



One lamp for magnetic or electronic ballasts

T12

Philips UniversalFit TLEDs offer unique ballast compatibility working with both electronic (instant-start) and magnetic ballasts while meeting the revised UL1993 standards. The UniversalFit TLEDs are engineered to deliver excellent lighting effects and substantial energy savings while providing unmatched user & installer safety.

Benefits

- Lowers lighting costs
- Offers professional upgrade to LED lighting technology
- Reduced installation time, no need to replace ballasts

Features

- Compatible with both Magnetic and Electronic ballasts
- Meets the latest UL1993 standards
- Reliable performance
- Easy installation, just plug-and-play (UL Type A)

Application

- Office, Industrial & warehouses
- Signage
- Parking lots and covered car parks
- Residential and multi-family dwellings

T12

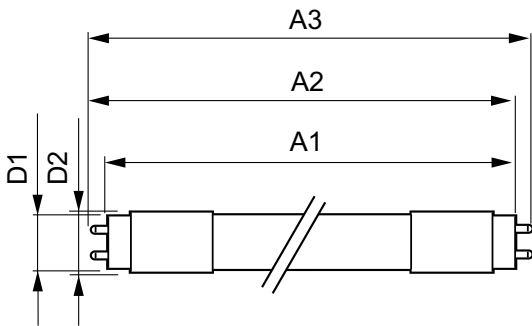
Versions



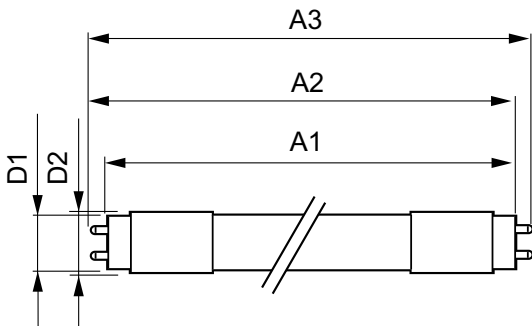
G13

Medium Bi-Pin Fluorescent

Dimensional drawing



| Product | D1 | D2 | A1 | A2 | A3 |
|--------------------------------|----------|-------|---------|---------|---------|
| 20T12 EM LED/48-3000 IF G 10/1 | 25.68 mm | 28 mm | 1198 mm | 1205 mm | 1212 mm |
| 20T12 EM LED/48-3500 IF G 10/1 | 25.68 mm | 28 mm | 1198 mm | 1205 mm | 1212 mm |
| 20T12 EM LED/48-4000 IF G 10/1 | 26 mm | 28 mm | 1198 mm | 1205 mm | 1212 mm |
| 20T12 EM LED/48-6500 IF G 10/1 | 26 mm | 28 mm | 1198 mm | 1205 mm | 1212 mm |



| Product | D1 | D2 | A1 | A2 | A3 |
|-----------------------------|---------|-------|---------|---------|---------|
| 16T8/LED/48-840/UF18/G 10/1 | 25.7 mm | 28 mm | 1198 mm | 1205 mm | 1212 mm |
| 16T8/LED/48-850/UF18/G 10/1 | 25.7 mm | 28 mm | 1198 mm | 1205 mm | 1212 mm |

| Controls and Dimming | |
|---------------------------------------|---------|
| Dimmable | No |
| Operating and Electrical | |
| Starting Time (Nom) | 0.5 s |
| General Information | |
| Cap-Base | G13 |
| Nominal Lifetime (Nom) | 36000 h |
| Rated Lifetime (Hours) | 36000 h |
| Switching Cycle | 50000X |
| Light Technical | |
| Llmf At End Of Nominal Lifetime (Nom) | 70 % |
| Temperature | |
| T-Ambient (Min) | -20 °C |
| T-Storage (Max) | 65 °C |
| T-Storage (Min) | -40 °C |

Approval and Application

| Order Code | Full Product Name | Energy Consumption kWh/ | Energy Efficiency Label |
|--------------|--------------------------------|-------------------------|-------------------------|
| | | 1000 h | (EEL) |
| 929001226504 | 20T12 EM LED/48-4000 IF G 10/1 | 20 kWh | A+ |
| 929001226604 | 20T12 EM LED/48-6500 IF G 10/1 | 20 kWh | A+ |
| 929001306104 | 20T12 EM LED/48-3000 IF G 10/1 | - | A+ |
| 929001306204 | 20T12 EM LED/48-3500 IF G 10/1 | - | A+ |
| 929001965904 | 16T8/LED/48-840/UF18/G 10/1 | - | - |
| 929001966004 | 16T8/LED/48-850/UF18/G 10/1 | - | - |

Operating and Electrical

| Order Code | Full Product Name | Input | Voltage | Power |
|--------------|------------------------------------|-----------|-----------|---------|
| | | Frequency | (Nom) | (Rated) |
| 929001226504 | 20T12 EM LED/ 48-4000 IF G 10/1 | 60 Hz | 120-277 V | 20 W |
| 929001226604 | 20T12 EM LED/48-6500 IF G 10/1 | 60 Hz | 120-277 V | 20 W |
| 929001306104 | 20T12 EM LED/48-3000 IF G 10/1 | 60 Hz | 120-277 V | 20 W |

| Order Code | Full Product Name | Input | Voltage | Power |
|--------------|-----------------------------------|--------------|-----------|---------|
| | | Frequency | (Nom) | (Rated) |
| 929001306204 | 20T12 EM LED/48-3500 IF G 10/1 | 60 Hz | 120-277 V | 20 W |
| 929001965904 | 16T8/LED/48-840/ UF18/G 10/1 | 50-120000 Hz | 40-330 V | 16 W |
| 929001966004 | 16T8/LED/48-850/ UF18/G 10/1 | 50-120000 Hz | 40-330 V | 16 W |

Light Technical (1/2)

| Order Code | Full Product Name | Beam | Correlated | | |
|--------------|------------------------------------|-------------|------------|-------------------------|-----------------------------|
| | | Angle (Nom) | Color Code | Color Temperature (Nom) | Color Rendering Index (Nom) |
| 929001226504 | 20T12 EM LED/ 48-4000 IF G 10/1 | 240 ° | 840 | 4000 K | 82 |
| 929001226604 | 20T12 EM LED/ 48-6500 IF G 10/1 | 240 ° | 865 | 6500 K | 82 |
| 929001306104 | 20T12 EM LED/ 48-3000 IF G 10/1 | - | 830 | 3000 K | 82 |
| 929001306204 | 20T12 EM LED/ 48-3500 IF G 10/1 | - | 835 | 3500 K | 82 |

| Order Code | Full Product Name | Beam | Correlated | | |
|--------------|------------------------------------|-------------|------------|-------------------------|-----------------------------|
| | | Angle (Nom) | Color Code | Color Temperature (Nom) | Color Rendering Index (Nom) |
| 929001965904 | 16T8/LED/ 48-840/UF18/G 10/1 | 240 ° | 840 | 4000 K | 80 |
| 929001966004 | 16T8/LED/ 48-850/UF18/G 10/1 | 240 ° | 850 | 5000 K | 80 |

Light Technical (2/2)

| Order Code | Full Product Name | Luminous Flux (Nom) | Luminous Flux (Rated) | Rated Beam Angle |
|--------------|--------------------------------|---------------------|-----------------------|------------------|
| 929001226504 | 20T12 EM LED/48-4000 IF G 10/1 | 2100 lm | 2100 lm | 240 ° |
| 929001226604 | 20T12 EM LED/48-6500 IF G 10/1 | 2100 lm | 2100 lm | 240 ° |
| 929001306104 | 20T12 EM LED/48-3000 IF G 10/1 | 2000 lm | 2000 lm | - |

| Order Code | Full Product Name | Luminous Flux (Nom) | Luminous Flux (Rated) | Rated Beam Angle |
|--------------|--------------------------------|---------------------|-----------------------|------------------|
| 929001306204 | 20T12 EM LED/48-3500 IF G 10/1 | 2000 lm | 2000 lm | - |
| 929001965904 | 16T8/LED/48-840/UF18/G 10/1 | 1800 lm | 1800 lm | 240 ° |
| 929001966004 | 16T8/LED/48-850/UF18/G 10/1 | 1800 lm | 1800 lm | 240 ° |

Temperature

| Order Code | Full Product Name | T-Ambient (Max) | T-Case Maximum (Nom) |
|--------------|--------------------------------|-----------------|----------------------|
| 929001226504 | 20T12 EM LED/48-4000 IF G 10/1 | 35 °C | 65 °C |
| 929001226604 | 20T12 EM LED/48-6500 IF G 10/1 | 35 °C | 65 °C |
| 929001306104 | 20T12 EM LED/48-3000 IF G 10/1 | 45 °C | 65 °C |
| 929001306204 | 20T12 EM LED/48-3500 IF G 10/1 | 45 °C | 65 °C |
| 929001965904 | 16T8/LED/48-840/UF18/G 10/1 | 45 °C | 60 °C |
| 929001966004 | 16T8/LED/48-850/UF18/G 10/1 | 45 °C | 60 °C |

