Excelitas Technologies® Introduces F-Theta Ronar 420mm Lens 515-540nm

New Lens Optimized for 3D Manufacturing, Welding and Semiconductor Fabrication

WALTHAM, Mass., January 29, 2019 – Qioptiq®, an Excelitas Technologies® Company and global technology leader in delivering innovative optical and photonic solutions, introduces its F-Theta Ronar 420mm Lens for use in 3D manufacturing, welding and semiconductor fabrication. The new F-Theta Ronar Lens is optimized for the 1/e² truncated beam diameters 14mm, 15mm and 20mm and meets highest quality standards. Its large focal length allows diverse applications in the additive manufacturing, semiconductor and metalworking industries.

The F-Theta Ronar 420mm Lens features a low absorption and high laser damage threshold, as well as a special coating optimized for wide angles. As a result, an almost constant transmission is achieved over the entire scan field. The lens also ensures high optical performance for high power laser applications. At 14mm, the spot diameter is 29µm and the scan field size is 251mm × 251mm. The scan field size and the high homogeneity of the spot size across the scan field are ideal for additive manufacturing processes.

The F-Theta Ronar 420mm Lens' small spot diameter and fused silica design minimize the thermal focus shift and allow working with high laser powers for laser welding applications. Its green spectral range is more suitable for metal processing than the infrared spectral range of 1030–1080nm, for which there are already lenses with large focal lengths available. Metals, and in particular non-ferrous metals, absorb light better in the green spectrum, which is why lower laser powers can be used. In addition, the spot sizes are smaller at the same aperture than the longer-wavelength lenses, so that finer structures with higher power density can be processed.

"The new LINOS F-Theta Ronar 420mm Lens provides reliable operation and consistently high quality in series production," said Christian Schiefen, Project Manager at Excelitas. "It is the latest addition to the Excelitas Qioptiq line of fused silica F-Theta Ronar Lenses for 515–540nm, designed to continue meeting customer needs for precision lenses with increasingly exacting capabilities."

The new F-Theta 420mm Lens will make its debut at Excelitas Booth #1441 during SPIE Photonics West, February 5 – 7, 2019 in San Francisco CA. Qioptiq is pleased to advise customers on lens selection and provide qualified service throughout the product's lifetime. Each individual lens is also tested before delivery in accordance with Qioptiq's high quality standards.

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About Excelitas Technologies

Excelitas Technologies® Corp. is a global technology leader focused on delivering innovative, high-performance, market-driven photonic solutions to meet the lighting, optronics, detection and optical technology needs of global customers. Serving a vast array of applications across biomedical, scientific, safety, security, consumer products, semiconductor, industrial manufacturing, defense and aerospace sectors, Excelitas Technologies stands committed to enabling our customers' success in their end-markets. Excelitas Technologies has

approximately 6,700 employees in North America, Europe and Asia, serving customers across the world. Connect with Excelitas on Facebook, LinkedIn and Twitter.

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