



Lighting  
A Better  
World



**VENTURE**<sup>®</sup>  
**LIGHTING**

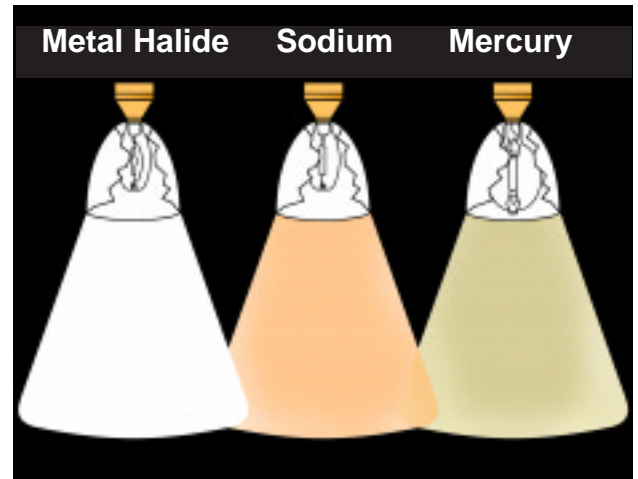
# Efficient Metal Halide:

## ***Metal Halide Is The Most Energy Efficient White Light Source***

*Metal halide is one of the most energy efficient light sources available today.*

*The only more efficient products than metal halide (i.e. high pressure and low pressure sodium) have a yellowish color which is often unacceptable.*

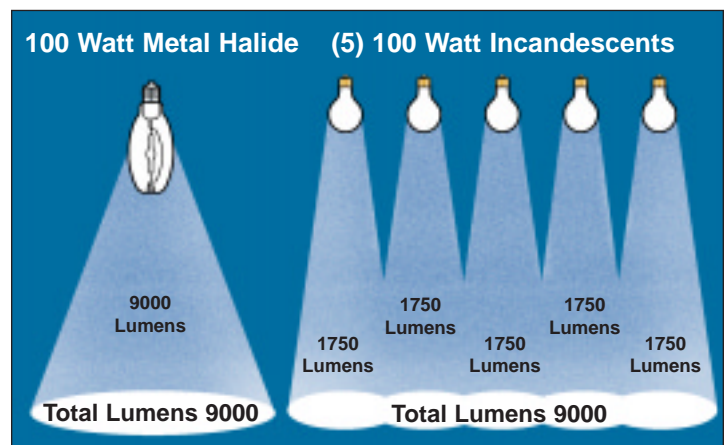
*In most commercial and industrial applications, the white light of metal halide is a necessity.*



- While other light sources are energy efficient, their color is unsuitable for many indoor applications. Metal halide, however, is the world's most energy efficient source of white light.

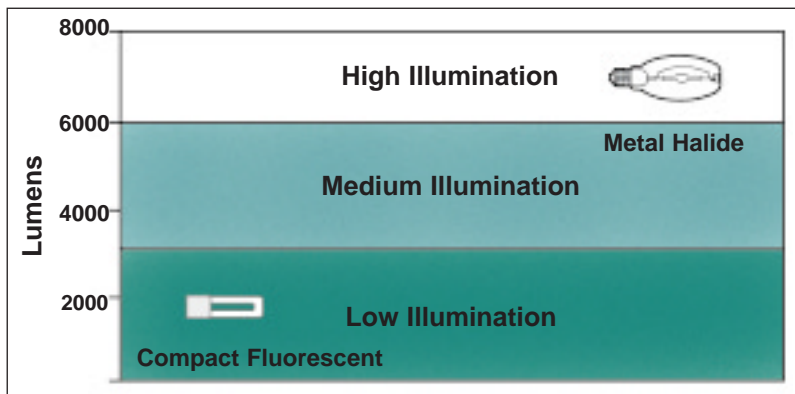
## ***One Metal Halide Lamp Does The Job Of Many Incandescent Lamps***

*A single metal halide lamp produces the same luminous intensity of several incandescent lamps of the same wattage. This feature gives designers and architects greater freedom to optimize space illumination.*



# Balanced Solution

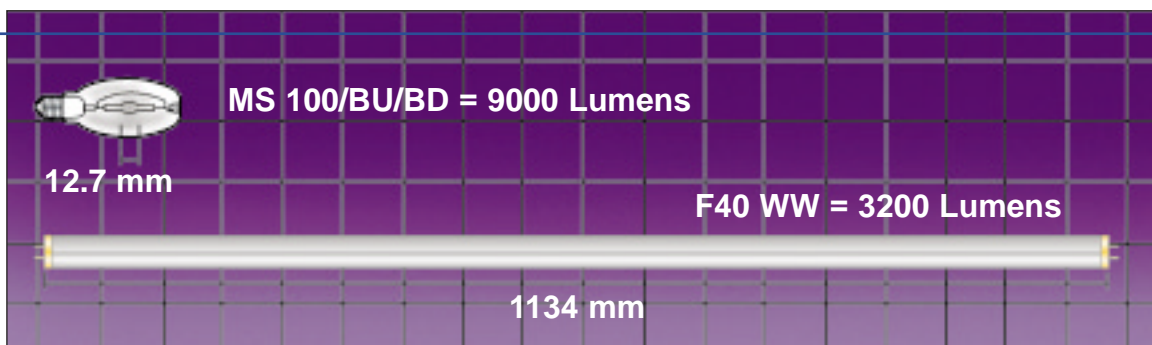
## Compact Metal Halide Lamps Improve Optics And Save Space



- Not all compact sources of white light produce the same level of illumination. Specifically, compact fluorescents are usually unsuitable for retrofit of incandescent lamps above 75 watts.

Although fluorescent lighting is also a source of white light, its construction creates optical and design drawbacks.

Because metal halide is a compact light source, rather than a large diffuse one, it offers both efficient white light and improved optics. Compact fluorescents, while small in size, are generally considered best for replacement of lower wattage incandescent lamps. Consequently, metal halide is clearly the choice for color-critical applications where higher illumination levels are required.



- Just one 100 watt metal halide lamp produces 9,000 lumens of light. It takes five 100 watt incandescent lamps to generate the same luminous flux. For an equivalent amount of energy, metal halide produces five times the amount of light.

- The arc length of common fluorescent tubes is approximately 90 times larger than the arc length of compact metal halide lamps. And, metal halide's optical properties allow concentration of light for optimum illumination.

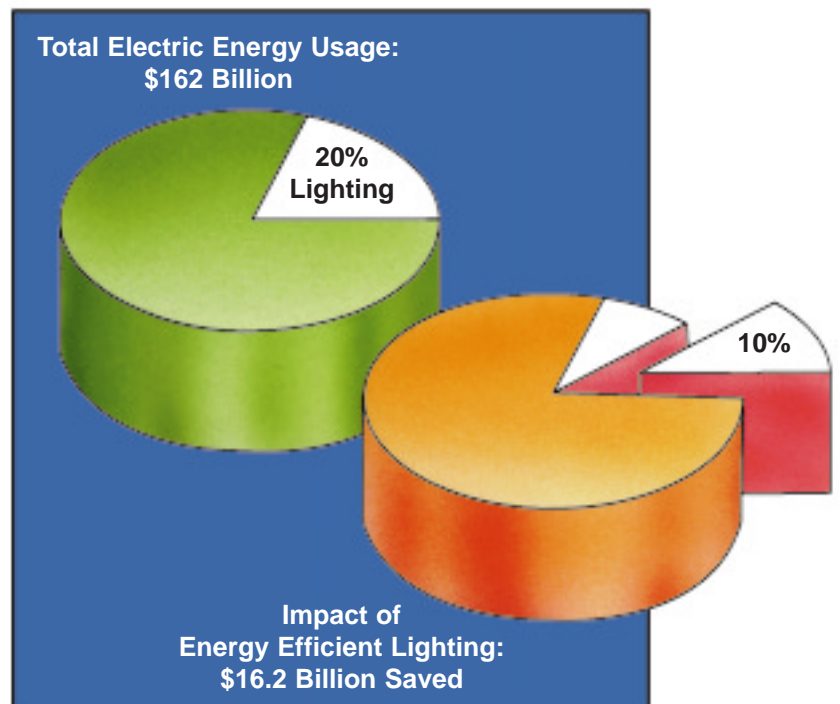
# Efficient Metal Halide:

## Metal Halide Lighting Reduces Energy Usage

Energy efficient lighting could save up to 10% of the total energy bill each year. Since two-thirds of all lighting is used in nonresidential applications, where metal halide is already gaining acceptance, this technology can have a tremendous impact on energy usage.

- For example, in the United States it is estimated that converting to energy efficient lighting will save 10% of the total energy consumed or 278 billion KWH each year.

*This would cut the nation's lighting bill in half and save about \$16 billion.*



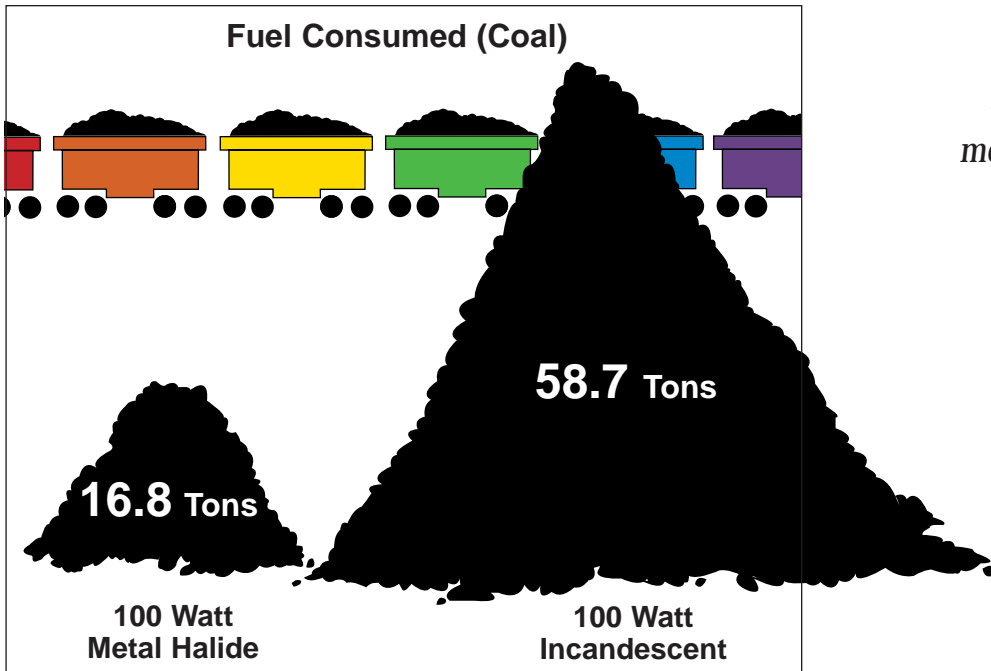
## Reduced Energy Usage May Curtail The Need For Additional Power Plants

The possibility of lowering power consumption for lighting translates into a reduced need for new power generating facilities and fewer rate increases. These are two concrete benefits of energy conservation through the use of efficient metal halide lighting.

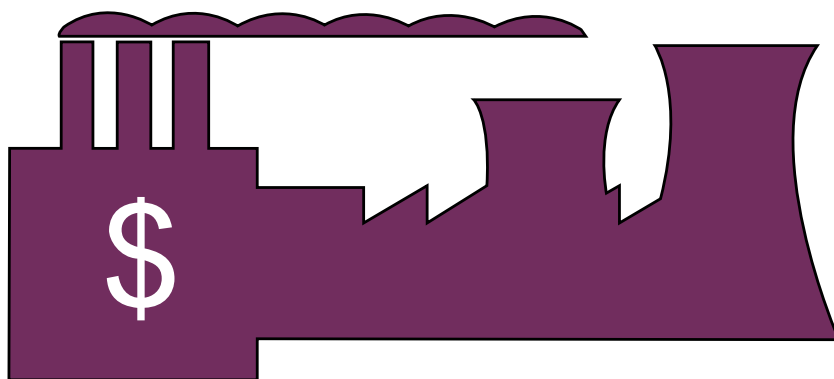
# Energy Reduction

## Metal Halide Lighting Conserves Precious Resources

*Metal halide uses energy much more sparingly than most other forms of lighting. Since most of the world's energy is generated from nonrenewable fossil fuels, metal halide is a leading technology for conserving these limited resources.*



- To light a typical 10,000 square foot facility to 50 foot-candles for 2,500 hours per year with incandescent lighting requires nearly four times more fuel than a similar facility equipped with metal halide lighting.*



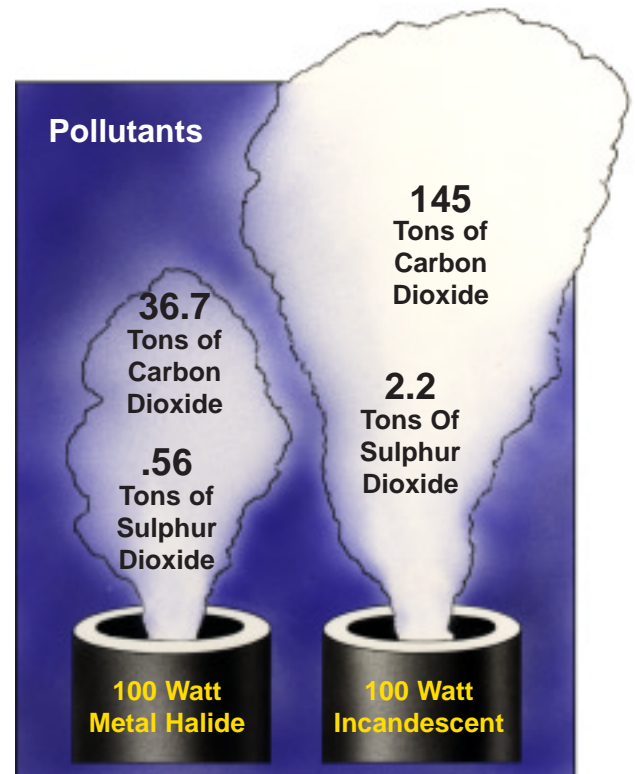
- Efficient light sources, like metal halide, can greatly reduce electrical demand. In the United States, generating capacity could be decreased by 278 billion KWH. This means that utility companies would save large capital outlays by not building extra capacity.*

# Efficient Metal Halide:

## Energy Reduction Yields Less Pollution

By dramatically reducing fossil fuel consumption, metal halide directly benefits the environment. For example, emissions, such as carbon dioxide and sulphur dioxide released from coal burning power plants, will drop significantly.

- A typical 10,000 square foot facility is responsible for the emission of several tons of pollutants each year from a coal fired power plant. The amount of these pollutants can be greatly reduced with the use of metal halide lamps.

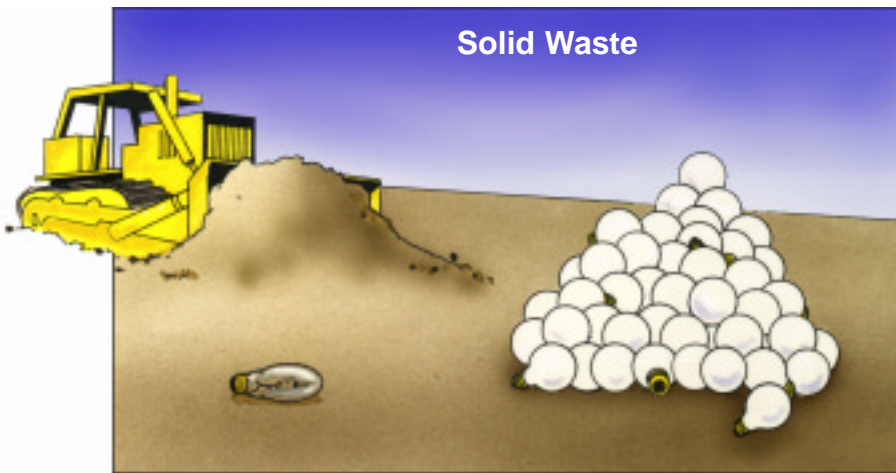


## Better Lighting Improves The Quality Of Life

Becoming a more energy efficient society does not mean sacrificing light level. On the contrary, with advanced light sources like metal halide, we can actually improve the quantity of light and the quality of life while saving energy. This is especially important as we look to our aging population. All around, metal halide is the lighting of choice.

# Environmental Benefits

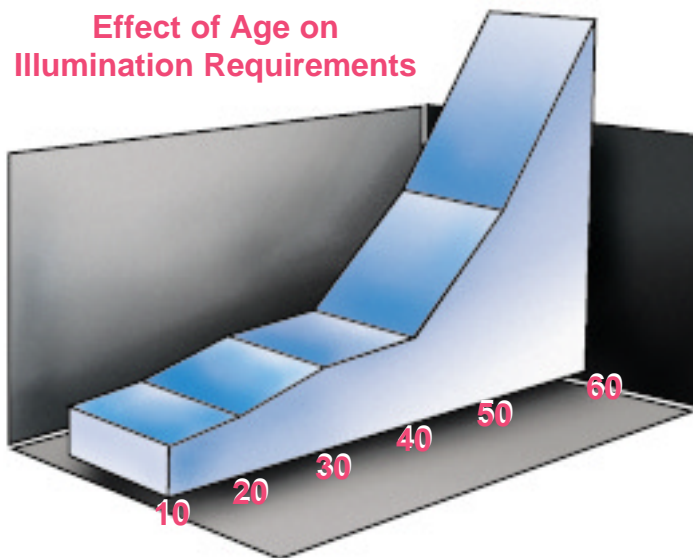
## Metal Halide Lamps Cut Solid Waste



As the challenge to reduce solid waste becomes a national priority, long lasting and compact metal halide lamps can make a significant difference. Since a single metal halide lamp will provide the same lumen hours as many incandescents, far fewer metal halide lamps will be discarded over time.

- It takes 45 times as many incandescent lamps to generate the same amount of lumen hours as just one metal halide lamp. With shrinking landfills, compact and long lasting metal halide lamps will help control the growing solid waste problem.

## Effect of Age on Illumination Requirements



- By age 60, a person may require 15 times more light than a child to complete a particular visual task. As our population ages, we can depend on metal halide to improve the quality of life.



## The World's White Light Solution™

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