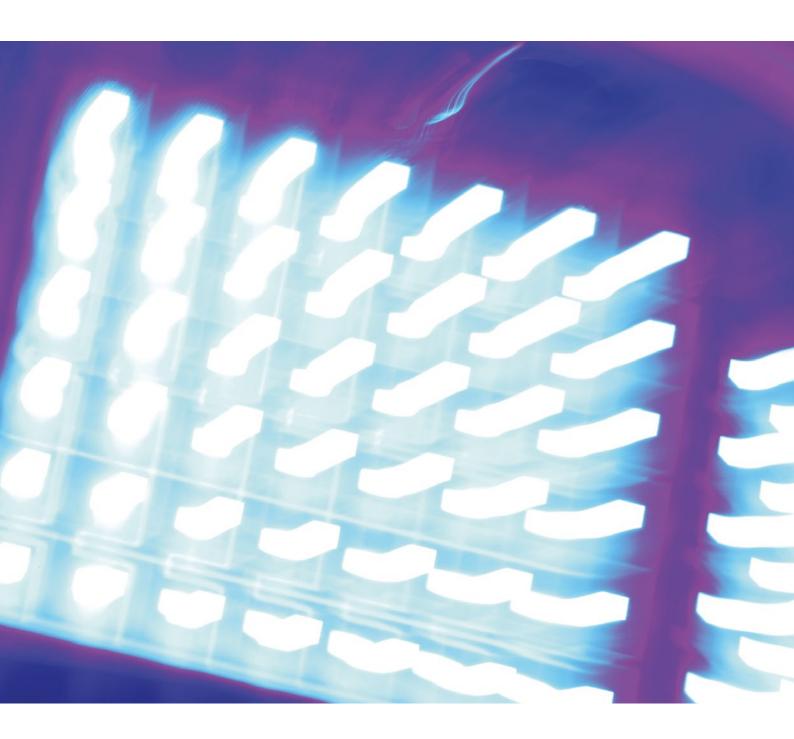
Noblelight

# Heraeus

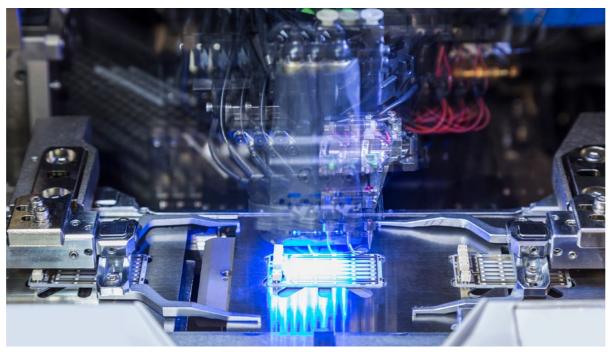


# Efficient industrial curing processes with innovative UV LED technology

The Heraeus Noblelight UV LED portfolio

# Simply more performance.

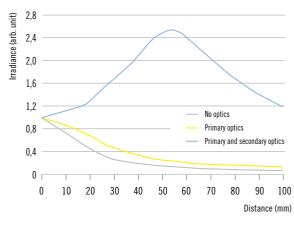
Dedicated optics for high intensity even at large working distances.



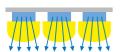
Excellent manufacturing infrastructure for high performance UV-LED solutions.

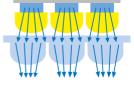
A set of unique optical concepts direct the photons leaving the UV-LED chips to larger working distances for more:

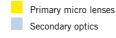
- flexibility in applications
- minimum loss of energy and straylight
- focused UV intensity











No additional optics

Additional primary micro lenses

Primary micro lenses and secondary optics

## **UV LED** portfolio from Heraeus.

Various solutions from water- to air-cooled systems of different intensities, power classes and lamp head sizes to fit any industrial application.

UV LED is the industrial standard for curing and drying processes, due to its efficiency and energy-saving potential. Heraeus offers UV LED curing solutions and customer specific UV LED curing systems tailored to the application. Users can choose between wateror air-cooled UV LED curing systems depending on their process and production needs.

While water cooling offers high power solutions in challenging industrial environments, air cooling offers easy and fast integration.

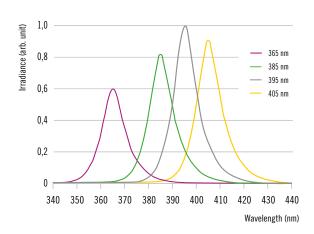


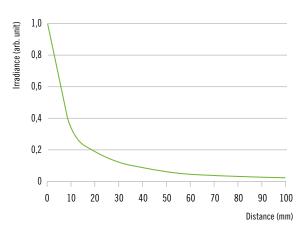
### Semray® UV2000 Series

Semray® UV2000 series is compact, light weight and modular, ideal for low power applications. It can be used as stand alone or in combination with other UV LED light sources.

Series	UV2000			
Peak wavelength 1) [nm]	365	385	395	405
Irradiation intensity <sup>2) 3)</sup> [W/cm <sup>2</sup> ] *	3,3	4,5	5,5	5
Emission window size [mm]	75 × 10			
Outer dimensions of housing [mm]	77 (W) × 120 (D) × 28 (H)			

 $<sup>^{1)}</sup>$  Tolerance +/- 5 nm.





<sup>&</sup>lt;sup>2)</sup> Value applies to maximum fan speed and maximum lamp current.

<sup>3)</sup> Typical irradiance at emission window.

<sup>\*</sup> At emission window.

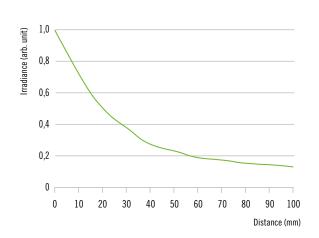


### Semray® UV4000 Series

Semray® UV4103 can support very different processes – due to its modular design and revolutionary plug & play backplane concept.

Model	UV4103 Segment			
Peak wavelength [nm]	365	385	395	405
Irradiation intensity [W/cm²]*	13	15	18	17
Emission window size [mm]	77 × 45			
Outer dimensions of housing [mm]	77 (W) × 136 (D) × 253 (H)			

<sup>\*</sup> At emission window.



### Semray® UV5000+ Series

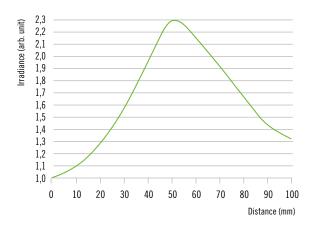
Semray® UV5000+ is designed for a higher performance and flexible integration especially for larger working distances. The Semray® UV5000+ Series is a Water-cooled system.

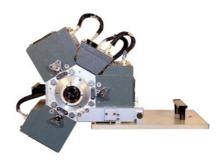
Series	UV5000+
Peak wavelength [nm]	385
Irradiation intensity [W/cm²] *	6,5
Irradiation intensity at 50 mm working distance	16
Emission window size [mm] **	X × 82
Outer dimensions of housing [mm] ***	X(W) × 100(D) × 100(H)

1,0 — 385 nm — 385 nm — 385 nm — 385 nm — 340 350 360 370 380 390 400 410 420 430 440 Wavelength (nm)



- \* At emission window.\*\* Emission window size scalable in width from 400 to 1300 mm in 50 mm steps.
- \*\*\* Outer dimensions of housing scalable in width from 415 to 1315 mm in 50 mm steps.





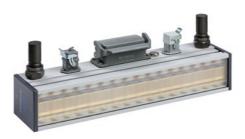
### Semray® UV PC6003

Semray® UV PC6003, a UV LED curing system designed from the ground up for optical fiber draw and wire marking manufacturing processes for a 360° curing coverage.

Model	UV PC6003 UV LED Lamp Assembly		
Wavelength [nm]	395		
Irradiance at Target [W/cm²]	65 – 70		
Emission length [mm]	165		
Maximum Dimensions [mm]	364 (W) × 265 (H) × 543 (L)		

### **Customized UV LED solutions**

Customer-specific developments are our strength. Talk to our UV LED experts if our standard versions do not fit your requirements. Together with you we will develop your special solution. For example, we have developed the Semray® UV5000M, which is equipped with special optics to bring more energy to your process. Please reach out to our global contacts for further discussion.



Model	UV5052M			
Peak wavelength [nm]	365	385	395	405
Irradiation intensity [W/cm²] *	15	17	20	19
Emission window size [mm]	1300×84			
Outer dimensions of housing [mm]	1316 (W) × 100 (D) × 100 (H)			

\* At emission window.

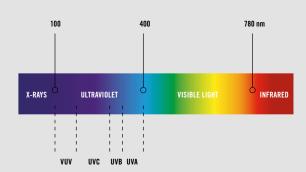
The basis for customized developments are standard products that are flexibly designed:

- flexible in sizes and lengths, depending on machine width
- flexible in connections for peripheral devices
- flexible in optical concepts for different applications and working distances

# The incredible power of light®

## Photonics-based solutions from ultraviolet to infrared.

Heraeus Noblelight covers the total spectrum of technically usable wavelengths and can help find the optimum light system solution to suit specific processes. Whether you wish to optimize existing applications or win new markets, we offer efficient, well thought-out and long-life solutions that give you a lasting competitive advantage.



Heraeus Noblelight is part of the Heraeus technology group, a globally active family-owned enterprise. Within the Heraeus group, we have direct access to fundamental technologies and high-quality materials such as quartz glass, important precious metals and specialty materials. Rely on the acknowledged Heraeus quality!

#### Think UV. Think Heraeus.



Productive light solutions with wavelengths from UV to IR improve many industries, from analytical to automotive or semiconductors and water treatment.



Need to make your industrial process more efficient? The solution for your process challenges has the highest priority to us. Our light solutions operate efficiently and increase production rates.



### Tested, checked and proven.

Our in-house application competence and development centers around the world allow you to:

- test your material under practical conditions
- optimize your industrial processes
- determine feasibility for your application

In addition, Hanau has an ISO 17025accredited measuring laboratory that offers its know-how and takes customer-specific measurements.

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