



## Integrated reflectors

For industrial processes such as PET bottle manufacturing, that require a fast, efficient source of heat, infrared lamps are the ideal solution.

Victory infrared lamps are available with a reflector coating that directs that heat to where it's required, ensuring energy is used as efficiently as possible.

## Heat only where it is needed

A bare infrared lamp emits heat all around its circumference but usually heat needs to be directed to a particular location. This is achieved with a reflector. Separate, external reflectors can be used, but a reflector coating applied to the lamp itself gives the best efficiency and allows a simple, compact, heating unit to be constructed.

Victory has a range of reflector lamps with different coatings to suit a wide variety of applications.

## Big energy savings

During industrial processes such as PET bottle blowing or screen printing, infrared lamps are used to aid or speed up the process — for example, heating PET bottle pre-forms or flash curing inks onto T-shirts.

Processes such as these require heat focusing directly onto the material. In order to do this, Victory applies a reflector

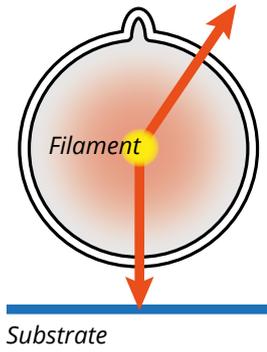
coating to the surface of the lamp, usually covering 180° of the surface area. This focuses energy in the desired direction, greatly increasing efficiency of the lamp by reducing wasted energy.

Infrared reflector lamps can achieve big energy savings compared to lamps used without a reflector.

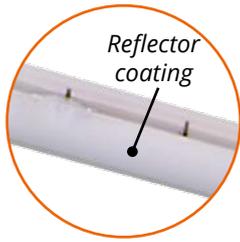
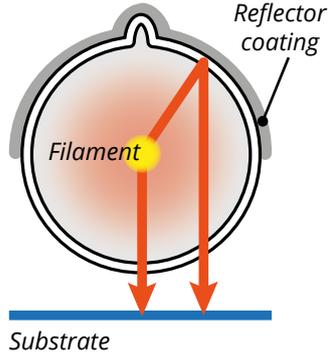


# How it works

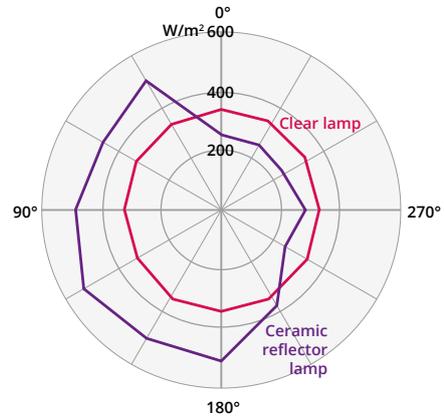
## Clear lamp



## Reflector lamp



A clear, uncoated lamp emits heat in all directions. Without a reflector, a large proportion can be wasted. A reflector coating redirects heat towards the substrate resulting in improved performance and energy savings.



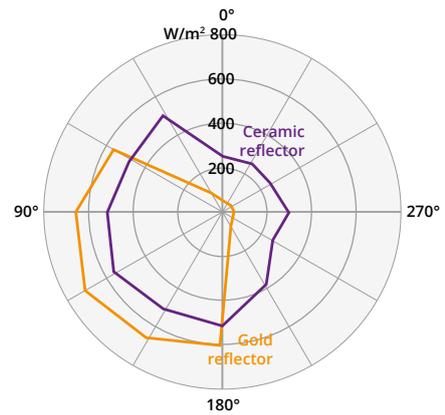
Irradiance graph shows that a clear lamp emits energy uniformly in all directions, while a reflector lamp has higher output in the 0° - 180° range (front of lamp) and reduced output in the 180° - 0° sector (rear of lamp).

# Ceramic or gold?

Victory reflector lamps are available with two types of coating: gold and ceramic. The choice of reflector depends on the application. Victory can advise on which technology to use.

## Gold reflector

- >90% reflectivity
- High maximum temperature
- Made with pure gold



Irradiance graph shows the difference in performance of gold and ceramic reflectors.

## White ceramic reflector

- >80% reflectivity
- Cost effective
- High maximum temperature



# VICTORY

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