

Department of Energy 2009 Energy Regulations: Fluorescent Lamps

Summary: Linear T12, T8 and T5, and U-bend lamps regulated.
Effective date: July 14, 2012
2 foot-U, 4 foot and 8 foot lamps must meet minimum INITIAL LPW requirements.
Lamps above 4500K have a slightly lower standard.



Lamp	Requirement	Impact
4 foot fluorescent \geq 25W Medium Bipin (T12 and T8)	89 LPW if 4500K or below 88 LPW if $>$ 4500K (Up to 7000K)	<ul style="list-style-type: none"> All Standard 4' T12 lamps are eliminated F32 minimum 2850 lumens: Standard SP lamps at 2800 lumens don't meet standard Current F32/SPX, High Lumen, F30, F28 and 25W meet standard
8 foot fluorescent (Slimline) \geq 52W (T12 and T8)	97 LPW if 4500K or below 93 LPW if $>$ 4500K (Up to 7000K)	<ul style="list-style-type: none"> Generally, 8' T8 lamps meet standard Most T12 lamps eliminated except 60W SPX/WM T12
8 foot HO fluorescent Both T12 HO and T8 HO Cold Temp lamps exempt	92 LPW if 4500K or below 88 LPW if $>$ 4500K (Up to 7000K)	<ul style="list-style-type: none"> Many 8ft T12 HO eliminated (Both 110W nominal and 95W nominal) 8' T8 HO lamps meet standard. Cold Temperature Lamps are Exempt
2 foot U-lamps \geq 25W includes 6", 3" and 1- 5/8" spacing (T12 and T8)	84 LPW if 4500K or below 81 LPW if $>$ 4500K (Up to 7000K)	<ul style="list-style-type: none"> All T12 2 ft. U-lamps are eliminated T8 U-Bend Standard SP lamps are eliminated Only a few T8 SPX U-bend lamps will meet standard
4 ft. T5 Lamps \geq 26W (T5 HE lamps)	86 LPW if 4500K or below 81 LPW if $>$ 4500K (Up to 7000K)	<ul style="list-style-type: none"> All T5 HE lamps meet standard. (This regulation prevents manufacture of inexpensive T5 CW lamps)
4 ft. T5 HO Lamps \geq 49W (T5 HO Lamps)	76 LPW if 4500K or below 72 LPW if $>$ 4500K (Up to 7000K)	<ul style="list-style-type: none"> All T5 HO lamps meet standard (This regulation prevents manufacture of inexpensive T5 HO CW lamps)

Examples of Fluorescent Lamps not covered (by minimum LPW standards): Other length lamps not specifically mentioned (such as 2 ft., 3 ft., and 5 ft. lamps). Lamps greater than 7000K. Lamps that are Plant Growth, Cold Temperature, Colored or Impact Resistant.

For more information, visit the GE Environmental Information Center at:

www.gelighting.com/DOEregs

Information provided is subject to change without notice. Please verify all details with GE. All values are design or typical values when measured under laboratory conditions, and GE makes no warranty or guarantee, express or implied, that such performance will be obtained under end-use conditions.

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For additional product and application information,
please consult GE's Website: www.gelighting.com



Department of Energy 2009 Energy Regulations: Halogen Lamp Calculator

Summary: Halogen PAR lamps including PAR38, PAR30 and PAR20 within the 40 – 205 watt range are being regulated by minimum Lumen per Watt (LPW) standards

Effective date: July 14, 2012

Impact: Standard PAR Halogen lamps in all categories are eliminated.
GE PAR Halogen IR Plus lamps meet standard.
HIR PAR lamps are borderline, some current products pass, others fail narrowly.
None of the existing PAR20 lamps meet the requirement. Redesign required.
All 130V lamps are likely to be eliminated.

**PAR Lamp Lumen per Watt (LPW) Standard will vary
by lamp diameter, voltage and wattage**

Minimum LPW Examples:

- Standard PAR38, 120 Volt: $LPW\ Standard = 5.9 \times P^{.27}$ (P=Lamp Wattage)
- 60 Watt PAR38: $LPW = 5.9 \times 60^{.27} = 17.8\ Lumens\ Per\ Watt^*$

*For modified spectrum lamps, like GE Reveal®, LPW requirements are approximately 15% lower.

**To calculate the minimum LPW standards for other Halogen PAR lamps,
visit GE's Halogen LPW Calculator at the GE Environmental Information Center:**

www.gelighting.com/DOEregs

**Examples of lamps not impacted by these LPW regulations include, but are not limited to:
Lamps under 40 watts, lamps over 205 watts, colored, rough/vibration service, shatter resistant and heat lamps**

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