

# ONYX



## At night, Seeing is useful - Understanding is crucial

### Test panel questionnaire results <sup>1)</sup>

Questionnaire item	White better	No preference	Green better
Overall Quality	85	0	15
Naturalness	85	0	15
Degree of Detail	86	0	14
Range of Shades	74	0	26
Full Moon Similarity	79	0	21
Depth Perception	79	0	21
Night Mission Preference	73	8	19

“Nighttime scenes appeared remarkably more natural with the white phosphor than with the typical green phosphor” <sup>1)</sup>

“White phosphor was like viewing the world at twilight and it provided clearer information about the contrast, shapes and shadows” <sup>1)</sup>

“There seemed to be more discriminable shades of intensity between white and black than between green and black and depth perception was ‘phenomenal’ compared to green phosphor NVG’s” <sup>1)</sup>

**PHOTONIS**  
NIGHT VISION



## Technical specifications

Resolution		XR5™ "ONYX"			
	Minimal	Typical	Maximum	UNIT	
Limiting resolution	64	70		lp/mm	
MTF (Modulation Transfer Function)		Minimal	Typical	Maximum	UNIT
2.5 lp/mm		92		%	
7.5 lp/mm		80		%	
15 lp/mm		58		%	
25 lp/mm		45		%	
30 lp/mm		35		%	
Signal to Noise Ratio		Minimal	Typical	Maximum	UNIT
Signal to noise (@108µlx)	23	25			
Other Technical Data		Minimal	Typical	Maximum	UNIT
MTTF	10.000			Hrs	
HALO (spot 0.2 mm)		0.6	0.8	mm	
Gain at 2.10 <sup>-5</sup> lx	7.000		10.000	cd/m <sup>2</sup> /lx	
Max. Output Brightness	4		8	cd/m <sup>2</sup>	
E.B.I.			0.25	µlx	
Luminous sensitivity at 2850K	700	800		µA/lm	
Radiant sensitivity at 830nm	60	70		mA/W	
Output uniformity at 2850K			3:1		
Weight		80	95	grams	
Shock resistance	500			g	
Autogating Power Supply Unit		Standard on the XR5™			
	Minimal	Typical	Maximum	UNIT	
Luminance dynamic range	1.10 <sup>-6</sup>		5X10 <sup>4</sup>	lux	
Input voltage	2	2.7	3.5	Volt	
Input current			35	mA	

XD-4™ "ONYX"		Minimal	Typical	Maximum	UNIT
Limiting resolution	57	64		lp/mm	
MTF (Modulation Transfer Function)		Minimal	Typical	Maximum	UNIT
2.5 lp/mm			90	%	
7.5 lp/mm			72	%	
15 lp/mm			54	%	
25 lp/mm			35	%	
30 lp/mm			28	%	
Signal to Noise Ratio		Minimal	Typical	Maximum	UNIT
Signal to noise (@108µlx)	19	23			
Other Technical Data		Minimal	Typical	Maximum	UNIT
MTTF	10.000			Hrs	
HALO (spot 0.2 mm)			0.6	0.8	mm
Gain at 2.10 <sup>-5</sup> lx	7.000			10.000	cd/m <sup>2</sup> /lx
Max. Output Brightness	4			8	cd/m <sup>2</sup>
E.B.I.				0.25	µlx
Luminous sensitivity at 2850K	600	700		µA/lm	
Radiant sensitivity at 830nm	45	60		mA/W	
Output uniformity at 2850K				3:1	
Weight		80	95	grams	
Shock resistance	500			g	
Autogating Power Supply Unit		Option on the XD-4™			
	Minimal	Typical	Maximum	UNIT	
Luminance dynamic range	1.10 <sup>-6</sup>		5X10 <sup>4</sup>	lux	
Input voltage	2	2.7	3.5	Volt	
Input current			35	mA	