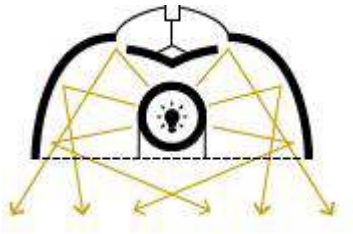
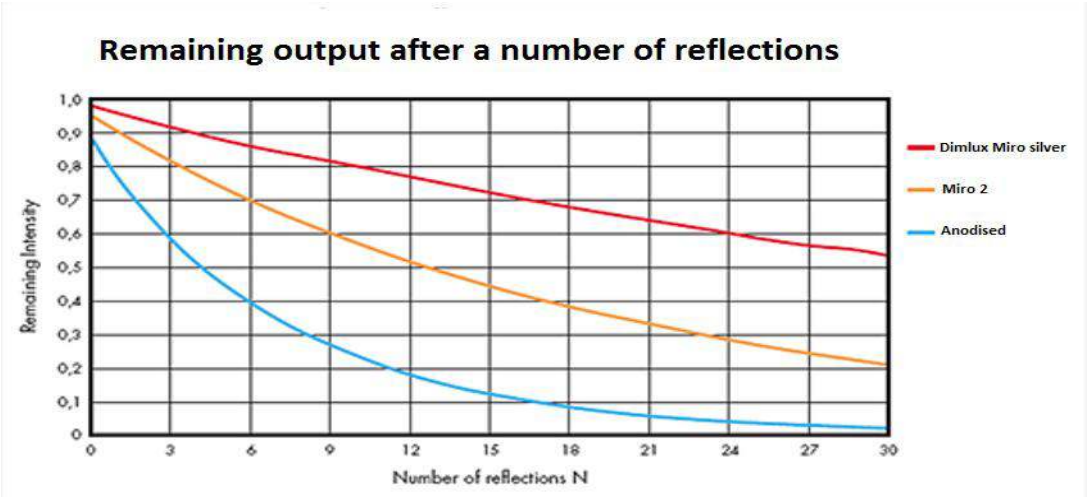
Dimlux reflector vs competition

Dimlux Alpha Optics reflectors are used in all Dimlux fixtures. The combination of Single Bounce Clear Sight (SBCS) and specular Miro Silver reflectors give an unparalled quantity of growlight and because of the optimized heat management the highest possible efficienty (+100%?) of any commercially available growlight.

SBCS



The Single Bounce Clear Sight design prevents that light (or heat) bounces back into the reflector or lightbulb. Multiple reflections inside the reflector heat up the reflector because light is converted to heat. The result is less light and more heat.

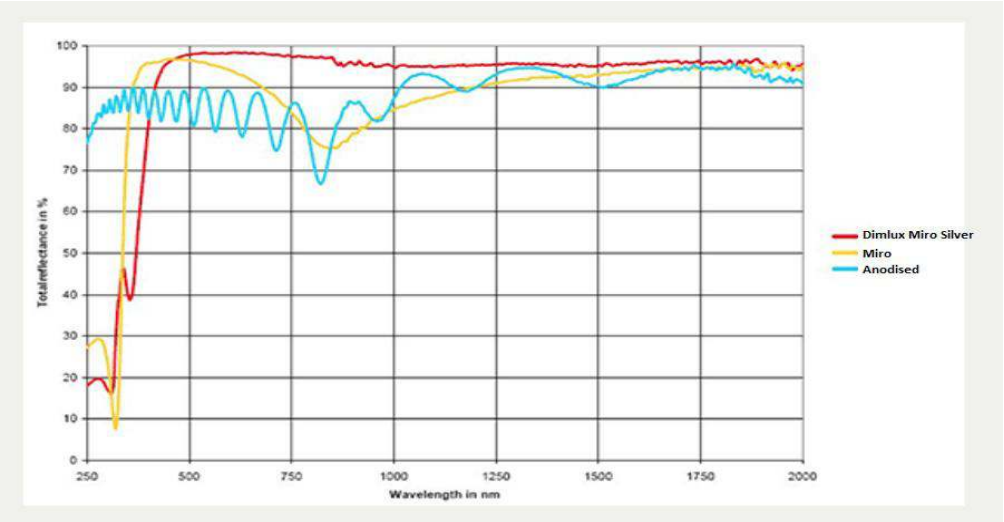


Specular vs hammered

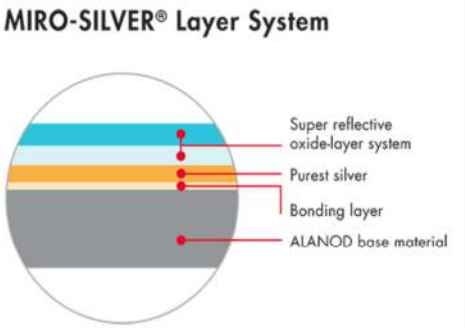
Precision optics made possible because of the low diffuse reflectance. The only surface that applies to the SBCS principle for the highest possible total reflector efficiency.
Hammered reflectors always have multiple reflections, the smaller and more compact the reflector the more multiple reflections the more reflectance losses.
An average of at least 3 multiple reflections (equals 18% reflectance loss) is common for most compact horticultural reflectors.

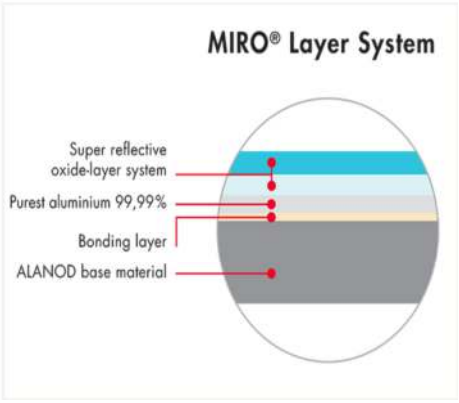
Specular reflectors show a dirty surface very quickly so action can be taken in an early stage to prevent the dirt from burning into the surface.
With a hammered surface burned in dirt is very hard to see and cleaning will also be very difficult as not impossible because of the hammered texture.
Dust is easy to remove but dirt that cannot be removed by a dry microfiber cloth. It's very hard to remove because of the dimpled structure, cleaning the reflector by hand is a hard job, mechanical cleaning is the only way to clean a hammered textured reflector properly.

Miro3 silver 98 *vs* Aluminium 95



Miro silver 98 has superior reflectance
Miro silver has a significant higher reflectance in the red and IR spectrum
Lower reflector temperature (indirect room temperature) caused by the superior IR reflectance.
With Miro 95 more radiant IR heat will be converted into convection heat.





Dimlux reflector *Most other reflectors*

Cleaning the reflector.

Reflector material will be soiled over the years. This is usualy easy to clean. The following information helps to ensure that the high quality surfaces are not dammaged by cleaning.

	What to do!	What not to do!
Loose dirt	> Clean, soft duster or compressed air	> Scrubbing > No paper towels such as hand towels from sanitary facilities
Light soiling	> Dilute a citric acid based cleaning product with water (e.g. 30 ml Frosch® citrus cleaner in 5 litre of water) > Follow the dilution instructions of the cleaning product manufacturer to ensure a pH value of 3.0 to 4.5 > Use a lint-free, clean cotton cloth > Always use a fresh, clean cloth	> Do not use cleaning products undiluted > Do not use vinegar based cleaning products > Neutral or alkaline cleaning products are not suitable > Do not apply excessive force > Avoid direct finger contact with the surface (risk of fingerprints) > Do not use cloths more than once
Heavy soiling	> Oil and grease can be removed using a mixture of alcohol and water (1:1), e.g. methylated spirits > Residues of alcohol based cleaning products are easily wiped away with a water-soaked cotton cloth > Stubborn stains can be soaked in diluted citrus cleaner (see above)	> Do not scrape or scour with hard tools > Do not use concentrated acids or bases such as hydrochloric acid > Do not use white spirit > Do not use atypical cleaning products such as oven spray, window cleaner, wood floor or furniture polish, drain cleaner, wheel cleaner, limescale remover, etc. > Do not use ultrasonic cleaning systems

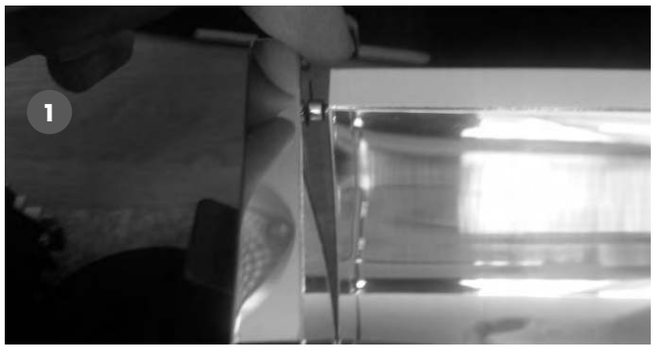
Proper cleaning procedure:

The most suitable cleaning agents for our surfaces are the commercially available **citric acid** based cleaning agents. The solution should be diluted to give a ph-value of between 3.0 to 4.5 for MIRO-SILVER®.
Generally, a clean, soft, lint-free cloth should be used for every wipe. We recommend a cotton cloth. Furthermore during the handling of dry MIRO-SILVER® parts, clean cotton gloves should be used to avoid fingerprints.

In case of very heavy soiling in a short time period, the source of the contermination should be removed from the room. (humidifyers etc)

REFLECTOR REPLACEMENT

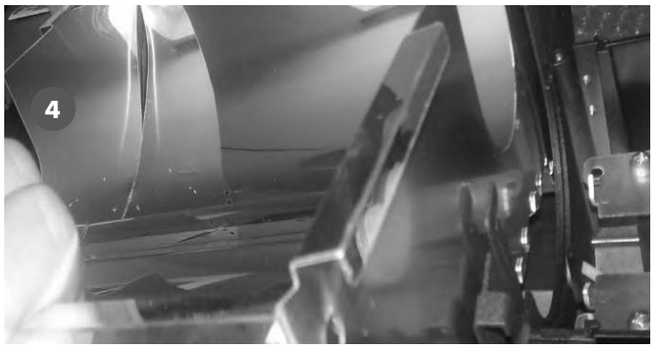
⚠ Remove Bulb(s) before replacement



Bend open side to unlock

Open reflector all the way

Pry end of reflector open



Lift reflector straight out

- Discard old reflector, do not re use
- Mount new reflector in opposite way