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Lighting

Lighting Options for Walk-in Coolers and Freezers

Written by **U.S. Cooler** on August 22nd, 2014. [Leave a comment](#)

On average, lighting contributes 20% to 50% of a business' electricity usage. As an operator of a walk-in cooler or freezer, your choice of lighting is of even greater importance. Every bit of heat that is added to the walk-in's environment is going to increase the load on your refrigeration, ultimately resulting in inflated energy costs. While fluorescents offer a huge step up from incandescent bulbs in energy efficiency, they still create nearly 9X the heat of LED lights.



Lighting Technology Comparison

	Efficacy (lumens per watt)	Heat Emitted	Lifespan (hours)
Incandescent	10-17	85 btu's/hour	750-2,500
Linear Fluorescent	30-110	30 btu's/hour	7,000-30,000

LED	50-100	3.4	35,000-70,000
		btu's/hour	

View a [full comparison chart](#) of the major lighting technologies.

Fluorescent lights are generally standard in walk-in cooler and freezer installations, with LEDs being available as an upgrade. LEDs offer advantages in a walk-in because they don't run the risk of failure in low temperatures and high humidity environments as other lighting types do.

LEDs (and incandescents) turn on instantly and don't need time to warm up to reach full brightness. They also don't contain mercury which could contaminate your stored food if a fluorescent bulb breaks. LEDs can be used for overhead lighting in the walk-in and are very prevalent in merchandising coolers typically found in convenience stores. The LEDs in merchandising glass doors provide a brighter light than fluorescents to better illuminate products. Some convenience store operators are even opting to upgrade their fluorescent lights with [LED retrofit kits](#) which can result in energy savings up to 85%.



4ft LED light for walk-in ceilings.

One downside is that LED lights are often significantly more expensive than comparable fluorescent lights, but the prices have been steadily declining for LEDs over the past few years. Even though the initial cost is greater, LEDs will easily pay for themselves in electricity savings and greater lifespans than other lighting technologies. Payback time will vary for individual cases.