

Standalone Console for DiagnosysFST

The DiagnosysFST®, Full-field Stimulus Test system uses the ColorDome™ or ColorFlash™ stimulator. It measures the sensitivity of the visual field by testing for the lowest luminance flash which elicits a visual sensation perceived by the subject. The test is run on either dark- or light-adapted patients for one or both eyes in an automated routine to measure a reliable threshold.

During testing, the Espion™ software uses a proprietary probability density function to automatically determine the threshold.

The test can be used as a clinical trial endpoint or as a safety procedure to detect increases or decreases in light sensitivity due to gene therapies or deterioration or improvement in existing patient conditions.



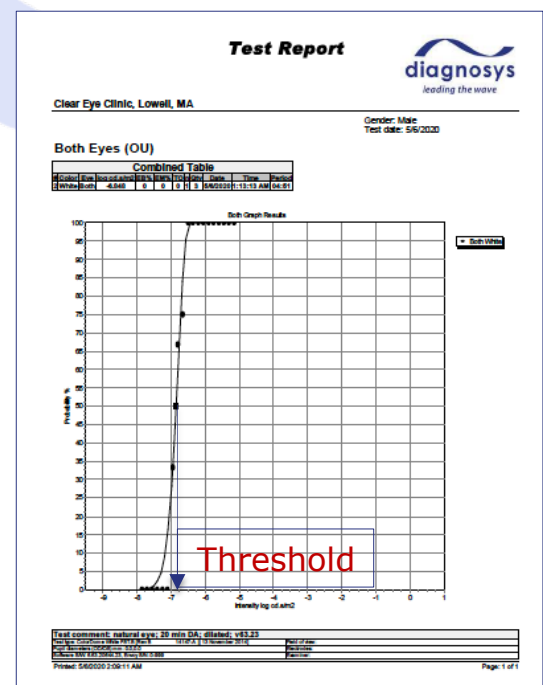
DiagnosysFST with Standalone Console

Features

- Simple to run and fast results: 1-2 minute tests
- Measure cone- and rod-mediated thresholds and differentiate between them
- Test adults to pediatric (4 years old)
- Full or partial field dark or light adapted test
- Infrared ColorDome camera monitors patient
- Color options for flash and background: white, red, blue, green
- Wide range of proven test quality metrics
- Auto test averaging and analytics

Applications

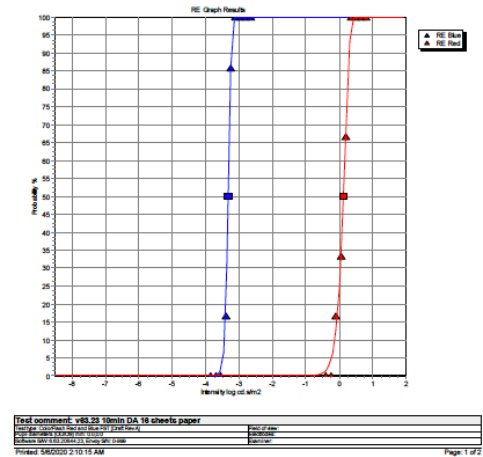
- Gene therapy diagnostics
- Safety or endpoint in clinical trials
- Clinical low vision patient objective measure of vision
- RP, LCA, Stargardt disease, CSNB, Achromatopsia, Choroideremia, retinal prosthesis, others
- 15 years of clinical trial success



Normal dark-adapted patient threshold

Right Eye (OD)

Combined Table									
Stimulus	Color	Log of A	Log of B	Log of C	Log of D	Log of E	Log of F	Log of G	Log of H
Blue	Blue	-3.3	0	0	0	0	0	0	0
Red	Red	0.125	0	0	0	0	0	0	0



Dark adapted Red & Blue: Low vision patient

The DiagnosysFST allows testing with different colors of light. Red and blue are commonly used to distinguish between rod and cone sensitivities. Rods are more sensitive to short-wavelength (blue) light and have very little response to long-wavelength (red) light. By using red light, cone function can be isolated, since rods contribute minimally in that range. When differentiation between photoreceptors is not necessary, white light stimuli can be used instead.

In the example on the right, a low vision patient was tested with both red and blue light stimuli. Their threshold sensitivities measured -3.3 cd.s/m^2 for blue and 0.125 cd.s/m^2 for red, whereas a patient with normal vision would typically present thresholds that are 3-4 log units more sensitive.

Normal reference data is provided with the system.

Software

- Proprietary probability density function threshold detection
- Ability to combine tests in single analysis plot

Hardware

- Uses the ColorDome or ColorFlash¹ stimulator
- Dual button (yes/no) box for user input
- With iMaskTM:
 - Defined test spots: 12° to 50°
 - Check each eye dynamically during test



ColorFlash stimulator option

1. ColorFlash stimulus range is appropriate for FST tests on low vision patients only.