virtualfield

The Financial Impact of Upgrading to Virtual Visual Field Testing: A Cost-Benefit Analysis

Virtual Field | 2025

virtualfield

Executive Summary

The eyecare industry is sitting at a critical inflection point. Eye care practitioners find themselves at the intersection of rapidly advancing technology and elevated patient expectations for the greatest possible convenience and on-demand access. The result is mounting pressure to work as efficiently as possible while still earning ample profits to hire and retain the best staff and maintain the most modern office and diagnostic equipment.

As practices seek to deliver more efficient, patient-friendly, and cost-effective care, the traditional tabletop perimeter — once thought to be an irreplaceable piece of equipment — is becoming a financially burdensome and space-intensive device that often requires costly repairs. Nor was it ever designed to scale to fit the needs of modern eye care workflows with their multiple exam lanes and need for portability.

This white paper provides a detailed cost-benefit analysis of upgrading to virtual visual field testing equipment, examining the short-term and long-term financial implications for eyecare practices. We'll explore direct and indirect costs, revenue opportunities, clinical workflow efficiencies, and patient satisfaction, illustrating why virtual visual field testing isn't just a clinical upgrade but a strategic business decision and an investment in patient care, practice efficiency, and staff satisfaction.

virtualfield

The Case for Portable Vision Testing

Visual field testing is essential for diagnosing and managing glaucoma, neuro-ophthalmic conditions, and retinal disease. Historically, this testing has been performed using bulky, immobile tabletop perimeters that require a dedicated dark room, significant technician supervision, and lengthy exam times.

Modern virtual visual field alternatives offer portability, comfort, scalability, and affordability without compromising diagnostic accuracy. But does portability pay off? Let's break it down.

Tabletop vs. Virtual Visual Field Equipment: Direct Cost Comparison

Equipment Investment

Feature	Traditional Tabletop Perimeter	Portable Visual Field Solution
Initial Hardware Cost	$25,000–$45,000	~$2,400–$4,000
Setup/Installation	May require electrical and room modifications	None
Maintenance Contracts	$2,000–$4,000/year	None
Replacement Cycle	7–10 years	N/A

Savings at Purchase

Practices can save ~$21,000 - $45,000 on equipment investment and maintenance costs in year one alone by choosing a virtual visual field solution rather than a tabletop perimeter.

virtualfield

Tabletop vs. Virtual Visual Field Equipment: Space Utilization Costs

Traditional perimeters require a dedicated, light-controlled room. This requirement translates into:

- Lost opportunity cost of using that space for revenue-generating services like optical sales or patient consultations.
- Real estate costs, especially in urban or high-rent areas.

Portable Testing Advantage

With virtual visual field testing modalities, technicians can test in any exam lane or office space, freeing up hundreds of square feet over time.

Estimating the real estate needed for a traditional tabletop perimeter

When planning for a traditional tabletop perimeter, you need to account not just for the device's footprint, but also for the space needed for patient access, seating, technician positioning, and room functionality (i.e., dim lighting and minimal distractions).

Estimated Breakdown of Space Requirements
Based on the Humphrey Visual Field (HVF) Analyzer

Device Dimensions (HVF 3 or similar)	Chair and Patient Access	Technician Space
• Width: ~20–22 inches • Depth: ~24 inches • Height: ~24 inches Note: These dimensions are just for the analyzer–not the table it's placed on.	• Standard ophthalmic chair: ~20–24 inches wide • Additional room for patient entry, arm movement, and proper posture: +12–18 inches behind and to the sides	• Space next to the device for a technician to sit or stand and assist the patient: ~24–30 inches • Optional: A rolling stool, small side table, and/or computer workstation

virtualfield

Ideal Room Layout
To comfortably accommodate the HVF device on a motorized or fixed table, a patient chair, technician seating, and proper circulation and lighting

Minimum Recommended Room Size	Ideal Room Size
8 ft x 6 ft = 48 square feet	10 ft x 8 ft = 80 square feet

Summary

Component	Space Required
Device + Table	~4–6 sq ft
Patient Chair + Clearance	~12–15 sq ft
Technician Area	~12–20 sq ft
Circulation/Entry Space	~10–20 sq ft
Total Recommended	**38–61 sq ft**

Space Saved
There are no dedicated real estate needs with a virtual visual field device.

Based on Becker's ASC Review estimations, the average cost per square foot of real estate space for eye care professionals, nationally, is $43 per month. Therefore, the average real estate cost needed to accommodate an HVF is $1,634 - $2,623 monthly or $19,608 - $31,476 annually.

For cold starts, choosing virtual equipment rather than an HVF could mean renting a smaller space that requires lower monthly rental fees, thus resulting in actual cash savings. Replacing an HVF with a virtual option may not always result in actual cash savings, however a virtual option frees up space for more productive uses, such as additional exam lanes or adding alternative medical services.

virtualfield

Tabletop vs. Virtual Visual Field Equipment: Increased Patient Care and Exam Earnings

Reduced Technician Supervision of Patient Exams

Tabletop perimeters often require technicians to monitor and coach the patient throughout the exam. With virtual visual field equipment, technicians can:

- Initiate a test in under 2 minutes
- Step away during testing
- Monitor patients remotely via tablet or dashboard.

Time Saved

Up to 15–20 minutes per test, which equates to 2–3 additional patients per day or reallocated time toward higher-value tasks.

Assumptions

- Small practices conduct 2–5 visual field exams/day, medium to large practices conduct 5–15 visual field exams/day, and specialty practices conduct 10–25+ visual field exams/day.
- The reallocated time adds 2 - 3 patients to the daily schedule for visual field testing and the practice location has multiple virtual visual field devices available to run concurrent exams..
- Depending on the payer, visual field testing (CPT 92083) is reimbursed at an average of $60–$80 per test.
- Practitioners see patients 200 days per year

Practices can earn an additional $120 - $240 per day or $24,000 - $48,000 per year per practice location, conducting more virtual visual field exams than with a traditional tabletop perimeter. This does not account for additional revenue from ancillary tests like pupillometry or D-15 color vision testing, which are also reimbursable when clinically indicated.

virtualfield

Hidden Financial Benefits

The most successful eye care providers know that when it comes to achieving a positive return on investment, there are hard and soft costs to consider. Regarding the diagnostic equipment you choose, patient experience, satisfaction, and retention are vital considerations. Consider these hidden financial benefits of investing in virtual visual field devices:

Improved Patient Experience = Retention + Referrals

Happy patients are loyal patients, and loyalty increases lifetime patient value. However, traditional tabletop perimeters are known to foster anxiety in many patients who require routine testing. In too many scenarios, such anxiety can result in test procrastination or avoidance, and ultimately non-compliance. With more comfortable testing modalities, your practice benefits from:

- Higher patient satisfaction scores
- More word-of-mouth referrals
- Reduced patient anxiety, especially for older adults or neurodivergent patients

Empowering Portability and Offsite Testing

Practices with multiple locations, assisted living contracts, or mobile clinics can bring virtual vision testing technology to their patients. This convenience enables:

- New revenue streams
- Better continuity of care
- Competitive differentiation in the market

Reduced Downtime

Less downtime means more testing, fewer canceled appointments, and less lost revenue. If a tabletop perimeter malfunctions, the eye care clinic, its patient workflows, and daily schedules can be stalled while waiting for repairs. With virtual models:

- There are no routine hardware maintenance expectations
- In the rare event a device is inoperable, it can be replaced at no cost within days
- Software updates are cloud-based, ensuring routine bug fixes, UI enhancements, and additional exam options at no additional cost
- Technical issues can be addressed remotely

virtualfield

Overcoming Common Hesitations to ReplacingTraditional Tabletop Perimeters with Virtual Vision Testing Equipment

Concern	Solution
Staff adoption of new technology	Choose a virtual testing partner that offers dedicated customer service, onboarding, retraining, and on-demand support
Insurance acceptance	Choose a device that maximizes your ability to bill for CPT-coded tests recognized by CMS and private payers
Clinical accuracy	Choose a solution validated against traditional tabletop perimeters in peer-reviewed studies

virtualfield

Tabletop vs. Virtual Visual Field Equipment: Year 1 Snapshot

Category	Estimated Annual Impact per Clinic Location
Equipment Savings	$21,000–$45,000
Increased Patient Care and Exam Earnings	$24,000 - $48,000
Total Estimated Financial Impact	**$45,000–$93,000**

virtualfield

Conclusion

Upgrading to portable visual field and other vision testing is more than a technology decision — it's a short- and long-term business impact decision. Practices that make the switch benefit from:

- Lower upfront and ongoing costs
- More efficient staffing and scheduling
- Expanded revenue opportunities
- A better patient experience
- A more agile and future-proof clinical setup
- More office space flexibility and opportunities for additional revenue streams

Whether you're a solo practitioner or a multi-location group, every dollar counts, and every patient interaction is an opportunity to carry out your mission of providing exceptional eye exam experiences. By choosing a modern solution, you are choosing to invest in your staff, your practice, your patients, and your personal brand and reputation.

virtualfield

About the Author: Virtual Field

Virtual Field delivers an exceptional eye exam experience. Eye care professionals, including ophthalmologists and optometrists, examine patients faster, more efficiently, and more comfortably than ever before. Exams include Visual Field, 24-2, Kinetic Visual Field (Goldmann Perimetry), Ptosis, Esterman, Color Vision, Pupillometry, Extraocular Motility (EOM), and more.