

binay
PowerLED Tube Light Model 42L-C-4
(For IN-PLACE replacement of 4-foot fluorescent tube lights)

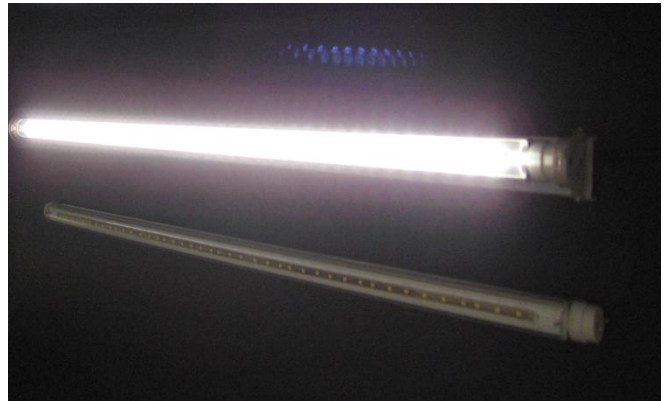
The BINAY 42L-C-4 PowerLED Tube Light is a low-cost, long life LED replacement for an existing T-8 fluorescent tube, with a short payback period

The BINAY 42L PowerLED Tube Light is an 'in-place' replacement solution for existing fluorescent tube lights. The product is covered under Patent Application no. 843/Kol/2010 dt. 2.08.2010.

This product is designed for direct fitting into an existing standard fluorescent tube light luminaire or strip, after removing the starter and shorting the existing electromagnetic choke/ballast terminals.

In keeping with our design philosophy for LED lighting, the model 42L-C-4 PowerLED Tube Light **does not use small-chip (SMD/5mm/4-leg) LEDs**, but is designed with high-illumination power LEDs having a life of 50,000 hours to 100,000 hours.

This model has light output similar to fluorescent, and is characterised by a low initial investment requirement.



FEATURES

- Light emission divided over multiple Power LEDs, **hence more homogenous light output**
- Light output similar to that of standard 4' fluorescent
- Simplified passive control circuitry provides high reliability of driver; no active SMPS circuitry involved
- Contributes to Power Factor improvement
- Large-chip **Power LED** construction for efficient thermal management of the LED chip, thus providing high reliability and long life
- Rotating end-caps allow for angling light output as desired
- **Low initial capital investment**

Technical Data

Power consumption: 14-15 watts nominal; Current Rating: 100mA
 Power factor: Leading
 Typical lumen output: 2600 utilised Scotopic source lumens
 Colour Temperature: Cool White 6500°K; Colour Rendering Index: 75 (Also available in Warm White 2700-3500°K)
 Dimensions: Physical dimensions are similar to a standard T-8 fluorescent tube light
 Warranty: 3 years (estimated life +10 years)

PAYBACK CALCULATION

1. A standard fluorescent tube has a power consumption rating of about 40W+15W for the ballast. The BINAY PowerLED Tube Light has a wattage of approximately 14W. Therefore, the saving is approximately 40W per tube.
2. For a tube light running for 24 hours, the saving per day in power consumption between a fluorescent tube and the BINAY PowerLED Tube will therefore be 24 hours x 40 watts = 960 watt-hours, or around 1kWh (i.e., 1 unit)
3. At a conservative electricity cost of Rs. 5 per unit, the saving comes to Rs. 5 per day (NOTE: In metros like Bombay, the cost of electricity is even higher – Rs. 12 per unit for commercial consumption)
4. As such, if the position is operating for even 300 days per year, the savings per year in electricity costs is Rs. 1,500 per tube light position (note that we are not even considering the saving in replacement and maintenance labour costs).

Given the above calculation, the **payback is within approximately ONE YEAR** (if we are considering the list price of the product), while at the same time the user is completely covered under the warranty of three years. Furthermore, this means that for the balance period of the lifespan (after payback recovery), the user is effectively running the position for free, without any hassle of maintenance and replacement.

The Benefits of Scotopically Enhanced Lighting

It has been observed at various installations that occupants find that LED lighting gives better clarity and sharper vision, even when light levels are reduced. This is a unique advantage of this product, and follows from the particular combination of the following factors – the LED emission characteristic and the Scotopic vision attributes of the human eye. These two factors allow for enhanced activation of the 'Rod' cells inside the eye, enabling greater control of the eye's pupil size. Smaller pupil size provides an improved focus, leading to sharper vision and better visual clarity, and **thus allowing greater visibility even at lower light levels.**

NOTE: This product is also available in 2-foot sizes (replacement for 20W fluorescent), i.e., 25-30W total replaced with 8-10W



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