



3 Common Issues With HID High Bay Lighting

[High Bay and Low Bay Lighting](#) are terms used to describe the indoor lighting that is commonly mounted via a pendant, chain, or directly to a ceiling or ceiling girder. These types of lights are often mounted higher than [recessed troffer](#) or [fluorescent](#) lights. So common use cases for this type of lighting are: warehouses, industrial facilities, commercial lighting spaces, retail areas and gymnasiums.

Despite the ubiquity of these types of lights there are some inherent characteristics that can lead to issues, below we will look at the three most common: energy cost, maintenance costs and overall lighting performance.

Energy Costs

High bay and low bay lights range from 175 watts to 1000 watts depending on the fixture and application. Generally speaking, the higher the light wattage the higher the light output. The variables here are a function of the area illuminated, combined with the height of the ceiling and fixture mounting. These factors all play a role in the wattages that is utilized.

To put a dollar value to this wattage, a 400 watt or 1000 watt HID fixture (which is a very common wattages for high bay lighting and low bay lighting) can cost up to \$209 and \$525 to operate per lamp, per year, in electricity alone. Depending on the facility, these costs can really add up, and unnecessarily inflate your [energy costs](#).

Maintenance Costs

In addition to the high energy costs, maintenance concerns are often a factor for those individuals managing: commercial light fixtures, warehouse lighting, and gym light fixtures.

As stated before, [high bay lighting](#) is commonly mounted on ceilings in excess of 15ft. These lights typically require the use of a lift to change out a lamp or a ballast. Typically a building doesn't own a lift and therefore must hire an outside contractor to maintain these types of fixtures.

These maintenance expenses can really add up over the course of a few years. To give a tangible example, it can easily cost up to \$1,200 in labor and materials to maintain a single high bay light fixture over the course of 3 years.

Lighting Performance

The characteristics of your high bay lighting and low bay lighting can vary significantly depending on the type of lighting installed in your facility. Metal halide lamps produce a “whiter” type of light, however these types of lamps tend to have accelerated lumen degradation, meaning the light output of the lamps decrease quickly after initial install. It’s possible you’ve seen these high bay lights rendering a very “pink” light. While operational, they are barely providing any light on the intended surface below.

On the other hand if you are using high pressure sodium lamps you may see a longer useful life as these lamps see less lumen degradation than metal halide. However, their fuel structure produces a very “orange” light with a very low CRI ([Color Rendering Index](#)). So basically you trade a longer life for a poorer quality light, in regards to visual perspective.

Conclusion

As we can see there are: high energy costs, frequent maintenance costs, and overall lighting performance issues associated with metal halide and high pressure sodium lamps. These issues in addition to overall lamp lifetime [concerns](#) should be a motivator to evaluate an alternative lighting solution for your facility.

If you have questions about what an [LED lighting retrofit](#) would look like for your organization, [contact](#) Stouch Lighting today. We would be happy to come out and do a free assessment of your space.



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