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Press Release

## **Lumenisity® announces next generation of hollowcore fibre technology with lower loss than standard single-mode fibre**

**08 March 2022 Romsey, UK** – On Tuesday 8<sup>th</sup> March, Lumenisity® Limited, [a hollowcore cable solutions provider](#), announces a new generation of record-breaking hollowcore fibre, DNANF. This technology has the lowest attenuation of any hollowcore fibre reported to date, and in doing so surpasses the attenuation of conventional germanium-doped single-mode fibre (SMF) in the O and C bands.

DNANF is Lumenisity's latest evolution of its unique and award-winning [Nested Anti-resonant Nodeless Fibre \(NANF®\)](#) hollowcore technology, jointly developed with the University of Southampton in the UK.

With attenuations of <0.22 dB per km at 1310nm and <0.18 dB per km at 1550nm, this new fibre technology has achieved the lowest loss ever recorded for any optical fibre in the O band and comparable or better than conventional single mode fibre in the C band. These results are thought to be the first of this kind reported. More information can be found in the accepted OFC 2022 paper titled '*0.174 dB/km Hollow Core Double Nested Antiresonant Nodeless Fiber (DNANF)*'.

NANF offers the benefits of ultra-low latency, lower dispersion, lower nonlinearity, and higher power handling. As DNANF has lower optical loss, this technology offers the promise of even greater optical transmission capacity, longer reach and broader spectral bandwidth. It unlocks the potential for ultra-low latency cables for use in long haul and future submarine networking applications.

Tony Pearson, VP Sales & Marketing at Lumenisity said, "Our latest innovation continues the realization and productization of fibre and cabled solutions that offer new networking tools previously unavailable with conventional silica based single-mode products. This achievement underpins Lumenisity's goal to deliver the most advanced hollowcore fibre optic cable solutions for our customers and partners."

David Parker, Chairman at Lumenisity said, "We are very excited about this ground-breaking fibre development. We will now look to start shipping DNANF cabled solutions to customers in the second half of this year from our new, state-of-the-art hollowcore fibre manufacturing facility located in Romsey, UK; the first of its kind in the world."

### **About Lumenisity® Limited**

Lumenisity is an established independent company originally spun out from the world-renowned Optoelectronics Research Centre (ORC) at the University of Southampton. Formed in 2017 to commercialise breakthroughs in the development of hollowcore optical fibre at the ORC, the company has built a team of industry leaders and experts to realise their goal to be the world's premier high-performance hollowcore fibre optic cable solutions provider offering their customers reliable, deployable, low latency and high bandwidth connections that unlock new capabilities in communication networks. Lumenisity®, NANF® and Coresmart® are registered trademarks of Lumenisity Limited.

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Lumenisity® contact: [hollowcore@lumenisity.com](mailto:hollowcore@lumenisity.com)