



Fit-for-use TL5 lamp

TL5 Essential HE Super 80

Philips TL5 Essential Super80 is a new fluorescent lamp which provides home users and professional end-users an aesthetic miniaturized lighting solution with high reliability at low price.

Benefits

- 40% less tube dimension than T8 fluorescent lamps. Reducing luminaire, stock and transportation cost
- Slim 16 mm tube allows more compact and flexible luminaire design
- Max lumen output at 35°C ambient temperature, more suitable to actual lighting situation
- Comfortable working and living ambiances with CRI more than 80
- Provides highly reliable and high quality lighting solution at low cost
- Creates atmospheres from warm white to cool daylight

Features

- Small diameter of 16mm only
- "Cold Chamber" technology
- Applied with electronic ballast for TL5 only
- Operate at temperature from 5°C to 50°C

Application

- Suitable for use at locations where need compact, high efficient, energy saving lighting. Including offices, shops, supermarkets, schools, hospitals and industrial lighting.

Warnings and Safety

- 20,000 hours lifetime (50% survival point, 3 hour cycle) with preheat ballast which is ENEC compliant. Lifetime performance may differ on non-ENEC compliant ballasts.

TL5 Essential HE Super 80

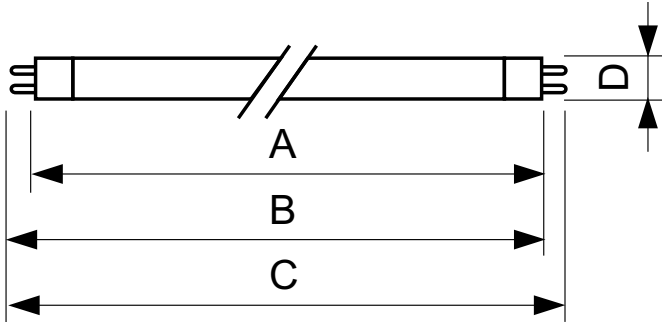
Versions



G5, T5

TL5 Essential HE Super 80

Dimensional drawing



| Product | D (max) | A (max) | B (max) | B (min) | C (max) |
|---------------------------------|---------|-----------|-----------|-----------|-----------|
| TL5 Essential 14W/827 1SL/40 | 17.0 mm | 549.0 mm | 556.1 mm | 553.7 mm | 563.2 mm |
| TL5 Essential 14W/830 1SL/40 | 17.0 mm | 549.0 mm | 556.1 mm | 553.7 mm | 563.2 mm |
| TL5 Essential 14W/830 1SL/40 | 17.0 mm | 549.0 mm | 556.1 mm | 553.7 mm | 563.2 mm |
| TL5 Essential 14W/840 1SL/40 | 17.0 mm | 549.0 mm | 556.1 mm | 553.7 mm | 563.2 mm |
| TL5 Essential 14W/840 1SL/40 | 17.0 mm | 549.0 mm | 556.1 mm | 553.7 mm | 563.2 mm |
| TL5 Essential 14W/865 1SL/40 | 17.0 mm | 549.0 mm | 556.1 mm | 553.7 mm | 563.2 mm |
| TL5 Essential 14W/865 1SL/40 | 17.0 mm | 549.0 mm | 556.1 mm | 553.7 mm | 563.2 mm |
| TL5 Essential 21W/827 1SL/40 | 17.0 mm | 849.0 mm | 856.1 mm | 853.7 mm | 863.2 mm |
| TL5 Essential 21W/830 1SL/40 | 17.0 mm | 849.0 mm | 856.1 mm | 853.7 mm | 863.2 mm |
| TL5 Essential 21W/830 1SL/40 | 17.0 mm | 849.0 mm | 856.1 mm | 853.7 mm | 863.2 mm |
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| TL5 Essential 21W/840 1SL/40 | 17.0 mm | 849.0 mm | 856.1 mm | 853.7 mm | 863.2 mm |
| TL5 Essential 21W/865 1SL/40 | 17.0 mm | 849.0 mm | 856.1 mm | 853.7 mm | 863.2 mm |
| TL5 Essential 21W/865 1SL/40 | 17.0 mm | 849.0 mm | 856.1 mm | 853.7 mm | 863.2 mm |
| TL5 Essential 28W/827 1SL/40 | 17.0 mm | 1149.0 mm | 1156.1 mm | 1153.7 mm | 1163.2 mm |
| TL5 Essential 28W/830 1SL/40 | 17.0 mm | 1149.0 mm | 1156.1 mm | 1153.7 mm | 1163.2 mm |
| TL5 Essential 28W/830 1SL/40 | 17.0 mm | 1149.0 mm | 1156.1 mm | 1153.7 mm | 1163.2 mm |
| TL5 Essential 28W/840 1SL/40 | 17.0 mm | 1149.0 mm | 1156.1 mm | 1153.7 mm | 1163.2 mm |
| TL5 Essential 28W/840 1SL/40 | 17.0 mm | 1149.0 mm | 1156.1 mm | 1153.7 mm | 1163.2 mm |
| TL5 Essential 28W/865 1SL/40 | 17.0 mm | 1149.0 mm | 1156.1 mm | 1153.7 mm | 1163.2 mm |
| TL5 Essential 28W/865 1SL/40 | 17.0 mm | 1149.0 mm | 1156.1 mm | 1153.7 mm | 1163.2 mm |

TL5 Essential HE Super 80

| Approval and Application | |
|------------------------------------|---------|
| Mercury (Hg) Content (Nom) | 2.0 mg |
| Controls and Dimming | |
| Dimmable | No |
| Operating and Electrical | |
| Lamp Current (Nom) | 0.170 A |
| General Information | |
| Cap-Base | G5 |
| Life To 50% Failures Preheat (Nom) | 20000 h |
| LSF Preheat 16000 h Rated | 70 % |
| LSF Preheat 20000 h Rated | 50 % |
| LSF Preheat 2000 h Rated | 98 % |
| LSF Preheat 4000 h Rated | 97 % |
| LSF Preheat 6000 h Rated | 95 % |
| LSF Preheat 8000 h Rated | 93 % |
| Light Technical | |
| Color Rendering Index (Max) | 85 |
| Color Rendering Index (Min) | 80 |
| Color Rendering Index (Nom) | 82 |
| LLMF 12000 h Rated | 88 % |
| LLMF 16000 h Rated | 87 % |
| LLMF 2000 h Rated | 94 % |
| LLMF 20000 h Rated | 86 % |
| LLMF 4000 h Rated | 92 % |
| LLMF 6000 h Rated | 91 % |
| LLMF 8000 h Rated | 90 % |
| Mechanical and Housing | |
| Bulb Shape | T5 |
| Temperature | |
| Design Temperature (Nom) | 30 °C |

Approval and Application

| Order Code | Full Product Name | Energy Consumption kWh/1000 h |
|--------------|------------------------------|-------------------------------|
| 927925982758 | TL5 Essential 14W/827 1SL/40 | - |
| 927925983058 | TL5 Essential 14W/830 1SL/40 | - |
| 927925983060 | TL5 Essential 14W/830 1SL/40 | - |
| 927925984058 | TL5 Essential 14W/840 1SL/40 | 15 kWh |
| 927925984060 | TL5 Essential 14W/840 1SL/40 | 15 kWh |
| 927925986558 | TL5 Essential 14W/865 1SL/40 | 15 kWh |
| 927925986560 | TL5 Essential 14W/865 1SL/40 | 15 kWh |
| 927926482758 | TL5 Essential 21W/827 1SL/40 | - |
| 927926483058 | TL5 Essential 21W/830 1SL/40 | 23 kWh |
| 927926483060 | TL5 Essential 21W/830 1SL/40 | 23 kWh |
| 927926484058 | TL5 Essential 21W/840 1SL/40 | - |
| 927926484060 | TL5 Essential 21W/840 1SL/40 | - |
| 927926486558 | TL5 Essential 21W/865 1SL/40 | - |
| 927926486560 | TL5 Essential 21W/865 1SL/40 | - |
| 927926782758 | TL5 Essential 28W/827 1SL/40 | - |
| 927926783058 | TL5 Essential 28W/830 1SL/40 | 31 kWh |
| 927926783060 | TL5 Essential 28W/830 1SL/40 | 31 kWh |
| 927926784058 | TL5 Essential 28W/840 1SL/40 | 31 kWh |
| 927926784060 | TL5 Essential 28W/840 1SL/40 | 31 kWh |
| 927926786558 | TL5 Essential 28W/865 1SL/40 | 31 kWh |
| 927926786560 | TL5 Essential 28W/865 1SL/40 | 31 kWh |

Operating and Electrical

| Order Code | Full Product Name | Power (Rated) (Nom) |
|--------------|------------------------------|---------------------|
| 927925982758 | TL5 Essential 14W/827 1SL/40 | 14.3 W |
| 927925983058 | TL5 Essential 14W/830 1SL/40 | 14.3 W |
| 927925983060 | TL5 Essential 14W/830 1SL/40 | 14.3 W |
| 927925984058 | TL5 Essential 14W/840 1SL/40 | 14.3 W |
| 927925984060 | TL5 Essential 14W/840 1SL/40 | 14.3 W |
| 927925986558 | TL5 Essential 14W/865 1SL/40 | 14 W |
| 927925986560 | TL5 Essential 14W/865 1SL/40 | 14 W |
| 927926482758 | TL5 Essential 21W/827 1SL/40 | 20.8 W |
| 927926483058 | TL5 Essential 21W/830 1SL/40 | 20.8 W |
| 927926483060 | TL5 Essential 21W/830 1SL/40 | 20.8 W |
| 927926484058 | TL5 Essential 21W/840 1SL/40 | 20.8 W |

| Order Code | Full Product Name | Power (Rated) (Nom) |
|--------------|------------------------------|---------------------|
| 927926484060 | TL5 Essential 21W/840 1SL/40 | 20.8 W |
| 927926486558 | TL5 Essential 21W/865 1SL/40 | 20.8 W |
| 927926486560 | TL5 Essential 21W/865 1SL/40 | 20.8 W |
| 927926782758 | TL5 Essential 28W/827 1SL/40 | 27.8 W |
| 927926783058 | TL5 Essential 28W/830 1SL/40 | 27.8 W |
| 927926783060 | TL5 Essential 28W/830 1SL/40 | 27.8 W |
| 927926784058 | TL5 Essential 28W/840 1SL/40 | 27.8 W |
| 927926784060 | TL5 Essential 28W/840 1SL/40 | 27.8 W |
| 927926786558 | TL5 Essential 28W/865 1SL/40 | 27.8 W |
| 927926786560 | TL5 Essential 28W/865 1SL/40 | 27.8 W |

Light Technical (1/2)

TL5 Essential HE Super 80

| Order Code | Full Product Name | Color Code | Color Designation | Correlated Color Temperature (Nom) | Luminous Efficacy (@ Max Lumen, (Nom) | Order Code | Full Product Name | Color Code | Color Designation | Correlated Color Temperature (Nom) | Luminous Efficacy (@ Max Lumen, (Nom) |
|--------------|------------------------------|------------|--------------------|------------------------------------|---------------------------------------|--------------|------------------------------|------------|--------------------|------------------------------------|---------------------------------------|
| 927925982758 | TL5 Essential 14W/827 1SL/40 | 827 | Incandescent White | 2700 K | 96 lm/W | 927926484060 | TL5 Essential 21W/840 1SL/40 | 840 | Cool White (CW) | 4000 K | 101 lm/W |
| 927925983058 | TL5 Essential 14W/830 1SL/40 | 830 | Warm White (WW) | 3000 K | 96 lm/W | 927926486558 | TL5 Essential 21W/865 1SL/40 | 865 | Cool Daylight | 6500 K | 92 lm/W |
| 927925983060 | TL5 Essential 14W/830 1SL/40 | 830 | Warm White (WW) | 3000 K | 96 lm/W | 927926486560 | TL5 Essential 21W/865 1SL/40 | 865 | Cool Daylight | 6500 K | 92 lm/W |
| 927925984058 | TL5 Essential 14W/840 1SL/40 | 840 | Cool White (CW) | 4000 K | 96 lm/W | 927926782758 | TL5 Essential 28W/827 1SL/40 | 827 | Incandescent White | 2700 K | 104 lm/W |
| 927925984060 | TL5 Essential 14W/840 1SL/40 | 840 | Cool White (CW) | 4000 K | 96 lm/W | 927926783058 | TL5 Essential 28W/830 1SL/40 | 830 | Warm White (WW) | 3000 K | 104 lm/W |
| 927925986558 | TL5 Essential 14W/865 1SL/40 | 865 | Cool Daylight | 6500 K | 90 lm/W | 927926783060 | TL5 Essential 28W/830 1SL/40 | 830 | Warm White (WW) | 3000 K | 104 lm/W |
| 927925986560 | TL5 Essential 14W/865 1SL/40 | 865 | Cool Daylight | 6500 K | 90 lm/W | 927926784058 | TL5 Essential 28W/840 1SL/40 | 840 | Cool White (CW) | 4000 K | 104 lm/W |
| 927926482758 | TL5 Essential 21W/827 1SL/40 | 827 | Incandescent White | 2700 K | 101 lm/W | 927926784060 | TL5 Essential 28W/840 1SL/40 | 840 | Cool White (CW) | 4000 K | 104 lm/W |
| 927926483058 | TL5 Essential 21W/830 1SL/40 | 830 | Warm White (WW) | 3000 K | 101 lm/W | 927926786558 | TL5 Essential 28W/865 1SL/40 | 865 | Cool Daylight | 6500 K | 97 lm/W |
| 927926483060 | TL5 Essential 21W/830 1SL/40 | 830 | Warm White (WW) | 3000 K | 101 lm/W | 927926786560 | TL5 Essential 28W/865 1SL/40 | 865 | Cool Daylight | 6500 K | 97 lm/W |
| 927926484058 | TL5 Essential 21W/840 1SL/40 | 840 | Cool White (CW) | 4000 K | 101 lm/W | | | | | | |

Light Technical (2/2)

| Order Code | Full Product Name | Luminous Efficacy (rated) (Nom) | Luminous Flux (Nom) | Luminous Flux (Rated) (Nom) | Order Code | Full Product Name | Luminous Efficacy (rated) (Nom) | Luminous Flux (Nom) | Luminous Flux (Rated) (Nom) |
|--------------|------------------------------|---------------------------------|---------------------|-----------------------------|--------------|------------------------------|---------------------------------|---------------------|-----------------------------|
| 927925982758 | TL5 Essential 14W/827 1SL/40 | 88 lm/W | 1350 lm | 1260 lm | 927925984060 | TL5 Essential 14W/840 1SL/40 | 88 lm/W | 1350 lm | 1260 lm |
| 927925983058 | TL5 Essential 14W/830 1SL/40 | 88 lm/W | 1350 lm | 1260 lm | 927925986558 | TL5 Essential 14W/865 1SL/40 | 84 lm/W | 1260 lm | 1200 lm |
| 927925983060 | TL5 Essential 14W/830 1SL/40 | 88 lm/W | 1350 lm | 1260 lm | 927925986560 | TL5 Essential 14W/865 1SL/40 | 84 lm/W | 1260 lm | 1200 lm |
| 927925984058 | TL5 Essential 14W/840 1SL/40 | 88 lm/W | 1350 lm | 1260 lm | 927926482758 | TL5 Essential 21W/827 1SL/40 | 94 lm/W | 2100 lm | 1950 lm |

TL5 Essential HE Super 80

| Order Code | Full Product Name | Luminous Efficacy (rated) (Nom) | Luminous Flux (Nom) | Luminous Flux (Rated) (Nom) |
|--------------|---------------------------------|---------------------------------|---------------------|-----------------------------|
| 927926483058 | TL5 Essential 21W/830 1SL/40 | 94 lm/W | 2100 lm | 1950 lm |
| 927926483060 | TL5 Essential 21W/830 1SL/40 | 94 lm/W | 2100 lm | 1950 lm |
| 927926484058 | TL5 Essential 21W/840 1SL/40 | 94 lm/W | 2100 lm | 1950 lm |
| 927926484060 | TL5 Essential 21W/840 1SL/40 | 94 lm/W | 2100 lm | 1950 lm |
| 927926486558 | TL5 Essential 21W/865 1SL/40 | 84 lm/W | 1900 lm | 1750 lm |
| 927926486560 | TL5 Essential 21W/865 1SL/40 | 84 lm/W | 1900 lm | 1750 lm |
| 927926782758 | TL5 Essential 28W/827 1SL/40 | 94 lm/W | 2900 lm | 2600 lm |

| Order Code | Full Product Name | Luminous Efficacy (rated) (Nom) | Luminous Flux (Nom) | Luminous Flux (Rated) (Nom) |
|--------------|---------------------------------|---------------------------------|---------------------|-----------------------------|
| 927926783058 | TL5 Essential 28W/830 1SL/40 | 94 lm/W | 2900 lm | 2600 lm |
| 927926783060 | TL5 Essential 28W/830 1SL/40 | 94 lm/W | 2900 lm | 2600 lm |
| 927926784058 | TL5 Essential 28W/840 1SL/40 | 94 lm/W | 2900 lm | 2600 lm |
| 927926784060 | TL5 Essential 28W/840 1SL/40 | 94 lm/W | 2900 lm | 2600 lm |
| 927926786558 | TL5 Essential 28W/865 1SL/40 | 94 lm/W | 2700 lm | 2600 lm |
| 927926786560 | TL5 Essential 28W/865 1SL/40 | 94 lm/W | 2700 lm | 2600 lm |

