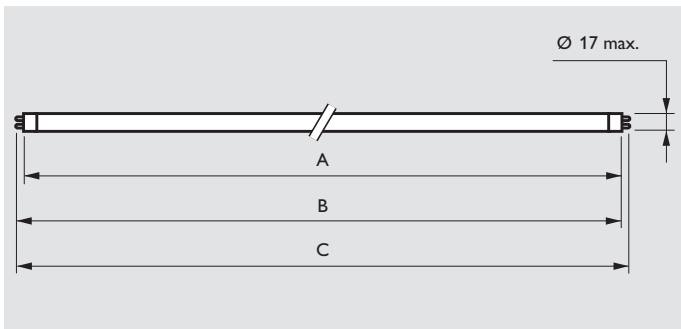
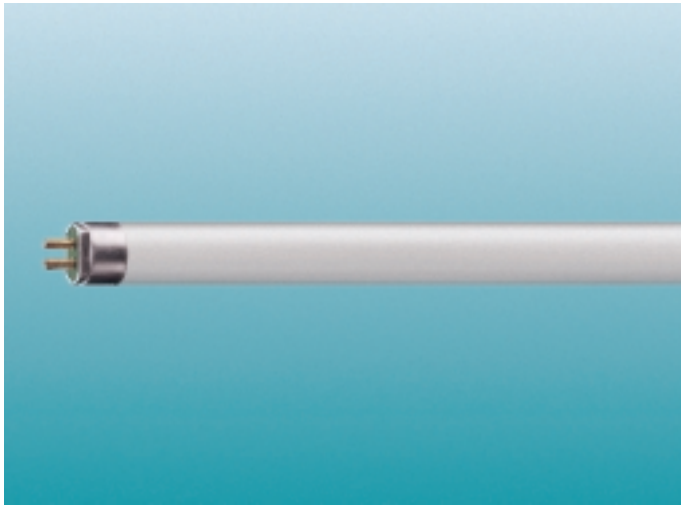


# Fluorescent lamps

# 'TL'5 High Output lamps (HO)



Dimensions in mm

| Type         | A<br>max. | B<br>min. | B<br>max. | C<br>max. |
|--------------|-----------|-----------|-----------|-----------|
| 'TL'5 HO 24W | 549.0     | 553.7     | 556.1     | 563.2     |
| 'TL'5 HO 39W | 849.0     | 853.7     | 856.1     | 863.2     |
| 'TL'5 HO 54W | 1149.0    | 1153.7    | 1156.1    | 1163.2    |
| 'TL'5 HO 49W | 1449.0    | 1453.7    | 1456.1    | 1463.2    |
| 'TL'5 HO 80W | 1449.0    | 1453.7    | 1456.1    | 1463.2    |

Note: The circumscription (inclusive the warp) of the lamps is 17 mm.

## Definition

'TL'5 lamps are fluorescent lamps with a diameter of 16 mm, which is 40 % thinner than the diameter of existing 'TL'D lamps.

## Description

'TL'5 HO lamps are designed for high lumen output and system miniaturization.

The 'TL'5 HO range is more optimal for installations which need high luminaire fluxes.

- The latest technology has been incorporated: a triphosphor layer in combination with precoating.
- If a so called cut-off HF electronic ballast without additional electrode heating (designed on nominal lamp specs.) is used, the maximum lumen output of the lamp will be reached at approx. 35 °C in free-burning position.
- 'TL'5 HO lamps are especially designed for operation with electronic gear: Due to the high lamp voltages 50 Hz is not recommended or supported.
- The tube is 40 % thinner than existing 'TL'D lamps which have a 26 mm diameter. This smaller lamp gives luminaire designers much greater freedom in the design of their products.
- The lamp lengths have been defined for easy fitting into ceiling module systems.

## Characteristics

Philips quality implies an optimum quality:

- a high lumen output of 7000 lm (at the top).
- a lumen maintenance up to standards.
- a colour rendering index of 85.
- a low mercury dose.
- at a 3 hours switching cycle the lamps will last 20,000 burning hours if operated on appropriate HF warm start ballasts.
- the lamps are well-suited for dimming.
- the lamps can be ignited from -15 °C to +50 °C ambient temperature and are striation-poor even at low temperatures as compared to 'TL'D lamps.

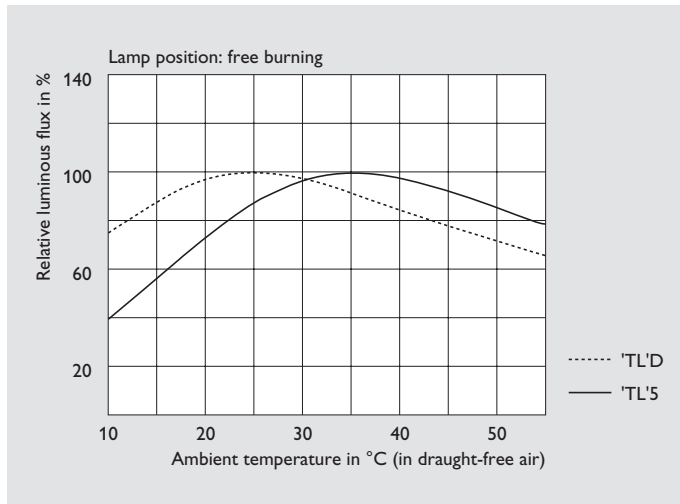
## Applications

The 'TL'5 lamps allow more compact and efficient systems.

The smaller lamp and the higher lumen packages of the 'TL'5 HO range offer exciting opportunities for architectural lighting and customized solutions.

The high flux is more optimal for direct/indirect optics in aesthetic pendant and furniture-mounted luminaires in offices, workshops, restaurants and reception areas. Furthermore it offers economic solutions with high-ceiling lighting in shops, industry and department stores as well as wall-washing/shelf lighting applications.





The 'TL'5 lamp is optimized for temperature conditions one may expect in 'TL'5 luminaires (35°C), the 'TL'D lamp is optimized for 25°C ambient temperature.

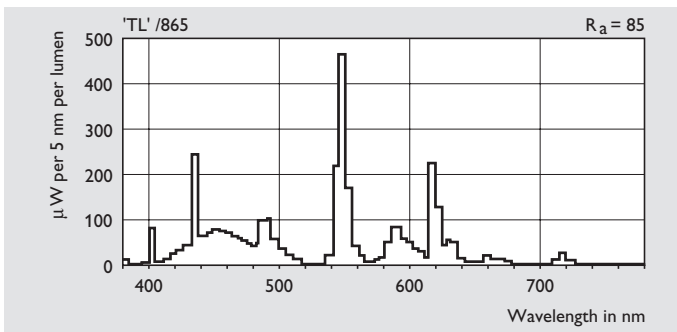
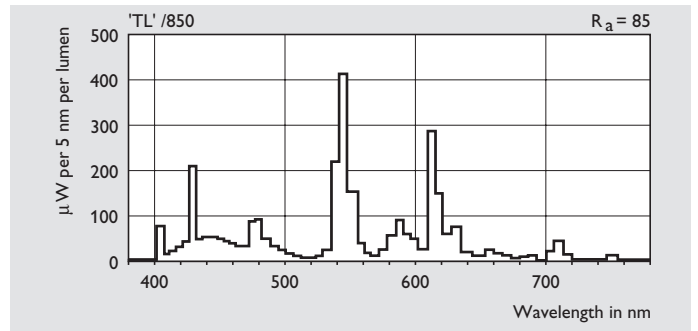
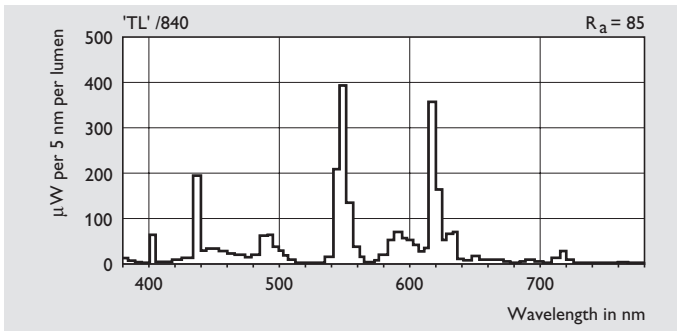
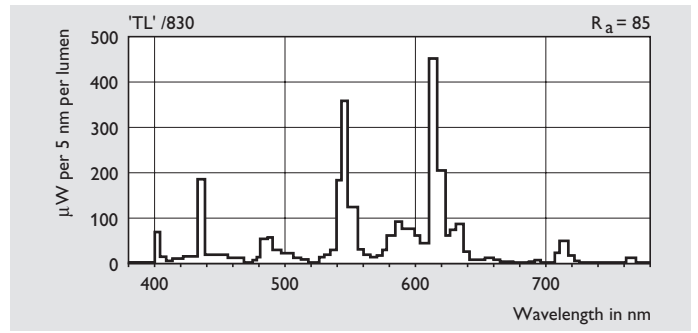
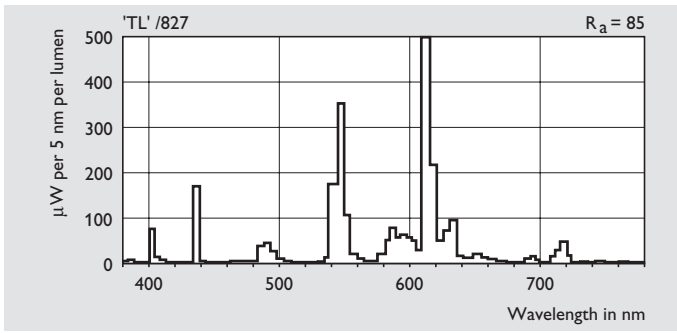
Notes:

- Nominal luminous flux and electrical specifications defined at an ambient temperature of 25 °C in free burning position on reference ballast.
- Efficacy (lm/W) and luminance defined at top of the lumen curve (approx. 35 °C).
- The lamps require an end-of-life switch-off function.
- Only 500 volt marked G5 holders to be used.
- G5 cap contains marking dents to enable correct positioning at lamp mounting.
- A tray pack (40 pcs) and an individually sleeved packing (30 pcs) is available.

| Type              | Cap/base | Lamp voltage V | Lamp current mA | Nominal lumen output (25°C) lm | Colour designation | Corr. colour temperature K | Efficacy top lumens lm/W | Average luminance at top cd/cm² | Nett weight g | Ordering number | EOC    |
|-------------------|----------|----------------|-----------------|--------------------------------|--------------------|----------------------------|--------------------------|---------------------------------|---------------|-----------------|--------|
| 'TL'5 HO 24W /827 | G5       | 77             | 295             | 1750                           | INCAND. LIGHT      | 2700                       | 89                       | 2.5                             | 55            | 9279 280 827..  | 643087 |
| 'TL'5 HO 24W /830 | G5       | 77             | 295             | 1750                           | WARM WHITE         | 3000                       | 89                       | 2.5                             | 55            | 9279 280 830..  | 639585 |
| 'TL'5 HO 24W /840 | G5       | 77             | 295             | 1750                           | COOL WHITE         | 4000                       | 89                       | 2.5                             | 55            | 9279 280 840..  | 639608 |
| 'TL'5 HO 24W /850 | G5       | 77             | 295             | 1650                           | DAYLIGHT           | 5000                       | 84                       | 2.4                             | 55            | 9279 280 850..  | 637079 |
| 'TL'5 HO 24W /865 | G5       | 77             | 295             | 1650                           | COOL DAYLIGHT      | 6500                       | 84                       | 2.4                             | 55            | 9279 280 865..  | 637109 |
| 'TL'5 HO 39W /827 | G5       | 117            | 325             | 3100                           | INCAND. LIGHT      | 2700                       | 92                       | 2.8                             | 85            | 9279 285 827..  | 643100 |
| 'TL'5 HO 39W /830 | G5       | 117            | 325             | 3100                           | WARM WHITE         | 3000                       | 92                       | 2.8                             | 85            | 9279 285 830..  | 639622 |
| 'TL'5 HO 39W /840 | G5       | 117            | 325             | 3100                           | COOL WHITE         | 4000                       | 92                       | 2.8                             | 85            | 9279 285 840..  | 639646 |
| 'TL'5 HO 39W /865 | G5       | 117            | 325             | 2950                           | COOL DAYLIGHT      | 6500                       | 87                       | 2.7                             | 85            | 9279 285 865..  | 637284 |
| 'TL'5 HO 54W /827 | G5       | 121            | 450             | 4450                           | INCAND. LIGHT      | 2700                       | 93                       | 2.9                             | 110           | 9279 290 827..  | 643148 |
| 'TL'5 HO 54W /830 | G5       | 121            | 450             | 4450                           | WARM WHITE         | 3000                       | 93                       | 2.9                             | 110           | 9279 290 830..  | 643162 |
| 'TL'5 HO 54W /840 | G5       | 121            | 450             | 4450                           | COOL WHITE         | 4000                       | 93                       | 2.9                             | 110           | 9279 290 840..  | 643186 |
| 'TL'5 HO 54W /850 | G5       | 121            | 450             | 4250                           | DAYLIGHT           | 5000                       | 89                       | 2.8                             | 110           | 9279 290 850..  | 637437 |
| 'TL'5 HO 54W /865 | G5       | 121            | 450             | 4250                           | COOL DAYLIGHT      | 6500                       | 89                       | 2.8                             | 110           | 9279 290 865..  | 637468 |
| 'TL'5 HO 49W /827 | G5       | 200            | 250             | 4300                           | INCAND. LIGHT      | 2700                       | 95                       | 2.3                             | 140           | 9279 275 827..  | 643124 |
| 'TL'5 HO 49W /830 | G5       | 200            | 250             | 4300                           | WARM WHITE         | 3000                       | 95                       | 2.3                             | 140           | 9279 275 830..  | 639547 |
| 'TL'5 HO 49W /840 | G5       | 200            | 250             | 4300                           | COOL WHITE         | 4000                       | 95                       | 2.3                             | 140           | 9279 275 840..  | 639561 |
| 'TL'5 HO 49W /865 | G5       | 200            | 250             | 4100                           | COOL DAYLIGHT      | 6500                       | 95                       | 2.2                             | 140           | 9279 275 865..  | 637642 |
| 'TL'5 HO 80W /830 | G5       | 151            | 540             | 6150                           | WARM WHITE         | 3000                       | 88                       | 3.3                             | 140           | 9279 295 830..  | 644367 |
| 'TL'5 HO 80W /840 | G5       | 151            | 540             | 6150                           | COOL WHITE         | 4000                       | 88                       | 3.3                             | 140           | 9279 295 840..  | 644381 |
| 'TL'5 HO 80W /865 | G5       | 151            | 540             | 5850                           | COOL DAYLIGHT      | 6500                       | 83                       | 3.1                             | 140           | 9279 295 865..  | 644404 |

# Fluorescent lamps

# 'TL'5 High Output lamps (HO)

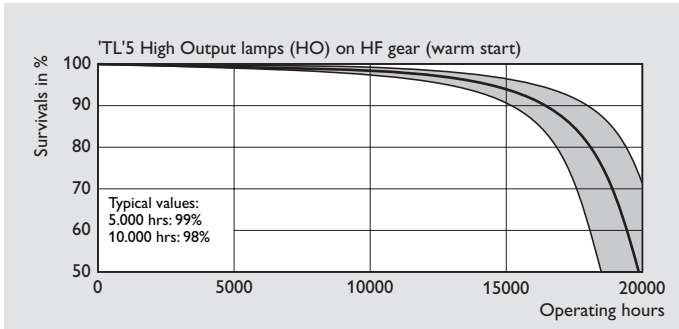


Spectral power distributions

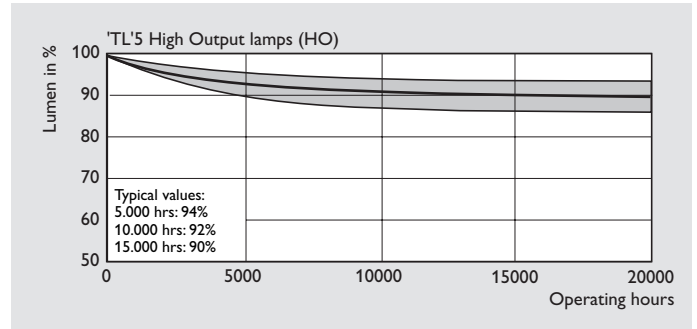


# Fluorescent lamps

# 'TL'5 High Output lamps (HO)



Life expectancy



Lumen maintenance