LiElectro

Flash You Need

LED VS INCANDESCENT

Christmas Lights Quick Guide

The latest safety numbers, cost math and buying checklist, all in one short read.

2026 EDITION

Updated October 18, 2026

The Latest Numbers

What fire, injury and energy data say about holiday lighting right now.

155

home fires a year were caused by Christmas trees (2018 to 2022)

About 4 deaths, 7 injuries and $15 million in damage each year.

Source: NFPA

41%

of home Christmas tree fires involved electrical distribution or lighting equipment

One in five (20%) were started by lamps or bulbs.

Source: NFPA

36%

of home Christmas tree fires happen in January

The tree is often still up after the holidays are over.

Source: NFPA

14,900

people were treated in ERs for holiday decorating injuries in the 2023 season

About 160 a day. Almost half involve falls.

Source: CPSC, via AARP

75%

less energy used by ENERGY STAR certified light strings

Lasts up to 10 times longer, with a warranty of at least three years.

Source: ENERGY STAR

$850M

saved a year if every light string sold in the U.S. were ENERGY STAR certified

Also 9.9 billion pounds of greenhouse gas avoided yearly.

Source: ENERGY STAR

140 LEDs

run on the electricity of a single 7-watt incandescent bulb (Natural Resources Canada).

38 times

more often, candles start home fires than Christmas trees do (NFPA).

Figures are the latest public releases we could find as of October 18, 2026. NFPA tree-fire data covers 2018 to 2022. Annual injury and fire counts shift from year to year, so treat them as averages.

Cost Chart and Label Decoder

Two quick references to use in the store aisle.

Season cost for ten strings, by electricity rate

Your rate per kWh	10 cents	15 cents	20 cents	30 cents
Ten incandescent strings	$9.60	$14.40	$19.20	$28.80
Ten LED strings	$1.08	$1.62	$2.16	$3.24
You save	**$8.52**	**$12.78**	**$17.04**	**$25.56**

Assumes 40 W per incandescent mini string and 4.5 W per LED mini string (our assumptions; check your labels), lit 6 hours a night for 40 nights (240 hours). Season cost = watts / 1,000 x hours x rate.

What to look for on the box

Look for	What it tells you	Source
ENERGY STAR logo	Certified strings use 75% less energy, carry at least a 3-year warranty and use no more than 0.2 W per bulb.	*ENERGY STAR; CPS Energy*
Testing-lab mark	Independent safety testing, such as UL. CPSC says to use lights that have been tested.	*CPSC; Ameren Illinois*
Indoor or outdoor	Some sets are indoor only. Outdoor sets are weather tested. Check the tag before hanging.	*CPSC; NFPA*
Wattage on the tag	Add up watts per outlet. Bigger C7 and C9 bulbs use more power than minis.	*Consumer Reports*
Connection limit	Never connect LED strings to incandescent strings. Respect the maximum sets per run printed on the label.	*Natural Resources Canada*
Color temperature	Match your white LED strings. Mixed whites can look off, and some cheap LEDs read bluish or flicker.	*NRCan; Consumer Reports*

Before You Hang Them

A short safety checklist, from inspection day to take-down day.

- [ ] **Inspect every set.** Plug it in and look it over. Throw out strings with broken sockets, bare wires or other damage (CPSC).
- [ ] **Check the labels.** Make sure outdoor lights are rated for outdoors and carry a testing-lab mark (CPSC, Ameren Illinois).
- [ ] **Mind the extension cords.** Use heavy-duty, outdoor-rated cords. Ameren Illinois advises no more than three standard light sets per cord. Check the label for LED limits.
- [ ] **Attach lights the right way.** Use insulated staples or clips, never nails, tacks or bare wire (Ameren Illinois).
- [ ] **Keep a real tree watered.** Dry trees burn much faster. Keep the tree away from heat sources and candles (NFPA, CPSC).
- [ ] **Set up the ladder safely.** Firm, level ground, with a second person steadying it. Falls are almost half of decorating injuries (CPSC via AARP).
- [ ] **Use a timer.** Switch lights off late at night and when you're away (ENERGY STAR partners, utilities).
- [ ] **Take the tree down on time.** 36% of home tree fires happen in January (NFPA).

Sources

NFPA, Preventing Home Christmas Tree Fires
ENERGY STAR, Decorative Light Strings
CPSC, holiday decorating injuries
AARP, citing CPSC 2023 season data
Natural Resources Canada, Decorative Light Strings
Consumer Reports, LED holiday light strands
Ameren Illinois, holiday lighting tips
CPS Energy, ENERGY STAR light string requirements