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## FIELD GUIDE: IDENTIFYING INTERIOR **FLUORESCENT VS LED IN THE FIELD**

A Comparison Showing The  
Construction Differences and  
Visual Characteristics



### HOW TO IDENTIFY **FLUORESCENT FIXTURES**

**Safety Notice:** Only open fixtures when conditions are safe and the power to the fixture has been fully disconnected.

#### **CHECK THE CONSTRUCTION & MOUNTING**

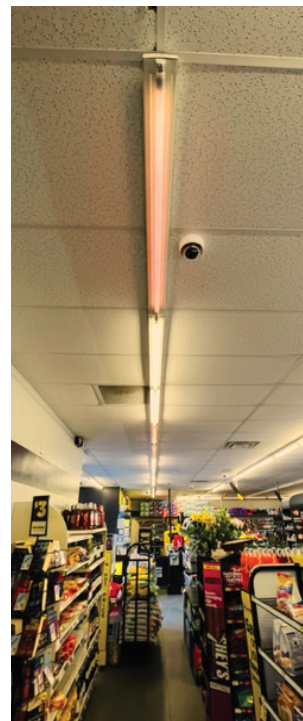
- 4 ft. linear fragile glass tubes (not polycarbonate or similar).
- Tube diameter typically T8 (most common) or T12 (larger).
- Large metal base cap with bi-pin connection (G13 socket for T8/T12).
- Fluorescent fixtures can be surface-mounted or chain-hung.

#### **CHECK FOR A BALLAST**

- Heavy metal magnetic or plastic box inside the fixture body.
- Typically labeled as rapid start, instant, or programmed ballasts.
- May list compatible fluorescent lamps (e.g., F32T8, F40T12).

#### **CHECK FOR COMMON DEFECTS**

- Base caps on lamps may have black or brown degradation.
- End-of-life fluorescents will flicker or turn a pinkish glow.
- Fluorescent fixtures are not instant-on and need a warm-up.
- Low-frequency humming or buzzing noises.





# HOW TO IDENTIFY LED LAMPS & FIXTURES

**Safety Notice:** Only open fixtures when conditions are safe and the power to the fixture has been fully disconnected.

## CHECK THE CONSTRUCTION & MOUNTING

- 4 ft. linear LED lamps made from polycarbonate or glass housing; typically UL Type B ballast-bypass LED lamps.
- PET film that's shatter-resistant with no metal base caps.
- State-of-the-art electrical components with light-emitting diodes.
- Strip fixtures with LED lamps will have a Replacement Cautionary Label placed on the housing indicating it has been retrofitted.
- LED lamps and fixtures will have UL or ETL labels indicating they use LED technology, with specific manufacturer part numbers
- Strip fixtures with LED lamps or integrated LED luminaires will be surface-mounted or chain-hung.
- Check for an LED luminaire or lamp label that states it is LED and includes product info such as CCT, lumen output, and wattage.

## CHECK FOR AN LED DRIVER

- If a strip fixture has been retrofit with UL Type B LED lamps, then the ballast will have been disconnected or fully removed.
- Early generations of LED lamps that are UL Type A might be running on an existing fluorescent ballast.
- If the fixture has no ballast, no replaceable lamps, and has an LED driver, then it is an "integrated LED" luminaire where the diodes are built directly into the unit itself.



## QUICK FIELD INDICATOR GUIDE

Inspection	Fluorecents	LED Fixtures (Retrofit)	Integrated LED Luminaires
<b>Appearance</b>	4 ft. glass linear lamps.	4 ft. polycarbonate or glass linear lamps.	Light engine, driver, and housing sealed. No replaceable lamps.
<b>Product Labels</b>	Code mark that identifies fluorescent, wattage, and diameter (e.g. F32T8).	Clearly labeled LED and by UL Type (e.g. Type B). Caution label will be applied if retrofitted fixture.	Manufacturer label indicates LED, part number, CCT, lumen output, and wattage.
<b>Ballast Present</b>	Yes. Required to operate fluorescent lamps.	Might have ballast (Type A LED retrofit) or ballast removed (Type B LED retrofit).	LED driver present. No ballast.
<b>Lamp Ends/Pins</b>	Bi-pin (G13) common. Quarter-turn lock into tombstones.	Often same bi-pin base for retrofit tubes.	No external lamps. One complete unit.
<b>Startup Behavior</b>	May flicker briefly and have a slight warm-up period when turned on.	Instant-on. No flicker.	Instant-on. No flicker.
<b>End-of-Life or Failures</b>	Ends darken. Lamps flicker or turn pink. Ballast hum or buzzing.	No darkening, flickering, buzzing, or hum.	No darkening, flickering, buzzing, or hum.
<b>Mounting</b>	Surface-mounted or chain-hung.	Surface-mounted or chain-hung.	Surface-mounted or chain-hung.