



**4G**

**NIGHT VISION**

IT IS ALL ABOUT  
PERFORMANCE



# CHALLENGING THE COMPLEXITY OF LIGHT

**4G NIGHT VISION** is a set of capabilities described by minimum specifications of modern Night Vision to deliver to end-users the highest performance in all field conditions.

On one hand, the need of the **4G NIGHT VISION** Standard appeared when the simple description of various technologies is not representing the highest performances available to end-users for their complex missions.

Indeed the latest Research and Technology development brought Image Intensifier Tube performance to levels where it had never reached before.

On the other hand, the existing Military Standards of Night Vision testing was also proving unable to distinguish between highest performing tubes. The findings of tests in laboratory proved contradictory to the actual performances in the field.

**4G NIGHT VISION** Standard is not about Technology, it is all about performance and capabilities delivered to end-users. Challenging the Complexity of Light.

**4G NIGHT VISION** Standard is a package of the 4 specifications committing the highest performance and capabilities to Night Vision users.

**4G NIGHT VISION** standard is defined by:

- ① An Extended Bandwidth of photon collection to deliver a consistently high image quality in all environments (from below 400nm to above 900nm)
- ② A FOM (figure of merit being Signal to Noise Ratio times the Resolution :  $SNR^* R$ ) above 1800
- ③ A Resolution always superior to 57 lp/mm even in the most polluted light environments such as urban areas or when entering a building where the light is suddenly switched on
- ④ A Halo size never larger than 0.7mm around the brightest objects seen in the image to provide the highest details around the light sources

**4G NIGHT VISION** Standard also implies a modification of the Military Standards of Night Vision testing.

**4G NIGHT VISION** Standard defines the minimum performance specifications giving end-users the capability to operate **MULTI-MISSION NIGHT VISION**.

From the lowest light levels of desert areas in Afghanistan (defined at Night Level 6 or less than  $100\mu\text{lx}$ ) up to the very demanding aerial applications.

