

## Introduction

Metal halide lighting systems represent one of the great innovations in lighting applications and remain the preferred technology for many commercial and industrial facilities throughout the United States. Today's systems provide a variety of light levels with high energy efficiency, long life and excellent color. The National Electrical Manufacturers Association (NEMA) estimates that there are close to 40 million metal halide systems installed in the United States alone, with the vast majority in commercial and industrial applications. These lamps consist of a clear quartz arc tube enclosed in gas-filled outer bulb. As useful and efficient as they are, however, metal halide lighting systems come with inherent risk exposures.

Virtually all metal halide lamps reach end of life in a benign manner. Because of the high internal operating pressure

## What is the Fire Risk?

Since metal halide lamps operate at elevated internal pressures compared with most other general purpose light sources, manufacturers historically have provided explicit instructions on their proper use. Operating pressure is 70-90 pounds per square inch (psi) and the temperature is 1650-2010 F. An arc tube rupture can eject hot particles and penetrate the the outer bulb if a shroud is not effective or present, which can release extremely hot glass and lamp parts into the surrounding space.

## Metal Halide Lamp

