

Re: Fluorescent Lamp Heater Filament Current

Source: <http://sci.tech-archive.net/Archive/sci.electronics.design/2008-01/msg01976.html>

- *From:* "Steve Carroll" <nobody@xxxxxxxxxxxx>
 - *Date:* Sun, 13 Jan 2008 12:18:42 +1100
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"Don Klipstein" <don@xxxxxxxxxxxx> wrote in message
<news:slrnfohs61.5sn.don@xxxxxxxxxxxxxxxxxxxx>

In <478892a4\$0\$32673\$afc38c87@xxxxxxxxxxxxxxxxxxxx>, Steve Carroll wrote:

Does anyone know the typical current and/or applied voltage through a
fluorescent tube's heater filaments, during startup and continuously

through

'rapid-start' types, or know of a good source of this info?
(I'm mainly interested in compact fluoros and small, (F4-T5, F8-T5,

G4-T5,

G8-T5), standard fluoros.)

In preheat lamps, the starting current is a little more than the normal
operating current. For those lamps, typically the filaments have current
sent through them as opposed to having a voltage source applied to them.

In F40 rapid start lamps, the voltage applied to the filaments is about
8.5 volts, and is not much different after starting than before.

Avoid applying near or over 10 volts to a fluorescent lamp filament
unless current is limited. At about 11-12 volts, an arc usually forms
across the filament. This often occurs in preheat lamps, but that is OK
since current is limited.

There is a variation of "rapid start" known as "trigger start". That
involves a ballast with filament windings that produce voltage that
decreases once the lamp starts. Such ballasts are intended to run preheat
lamps.

One source: Sam Goldwasser's F-Lamp FAQ. A recent version is somewhere
in <http://repairfaq.upenn.edu> or in <http://www.repairfaq.org> (from
memory). I have an older version at:

<http://members.misty.com/don/f-lamp.html>

That document mentions voltages from a common rapid start ballast.

- Don Klipstein (don@xxxx)