



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

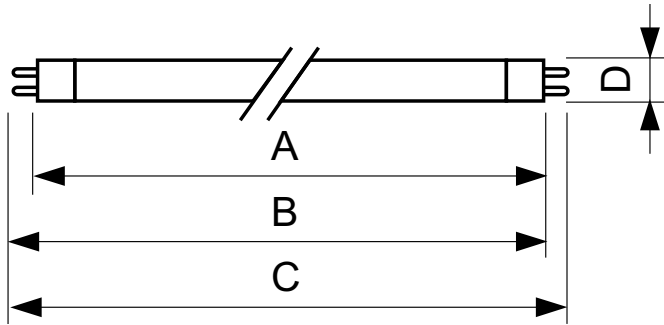
- Suitable for use at locations where need compact, high efficient, energy saving lighting. Including offices, shops, supermarkets, schools, hospitals and industrial lighting.

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

Dimensional drawing



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

TL5 Essential 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

Colour Rendering Index (Max) 85

Colour Rendering Index (Min) 80

Colour 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 | Energy Efficiency Label (EEL) |
|------------|------------------------------|-------------------------------|-------------------------------|
| 57031455 | TL5 Essential 14W/830 1SL/40 | - | A |
| 57033855 | TL5 Essential 14W/840 1SL/40 | 15 kWh | A |
| 57035255 | TL5 Essential 14W/865 1SL/40 | 15 kWh | A |
| 57037655 | TL5 Essential 21W/830 1SL/40 | 23 kWh | A |
| 57039055 | TL5 Essential 21W/840 1SL/40 | - | A |
| 57041355 | TL5 Essential 21W/865 1SL/40 | - | A |
| 57043755 | TL5 Essential 28W/830 1SL/40 | 31 kWh | A |
| 57045155 | TL5 Essential 28W/840 1SL/40 | 31 kWh | A+ |
| 57047555 | TL5 Essential 28W/865 1SL/40 | 31 kWh | A |

Operating and Electrical

| Order Code | Full Product Name | Power (Rated) (Nom) |
|------------|------------------------------|---------------------|
| 57031455 | TL5 Essential 14W/830 1SL/40 | 14.3 W |
| 57033855 | TL5 Essential 14W/840 1SL/40 | 14.3 W |
| 57035255 | TL5 Essential 14W/865 1SL/40 | 14 W |
| 57037655 | TL5 Essential 21W/830 1SL/40 | 20.8 W |
| 57039055 | TL5 Essential 21W/840 1SL/40 | 20.8 W |

| Order Code | Full Product Name | Power (Rated) (Nom) |
|------------|------------------------------|---------------------|
| 57041355 | TL5 Essential 21W/865 1SL/40 | 20.8 W |
| 57043755 | TL5 Essential 28W/830 1SL/40 | 27.8 W |
| 57045155 | TL5 Essential 28W/840 1SL/40 | 27.8 W |
| 57047555 | TL5 Essential 28W/865 1SL/40 | 27.8 W |

Light Technical (1/2)

TL5 Essential HE Super 80

| Order Code | Full Product Name | Colour Code | Colour Designation | Correlated Colour Temperature (Nom) | Luminous Efficacy (@ Max Lumen, Rated) (Nom) |
|------------|------------------------------|-------------|--------------------|-------------------------------------|--|
| 57031455 | TL5 Essential 14W/830 1SL/40 | 830 | Warm White (WW) | 3000 K | 96 lm/W |
| 57033855 | TL5 Essential 14W/840 1SL/40 | 841 | Cool White (CW) | 4000 K | 96 lm/W |
| 57035255 | TL5 Essential 14W/865 1SL/40 | 865 | Cool Daylight | 6500 K | 90 lm/W |
| 57037655 | TL5 Essential 21W/830 1SL/40 | 830 | Warm White (WW) | 3000 K | 101 lm/W |
| 57039055 | TL5 Essential 21W/840 1SL/40 | 841 | Cool White (CW) | 4000 K | 101 lm/W |

| Order Code | Full Product Name | Colour Code | Colour Designation | Correlated Colour Temperature (Nom) | Luminous Efficacy (@ Max Lumen, Rated) (Nom) |
|------------|------------------------------|-------------|--------------------|-------------------------------------|--|
| 57041355 | TL5 Essential 21W/865 1SL/40 | 865 | Cool Daylight | 6500 K | 92 lm/W |
| 57043755 | TL5 Essential 28W/830 1SL/40 | 830 | Warm White (WW) | 3000 K | 104 lm/W |
| 57045155 | TL5 Essential 28W/840 1SL/40 | 841 | Cool White (CW) | 4000 K | 104 lm/W |
| 57047555 | TL5 Essential 28W/865 1SL/40 | 865 | Cool Daylight | 6500 K | 97 lm/W |

Light Technical (2/2)

| Order Code | Full Product Name | Luminous Efficacy (rated) (Nom) | Luminous Flux (Nom) | Luminous Flux (Rated) (Nom) |
|------------|------------------------------|---------------------------------|---------------------|-----------------------------|
| 57031455 | TL5 Essential 14W/830 1SL/40 | 88 lm/W | 1350 lm | 1260 lm |
| 57033855 | TL5 Essential 14W/840 1SL/40 | 88 lm/W | 1350 lm | 1260 lm |
| 57035255 | TL5 Essential 14W/865 1SL/40 | 84 lm/W | 1260 lm | 1200 lm |
| 57037655 | TL5 Essential 21W/830 1SL/40 | 94 lm/W | 2100 lm | 1950 lm |
| 57039055 | TL5 Essential 21W/840 1SL/40 | 94 lm/W | 2100 lm | 1950 lm |

| Order Code | Full Product Name | Luminous Efficacy (rated) (Nom) | Luminous Flux (Nom) | Luminous Flux (Rated) (Nom) |
|------------|------------------------------|---------------------------------|---------------------|-----------------------------|
| 57041355 | TL5 Essential 21W/865 1SL/40 | 84 lm/W | 1900 lm | 1750 lm |
| 57043755 | TL5 Essential 28W/830 1SL/40 | 94 lm/W | 2900 lm | 2600 lm |
| 57045155 | TL5 Essential 28W/840 1SL/40 | 94 lm/W | 2900 lm | 2600 lm |
| 57047555 | TL5 Essential 28W/865 1SL/40 | 94 lm/W | 2700 lm | 2600 lm |

