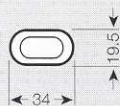
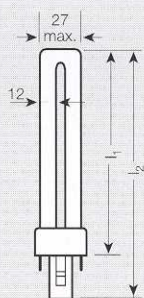


# OSRAM DULUX® S

## for conventional control gear (CCG)



|      |   |      |
|------|---|------|
| 25 W | → | 5 W  |
| 40 W | → | 7 W  |
| 60 W | → | 9 W  |
| 75 W | → | 11 W |

Product  
reference

Product  
number



R<sub>a</sub>

l<sub>m</sub>



l<sub>1</sub> max.  
[mm]

l<sub>2</sub> max.  
[mm]

IEC  
l<sub>1</sub> [mm]



### OSRAM DULUX® S LUMILUX®

|                      |                |    |                    |     |     |     |     |     |     |                  |
|----------------------|----------------|----|--------------------|-----|-----|-----|-----|-----|-----|------------------|
| DULUX S 5 W/840      | 4050300010564  | 5  | LUMILUX Cool White | 1 B | 250 | G23 | 85  | 108 | 85  | 10               |
| DULUX S 5 W/830      | 4050300025728  | 5  | LUMILUX Warm White | 1 B | 250 | G23 | 85  | 108 | 85  | 10               |
| DULUX S 5 W/827      | 4050300006130  | 5  | LUMILUX INTERNA    | 1 B | 250 | G23 | 85  | 108 | 85  | 10               |
| DULUX S 7 W/860      | 4050300355306  | 7  | LUMILUX Daylight   | 1 B | 375 | G23 | 114 | 137 | 115 | 50               |
| DULUX S 7 W/840      | 4050300010571  | 7  | LUMILUX Cool White | 1 B | 400 | G23 | 114 | 137 | 115 | 10               |
| DULUX S 7 W/830      | 4050300025735  | 7  | LUMILUX Warm White | 1 B | 400 | G23 | 114 | 137 | 115 | 10               |
| DULUX S 7 W/827      | 4050300005997  | 7  | LUMILUX INTERNA    | 1 B | 400 | G23 | 114 | 137 | 115 | 10               |
| DULUX S 7 W/827 BLI  | 4050300006086  | 7  | LUMILUX INTERNA    | 1 B | 400 | G23 | 114 | 137 | 115 | 10 <sup>1)</sup> |
| DULUX S 9 W/860      | 4050300355320  | 9  | LUMILUX Daylight   | 1 B | 565 | G23 | 144 | 167 | 145 | 50               |
| DULUX S 9 W/840      | 4050300010588  | 9  | LUMILUX Cool White | 1 B | 600 | G23 | 144 | 167 | 145 | 10/50            |
| DULUX S 9 W/830      | 4050300025742  | 9  | LUMILUX Warm White | 1 B | 600 | G23 | 144 | 167 | 145 | 10/50            |
| DULUX S 9 W/827      | 4050300006000  | 9  | LUMILUX INTERNA    | 1 B | 600 | G23 | 144 | 167 | 145 | 10/50            |
| DULUX S 9 W/827 BLI  | 4050300006093  | 9  | LUMILUX INTERNA    | 1 B | 600 | G23 | 144 | 167 | 145 | 10 <sup>1)</sup> |
| DULUX S 11 W/860     | 40503000112374 | 11 | LUMILUX Daylight   | 1 B | 850 | G23 | 214 | 237 | 215 | 50               |
| DULUX S 11 W/840     | 4050300010618  | 11 | LUMILUX Cool White | 1 B | 900 | G23 | 214 | 237 | 215 | 10/50            |
| DULUX S 11 W/830     | 4050300025759  | 11 | LUMILUX Warm White | 1 B | 900 | G23 | 214 | 237 | 215 | 10/50            |
| DULUX S 11 W/827     | 4050300006017  | 11 | LUMILUX INTERNA    | 1 B | 900 | G23 | 214 | 237 | 215 | 10/50            |
| DULUX S 11 W/827 BLI | 4050300006109  | 11 | LUMILUX INTERNA    | 1 B | 900 | G23 | 214 | 237 | 215 | 10 <sup>1)</sup> |

### OSRAM DULUX® S COLOURED

|                |               |   |       |     |     |     |     |     |    |
|----------------|---------------|---|-------|-----|-----|-----|-----|-----|----|
| DULUX S 9 W/60 | 4050300015927 | 9 | Red   | 400 | G23 | 144 | 167 | 145 | 10 |
| DULUX S 9 W/66 | 4050300015934 | 9 | Green | 800 | G23 | 144 | 167 | 145 | 10 |
| DULUX S 9 W/67 | 4050300015941 | 9 | Blue  | 200 | G23 | 144 | 167 | 145 | 10 |

Circuit diagrams 1 to 3, see page 3.31.

- The lamp for creative luminaire design and modern lighting systems.
- Small dimensions, extremely slim.
- High luminous efficacy and lighting comfort.
- Eight times the life and only 20 to 25% of the power consumption of ordinary light bulbs of comparable light output.
- Pleasant warm light, excellent colour rendering.
- Single-ended G23 plug-in base with integrated starter and RF suppression capacitor.
- The coloured versions are ideal for creative illumination and decoration.

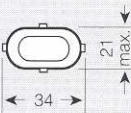
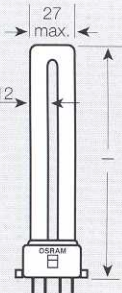
Their extremely compact dimensions make OSRAM DULUX® S lamps ideal for creative lighting.



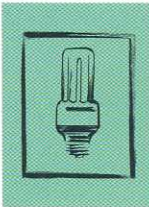
1) Cardboard blister pack.  
2) See page 3.30.

\* To ensure that your order reaches you quickly, please order standard pack quantities.

# OSRAM DULUX® S/E for electronic control gear (ECG) and dimming systems

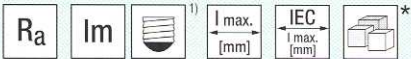


|      |   |      |
|------|---|------|
| 25 W | → | 5 W  |
| 40 W | → | 7 W  |
| 60 W | → | 9 W  |
| 75 W | → | 11 W |



Product reference

Product number



## OSRAM DULUX® S/E

|                    |               |    |                    |     |     |     |     |     |    |
|--------------------|---------------|----|--------------------|-----|-----|-----|-----|-----|----|
| DULUX S/E 5 W/840  | 4050300020150 | 5  | LUMILUX Cool white | 1 B | 250 | 2G7 | 85  | 85  | 10 |
| DULUX S/E 5 W/827  | 4050300017624 | 5  | LUMILUX INTERNA    | 1 B | 250 | 2G7 | 85  | 85  | 10 |
| DULUX S/E 7 W/840  | 4050300020167 | 7  | LUMILUX Cool white | 1 B | 400 | 2G7 | 114 | 115 | 10 |
| DULUX S/E 7 W/830  | 4050300591988 | 7  | LUMILUX Warm white | 1 B | 400 | 2G7 | 114 | 115 | 10 |
| DULUX S/E 7 W/827  | 4050300017648 | 7  | LUMILUX INTERNA    | 1 B | 400 | 2G7 | 114 | 115 | 10 |
| DULUX S/E 9 W/840  | 4050300020174 | 9  | LUMILUX Cool white | 1 B | 600 | 2G7 | 144 | 145 | 10 |
| DULUX S/E 9 W/830  | 4050300589398 | 9  | LUMILUX Warm white | 1 B | 600 | 2G7 | 144 | 145 | 10 |
| DULUX S/E 9 W/827  | 4050300017655 | 9  | LUMILUX INTERNA    | 1 B | 600 | 2G7 | 144 | 145 | 10 |
| DULUX S/E 11 W/840 | 4050300020181 | 11 | LUMILUX Cool white | 1 B | 900 | 2G7 | 214 | 215 | 10 |
| DULUX S/E 11 W/830 | 4050300589374 | 11 | LUMILUX Warm white | 1 B | 900 | 2G7 | 214 | 215 | 10 |
| DULUX S/E 11 W/827 | 4050300017662 | 11 | LUMILUX INTERNA    | 1 B | 900 | 2G7 | 214 | 215 | 10 |

For circuit diagrams see page 3.31.  
For QUICKTRONIC® ECG for mains voltages and ACCUTRONIC® ECG for low voltages see Section 9.

OSRAM DULUX® S/E compact fluorescent lamps are designed for HF control gear and for dimmer systems.



OSRAM DULUX® S/E compact fluorescent lamps can be operated from almost any type of power supply, which makes them extremely versatile.



These innovative energy saving lamps can be operated on battery, solar or mains power. They are suitable for low voltage (e.g. with ACCUTRONIC®). They can also be fully dimmed. Their dimensions and wattages are identical to those of the successful standard OSRAM DULUX® S models.

- Ten times the life of ordinary light bulbs of the same light output, with ECG operation.
- Comfortable light in ECG operation.
- Small dimensions, extremely slim.
- Smallest lamp suitable for solar or battery-powered systems (emergency power).
- Low power consumption (5 W, 7 W, 9 W, 11 W).
- Luminous flux values from 250 to 900 lm.
- Single-ended four-pin plug-in 2G7 base.

1) See page 3.30.  
\* To ensure that your order reaches you quickly, please order standard pack quantities.

## Technical data

| Lamp<br>OSRAM DULUX®<br>Watt | Lamp voltage<br>for<br>50/60Hz<br>V |                | Lamp current<br>for<br>50/60Hz<br>mA |                 | Wattage with<br>control gear<br>CCG <sup>1)</sup> ECG<br>W |     | Lumi-<br>nance<br>cd/cm <sup>2</sup><br><br>LF 827,<br>830, 840 | Compensation<br>Parallel<br>capacitor <sup>2)</sup><br>CCG<br>230V/50Hz<br>µF | Series<br>capacitor <sup>3)</sup><br>CCG<br>µF |
|------------------------------|-------------------------------------|----------------|--------------------------------------|-----------------|------------------------------------------------------------|-----|-----------------------------------------------------------------|-------------------------------------------------------------------------------|------------------------------------------------|
|                              |                                     | for<br>HF<br>V |                                      | for<br>HF<br>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

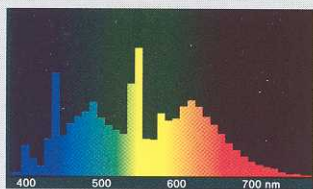
2) Design for cos phi = 0.95

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

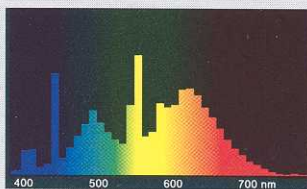
3) To maintain the specified operating and preheating values, close-tolerance capacitors (± 2%) and series resistors (± 1.5%) are required for series compensation. Check the product ranges of leading manufacturers. Dielectric strength of the capacitors = 450 V AC.

4) In preparation.

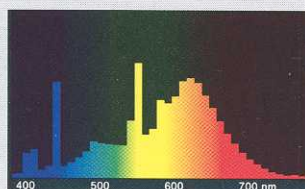
# Spectral power distribution of OSRAM DULUX® lamps



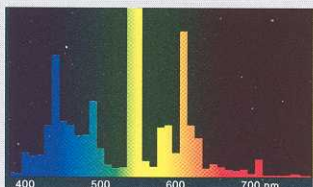
Colour 950 LUMILUX® DE LUXE  
Daylight



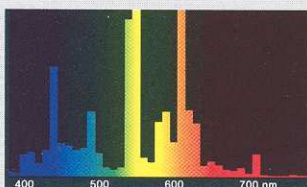
Colour 940 LUMILUX® DE LUXE  
Cool White



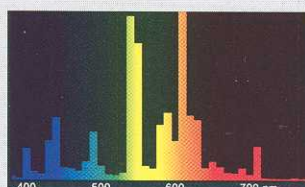
Colour 930 LUMILUX® DE LUXE  
Warm White



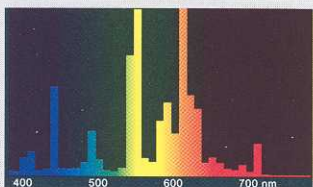
Colour 860 LUMILUX® Daylight



Colour 840 LUMILUX® Cool White



Colour 830 LUMILUX®  
Warm White

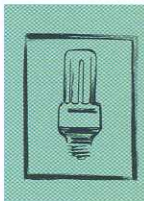


Colour 827 LUMILUX INTERNA®

## 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

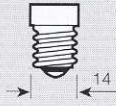
|           |                  |                      |                      |                      |
|-----------|------------------|----------------------|----------------------|----------------------|
|           |                  |                      |                      |                  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

For an explanation of the colour appearances see page 4.23.

# Bases

## IEC/EN 60061-1

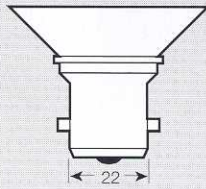
For direct connection to mains



E14  
Sheet 7004-23



E27  
Sheet 7004-21

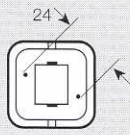


B22d  
Sheet 7004-10

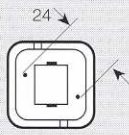
For switch-start operation



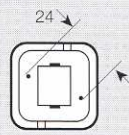
G23  
Sheet 7004-69



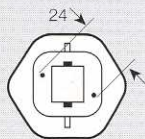
G24d-1  
Sheet 7004-78



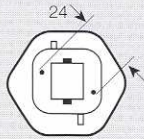
G24d-2  
Sheet 7004-78



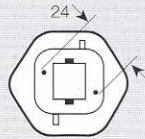
G24d-3  
Sheet 7004-78



GX24d-1  
Sheet 7004-78

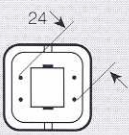


GX24d-2  
Sheet 7004-78

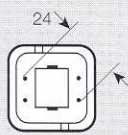


GX24d-3  
Sheet 7004-78

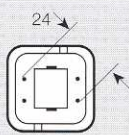
For HF operation



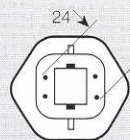
G24q-1  
Sheet 7004-78



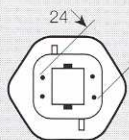
G24q-2  
Sheet 7004-78



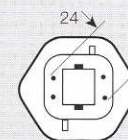
G24q-3  
Sheet 7004-78



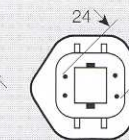
GX24q-1  
Sheet 7004-78



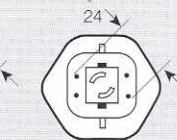
GX24q-2  
Sheet 7004-78



GX24q-3  
Sheet 7004-78

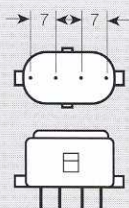


GX24q-4  
Sheet 7004-78

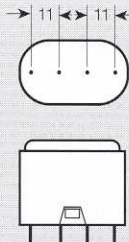


GX24q-5

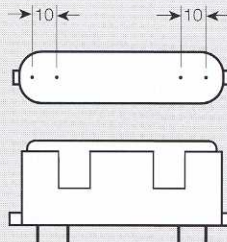
For HF operation



2G7  
Sheet 7004-102

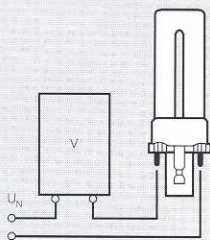


2G11  
Sheet 7004-82

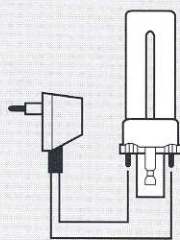


2G10  
Sheet 7004-118

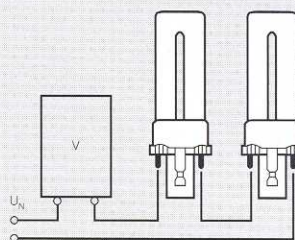
# Circuit diagrams for conventional control gear



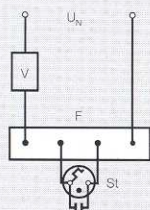
1  
Single lamp with control gear  
OSRAM DULUX® S 5W, 7W, 9W, 11W  
OSRAM DULUX® D 10W, 13W, 18W, 26W  
OSRAM DULUX® T 13W, 18W, 26W



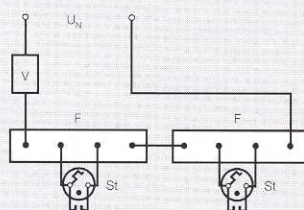
2  
Single lamp with plug-in control gear  
OSRAM DULUX® S 5W, 7W, 9W, 11W  
OSRAM DULUX® D 10W, 13W  
OSRAM DULUX® T 13W



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.

