

ColorDome

Advanced Performance Ganzfeld Dome

"Any color, any intensity, any duration"

Features

Advanced flash capabilities

- ColorDome™ has a *trillion-to-1* luminance range
- Flash duration from nanoseconds to hours
- Any color background from RGB and amber LEDs

Easy to use, ultimate performance

- Self-calibrating
- Full electronic color control
- Flash or flicker stimuli in any color & duration
- Multiple desktop and cart mount options

Applications

- Disease diagnostics and monitoring
- Research and development
- Drug discovery and screening
- Clinical trials
- Neuro-ophthalmology

Specifications

LED flash

Any color flash: from RGB & amber LEDs; UV LED also available

Red (627 nm), Amber (590 nm), Green (530 nm), Blue (448 nm)

LED sets produce 9 order-of-magnitude luminance range

Flash duration from nanoseconds to hours

Proprietary CIE compensation yields ultra-stable luminance & color output

Maximum 6500K white flash $>60 \text{ cd}\cdot\text{s}/\text{m}^2$ (6x ISCEV standard max flash)

On/off flashes of any duration, waveforms including sine & exponential, arbitrary wavetable

Calibrated in photopic and scotopic units as well as Trolands

User defined color and luminance stimuli

Auto calibration

XBF White LED flash (optional)

Flash calibrated from $0.01 \text{ cd}\cdot\text{s}/\text{m}^2$ to $1,000 \text{ cd}\cdot\text{s}/\text{m}^2$

Calibrated in photopic and scotopic units as well as Trolands

Capable of double flashes including "double bright flash" protocol

Overall flash

Flash luminance range from 10^{-9} to $1,000 \text{ cd}\cdot\text{s}/\text{m}^2$

Anywhere within this range, luminance can be changed with no less than 1% resolution



ColorDome shown mounted on optional Slider table stand

Industry leading protocols

- All ISCEV full-field tests
 - C-wave
 - Dark-adapted 30.0 ERG
 - Dark-adapted long wavelength
 - Direct current ERG
 - Double flash ERG
 - Early receptor potential
 - Electro-oculography (EOG)
 - Flash VEP
 - Light-adapted luminance-response series
 - Photopic On-Off
 - Photopic negative response
 - Saturated a-wave series
 - Scotopic threshold response
 - S-cone ERG
 - Dark adapted Red Flash
- With upgrade modules:
- Pupillometry
 - Dark Adaptometry
 - DiagnosysFST®



ColorDome shown mounted on optional power lift cart

Background illumination

- Any color background (from RGB and amber LEDs)
- 6 order-of-magnitude luminance range
- Calibrated luminance output in cd/m^2
- Calibrated in photopic and scotopic units
- Colors can be created using CIE coordinates or color picker

EOG test

- 9 red EOG LEDs spanning 60° as well as the standard 30°
- Adjustable intensity and cycle time
- Can be cycled in square wave mode or sinusoidal mode
- Configurable to have audible beep at the start of every cycle and sweep
- Backgrounds up to 500 cd/m^2 white for non-dilated pupils

Other features

- Infrared camera with IR LEDs built in; USB interface & video monitor output
- Built in progressive audible buzzer to warn patients to get ready for next flash
- User programmable arbitrary LED waveforms with 1ms resolution give full control of luminance and color
- Optional dark adaptometry and DiagnosysFST modules
- Auto calibration of LED output

Physical characteristics

Dimensions (HxWxD)	10.2 x 14.2 x 12.2 inches (260 x 360 x 310 mm)
Weight	10 lbs (4.5kg) without stand



Inside the dome: infrared camera, standard EOG 30° as well as 9 red intermediate EOG LEDs



Patient testing with ColorDome and ERG electrodes.

ColorDome ordering information

ColorDome configuration

Model number: D125

Configuration: select 1 option per field below

D125	-	
2N	Without XBF White LEDs	
2W	With XBF White LEDs	



Optional accessories

Model	Description
D343	Dark adaptometry module
D355	Pupillometry module
D196	FST module
D164	Desktop stand
D191	Normative database
D147	ColorDome recalibration service
D221	ColorDome with UV LEDs

Available on the following systems:

- Diagnosys *E³* desktop systems
- Diagnosys *Profile* cart-based systems
- Diagnosys *LabCradle* based systems

www.diagnosysllc.com

US: Diagnosys LLC; 55 Technology Drive, Suite 100, Lowell, MA 01851; 978-458-1600; sales@diagnosysllc.com
 EU: Diagnosys Vision Ltd; Office 117, DOC Building, Balheary Road, Swords, Dublin, K67 E5A0, Ireland; +44 (0) 1223 520699; mail@diagnosysvision.com
 UK: Diagnosys UK Ltd; 5 Trust Court, Chivers Way, Vision Park Histon, Cambridge, CB24 9PW, UK; +44 (0) 1223 520699; mail@diagnosysuk.co.uk



The information listed herein is accurate as of the date of printing, however may change at any time without notice. The contents may differ from the current status of approval of the product in your country. Please contact your local Diagnosys representative for more information. © 2021 by Diagnosys, LLC. All rights reserved.
 Doc: 11879 Rev: H ECN 2416 Date: 11 Apr 2025