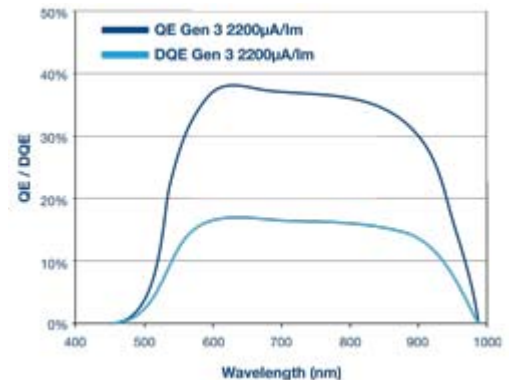


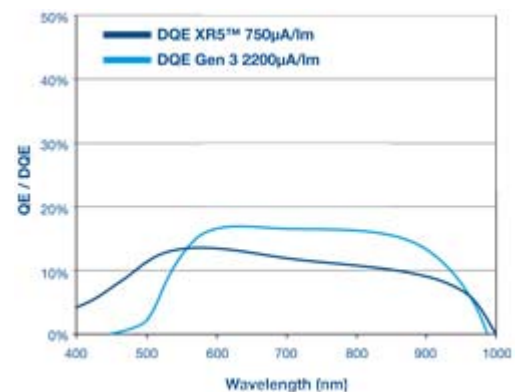
XR5™ & GEN3

In the late 1990s, innovations in photocathode technology through proprietary doped techniques developed solely by PHOTONIS, enabled a big advancement. These innovations significantly reduced the tube's noise and increased the signal-to-noise ratio which is the undisputed characteristic to describe the low light level performance of an I2 - and to allow comparison of tubes of various origins and technologies. These newly developed I2 tubes started surpassing the performance of Gen 3 tubes.



The ion barrier film reduced significantly the actual Detected Quantum Efficiencies (DQE) of Gen 3 tubes

By 2001, the United States Government concluded that an I2 tube's "Generation" was not a determinant factor of a tube's global performance, making the term "Generation" completely irrelevant in determining the performance of an Image Intensifier Tube, and therefore eliminated the term as a basis of export regulations. Today, a reference to "Generation" is no more than a marketing tool to promote a given product brand. It is not an assurance of performance nor quality.



The original cathode sensitivity does not make a difference with the resulting Detected Quantum Efficiency (DQE) which is a decisive factor in determining the performance and quality of a tube

One of the newest and most revolutionary advances in night vision is the superior performance of the [XR5™](#) Image Intensifier Tube. In addition to improvements in resolution, noise and lowlight operation, the [XR5™](#) offers [Auto-Gating](#) which allows for continuous operation in dynamic light conditions while preserving the best possible resolution. As a result, the [XR5™](#) Image Intensifier Tube quickly became one of the most favored image intensifiers, fielded with more than one hundred thousand actively deployed NATO forces.



3D diagram illustrating the loss of photoelectrons due to the ion barrier film on Gen 3 tubes.