



RETeval Device General Specifications

Discover All The Unique Features of the RETeval Device

Light source		Red LED (621 nm)	Green LED (530 nm)	Blue LED (470 nm)	White RGB
	Flash luminance energies (cd-s/m ²)	0.0001 – 15	0.001 – 17	0.0001 – 5	0.002 – 30
	Background luminance (cd/m ²)	0.03 – 3000	0.2 – 3500	0.03 – 1200	0.4 – 6000
To convert to Trolands, multiply luminance by the pupil area in mm ² .					
Input type	Custom 3 pin connector with positive, negative, and right leg drive signals				
Noise	< 0.1 μ V at the flicker frequency for flicker protocols				
CMRR	> 100 dB at 50-60 Hz				
Frequency range	DC-coupled				
Flicker frequency	Approximately 28.3 Hz				
Data resolution	Approximately 71 nV / bit				
Input range	\pm 0.6 V				
Sampling Rate	Approximately 2 kHz				
Timing accuracy [†] (electronic eye)	< \pm 0.1 ms				
Timing precision [†] (human eye, 1 σ)	Typically < \pm 1 ms				
Pupil measurements	1.3 mm – 9.0 mm, < 0.1 mm resolution, 28.3 Hz				
Safety	Battery-powered. Complies with optical, electrical, and biocompatibility safety standards				
Power source	Li-Ion battery allows testing of approximately 70 patients before recharging, depending on the protocol used				
Recharge time	4 hours – charger included				
Size	2.8" W x 3.8" D x 9" H (7 cm x 10 cm x 23 cm)				
Weight	8.5 oz. (240 g)				
Docking station	Convenient storage location, charging stand, and USB connectivity to your computer and network				
Protocols	Based on software options, choose from retinal illuminance (Td) and luminance (cd/m ²) versions of ISCEV standard protocols, flicker protocols, and other protocols.				

[†] For Troland-based flicker protocols having a retinal illuminance energy \geq 4 Td-s. All specifications are subject to change.



"We have been very pleased with the RETeval. It has changed the way that we practice and has allowed us to significantly decrease the amount of EUAs with ERGs we perform. Furthermore, it has resulted in earlier diagnosis of patients with inherited retinal degenerations."

– Melanie Schmitt, MD,
University of Wisconsin School of Medicine and Public Health

