 mm	95 g	41-827
DEL ECO CL A 16	5	16 W	E27/B22d	600 lm	1B	149.5 ± 2 mm	70 mm	150 g	41-827
OSRAM DULUX® EL ECONOMY GLOBE									
DEL ECO GL 16	8	16 W	E27	700 lm	1B	169 ± 2 mm	100 mm	150 g	41-827
DEL ECO GL 21	8	21 W	E27	1000 lm	1B	190 ± 2 mm	120 mm	170 g	41-827
OSRAM CIRCOLUX® EL									
CIRCO EL 18	10	18 W	E27	1000 lm	1B	101 mm	169 mm	210 g	41-827
CIRCO EL 28	10	28 W	E27	1800 lm	1B	101 mm	216 mm	230 g	41-827, 21-840

Supply voltage 220–240 V. Not suitable for use on dimmer circuits or electronic switches. Use outdoors only in air circulated enclosed luminaires.

* 5% less with colour 11-860 day light



THERE IS LIGHT. AND THERE IS OSRAM.

OSRAM