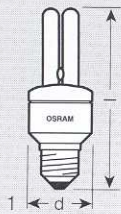
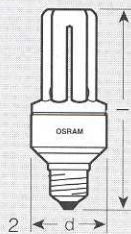


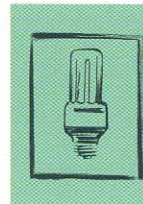
OSRAM DULUX® EL LONGLIFE E27



25 W	→	5 W
40 W	→	7 W
60 W	→	11 W



75 W	→	15 W
100 W	→	20 W
120 W	→	23 W



Product reference	Product number	W	V/Hz	mA		Ra
OSRAM DULUX® EL LONGLIFE E27						
DULUX EL LL 5 W/827 E27	4050300357430	5	220 ... 240/50 ... 60	40	LUMILUX INTERNA®	1 B
DULUX EL LL 7 W/827 E27	4050300288819	7	220 ... 240/50 ... 60	55	LUMILUX INTERNA® ¹⁾	1 B
DULUX EL LL 11 W/827 E27	4050300288833	11	220 ... 240/50 ... 60	115	LUMILUX INTERNA® ^{1) 2)}	1 B
DULUX EL LL 15 W/827 E27	4050300275857	15	220 ... 240/50 ... 60	130	LUMILUX INTERNA® ^{1) 2)}	1 B
DULUX EL LL 20 W/827 E27	4050300275970	20	220 ... 240/50 ... 60	165	LUMILUX INTERNA® ^{1) 2)}	1 B
DULUX EL LL 23 W/827 E27	4050300028965	23	220 ... 240/50 ... 60	185	LUMILUX INTERNA® ^{1) 2)}	1 B

Product reference	lm		d [mm]	l [mm]		No.	*
DULUX EL LL 5 W/827 E27	240	E27	36	121 ± 2	60	1	15
DULUX EL LL 7 W/827 E27	400	E27	45	131.5 ± 3	60	1	15
DULUX EL LL 11 W/827 E27	660	E27	45	143 ± 3	65	1	15
DULUX EL LL 15 W/827 E27	900	E27	52	140 ± 3	85	2	15
DULUX EL LL 20 W/827 E27	1200	E27	52	153.5 ± 3	90	2	15
DULUX EL LL 23 W/827 E27	1500	E27	58	173 ± 3	100	2	15

OSRAM DULUX® EL LONGLIFE lamps with B22d base available on request.
 OSRAM DULUX® EL LONGLIFE lamps are not suitable for use with dimmers or electronic switches.
 Use outdoors only in enclosed and ventilated luminaires.

OSRAM DULUX® EL LONGLIFE lamps are super compact premium quality fluorescent lamps with electronic control gear and E27 and B22d bases.

These compact fluorescent lamps offer high luminous efficacy with up to 80% savings in electricity costs. The E27 base means they can be easily fitted instead of ordinary light bulbs. These lamps also have excellent colour rendering and excellent light distribution.

Domestic applications:

All rooms, especially where the lamps need to last a long time or have to withstand frequent on/off switching.

- Around 12 years life (if used for around 3 hours a day).
- Universal burning position.
- Low weight.
- Flicker-free starting and flicker-free operation.
- Starts reliably down to -30°C (5 W down to -20°C).
- More light without temperature problems in luminaires designed for ordinary light bulbs.
- 5 W and 7 W suitable for emergency lighting on 230 V DC.
- OSRAM DULUX® EL 15 W and 20 W lamps are also available in 110 – 145 V versions (some of the technical data is different).

Commercial applications:

Restaurants, hotels, foyers, ticket offices, corridors, doctors' surgeries and offices.
 Major advantage: much longer relamping intervals.



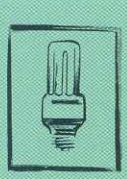
OSRAM DULUX® EL LONGLIFE lamps are ideal for constant economical lighting.

¹⁾ Also available in LUMILUX® Cool White.

²⁾ Also available in LUMILUX® Daylight (approx. 5% lower luminous flux).

* To ensure that your order reaches you quickly, please order standard pack quantities (15 per SP from summer 2002).

Technical data



Lamp OSRAM DULUX® Watt	Lamp voltage for 50/60Hz V		Lamp current for 50/60Hz mA		Wattage with control gear CCG ¹⁾ ECG W		Lumi- nance cd/cm ² LF 827, 830, 840	Compensation Parallel capacitor ²⁾ CCG 230V/50Hz µF	Series capacitor ³⁾ CCG µF
	for HF V		for HF mA						
DULUX S 5	35	—	180	—	10	—	2.5	2.2	—
DULUX S 7	47/45	—	175/180	—	11	—	2.6	2.1	—
DULUX S 9	60/59	—	170/180	—	13	—	2.8	2.0	—
DULUX S 11	91/—	—	155/—	—	15	—	2.7	1.7	—
DULUX D 10	64	—	190	—	15	—	4.0	2.2	1.4
DULUX D 13	91	—	175	—	17	—	4.0	1.8	1.4
DULUX D 18	100	—	220	—	23	—	4.5	2.2	1.7
DULUX D 26	105	—	325	—	31	—	5.5	3.2	2.5
DULUX T 13	91	—	175	—	17	—	4.2	1.8	1.4
DULUX T 18	100	—	225	—	23	—	4.7	2.3	1.7
DULUX T 26	105	—	325	—	31	—	6.0	3.3	2.5
DULUX S/E 5	—	27	—	190	—	7.5	2.5	—	—
DULUX S/E 7	—	37	—	175	—	9	2.6	—	—
DULUX S/E 9	—	48	—	170	—	12	2.8	—	—
DULUX S/E 11	—	75	—	150	—	14	2.7	—	—
DULUX D/E 10	—	51	—	190	—	12	4.0	—	—
DULUX D/E 13	—	77	—	165	—	14	4.0	—	—
DULUX D/E 18	—	80	—	210	—	20	4.5	—	—
DULUX D/E 26	—	80	—	300	—	28	5.5	—	—
DULUX T/E 13	—	77	—	165	—	14	4.2	—	—
DULUX T/E 18	—	80	—	210	—	20	4.7	—	—
DULUX T/E 26	—	80	—	300	—	28	6.0	—	—
DULUX T/E 32	—	100	—	320	—	35	6.5	—	—
DULUX T/E 42	—	135	—	320	—	46	7.0	—	—
DULUX T/E 57	—	182	—	320	—	62	7.0	—	—
DULUX L 18	58	50	375	320	24	19	2.1	4.2	2.7
DULUX L 24	87	75	345	300	30	27	2.1	3.6	2.7
DULUX L 36	106	90	435	360	43	39	2.8	4.4	3.4
DULUX L 40	—	126	—	320	—	45	2.3	—	—
DULUX L 55	—	101	—	550	—	61	3.2	—	—
DULUX L 80	—	4)	—	4)	—	4)	4)	—	—
DULUX F 18	58	50	375	320	24	19	2.4	4.2	2.7
DULUX F 24	87	75	345	300	29	27	2.5	3.6	2.7
DULUX F 36	106	90	435	360	43	39	3.0	4.4	3.4

* ECG also available in two-lamp version.

For QUICKTRONIC® electronic control gear see Section 9.

For detailed technical information see the "Technical Guide".

1) Approximate values for low-loss control gear – depending on the control gear

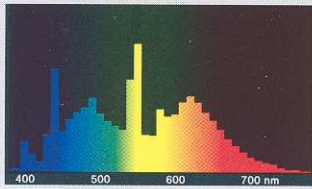
2) Design for cos phi = 0.95

Dielectric strength of the capacitors 250 V AC
Capacitance tolerance ± 10%.

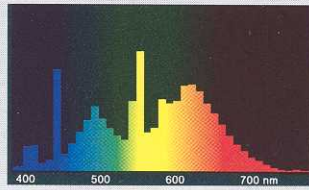
3) To maintain the specified operating and preheating values, close-tolerance capacitors (± 2%) and series resistors (± 1.5%) are required for series compensation. Check the product ranges of leading manufacturers. Dielectric strength of the capacitors = 450 V AC.

4) In preparation.

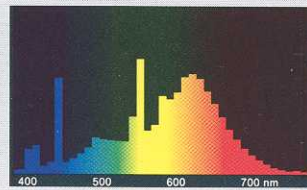
Spectral power distribution of OSRAM DULUX® lamps



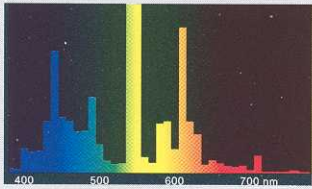
Colour 950 LUMILUX® DE LUXE Daylight



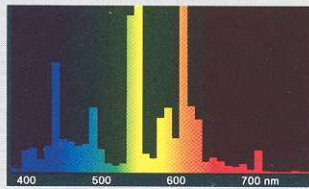
Colour 940 LUMILUX® DE LUXE Cool White



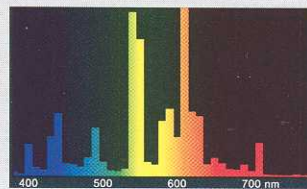
Colour 930 LUMILUX® DE LUXE Warm White



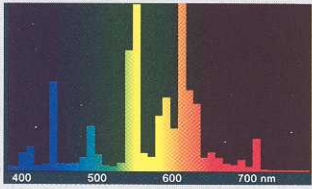
Colour 860 LUMILUX® Daylight



Colour 840 LUMILUX® Cool White



Colour 830 LUMILUX® Warm White

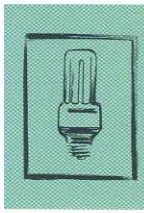


Colour 827 LUMILUX INTERNA®

Spectral power distribution of OSRAM DULUX® lamps




Visible range from 380 to 780 nm

Vertical scale $\frac{400 \text{ mW}}{1000 \text{ lm} \cdot 10 \text{ nm}}$



Colour appearances and colour rendering properties of fluorescent lamps to DIN 5035

Colour appearances and colour rendering properties of fluorescent lamps to DIN 5035

				
Group 1 excellent	1 A R_a 90 ... 100	950 LUMILUX® DE LUXE Daylight 5400 K	940 LUMILUX® DE LUXE Cool White 3800 K	930 LUMILUX® DE LUXE Warm White 3000 K
very good	1 B R_a 80 ... 89	860 LUMILUX® Daylight 6000 K	840 LUMILUX® Cool White 4000 K	830 LUMILUX® Warm White 3000 K
				827 LUMILUX INTERNA® 2700 K

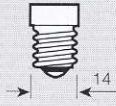
For an explanation of the colour appearances see page 4.23.

Note: These colour graphs do not show the colour distributions in great detail. The colour printing process is not able to provide an accurate match between the colours shown and the colours defined for the individual colour locations.

Bases

IEC/EN 60061-1

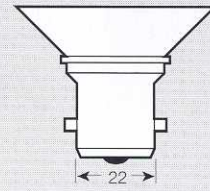
For direct connection to mains



E14
Sheet 7004-23



E27
Sheet 7004-21

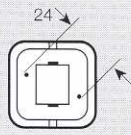


B22d
Sheet 7004-10

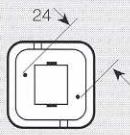
For switch-start operation



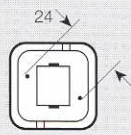
G23
Sheet 7004-69



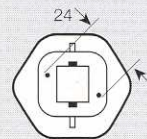
G24d-1
Sheet 7004-78



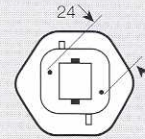
G24d-2
Sheet 7004-78



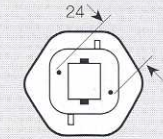
G24d-3
Sheet 7004-78



GX24d-1
Sheet 7004-78

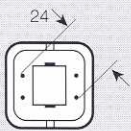


GX24d-2
Sheet 7004-78

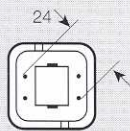


GX24d-3
Sheet 7004-78

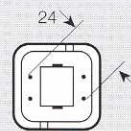
For HF operation



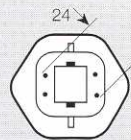
G24q-1
Sheet 7004-78



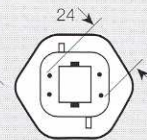
G24q-2
Sheet 7004-78



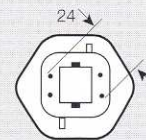
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Sheet 7004-78



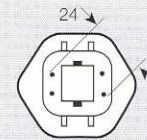
GX24q-1
Sheet 7004-78



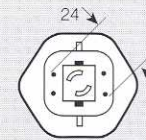
GX24q-2
Sheet 7004-78



GX24q-3
Sheet 7004-78

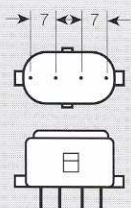


GX24q-4
Sheet 7004-78

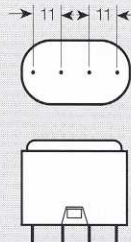


GX24q-5

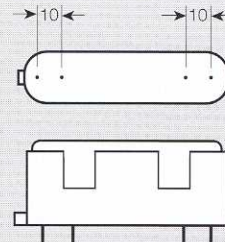
For HF operation



2G7
Sheet 7004-102

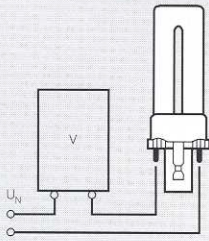


2G11
Sheet 7004-82

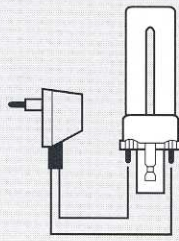


2G10
Sheet 7004-118

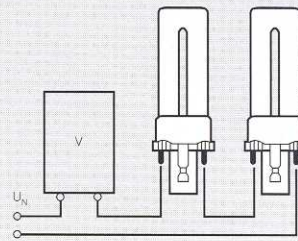
Circuit diagrams for conventional control gear



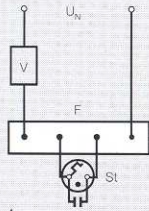
1
Single lamp with control gear
OSRAM DULUX® S 5W, 7W, 9W, 11W
OSRAM DULUX® D 10W, 13W, 18W, 26W
OSRAM DULUX® T 13W, 18W, 26W



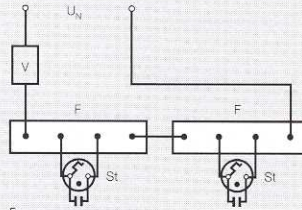
2
Single lamp with plug-in control gear
OSRAM DULUX® S 5W, 7W, 9W, 11W
OSRAM DULUX® D 10W, 13W
OSRAM DULUX® T 13W



3
Series connection with control gear
OSRAM DULUX® S 5W, 7W, 9W



4
Single lamp with starter St 111
or DEOS® St 171
OSRAM DULUX® L 18W, 24W, 36W
OSRAM DULUX® L 18W SP, 24W SP
OSRAM DULUX® F 18W, 24W, 36W



5
Series connection to 230V/240V
with starter St 151
OSRAM DULUX® L 18W
OSRAM DULUX® L 18W SP
OSRAM DULUX® F 18W

F = Four-pin lampholder
St = Starter
 U_N = Supply voltage
V = Control gear

Circuit diagrams for HF operation see Section 9.

