



Pioneering Eye Test Equipment  
and Manufacturers of the  
Cardiff Acuity Test for over 30  
years.



## Pioneering Eye Test Equipment & Manufacturers of the Cardiff Acuity Test for over 30 years.

In addition to the [Cardiff range of tests](#) (Acuity, Contrast, Screening, Reduced Acuity & Low Vision), we offer a range of products including:

- *City Grating Acuity Flip Test*
  - *Combined Grating Test*
  - *New Children's Grating Test*
    - *New Infants Grating Test*
- *Mitron Contrast Sensitivity Chart*
- *Mollon-Reffin "Minimal" Vision Test*
  - *Moorfields Acuity Chart*
- *Ulster-Cardiff Accommodation Cube*
  - *Trial frames and repairs*
    - *Amsler manual*
    - *Daylight Illuminator*
    - *Occluding Fun Frames*
    - *Retinoscopy Aids*
    - *Reading Cards*
    - *Lab Pads*

### PA VISION LTD

PA Vision Ltd and our partners have been producing and providing eye care products for over 25 years and we value our key role in helping vision testers and eye care professionals detect and treat vision disorders the world over.

PA Vision Ltd are proud to introduce their new on-line product catalogue. We are working in association with the Good-Lite Company of America and are therefore able to offer a selection of their most successful vision screening and testing equipment, as well as our own.

The Good-Lite Company enjoy the exclusive, worldwide manufacturing rights to the LEA Test System developed by Lea Hyvarinen, MD, of Finland, and we are thus able to include these products in our catalogue.

# The Cardiff Acuity Test

*For children from 1-3 years and adults that cannot communicate in the usual way (i.e. adults with intellectual difficulties, adults who have suffered a stroke and adults with dementia).*

Here at PA Vision, we manufacture and supply the Cardiff Acuity Test throughout the UK & Globally.

The test comprises 36 acuity testing cards at twelve levels and are specifically aimed at children from 1-3 yrs and those who cannot communicate in the normal way, due to stroke or learning difficulties.

The test is prepared for preferential looking and presented in vanishing optotype format.

The target cards are approximately 10.5 x 8 inches (265mm x 203mm) in size, are litho printed on paper and mounted on a plastic substrate.

This set includes dividers (vinyl), instructional video and other information (on product care etc.)

The test is boxes in board strengthened polypropylene (red) and dated at time of manufacture.



Cardiff University Vision Tests | PA Vision Ltd

# Mollon-Reffin “Minimal” Vision Test

*For colour deficiencies*



This vision test examines directly the patient's chromatic discrimination along three theoretically significant axes of colour space. It is extremely rapid and it offers the simplest possible task to the patient; yet it provides information on the type and the degree of the colour deficiency.

Because the task is readily understood and makes minimal demands on the patient's concentration, the test can be used not only with healthy adults but also with children, with elderly people and with neurological patients. It has proved especially useful for testing children, since it can be performed even by three-year-olds.

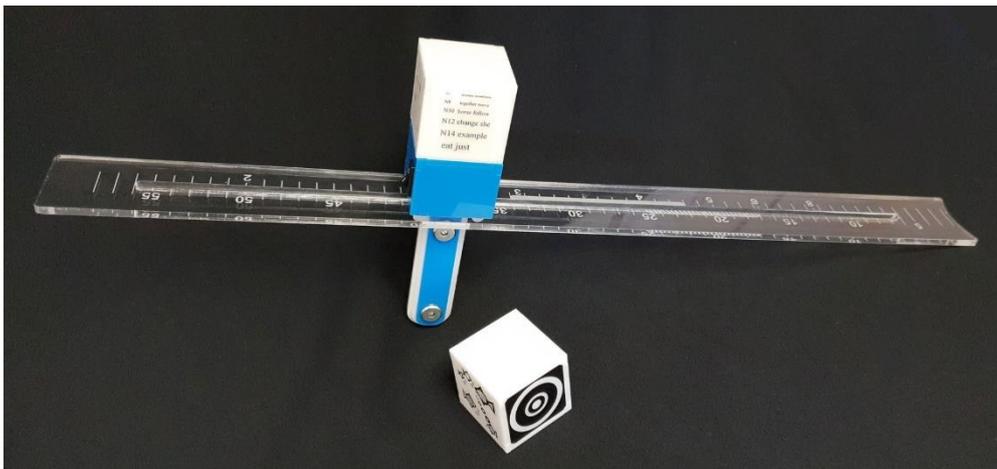
Those familiar with "arrangement tests" of colour vision (such as the Farnsworth-Munsell 100-hue, the D15 and the tests of Lanthony) will recognise the present test as a considerable improvement on earlier tests.

The test will identify and classify the dichromatic type of inherited colour blindness (in this use it replaces the D15 of Farnsworth). It will also detect those anomalous trichromats who have impaired colour discrimination. It will pass the small minority of anomalous trichromats who have normal levels of colour discrimination.

# The Ulster-Cardiff Accommodation Cube

The Ulster-Cardiff Accommodation CUBE has been developed by Dr. Maggie Woodhouse (Cardiff University) and Professor Kathryn Saunders (Ulster University) to provide a quick, objective measure of accommodative function (focusing accuracy) in optometric, orthoptic and ophthalmological practice.

We and our colleagues have used a similar device for many years to assess accommodation in babies, young children and those with communication difficulties.



The Ulster-Cardiff Accommodation Cube | PA Vision Ltd

# The Mitron-Contrast Sensitivity Chart

Developed by BiB Ophthalmic Instruments these charts utilise letters of the same size but with reducing contrast to provide a quick means of assessing patient contrast sensitivity thresholds.

For use at one metre. Two charts are supplied printed with a different sequence of letters, together with instructions for use and a scoring pad. Height: 80cm, Width: 60cm.

Recommended lighting requirement: approximately 913 Lux or 85 cd's m."



# The Moorfields Acuity Chart

Conventional black on white letter charts have two distinct visual thresholds. These are:

1. **The detection threshold, when the presence but not identity of the letter can be distinguished**
2. **The recognition threshold, when the letter can actually be identified.**

The Moorfields Acuity Chart (MAC) test includes two different, foldable letter charts (MAC 1 for the right eye and MAC 2 for the left eye). They are constructed using high-pass filtered letter targets. These letters are composed of a black core with surrounding white borders and are presented on a grey background.

The mean luminance of the letter target is similar to that of the background resulting in very similar detection and recognition thresholds. This leads to the appearance of the letters vanishing close to the threshold, hence their description as 'vanishing optotypes'. This holds true for individuals with no ocular abnormalities viewing centrally using the fovea.

These test targets have been shown to be more equally discriminable and have shown lower measurement variability compared to conventional letter designs. They have also demonstrated a superiority in detecting deficits in visual function in age-related macular degeneration when conventional letter acuity remains normal. More data is needed to evaluate their performance in the presence of other ocular abnormalities and it is anticipated that MAC will be incorporated into worldwide research protocols to investigate this comprehensively.

The charts are constructed based on the gold standard design of the Early Treatment Diabetic Retinopathy Study (ETDRS) charts. These employ a logarithmic progression in letter size allowing for single letter scoring, in which each letter read correctly is incorporated into the final calculated acuity score. This has demonstrated to be more accurate and precise visual acuity measurements with lower test retest variability compared to conventional line scoring using.



# City Gratings Acuity Flip Test

The City Gratings Cards have been developed by a team of clinical vision scientists at City University to provide a rapid means of assessing infant visual acuity.

The cards make use of an established and validated assessment technique known as the “acuity card procedure” whereby an infant’s innate visual tendency to fixate patterned, rather than homogenous objects in their environment, is exploited to obtain a quantitative estimate of visual acuity.

This new version is more convenient to use in that it is lighter in weight and more compact. It can be carried around easily. The flip format allows the tester to easily prepare the cards for the next test without the time consuming task of rearranging the cards in order and replacing them in the box. The test can be used with the “A” shaped display stand allowing the tester to sit behind the unit while the child sits opposite with mum or dad.

This simple-to-use test, involves presenting an infant with a series of card-mounted grating patterns differing in spatial frequency (fineness / coarseness) and observing their looking behaviour through eye movement across the card. Each grating is paired with a similarly sized, grey, “blank” pattern of the same brightness.

The examiner determines whether a looking preference exists for a given grating and if it does, the infant can be presented with further cards with gratings of increasing spatial frequency until the infant’s acuity limit is reached i.e. they no longer exhibit a preference for the grating.

The City Gratings cards offer several refinements over other similar preferential-looking based tests: they are scaled using the logMAR approach (considered the most appropriate for visual acuity testing) and are small and lightweight facilitating their use across multiple locations."

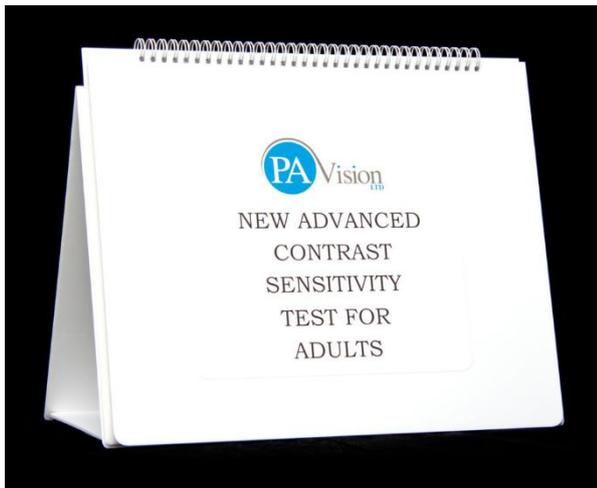


# The Contrast Sensitivity Flip Test

Contrast sensitivity is an important measure of visual capabilities. It complements a measure of visual acuity (which describes the finest detail visible at high contrast) by defining a subject's ability to discern large targets at low contrast and is particularly useful in the examination of patients with reduced vision or visual impairment.

The Contrast Sensitivity Test provides a straightforward, speedy method of measuring contrast sensitivity, in a convenient portable form. It has two alternative sets of targets, letters or pictures, so that it is suitable for adults, children and people of all ages with communication or cognitive difficulties.

The size of each picture or letter remains constant throughout but the contrast of the outline of the targets reduces so that the targets become more difficult to discern against the grey background.



# The Acuity Flip Test

This test is designed to measure visual acuity of young children (1-3 years of age), or older children or adults with disabilities. It relies on the technique of preferential looking, so that the patient does not need to be able to recognise or name pictures.

Each page of the test contains a picture, made up of black and white outlines. The proportion of black and white is the same, so that the average brightness of the outline exactly matches the grey background.

This means that when the outline is too narrow to be seen, the picture merges into the background and becomes invisible. The targets are known as 'vanishing optotypes'. The technique of preferential looking means that all the patient is required to do is to look at the picture. If he or she can look at the picture, we know that he/she can see the outline. The outlines narrow as the test proceeds and we score the visual acuity as the narrowest outline that can be seen.

The test can be held on the examiner's lap or placed on a table between examiner and child or can be held freely or mounted on the easel.



# Lab Pads

We are proud to announce that we are working in partnership with Lab Pads, the number 1 UK supplier for lab pads, stocking pads for Nidek, Essilor, Briot, Weco and Huvitz edgers.

## Testimonials

“We only recommend the use of Labpads optical pads on all the edgers we supply. I have been in the industry for over 15 years servicing Nidek edgers and these are the best I have ever seen. The quality and price are superb. With free next day delivery, the service is unbeatable.” – **Liam Gill – owner of EL Services**

Ever heard of LAB PADS. Further costs cut to running your lab. Exceptional quality and prices. I can't find any other supplier who even gets near. Look them up try them. Ask for Steve. You get all the information on products they supply. “A month has past since I switched supplier for glazing pads. Two results – 1. Not had one lens slip off axis. 2. Have slashed lab cost of sales.” – **Tony Allen – Senior Lab Manager with Specsavers**

“Update on your sample pads you kindly sent me – I've tried the Blue cut on all types of core jobs mar coated & hard coated they are fantastic. I've tried the pro hydro pads on complex orders including high plus / high minus / high cyls too. They are the best pad I've used and not having to use an anti-slip pad is 'win win'. – **John Leach – Lab Tech and Manager with over 35 years' experience in optics**

## A Word from Steve O'Dwyer of Lab Pads

Some of you may know me from my many years at Specsavers and then my time with Birmingham Optical as their project manager. I have used my contacts and spent a great deal of time researching for the best quality and most economical blocking pads.

I now believe that I have found the pads and we are pleased to offer them from our new website.

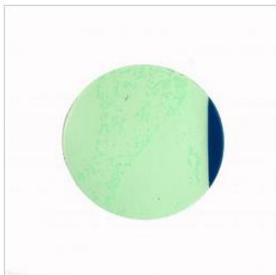
We can supply pads for most of the common lab edgers including all Nidek machines including the SE1. We also supply pads for the Essilor edgers including the Niksia as well as Mr Blue and Mr Orange. We can also supply for the Weco and Briot brands of edgers.

So please feel free to browse our website knowing that your orders will be looked after in the very most professional manner.

## About Lab Pads

- Lab Pads are the number one website in the UK for Lab pads.
- Lab Pads supply pads for Nidek, Essilor, Huvitz, Briot and Weco edgers.
- Orders are sent FREE of charge for next day delivery.
- The quality is such that slippage is almost eliminated.
- Free samples are available via the LabPads website.
- There are testimonials from many happy users.
- Contact Lab Pads for friendly advice and support.

## Product Range



Nidek/Essilor/Briot/Weco  
Green Chip – Lens  
Protector Pad

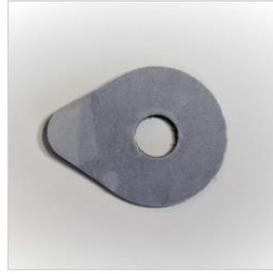
From £23.33 per roll of  
2,000



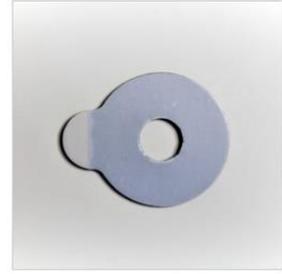
Briot Blue Cut  
From £20 per roll of 1,000



Briot Superhydrophobic  
From £20 per roll of 1,000



Budget Briot  
From £12.81 per roll of 1,000



Budget Mr Orange  
From £12.81 per roll of 1,000



Budget Neksia  
From £12.81 per roll of 1,000



Budget Nidek  
From £12.81 per roll of 1,000



Huvitz Blue Cut  
From £20 per roll of 1,000



Nidek Blue Cut  
From £20 per roll of 1,000



Huvitz Superhydrophobic  
From £33.17 per roll of 1,000



Nidek - SuperHydrophobic  
From £33.17 per roll of 1,000



Weco - SuperHydrophobic  
From £33.17 per roll of 1,000



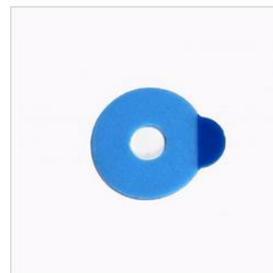
Nidek/Essilor/Briot/Weco  
Hydro Pad - Surface  
Improvement Pad  
From £23.33 per roll of 1,000



Weco - Blue Cut  
From £20 per roll of 1,000



Essilor Neksia Mr Blue/Mr  
Orange - Blue Cut  
From £20 per roll of 1,000



Essilor Neksia Mr Orange /  
Mr Blue  
From £20 per roll of 1,000



Essilor Superhydrophobic  
From £33.17 per roll of 1,000

# Placing an Order

Website: [www.pavisionuk.com](http://www.pavisionuk.com) Email: [sales@pavisionuk.com](mailto:sales@pavisionuk.com)

Tel: +44 (0)1843 293057 / 595688

Request an invoice: [shelly@pavisionuk.com](mailto:shelly@pavisionuk.com) Enquiries: [shane@pavisionuk.com](mailto:shane@pavisionuk.com) /  
[james@pavisionuk.com](mailto:james@pavisionuk.com)

Mail Purchase Orders to:

PA Vision Ltd

Suite 4, First Floor,

The Argyle Centre,

Ramsgate,

Kent, CT11 9DS

# Terms of Sale

## Delivery and Price

Carrier options – Carriers / Royal Mail. Shipping charges will be added to invoice at time of shipment; a quote for delivery can be provided before placing your order. Any shipment surcharges will be billed separately if they are received after the initial invoicing. Shipping costs vary depending on item weight and delivery location.

Prices are subject to change without notice. Please provide an email address so a sales acknowledgement confirming prices can be emailed to you prior to shipping.

## Educational Discount

Educational institutions of Higher Learning (such as Universities and Teaching Hospitals) are offered a discount on products. Orders must be confirmed by email with an acceptable purchase order from the institution.

Shipment must be made to the school/university/hospital address, unless paid in advance.

## Payment

Direct Bank Transfer: please contact us by phone, or email [sales@pavisionuk.com](mailto:sales@pavisionuk.com) for bank transfer information.

Bank details are included on the invoice.

## Special Orders

Special orders are not 'stock' items and so the delivery may take longer. Special orders are non-returnable unless defective.

## Returns

Please return in original packaging within 28 days of purchase (for special orders, please contact us to discuss).

Faulty products can be returned up to 28 days of the date of purchase and an exchange or full refund will be given.

## Cancellation

Orders must be cancelled within 48 hours of purchase order. Orders cancelled after this period will still be charged.