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Frequently Asked Questions Regarding HID to Fluorescent Retrofits.

Q. Why should I replace my HID lighting system with high performance T5HO or T8 linear fluorescent fixtures?

A. For the past fifteen years, office and retail facility operators have had the opportunity to realize enormous energy cost reductions as a result of energy efficient lighting retrofits. Because of a lack of viable options for HID systems, industrial facilities have been left behind. Today, new lighting technology allows industrial facilities to participate in the lighting efficiency revolution. By replacing your High Pressure Sodium or Metal Halide Lighting system with T5HO or High Performance T8 fixtures, specifically designed to replace HID Hi-Bay fixtures, you can enjoy substantial energy savings, superior performance, and improved reliability.

Q. How much money can I save?

A. There are many variables which make each facility unique, however, a typical 100,000 square foot warehouse with lighting operating from 7am to 7pm Monday through Friday, can save $25,000 per year. With longer burn hours and higher electricity costs the same plant could save $50,000 per year.

Q. How much will it cost to install the new system?

A. There are many factors that will dictate the final cost, but roughly $0.75 to $1.25 per square foot will accomplish most HID to fluorescent Hi-Bay conversions. Simple paybacks are often in the 2 to 4 year range.

Q. We have no capital budget for a retrofit, are finance options available?

A. Yes. There are contractors who can arrange financing in the form of a two to five year maintenance program, with retrofit financing included at competitive interest rates. The resulting energy savings will create a positive cash flow from day one!

Q. I understand that it requires a three, four, or six lamp fluorescent Hi-Bay to replace a 400 watt HID fixture. Why would I want to install and maintain all of those lamps? Won't my maintenance costs increase?

A. The cost to replace four fluorescent lamps in a fluorescent Hi-Bay is comparable to the cost to replace a single HID lamp, so maintenance costs typically are not affected. The multiple lamps can be an advantage when it comes to maintenance because when a single HID lamp fails the fixture often needs to be repaired immediately, when a single fluorescent lamp fails, the companion lamps remain lit and an immediate repair is not necessary. In addition, "non-passive" HID lamp failures are eliminated.

Q. We can't afford to have reduced light levels, how can I be certain that light levels will be maintained?

A. With a properly designed retrofit solution the overall performance of your lighting system can be maintained or improved. The quantity and quality of light can be measured in many ways, and in the past, a simple review of catalog lamp lumens or Photopic foot-candles could lead a designer to conclude that fluorescent Hi-Bays produced insufficient light to replace 400 watt HID's. However, when taking into account luminaire efficiency, color appearance, glare, contrast, shadows, S/P adjusted foot-candles, and end of life lumen maintenance, fluorescent Hi-Bays generally outperform standard HID Hi-Bays. Your lighting professional will work with you and the fixture manufacturer to design a system that meets the needs of your facility. Sample installations can be performed to verify the results prior to project implementation.

Q. Why not retrofit to Pulse Start Metal Halide?

A. Pulse Start HID technology is a viable option for some applications, however, we typically can create greater savings and higher quality of light using fluorescent Hi-Bays. The most common pulse start options (250 & 320 watt Metal Halide) draw 272 and 342 watts respectively, have luminaire efficiency of 75%, and Color Rendering indexes of 65. The most common fluorescent options (6-Lamp T8 and 4-Lamp T5HO) draw 228 and 234 watts respectively, have luminaire efficiency of 92%, and Color Rendering indexes of 85 or greater.

Q. Can the fluorescent system use occupancy sensing controls like the HID Hi-Lo dimming system?

A. Yes. One of the compelling features of the fluorescent conversion is that it allows the lights to be turned completely off in the aisles when not in use, without shortening the 20,000-hour rated life of the T5HO lamp. HID lamps cannot be turned off completely without a lengthy restart cycle, and the low setting on most Hi-Lo control systems is usually higher than the maximum wattage of the corresponding T5HO or T8 system.

Q. Won't mounting the new fixture be cost prohibitive?

A. No. The replacement fixtures include custom hardware options designed to match the existing mounting system. We can use the existing hook, cord, and plug, or pendant setup to make one-for-one replacements very efficient.

Q. Our facility has a 480 volt HID lighting system. Since fluorescent electronic ballasts are not available in 480 volts, don't we have to keep our HID system?

A. No. We can very often provide 277 volts to the fixtures by reconfiguring (splitting) the circuits. In addition, 480-volt electronic T5HO ballasts are in development and will soon be commercially available.

Q. I have a full time job already, and I'm not a lighting expert. Where am I going to find the time to research and implement the project?

A. Let us do the homework. Once you've decided to pursue an energy efficient lighting retrofit for your facility, your lighting professional and Precision will take care of all the details, from the initial audit, analysis of your energy bill, and savings calculations, to the test install, rebate administration, and quality control. We take pride in giving you the type of quality information you need to make an educated, informed, and confident decision. The savings are all yours!