**IR - Sun simulation**

**System-Features**
- Immediate thermal radiation
- High heat irradiation
- Dimmable
- Uniform light distribution
- 5000 hours bulb life

**Advantages**
- No warm-up phase
- Fast specimen heat-up
- 0 to 100 %
- Extremely good Homogeneity
- Low maintenance costs
Sun simulation systems with infrared-technology are used in industrial validation- and test procedures where fast heat-up is requested. The tubular infrared halogen lamps are double ended and equipped with integrated white reflector.

**Technology**

Infrared irradiation is the part of the electromagnetic spectrum above 800 nm. It is divided into IR-A (800 – 1400 nm), IR-B (1400 - 3000 nm) and IR-C (3000 – 10000 nm). The main part is IR-A irradiation. IR-A offers the highest energy density and best efficiency. Heat source is a special cylindrical emitter with 1000 W or 2000 W with lifetime of approx. 5000 h. This guarantees low maintenance costs. 90% of the consumed energy is converted into heat, which results in high efficiency. The power of the irradiation system is adjusted from 0 to 100 % with electrical dimming modules.

**Application example**

The so far biggest IR-system realized by Dr. Hönle with a total of 260 IR-emitters has a top irradiance area of 3.8 x 11 m with height adjustment (vertical movement) and front/rear tilting. In addition there are 4 side irradiation units with an area of 4.5 x 5.5 m each. Each side irradiation unit is equipped with horizontal movement.

**Scope of delivery**

All our infrared systems are solely designed and made according to customer requirements regarding irradiance area and irradiance power. Height adjustment, tilting of front-, rear- and side-area as well as length wise and crosswise movements are available. System control is customer-oriented and realized by handheld devices as well as programmable logic controller (PLC).