Philips Ecofit LED tube T8
Philips Ecofit LEDtube T8 is a reliable value-for-money LED lamp out of Philips lighting portfolio, incorporated with frontier LED chips and other advanced technologies. The product helps customers to achieve over 60% energy saving and significant maintenance cost reduction by comparing to fluorescent lamps. It also helps generate natural and comfortable lighting effect, and to build up green and environment friendly image for our customers.
Product Features

Maintain high performance
• Reliable operation between -20 °C to 45 °C ambient temperature
• Trustable claimed lifetime
• 50,000 switching cycles

Easy to experience
• Instant on, no flicker or buzz
• Advanced optical design ensures a uniform light output and superior optical efficiency

Energy Efficient
• Energy savings over 60%*

* Based on comparison between 16W Ecofit LEDtube standard and Philips TLD standard or super 80 36W (40-44W system power when working with Electro Magnetic Ballasts)

Safe and forget
• Protection circuit inside ensuring people’s safety in case of mis-use, complying with IEC safety requirements
• Pass 4KV high-pot test, insulation & safety guaranteed
• Pass 1KV surge test (vs. IEC standard 500V), avoiding the damage caused by input voltage fluctuation and lightning strike
• 100% comply with IEC requirement on T8 dimension, fitting into fluorescent luminaire perfectly

Application

Retail Industry Schools
Hospitals Offices
Parking Lots Warehouses Public Areas

Offices

Public Areas
Spectral Power Distribution

Light may be precisely characterized by giving the power of the light at each wavelength in the visible spectrum. The resulting spectral power distribution (SPD) shows that the LED tube contains the visible light only. No harm from UV and IR.

Photometric Diagrams

The Photometric diagram depicting the top down mounted lighting fixtures in a specific area and a numerical grid of the maintained lighting levels that the fixture will produce in that specific area. Pictures below show the photometric diagrams of a typical Philips LED tube’s application.

1 x TLED 8W 4000K 240D

1 x 800 lm

1 x TLED 8W 6500K 240D

1 x 800 lm
Lifetime and Lumen Maintenance

PHILIPS Ecofit LEDtube has a lifetime of 15,000 hours, defined as the number of hours when 50% of a large group of identical lamps below 70% of its initial lumens.
Temperature

Philips Ecofit LEDtube’s excellent thermal design ensures low temperature during operating, which brings reliable and stable product performance throughout life time.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>T value</th>
<th>min</th>
<th>max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating temperature</td>
<td>T operating</td>
<td>-20°C</td>
<td>+45°C</td>
</tr>
<tr>
<td>Storage temperature</td>
<td>T storage</td>
<td>-40°C</td>
<td>+65°C</td>
</tr>
<tr>
<td>Maximum surface temperature of tube at Tamb.=25°C</td>
<td>T surface</td>
<td>+60°C</td>
<td></td>
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</table>

Temperature

Lumen (%)

Dimension: mm

TC point is at the opaque area

TC position : 150mm

Approbation & Certificates

Philips LEDtube is designed by strictly following applicable legislation and international standard. The product complies with KEMA, RoHS and TISI.

Dimensions (mm)

<table>
<thead>
<tr>
<th>Product</th>
<th>A1 (mm)</th>
<th>A2 (mm)</th>
<th>A3 (mm)</th>
<th>D (mm)</th>
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<tbody>
<tr>
<td>600mm</td>
<td>588.5</td>
<td>595.5</td>
<td>602.5</td>
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<tr>
<td>1200mm</td>
<td>1198</td>
<td>1205</td>
<td>1212</td>
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Technical specification

<table>
<thead>
<tr>
<th>Product Description</th>
<th>Wattage</th>
<th>Voltage</th>
<th>Cap</th>
<th>Length</th>
<th>Beam Angle</th>
<th>Lifetime</th>
<th>Lumen</th>
<th>CCT</th>
<th>CRI *</th>
<th>Model Number</th>
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<tbody>
<tr>
<td>LEDtube 1200mm 16W 740 T8 AP C G</td>
<td>16</td>
<td>220-240</td>
<td>G13</td>
<td>1200</td>
<td>240</td>
<td>15,000</td>
<td>1600</td>
<td>4000</td>
<td>73</td>
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<tr>
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* minimum is 70

Quick Installation Guide

Please take the time to read quick installation guide which is showed on the product package. Philips Lighting does not accept liability for any damages for installations not performed according to this guide or not performed by a professional electrician.

OEM Guideline

Failure rate vs. Lifetime @ Ta 25 °C

Lumen Maintenance vs. Lifetime

Failure Rate vs. Lifetime vs. Tcase

Lifetime vs. Tcase