Visual Acuity Tests: LEA SYMBOLS®

Visual acuity tests are used more than any other tests in ophthalmology, optometry, and in vision screening in preschool, school, and occupational health care. Visual acuity can be measured with several different tests that depict different qualities of vision. The basic test is the line test, which has at least five optotypes (test symbols) on the test lines with spaces between the optotypes that are equal to the width of the optotypes of that line. The distance between the test lines is equal to the height of the lower line (Visual Acuity Measurement Standard (1984) Consilium Ophthalmologicum Universale, Visual Function Committee).

In the LEA Test System series there are line tests, tests with more crowded symbols, and single symbol tests to allow assessment of function of the visual system in these three functionally different situations. The number of tests has grown over the years because the needs in screening and assessment of children and adults vary at different ages and different functional levels. For more information, go to the Instruction Section of http://www. lea-test.fi.

LEA Symbols Near Vision Screener (40 centimeters)
This test is designed for amblyopia screening (40 centimeters). The basic test is the line test, which has at least five optotypes (test symbols) on the test lines with spaces between the optotypes that are equal to the width of the optotypes of that line. The distance between the test lines is equal to the height of the lower line (Visual Acuity Measurement Standard (1984) Consilium Ophthalmologicum Universale, Visual Function Committee).

In the LEA Test System series there are line tests, tests with more crowded symbols, and single symbol tests to allow assessment of function of the visual system in these three functionally different situations. The number of tests has grown over the years because the needs in screening and assessment of children and adults vary at different ages and different functional levels. For more information, go to the Instruction Section of http://www. lea-test.fi.

LEA Symbols Pocket-Sized Near Vision Card (40 centimeters)
This test measures near visual acuity with proportionally spaced (logMAR) lines on the front and lines with 25% and 50% spacing on the back. The tighter spacing often reveals difficulties in seeing tightly spaced details, which should be known when a child is learning to read. Line sizes range from 20/400 to 20/10 (6/120 to 6/3) equivalent, 0.05 to 2.00. Response key printed on test card. Includes training cards and instructions. Card measures 20.3 cm x 25.4 cm.

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LEA Symbols Domino Cards
Assess the near visual acuity of 2- and 3-year-old children, or use the cards at any age (older than 2+ years) to train an amblyopic eye. Set contains 3 packs of 16 domino-like cards with a large symbol at one end and a small symbol at the opposite end. Symbol sizes are 3.2M and 0.8M, 2.0M and 0.5M, and 1.25M and 0.3M. Each symbol on the card is printed with its M unit, decimal value, 6 meters equivalency for visual acuity value at 40 cm testing distance. Includes training cards and instructions. Paper cards measure 4 cm x 7 cm.

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 LEA Symbols Near Vision Card (40 centimeters)
This test measures near visual acuity with proportionally spaced (logMAR) lines on one side and tightly crowded lines (50% spacing) on the reverse side. Line sizes range from 20/400 to 20/10 (6/120 to 6/3) equivalent, 0.05 to 2.00. Response key printed on test card. Includes training cards and instructions. Card measures 20.3 cm x 25.4 cm.

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LEA Symbols Playing Cards
These specially designed playing cards make it easy to measure near visual acuity in young children, while teaching concepts of similar/different, big/small, bigger/smaller. The 4 packs contain 16 cards each with symbols of varying sizes: 16M and 10M, 6.3M and 4M, 2.5M and 1.6M, and 1M and 0.63M. Each symbol on the card is printed with its M unit, decimal value, 6 meters equivalency for visual acuity value at 40 cm testing distance. Includes training cards and instructions. The paper cards measure 4 cm x 7 cm.

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Reverse Side

LEA 3-D Puzzle
The LEA 3-D Puzzle is designed for supporting the development of the concept of “same”, first with colors, then with black and white concrete forms that are prerequisites for the measurement of recognition acuity with the LEA Symbols tests at an early age. During the play you can also observe eye-hand coordination and awareness of directions, which are often problems for children with brain damage, even mild brain damage. Package includes the booklet: Assessing Vision Development Through Picture and Shapes and instructions. Tray is 17.2 cm x 17.2 cm. The 4 symbol puzzle pieces are approximately 5.1 cm x 5.1 cm each.

................................. 252500

................................. 252000
LEA Symbols Distance Vision Screener
(3 meters)
This test is designed for amblyopia screening and testing children who have difficulties when tested with the standard distance charts (#250250 or 250150). The background is gray with the exception of a white rectangle spaced at 50% surrounding each line of symbols. Line sizes from 20/80 to 20/16 (6/24 to 6/4.8) equivalent, 0.25 to 1.25. Includes response key and training cards. Pages are offset for easy flipping. Instructions are printed on the inside cover. 10 pages, 8.25 cm x 22.9 cm.

LEA Symbols 10-Line Distance Chart
(3 meters)
This test is the most commonly used test in the health care of children at the age of 3 to 4 years and in amblyopia screening in many countries. Proportionally spaced (logMAR) lines; line sizes range from 20/200 to 20/16 (6/60 to 6/4.8) equivalent, 0.25 to 1.25. The 20/160 (6/48) and 20/100 (6/30) lines have been omitted. The reverse side is black and can be used as the test surface for the color vision test (#260260). Has a hole for hanging the chart on the wall. Includes response key, training cards, and instructions. 40.6 cm x 20.3 cm. Folds to 40.6 cm x 20.3 cm.

LEA Symbols Single Symbol Book
(3 meters)
The Single Symbol Book is designed for testing children and adults who have difficulty in reading lines of optotypes. In this test, the child or adult identifies only the middle optotype. The four symbols surrounding the central symbol similarly to the way optotypes are crowded on line acuity charts. As a result of this crowding effect, this test often permits measurement of line acuity in young children much earlier than the line visual acuity charts and, thus, helps in early detection of amblyopia and impaired vision. Line sizes from 20/63 to 20/16 (6/19 to 6/4.8) equivalent, 0.63 to 1.25. Includes response key, training cards, and instructions. 16 offset pages, 12.7 cm x 12.7 cm.

LEA Symbols Flash Cards
(3 meters)
This set of flash cards was designed for testing distance visual acuity in children and adults who have difficulty with visual acuity charts; the Crowded Symbol Book Test, or the Single Symbol Book Test. Line sizes from 20/200 to 20/8 (6/60 to 6/2.4) equivalent, 0.10 to 2.50. Includes response key, training cards, and instructions. 30 cards per set, 10 cm x 12.7 cm to 12.7 cm x 12.7 cm.

LEA Symbols Cards, 40M and 60M
The 5 LEA Symbols Cards, 40M and 60M, can be presented as single optotypes or arranged in a row as a line test. When the cards are next to each other, the space between the symbols is equal to the width of the symbols. To determine the visual acuity use the following formula:

\[ VA = \frac{\text{Viewing Distance Used (meters)}}{M-value} \]

60M cards are approx. 21.9 cm x 21.9 cm. 40M cards are approx. 15.25 cm x 15.25 cm.

LEA Symbols Cards
(3 meters)
These questions and more are answered in this DVD.

Leo Learns By Doing
(DVD, 17 minutes)
When a blind child is born into a family, the situation is new and confusing. Parents have thousands of questions, but very few answers, such as:
- How am I able to do everything possible for my child?
- How can our everyday life become ordinary, good, and safe, yet active?
- How can I best support my child?
- Am I overprotective or encouraging as a parent?
- How will my blind child receive as many experiences as the seeing child?

These questions and more are answered in this DVD.

See page 8 for more information on What and How Does This Child See?

Leo Learns By Doing
(DVD, 17 minutes)
LEA Core Vision Tests

LEA Symbols Chart for Vision Rehabilitation (40 inches/1 meter)
This test is designed for testing children and adults with visual impairment at a distance of 1 meter. The largest symbols are 50M in size, corresponding to 1m/50M = to 1/50 or decimal visual acuity 0.02, equivalent values 20/1000, 6/300. The smallest symbols are 1M in size corresponding to 1m/1M = to 1/1 or decimal visual acuity 1.00, equivalent values 20/20, 6/6. Designed courtesy of August Colenbrander, MD. Chart measures 40.7 cm x 54.6 cm. Folds to 40.7 cm x 27.3 cm.

LEA Symbols 15-Line Translucent ETDRS-Style Distance Chart for ESV3000 Cabinet (3 meters)
LEA Symbols distance visual acuity test for the ETDRS Illuminated Cabinet. Proportionally spaced (logMAR) lines; line sizes range from 20/200 to 20/8 (6/60 to 6/2.4) equivalent, 0.10 to 2.50. Includes response key, training cards, and instructions. 62 cm x 65 cm.

LEA Symbols 13-Line Translucent Distance Chart (3 meters)
Proportionally spaced (logMAR) lines; line sizes range from 20/125 to 20/8 (6/38 to 6/2.4) equivalent, 0.16 to 2.50 with repetitive left eye/right eye groups. This chart can either be wall mounted or used in an illuminated cabinet found on page 26. Includes response key, training cards, and instructions. Set ........................................ 250400
Chart Only ................................. 250401

LEA Symbols 15-Line Distance Chart (3 meters)
This test is designed for vision screening at schools and assessment of vision of children with special needs beginning with age of 3 years. Proportionally spaced (logMAR) lines; line sizes range from 20/200 to 20/8 (6/60 to 6/2.4) equivalent, 0.10 to 2.50. The reverse side is black and can be used as the test surface for the color vision test (260260). Has a hole for hanging the chart on the wall. Includes response key, training cards, and instructions. 43 cm x 53.4 cm. Folds to 43 cm x 26.7 cm.

LEA Symbols 12-Line Translucent Distance Chart (4 meters)
Proportionally spaced (logMAR) lines; line sizes range from 20/100 to 20/8 (6/30 to 6/2.4) equivalent, 0.20 to 2.50. This chart can either be wall mounted or used in an illuminated cabinet found on page 26. Includes response key, training cards, and instructions. Set ........................................ 255100
Chart Only ................................. 255101

LEA Symbols 13-Line Translucent Distance Chart (3 meters)
Proportionally spaced (logMAR) lines; line sizes range from 20/125 to 20/8 (6/38 to 6/2.4) equivalent, 0.16 to 2.50. The chart can either be wall mounted or used in an illuminated cabinet found on page 26. Includes response key, training cards, and instructions.

LEA Symbols Chart for Vision Rehabilitation (40 inches/1 meter)
This test is designed for testing children and adults with visual impairment at a distance of 1 meter. The largest symbols are 50M in size, corresponding to 1m/50M = to 1/50 or decimal visual acuity 0.02, equivalent values 20/1000, 6/300. The smallest symbols are 1M in size corresponding to 1m/1M = to 1/1 or decimal visual acuity 1.00, equivalent values 20/20, 6/6. Designed courtesy of August Colenbrander, MD. Chart measures 40.7 cm x 54.6 cm. Folds to 40.7 cm x 27.3 cm.

find more information @ www.gl-europe.com

GL Europe® the Vision Company
Visual Acuity Tests:

LEA Numbers were developed for international studies in occupational health and school health services. Letters like the Sloan letters are used in the Western world and in the old colonies of western empires but not in a large part of the rest of the world. The Arabic numbers are known world over, even in countries that use other types of numbers. The four numbers 5, 6, 8, and 9 were chosen because they could be designed to blur equally. The numbers 5, 6, 8, and 9 were designed by Dr. Hyvärinen in 1993 and calibrated with the Landolt C (Juvi Mustonen, OD; Risto Näsänen, PhD; and Lea Hyvärinen, MD, Vision Laboratory, Department of Physiology, University of Helsinki, Finland 1994).

LEA Numbers Near Vision Card (40 centimeters)

Designed to measure visual acuity with a standard line test and with three tighter spaced tests; 50%, 25%, and 12.5%, which often reveal difficulties in seeing tightly crowded details. Line sizes range from 20/400 to 20/10 (6/120 to 6/3) equivalent, 0.05 to 2.00. Card measures 20.3 cm x 25.4 cm.

LEA Numbers Near Vision Card (24 inches / 60 centimeters)

Designed to measure visual acuity with a standard line test and with three tighter spaced tests; 50%, 25%, and 12.5%, which often reveal difficulties in seeing tightly crowded details. Line sizes range from 20/200 to 20/8 (6/60 to 6/2.4) equivalent, 0.10 to 2.50. Has hole for hanging on the wall. 45.7 cm x 50.8 cm. Folds to 45.7 cm x 25.4 cm.

LEA Numbers Pocket-Sized Near Card (40 centimeters)

This test is designed for testing patients’ visual acuity during rounds and in similar situations with a need for quick testing. The test has proportionally spaced (logMAR) lines on one side and tightly crowded lines (50% spacing) on the reverse side. Line sizes from 20/400 to 20/10 (6/120 to 6/3) equivalent, 0.05 to 2.00. 9.5 cm x 15.9 cm.

LEA Numbers 15-Line Translucent Distance Chart (3 meters)

This test is designed for vision screening at schools and assessment of vision of children with special needs beginning with age of 3 years. Proportionally spaced (logMAR) lines; line sizes range from 20/200 to 20/8 (6/60 to 6/2.4) equivalent, 0.10 to 2.50. Has hole for hanging on the wall. 45.7 cm x 50.8 cm. Folds to 45.7 cm x 25.4 cm.

LEA Numbers 13-Line Translucent Distance Chart (3 meters)

Proportionally spaced (logMAR) lines; line sizes range from 20/125 to 20/8 (6/38 to 6/2.4) equivalent, 0.16 to 2.50.

LEA Numbers 12-Line Translucent Distance Chart (4 meters)

Proportionally spaced (logMAR) lines; line sizes range from 20/100 to 20/8 (6/30 to 6/2.4) equivalent, 0.20 to 2.50.

LEA Numbers 15-Line Translucent ETDRS-Style Distance Chart for ESV3000 Cabinet (4 meters)

Proportionally spaced (logMAR) lines; line sizes range from 20/200 to 20/8 (6/60 to 6/2.4) equivalent, 0.10 to 2.50.

LEA Numbers Chart for Vision Rehabilitation (1 meter)

This test is designed for testing children and adults with visual impairment at a distance of 1 meter. The largest symbols are 50M in size, corresponding to 1m/50M = to 1/50 or decimal visual acuity 0.02, equivalent values 20/1000, 6/300. The smallest symbols are 1M in size corresponding to 1m/1M = to 1/1 or decimal visual acuity 1.00, equivalent values 20/20, 6/6. Designed courtesy of August Coelenbrander, MD. Chart measures 40.7 cm x 54.6 cm. Folds to 40.7 cm x 27.3 cm.
Contrast Sensitivity

The contrast sensitivity tests that Dr. Hyvärinen has developed for clinical examinations and research projects have been used in the evaluation of vision of thousands of patients in numerous countries revealing changes in visual functioning that were not detected with the high contrast visual acuity tests. Measurement of contrast sensitivity should be a part of routine examinations because vision at low and intermediate contrast levels is important in communication and orientation in space.

LEA Numbers Single Number Book (3 meters)
The Single Number Book is ideal for situations in which the child/adult cannot perform when tested with a line test. This book can help determine the best resolution of the visual pathway in a child/adult with amblyopia or impaired vision. Single optotype line sizes range from 20/200 to 20/8 (6/60 to 6/2.4) equivalent, 0.10 to 2.50. Includes isolating mask and instructions. 13 offset pages for easy flipping. 12.7 cm x 12.7 cm.

LEA Symbols Low Contrast Test, 10M
Test for quick measurement of low contrast visual acuity at 25%, 10%, 5%, 2.5%, and 1.25% contrast by measuring the distance where the symbols are seen. 10M symbols correspond to visual acuity 0.10 at 1M, 0.5M, and 0.3 at 9M. VA values are, thus, easy to calculate. Test includes a table for conversion to Snellen equivalent VA values, a response key, training cards, recording forms, and instructions. 6 pages, 8.25 cm x 22.9 cm.

LEA Numbers Low Contrast Test, 10M
Test to easily measure, record, and detect changes in the transfer of visual information when the change only affects visual acuity at low contrast levels. Chart presents numbers at the following contrast levels: black, 25%, 10%, 5%, 2.5%, and 1.25%. Pages are offset for easy flipping. Each chart includes recording forms and instructions. 6 pages, 8.25 cm x 22.9 cm.

LEA Numbers Cards, 40M and 60M
These five LEA Numbers Cards can be used for presentation as single optotypes or arranged in a row as a line test. When the cards are next to each other, the space between the numbers is equal to the width of the symbols. To determine the visual acuity use the following formula:

\[ VA = \frac{\text{Viewing Distance Used (meters)}}{M\text{-value}} \]

60M cards are approx. 15.25 cm x 22.9 cm. 40M cards are approx. 10.2 cm x 15.25 cm.

LEA Symbols Translucent Low Contrast Charts for Illuminated Cabinet
A low contrast test is a special way to measure visual acuity to determine how well eyes function in low light situations and/or to determine how well eyes distinguish objects from similarly colored or shaded backgrounds. Testing is identical to the measurement of visual acuity at high contrast level. The 2.5% test is the most practical test in clinical use. Available in 5 contrast levels: 1.25%, 2.5%, 5%, 10%, and 25%. Includes response key, training cards, recording forms, and instructions.

A 1.25% ........................................... 253700
B 2.5% ........................................... 253800
C 5% ............................................. 253900
D 10% ............................................. 254000
E 25% ............................................. 254100

LEA Low Contrast Grating Acuity Test
Measurement of contrast sensitivity curve is based on 4 gratings at 2 contrast levels, 10%, and 2.5% contrast using 2 grating frequencies: 0.5 cpcm and 8 cpcm (10% level) or 0.5 cpcm and 4 cpcm (2.5% level). Testing is based on finding the distance where the person is at threshold in seeing the direction of the grating lines. Includes nomograms, instructions, and recording forms. Measures 20 cm in diameter.

253400
**LEA Numbers Low Contrast Charts for Illuminated Cabinet**

A low contrast test is a special way to measure acuity to determine how well eyes function in low light situations and/or to determine how well eyes distinguish objects from similarly colored or shaded backgrounds. Testing is identical to the measurement of visual acuity at high contrast level. The 2.5% test is the most practical test in clinical use. Available in 5 contrast levels: 1.25%, 2.5%, 5%, 10%, and 25%. Includes response key, training cards, recording forms, and instructions.

- A 1.25% .................................... 271500
- B 2.5% .................................... 271600
- C 5% ....................................... 271700
- D 10% ..................................... 271800
- E 25% ..................................... 271900

**Visual Field**

**LEA Flicker Wand**

The LEA Flicker Wand is 67.3 cm long with a 50.8 cm flexible wand with a diode at the end that can be used as either a flickering or non-flickering stimulus at 4, 40, and 400 cd/m². The curved wand is moved from behind the person forward in all four quadrants of the visual field to detect losses in the periphery of the visual field. ........................................ 280000

**LEA Grating Acuity Test, a Resolving/Discrimination Test**

This test at full contrast requires discrimination of the direction of long lines, which is a more demanding task than the detection acuity measured with LEA GRATINGS. The test gratings are presented to children and adults at different distances to determine which distance the direction of lines can be perceived. Knowing the distance and which grating was used, the grating acuity values can be read from the nomograms. Includes, nomograms, instructions, and storage case. 4 disks 20 cm in diameter. ........................................ 251300

**LEA GRATINGS, a Preferential Looking Test**

LEA GRATINGS are for preferential looking test situations with infants or children and adults with disabilities to determine detection acuity. Grating levels printed on each handle are: 0.25, 0.5, 1.0, 2.0, 4.0, and 8.0 cpcm (cycles per centimeter of surface). Includes instructions and storage case. 4 paddles 20 cm in diameter. ........................................ 253300

**LEA 3-D Puzzle**

The LEA 3-D Puzzle is designed for training and assessing typically developing toddlers and other young children. The puzzle also serves as an assessment tool for individuals with brain damage, or for older children and adults with low cognitive abilities. Includes instructions and the booklet: Assessing Vision Development Through Pictures and Shapes. Tray is 17.2 cm x 17.2 cm. The 4 symbol puzzle pieces are approximately 5.1 cm x 5.1 cm each. ........................................ 251600

**LEA Gratings**

LEA GRATINGS are for preferential looking test situations with infants or children and adults with disabilities to determine detection acuity. Grating levels printed on each handle are: 0.25, 0.5, 1.0, 2.0, 4.0, and 8.0 cpcm (cycles per centimeter of surface). Includes instructions and storage case. 4 paddles 20 cm in diameter. ........................................ 253300

**Cognitive Vision**

Visual information undergoes several neural processes before it is perceived as images. When vision changes, the changes may occur either in the image quality, due to disorders of the eyes and/or visual pathways, or picture perception, due to loss of function in some of the specific analytic functions in the visual cortices. The number of visually impaired children with brain damage-related visual impairment is increasing in all countries.

Tests for cognitive vision were designed for early diagnosis of some usual cognitive problems.
**Hiding Heidi Low Contrast Face Test**

Visual communication is the most important communication method during the first year of life. The ability to detect objects of low contrast is an important component of the visual system. For example, facial expressions are mediated by faint shadows and changes in the contours of the mouth and eyes. Determining the levels of contrast that an infant can detect helps provide baseline data for evaluating future changes. For example, deviations from usual behavior may indicate disorders that leave vision at high-contrast levels unaffected.

Four cards printed on both sides in the following contrast levels: black, 25%, 10%, 5%, 2.5%, and 1.25%. Cards are 23 cm x 23 cm. Includes instructions. .......................... 253500

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**LEA Core Vision Tests**

This educational toy is a modified version of Effron’s rectangles and is used to assess size perception. The Rectangles Game contains two groups of rectangles. The total surface area of each rectangle is the same. A child with normal eyesight can distinguish between the longer and the shorter rectangles—often before the age of 3 years. If the child has difficulty making this distinction or does not understand the instructions, the LEA Rectangles Game can help determine whether or not the child has a specific visual acuity problem. Includes instructions and 10 colored rectangles (5 black, 5 gray) in 5 sizes with a total area of 10.16 cm each. .......................... 254600

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**LEA Mailbox Game**

Used to assess visual perception of line orientation. Tests two components: 1) information for the hand movements in the parietal lobe and 2) picture perception in the inferior temporal lobe. To observe the first function, the child is asked to drop a card through the slot of the LEA Mailbox Game. The child should demonstrate perception of the orientation of the slot by turning the card to the correct position before moving it half the distance to the slot (dorsal stream function). A ventral stream function can be observed through interactive play using the LEA Mailbox Game. If a child cannot visually perceive the orientations of lines, drawing them may be difficult, and drawing angles will make no sense. Includes instructions. .......................... 254700

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**Adaptation Test**

The test consists of 15, 5 cm x 5 cm red, blue, and white plastic chips designed to help parents, teachers, and doctors assess children’s visual difficulties in twilight. The test situation is not a formal test of night vision, but gives useful information on visual adaptation to lighting changes. .......................... 252900

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**Color Vision Test**

The Panel 16 Color Vision Test includes 16 test caps and 17 restriction rings with one of the caps being a “pilot”. The Panel 16 Color Vision Test consists of 15, 5 cm x 5 cm red, blue, and white plastic chips designed to help parents, teachers, and doctors assess children’s visual difficulties in twilight. The test situation is not a formal test of night vision, but gives useful information on visual adaptation to lighting changes. .......................... 252900

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**Panel 16 Quantitative Color Vision Test**

The Panel 16 Color Vision Test includes 16 test caps and 17 restriction rings with one of the caps being a “pilot”. The Panel 16 Quantitative Color Vision Test consists of 15, 5 cm x 5 cm red, blue, and white plastic chips designed to help parents, teachers, and doctors assess children’s visual difficulties in twilight. The test situation is not a formal test of night vision, but gives useful information on visual adaptation to lighting changes. .......................... 252900

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**“WHAT and HOW Does this Child See?”**

Is a question that is asked each day by many professionals in early intervention and education about children with disabilities. This book attempts to help you structure your questions so that you can look for answers together with other members of your team. This book is a collection of questions and answers from lectures presented by Lea Hyvärinen, MD, PhD, FAAP, and Namita Jacob, PhD, in a number of countries. .......................... 791000

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**Heidi Expressions Test Game**

Some children with visual impairments may achieve near normal results in routine vision tests (large visual field and normal or near normal visual acuity), but cannot interpret facial expressions or recognize people’s faces. The Heidi Expressions Test Game improves early evaluation of vision for communication. 18 cards per set. Cards are 10.16 cm x 10.16 cm. .......................... 254505
Distance Acuity Wall Charts

**LEA Symbols 10-Line Distance Chart**
(3 meters)
This test is the most commonly used test in the health care of children at the age of 3 to 4 years and in amblyopia screening in many countries.
Proportionally spaced (logMAR) lines; line sizes range from 20/200 to 20/16 (6/60 to 6/4.8) equivalent, 0.25 to 1.25. The 20/160 (6/48) and 20/100 (6/30) lines have been omitted.
The reverse side is black and can be used as the test surface for the color vision test (#260260). Has a hole for hanging the chart on the wall. Includes response key, training cards, and instructions. 40.6 cm x 40.6 cm. Folds to 40.6 cm x 20.3 cm.

**LEA Symbols 15-Line Distance Chart**
(3 meters)
This test is designed for vision screening at schools and assessment of vision of children with special needs beginning with age of 3 years. Proportionally spaced (logMAR) lines; line sizes range from 20/200 to 20/8 (6/60 to 6/2.4) equivalent, 0.10 to 2.50. The reverse side is black and can be used as the test surface for the color vision test (260260). Has a hole for hanging the chart on the wall.
Includes response key, training cards, and instructions. 43 cm x 53.4 cm. Folds to 43 cm x 26.7 cm.

**Sloan Letters Folding Chart**
(3 meters)
Proportionally spaced (logMAR) lines; line sizes range from 20/200 to 20/8 (6/60 to 6/2.4) equivalent, 0.10 to 2.50. Has hole for hanging on the wall. 45.7 cm x 50.8 cm. Folds to 45.7 cm x 25.4 cm.

**PAC Test**
The Pacific Acuity Test is a vanishing optotype test designed with opposing figures to provide a simple forced-choice testing format appropriate for nonverbal children and individuals with developmental disabilities who are unable to respond to standard optotype recognition tests. Each card has two figures; a simple face, and an opposing oval target of the same overall size but with interior details that allow discrimination from the face at the threshold of acuity.
The full test kit consists of 18 cards with two cards at each level. The cards at each acuity level have a different position of the face target compared to the opposing oval figure. Each card can be presented at either 50 cm or 1 meter but the 1 meter test distance is recommended for greater accuracy and comparison to distance visual acuity tests.
The test range from 1.3 logMAR (20/400) down to 0 logMAR (20/20) allows for testing a broad range of visual acuity.
PAC Test comes with protective canvas case and isolation mask.

**Combination LEA Symbols & Tumbling E or LEA Symbols & Landolt C Wall Chart (3 meters)**
Combination distance visual acuity wall charts for 3 meters with either LEA Symbols and Tumbling E or LEA Symbols and Landolt C. Charts are proportionally spaced (logMAR) lines; line sizes range from 20/200 to 20/8 (6/60 to 6/2.4) equivalent, 0.10 to 2.50 for LEA Symbols. Line sizes for both Tumbling E and Landolt C range from 20/200 to 20/10 (6/60 to 6/3) equivalent, 0.10 to 2.0. Wall Charts measure 43.18 cm x 53.34 cm and include response panel and flash cards.

**Protective Case**
GL Europe® the Vision Company
Distance Acuity Handheld Tests

LEA Symbols
Crowded Symbol Book (3 meters)
Variant of the line test for children or adults who have difficulty concentrating on a chart. The center symbol is surrounded on four sides by symbols of the same size. The interaction between the center symbol and the surrounding symbols is approximately the same as in a line test. This test is convenient and easy to administer during screenings, home visits, and unique testing situations. Often, this is the first line test that can measure visual acuity of a young child with amblyopia, because the test produces the effect of crowding. Line sizes range from 20/63 to 20/16 (6/19 to 6/4.8) equivalent, 0.32 to 1.25. Includes response key, training cards, and instructions. 16 offset pages for easy flipping. 12.7 cm x 12.7 cm.

LEA Symbols or LEA Numbers Single Optotype Book (3 meters)
The Single Symbol or Numbers Book is ideal for children who cannot perform when tested with a line test. This book can help determine the best resolution of the visual pathway in a child/adult with amblyopia or impaired vision. Single optotype line sizes range from 20/200 to 20/8 (6/60 to 6/2.4) equivalent, 0.10 to 2.50. Includes isolating mask, response key, training cards, and instructions. 13 offset pages for easy flipping. 12.7 cm x 12.7 cm.

LEA Symbols Flash Cards (3 meters)
This set of flash cards was designed for testing distance visual acuity in children and adults who have difficulty with visual acuity charts. The Crowded Symbol Book test as in: Crowded Symbol Book test or the Single Symbol Book test. Line sizes range from 20/200 to 20/8 (6/60 to 6/2.4) equivalent, 0.10 to 2.50. Includes response key, training cards, and instructions. 30 cards per set, 10 cm x 12.7 cm to 12.7 cm x 12.7 cm.

Vision Screening Kit

NOTE: Available in EUROPE upon request only

The AAPOS Vision Screening Kit is for screening the vision of individuals beginning at age 3 through adulthood. Spiral-bound, multisided, distance visual acuity eye charts that can be hung on a wall or held in the hands. The distance charts contains both Full-Chart Threshold and Single Critical Line formats with the following optotypes:

- **Sloan Letters** for when children know their letters.
- **LEA Symbols** for preschoolers and for children who do not yet know their letters.

The AAPOS Vision Screening Kit includes Black Handheld Flip Paddle Occluder, Children’s Fun Frames Occluder Glasses, 3 m cord for measuring, Translucent Response Panel, Instructions and DVD with additional information.

LEA Symbols 50% Spaced Crowding Bars Book (3 meters)
This book features 50% spaced contour interaction bars to provide single optotype acuity with the proper crowding effect. Optotype line sizes range from 20/100 to 20/20 (6/30 to 6/6) equivalent, 0.20 to 1.00. Includes response key, training cards, and instructions. 17 offset pages for easy flipping. 10.2 cm x 10.2 cm.

LEA Symbols Distance Vision Screener (3 meters)
This test is designed for amblyopia testing or screening. The background is gray with the exception of a white rectangle spaced at 50% surrounding each line of symbols. Line sizes range from 20/80 to 20/16 (6/24 to 6/2.4) equivalent, 0.25 to 1.25. Includes response key and training cards. Pages are offset for easy flipping. Instructions are printed on the inside cover. 10 pages, 8.25 cm x 22.9 cm.

AAPOS Supplemental Screening Kit

NOTE: Available in EUROPE upon request only

The AAPOS Vision Screening Kit: Supplemental Screening Package is for screening the vision of individuals beginning at age 3 through adulthood. The near vision chart contains both Full-Chart Threshold and Single Critical Line formats with the following optotypes:

- **Sloan Letters** for when children know their letters.
- **LEA Symbols** for preschoolers and for children who do not yet know their letters.

The AAPOS Supplemental Vision Screening Kit includes Black Handheld Flip Paddle Occluder, Children’s Fun Frames Occluder Glasses, 16 Plate Color Vision Test, Random Dot Butterfly stereopsis test, Instructions and DVD with additional information.
**Intermediate Distance Charts**

80 cm and 66 cm Sloan Letters Intermediate Distance Charts

Charts calibrated to test visual acuity at an intermediate distance of 80 cm or 66 cm. Charts are available in 3 scrambled versions for repetitive testing situations. Sloan Letters optotypes with proportionally spaced lines; line sizes range from 20/400 to 20/10 (6/120 to 6/3) equivalent. Notations for Letter Size, Decimal, and logMAR are also on the chart. Chart fits in Quantum Series, Model A+, and Model A illuminated cabinets. Chart size is 22.9 cm x 35.6 cm. 80 cm testing distance.

**Near Vision Charts for ESV1200 & Model A+**

LEA Symbols Near Vision Chart

Proportionally spaced (logMAR) lines; line sizes range from 20/400 to 20/10 (6/120 to 6/3) equivalent. Chart fits in Quantum Series, Model A+, and Model A illuminated cabinet. Chart size is 22.9 cm x 35.6 cm. Includes response panel and flash cards.

NOTE: Available in EUROPE upon request only

![LEA Symbols Near Vision Chart](image)

**Near Vision Acuity Cards for 40 centimeters**

LEA Symbols Near Vision Card (40 centimeters)

This test assesses a child’s functional vision at near distances. Can also be used to familiarize child with testing procedure before introducing a distance test. Proportionally spaced (logMAR) lines on one side and more tightly-spaced symbols on the opposite side. Line sizes range from 20/400 to 20/10 (6/120 to 6/3) equivalent, 0.05 to 2.00. Response key printed on test card. Includes training cards and instructions. Card measures 20.3 cm x 25.4 cm.

NOTE: Available in EUROPE upon request only

![LEA Symbols Near Vision Card (40 centimeters)](image)

**Near Vision and Reading Visual Acuity**

11

LEA Symbols Near Vision Card (40 centimeters)

This test assesses a child’s functional vision at near distances. Can also be used to familiarize child with testing procedure before introducing a distance test. Proportionally spaced (logMAR) lines on one side and more tightly-spaced symbols on the opposite side. Line sizes range from 20/400 to 20/10 (6/120 to 6/3) equivalent, 0.05 to 2.00. Response key printed on test card. Includes training cards and instructions. Card measures 20.3 cm x 25.4 cm.

NOTE: Available in EUROPE upon request only

GL Europe® the Vision Company

**NOTE:** Available in EUROPE upon request only

**Intermediate Distance Charts**

80 cm and 66 cm Sloan Letters Intermediate Distance Charts

Charts calibrated to test visual acuity at an intermediate distance of 80 cm or 66 cm. Charts are available in 3 scrambled versions for repetitive testing situations. Sloan Letters optotypes with proportionally spaced lines; line sizes range from 20/400 to 20/10 (6/120 to 6/3) equivalent. Notations for Letter Size, Decimal, and logMAR are also on the chart. Chart fits in Quantum Series, Model A+, and Model A illuminated cabinets. Chart size is 22.9 cm x 35.6 cm. 80 cm testing distance.

**80 cm Intermediate Distance Charts**

A 80 cm Chart 1 .............................. 758400
B 80 cm Chart 2 .............................. 758500
C 80 cm Chart 3 .............................. 758600

**66 cm Intermediate Distance Charts**

D 66 cm Chart 1 .............................. 758410
E 66 cm Chart 2 .............................. 758510
F 66 cm Chart 3 .............................. 758610

**Near Vision Charts for ESV1200 & Model A+**

LEA Numbers Near Vision Chart

Proportionally spaced (logMAR) lines; line sizes range from 20/400 to 20/10 (6/120 to 6/3) equivalent. Chart fits in Quantum Series, Model A+, and Model A illuminated cabinet. Chart size is 22.9 cm x 35.6 cm.

NOTE: Available in EUROPE upon request only

![LEA Numbers Near Vision Chart](image)

G Sloan Letter Near Vision Charts

Proportionally spaced (logMAR) lines; line sizes range from 20/400 to 20/10 (6/120 to 6/3) equivalent. Chart fits in Quantum Series, Model A+, and Model A illuminated cabinet. Chart size is 22.9 cm x 35.6 cm.

A 80 cm Chart 1 .............................. 758400
B 80 cm Chart 2 .............................. 758500
C 80 cm Chart 3 .............................. 758600

**NOTE:** Available in EUROPE upon request only

D 66 cm Chart 1 .............................. 758410
E 66 cm Chart 2 .............................. 758510
F 66 cm Chart 3 .............................. 758610

**Sloan Letter Near Vision Charts**

NOTE: Available in EUROPE upon request only

G Sloan Letter Near Vision Charts

Proportionally spaced (logMAR) lines; line sizes range from 20/400 to 20/10 (6/120 to 6/3) equivalent. Chart fits in Quantum Series, Model A+, and Model A illuminated cabinet. Chart size is 22.9 cm x 35.6 cm.

G .................. 756300
H .................. 756400

**GL Europe® the Vision Company**
LEA Symbols & LEA Numbers Near Vision Card (40 centimeters)
This card combines a LEA Symbols line test on one side and a LEA Numbers line test on the other. Proportionally spaced (logMAR) lines from 20/400 to 20/10 (6/120 to 6/3) equivalent, 0.05 to 2.00. Response key is printed on the test card. Training cards and instructions included. Card measures 20.3 cm x 25.4 cm.

LEA Numbers Near Vision Card (40 centimeters)
Proportionally spaced (logMAR) lines on one side and more tightly-spaced numbers on the other. Line sizes from 20/400 to 20/10 (6/120 to 6/3) equivalent, .05 to 1.25. Card measures 20.3 cm x 25.4 cm.

Sloan Letters Near Vision Card (40 centimeters)
Proportionally spaced (logMAR) lines; line sizes range from 20/400 to 20/10 (6/120 to 6/3) equivalent, .05 to 1.25. Card measures 20.3 cm x 25.4 cm.

Landolt C and Tumbling E Near Vision Pocket Card (40 centimeters)
Proportionally spaced (logMAR) lines; line sizes range from 20/400 to 20/10 (6/120 to 6/3) equivalent, 0.05 to 2.00. Printed on both sides. 17.8 cm x 22.9 cm.

LEA Symbols Near Vision Pocket Card (40 centimeters)
Use this small pocket card to quickly determine whether a child’s visual acuity is within the normal range. Proportionally spaced (logMAR) lines on one side and 50% spaced symbols on the opposite side. Line sizes from 20/400 to 20/10 (6/120 to 6/3) equivalent, 0.05 to 2.00. Measures 9.5 cm x 15.9 cm.

LEA Numbers Pocket-Sized Near Vision Card (40 centimeters)
Use this small pocket card to quickly discover whether a child’s or an adult’s visual acuity is within the normal range. Proportionally spaced (logMAR) lines on one side and more tightly-spaced numbers on the other. Line sizes from 20/400 to 20/10 (6/120 to 6/3) equivalent, 0.05 to 2.00. Measures 9.5 cm x 15.9 cm.

Runge Near Vision Pocket Card (40 centimeters)
Sloan Letters, LEA Numbers, or LEA Symbols Pocket Near Cards with line sizes ranging from 20/500 to 20/16 equivalent, 0.04 to 1.25 at 40 cm. Near acuity measurements and their equivalents are listed on reverse side. 9.5 cm x 15.9 cm.
A Sloan Letters ............ 756000
B LEA Numbers ............. 756100
C LEA Symbols ............. 756200

find more information @ www.gl-europe.com
Near Vision Pocket Cards for 40 cm

Sloan Letters and Landolt C Near Vision Pocket Card (40 centimeters)
This easy-to-use visual acuity near vision card features Landolt C on one side and Sloan Letters on the other. Both sides have optotypes in proportionally spaced (logMAR) lines with line sizes ranging from 20/400 to 20/10 (6/120 to 6/3) equivalent, 0.05 to 2.00. Card size is 9.5 cm x 15.9 cm. Testing distance is 40 cm. ....................................................... 758300

LEA Symbols and Landolt C Near Vision Pocket Card (40 centimeters)
This easy-to-use visual acuity near vision card features Landolt C on one side and LEA Symbols pediatric symbols on the other. Both sides have optotypes in proportionally spaced (logMAR) lines with line sizes ranging from 20/400 to 20/10 (6/120 to 6/3) equivalent, 0.05 to 2.00. Card size is 9.5 cm x 15.9 cm. ....................................................... 257900

Landolt C Near Vision Pocket Card (40 centimeters)
This easy-to-use visual acuity near vision card features Landolt C. Both sides have optotypes in proportionally spaced (logMAR) lines with line sizes ranging from 20/400 to 20/10 (6/120 to 6/3) equivalent, 0.05 to 2.00. Card size is 9.5 cm x 15.9 cm. ....................................................... 758700

Spanish Sloan Letters Near Vision Pocket Card (40 centimeters)
Sloan Letters with line sizes of 20/400 to 20/10 (6/120 to 6/3) equivalent, 0.05 to 2.00 on one side. Continuous text in Spanish is printed on the reverse side with line sizes 20/80 to 20/16. 9.5 cm x 16 cm. ....................................................... 745000

LEA Numbers and Landolt C Near Vision Pocket Card (40 centimeters)
This easy-to-use visual acuity near vision card features Landolt C on one side and LEA Numbers on the other. Both sides have optotypes in proportionally spaced (logMAR) lines with line sizes ranging from 20/400 to 20/10 (6/120 to 6/3) equivalent, 0.05 to 2.00. Card size is 9.5 cm x 15.9 cm. ....................................................... 273100

Measuring Cord
Measuring cord in various lengths ensuring proper visual testing or screening distance.

- 1 meter ............................................. 710001
- 3 meters ......................................... 710003
- 4 meters ......................................... 710004
- 6 meters ......................................... 710006
- 40 cm ............................................. 710040
- 60 cm ............................................. 710060
- 66 cm ............................................. 710066
- 80 cm ............................................. 710080

LEA Symbols Playing Cards
These specially designed playing cards make it easy to measure near visual acuity in young children, while teaching concepts of similar/different, big/small, bigger/smaller. The 4 packs contain 16 cards each with symbols of varying sizes: 16M and 10M, 6.3M and 4M, 2.5M and 1.6M, and 1M and 0.63M. Includes training cards and instructions. The paper cards measure 4 cm x 7 cm. ....................................................... 252500

LEA Symbols Domino Cards
Assess the near visual acuity of 2- and 3-year-old children, or use the cards at any age (older than 2+ years) to train an amblyopic eye. Set contains 3 packs of 16 domino-like cards with a large symbol at one end and a small symbol at the opposite end. Symbol sizes are 3.2M and 0.8M, 2.0M and 0.5M, and 1.25M and 0.3M. Each symbol on the card is printed with its M unit, decimal value, 6 meter equivalency for visual acuity value at 40 cm testing distance. Includes training cards and instructions. Paper cards measure 4 cm x 7 cm. ....................................................... 251500
Low Vision Charts

Low Vision Reading Card
Available in either English or German language near vision reading card with 40 cm attached measuring cord for easy measurement. Chart contains continuous text and randomized words and numbers. Line sizes range from 20/320 to 20/16 (6/95 to 6/4.8) equivalent. The card also contains Letter Size, Decimal, logMAR, and M Size notations. Chart measures 25.5 cm x 38.5 cm.

English .......................... 777001
German ......................... 777000

Runge Low Vision Near Card (40 centimeters)
This easy-to-use low vision card was developed to mimic reading from left to right. Printed answers on back of card allows the tester to follow the patient’s testing results. The back includes Snellen, meters, decimal, logMAR, font size, Jaeger, and M unit notations. A ruler and pupil gage is also included. Sloan Letters with line sizes ranging from 20/1000 to 20/16 (equivalent). 33 cm x 19 cm.

NOTE: Available in EUROPE upon request only

LEA Symbols Chart for Low Vision Rehabilitation (40 inches/1 meter)
This low vision test is designed for examining children and adults with severe visual impairments. The largest symbols are 50M in size, corresponding to 1/50 (20/1000, 6/300, 0.02). The smallest symbols are 1M in size, corresponding to 1/1 (20/20, 6/6, 1.00) at a distance of 1 meter. The test comes with attached cord to maintain the proper testing distance. Includes response key, training cards, and instructions. Designed courtesy of August Colenbrander, MD. Chart measures 40.7 cm x 54.6 cm. Folds to 40.7 cm x 27.3 cm.

258000

LEA Numbers Chart for Low Vision Rehabilitation (40 inches/1 meter)
This low vision test is designed for examining children and adults with severe visual impairments. The largest numbers are 50M in size corresponding to 1/50 (20/1000, 6/300, 0.02) and the smallest symbols are 1M in size corresponding to 1/1 (20/20, 6/6, 1.00) at a distance of 1 meter. The test comes with an attached cord to maintain the proper testing distance. Includes instructions. Designed courtesy of August Colenbrander, MD. Chart measures 40.7 cm x 54.6 cm. Folds to 40.7 cm x 27.3 cm.

272100

LEA Symbols Cards, 40M and 60M
These five LEA Symbols Cards can be used for presentation as single optotypes or arranged in a row as a line test. 60M cards are approximately 21.9 cm x 21.9 cm. 40M cards are approximately 15.25 cm x 15.25 cm.

258100

LEA Numbers Cards, 40M and 60M
These five LEA Numbers Cards can be used for presentation as single optotypes or arranged in a row as a line test. 60M cards are approximately 21.9 cm x 21.9 cm. 40M cards are approximately 15.25 cm x 15.25 cm.

272400

Low Vision

find more information @ www.gl-europe.com
LEA Symbols Low Vision Book
LEA Symbols low vision test is designed for examining children and adults with severe visual impairments. This complete book includes testing for 3 meters, 1.5 meters and for near vision at 40 cm. Distance testing line sizes range from 20/1600 to 20/16 equivalent, 0.25 to 1.25. Near vision testing line sizes range from 20/800 to 20/16 equivalent, 0.25 to 1.25. This book comes bound either on the left side or top. Kit includes Butterfly occluder glasses for children and metal frame occluder glasses for adults are included.
Left-Side Bound
Book Only .................................. 575500
Top Bound
Book Only .................................. 575600

LEA Numbers Low Vision Book
LEA Numbers low vision test is designed for examining children and adults with severe visual impairments. This complete book includes testing for 3 meters, 1.5 meters and 40 cm near vision. Distance testing line sizes range from 20/1600 to 20/16 equivalent, 0.25 to 1.25. Near vision testing line sizes range from 20/800 to 20/16 equivalent, 0.25 to 1.25. This book comes bound either on the left side or top. Kit includes Butterfly occluder glasses for children and metal frame occluder glasses for adults are included.
Left-Side Bound
Book Only .................................. 575300
Top Bound
Book Only .................................. 575400

Non-Verbal Near Visual Perception Test 3-1
The parallel arrangement of the letters, numbers and symbols allows for quick and discreet testing of near vision acuity in persons with perception and communication disorders (e.g. cerebral atrophy, dementia). For non-verbal communication the optotypes at the bottom of the card can be pointed on. VA 0.05 to 2.0. Format: 43 cm x 19 cm with cord. Legend at the back which can also be used for training purposes.
.................................................. 759000

Non-Verbal Near Visual Perception Test 4-1
The 4-1 near vision test has 4 optotypes each of letters and numbers on one page and Landolt Rings and LEA symbols on the other. It serves as an alternative to the 3-1 chart. VA 0.05 to 2.0. Format: 43 cm x 19 cm with cord.
.................................................. 759100

2.5% Low Contrast Combination LEA Symbols & Tumbling E or LEA Symbols & Landolt C Wall Chart (3 meters)
Combination distance visual acuity wall charts for 3 meters with 2.5% Low Contrast Optotypes. Charts contain either LEA Symbols and Tumbling E or LEA Symbols and Landolt C. Charts are proportionally spaced (logMAR) lines; line sizes range from 20/200 to 20/8 (6/60 to 6/2.4) equivalent, 0.10 to 2.50 for LEA Symbols. Line sizes for both Tumbling E and Landolt C range from 20/200 to 20/10 (6/60 to 6/3) equivalent, 0.10 to 2.0. Wall Charts measure 43.18 cm x 53.34 cm and include response panel and flash cards.
Combination LEA Symbols & Tumbling E .................................................. 254900
Combination LEA Symbols & Landolt C .................................................. 254950
Visual communication is the most important communication method during the first year of life. The ability to detect objects of low contrast is an important component of the visual system. For example, facial expressions are mediated by faint shadows and changes in the contours of the mouth and eyes. Determining the levels of contrast that an infant can detect helps provide baseline data for evaluating future changes. For example, deviations from usual behavior may indicate disorders that leave vision at high-contrast levels unaffected.

Four cards printed on both sides in the following contrast levels: black, 25%, 10%, 5%, 2.5%, and 1.25%. Cards are 23 cm x 23 cm. Includes instructions.

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Low Contrast Tests

Hiding Heidi Low Contrast Face Test

Visual communication is the most important communication method during the first year of life. The ability to detect objects of low contrast is an important component of the visual system. For example, facial expressions are mediated by faint shadows and changes in the contours of the mouth and eyes. Determining the levels of contrast that an infant can detect helps provide baseline data for evaluating future changes. For example, deviations from usual behavior may indicate disorders that leave vision at high-contrast levels unaffected.

Four cards printed on both sides in the following contrast levels: black, 25%, 10%, 5%, 2.5%, and 1.25%. Cards are 23 cm x 23 cm. Includes instructions.

---

Low Contrast Charts

Translucent Low Contrast Charts (3 meters)

A low contrast test is a special way to measure visual acuity by determining how well eyes function in low light situations and/or the ability to distinguish objects from similarly colored or shaded backgrounds. Testing is identical to the measurement of visual acuity at high contrast levels. The 2.5% test is the most practical test in clinical use. Available in 5 contrast levels: 1.25%, 2.5%, 5%, 10%, and 25%. LEA Symbols charts include response key and training cards. All contrast charts include recording forms and instructions.

A LEA Symbols*
1.25% (not shown) ................. 253700
2.5% (shown) ....................... 253800
5% (not shown) ............... 253900
10% (not shown) ............ 254000
25% (not shown) .......... 254100

B LEA Numbers
1.25% (not shown) ................. 271500
2.5% (shown) ....................... 271600
5% (not shown) ............... 271700
10% (not shown) ............ 271800
25% (not shown) .......... 271900

C Sloan Letters
1.25% (not shown) ................. 600754
2.5% (shown) ....................... 600753
5% (not shown) ............... 600752
10% (not shown) ............ 600751
25% (not shown) .......... 600750

D LEA Symbols
Mixed Order (Upon request only) . . . 251200

E LEA Numbers
Mixed Order (Upon request only) . . . 270500

F Sloan Letters
Mixed Order (Upon request only) . . . 737000

*LEA Symbols charts come with both response panel and training cards.
Evans Letter Contrast Test (ELCT)
The Evans Letter Contrast Test (ELCT) chart is a standardized test for letter contrast sensitivity. The ELCT chart is designed to be used with either the ESV3000 or ESC2000 providing consistent lighting for improved testing results. The ELCT chart presents Sloan Letters optotypes line size of 20/630 with a testing distance of 1m. The varying contrast in sets of 3 letters of equal contrast level. All triplets are balanced for letter difficulty and differ in contrast by 0.15 log contrast step.

ELCT Chart 1 contains 12 contrast levels ranging from standard 100% acuity to 1.65 log contrast or 2.24% contrast level. Studies show that 1.65 log contrast is the average letter contrast sensitivity for the normal older population. (Weber contrast calculation).

ELCT Chart 2 presents 4 contrast levels from 1.8 to 2.25 log contrast. ELCT charts are available as either Chart 1 only or as a set of both Chart 1 and Chart 2. Kit with charts and ESV3000 are also available that include ESV3000 Standardized Cabinet, remote control and floor stand.

ELCT Charts Only
Chart 1 Only .................................. 500331
Chart 2 Only .................................. 500332
Set with Chart 1 and Chart 2 ........ 500330

Low Contrast Translucent ETDRS Charts from Good-Lite
Good-Lite offers a wide selection of low contrast charts to fit your testing needs. Charts are available in different contrast levels and testing distances.

All charts are proportionally spaced (logMAR) lines; line sizes range from 20/200 to 20/10 (6/60 to 6/3) equivalent, 0.10 to 2.00. 62 cm x 65 cm.

4 meters Testing Distance
Sloan Letters Optotype
1.25% ........................................ 500022
2.5% ........................................ 500021
5% ........................................ 500020
10% ......................................... 500019
25% ......................................... 500023

4 meters Testing Distance
LEA Numbers Optotype
2.5% ........................................ 274200
10% ......................................... 274300
Low Vision Lamps from daylight®

Ultra Slim Magnifying Lamp XR
With bright 28 watts daylight™ light, the unique 17.5 cm XR™ lens and the new Free-Motion head-joint™, this lamp combines the latest innovations in lighting design. These new features make your lamp extremely easy to operate and reliable. Our XR technology™ makes the lens 50% lighter and easy to clean. And the new head-joint guarantees you precise and smooth positioning of your lamp without constantly having to tighten the wing-nut.

MAGnificent Floor/Table LED Magnifying Lamp
The MAGnificent Lamp is ideal for all types of hobbies, crafts and reading. By simply removing the pole, it converts from a floor to a table magnifying lamp. It provides 27 high performance, energy efficient daylight™ LEDs which only use 3 Watts of energy but provide 65 watts of traditional bulb light. The large 14.6 cm semi-rimless 1.75X magnifying lens allows close-work activity.

Flexi-vision Floor Lamp
This product is the result of extensive research and collaboration with the RNIB and other low vision specialists. The Flexi-vision™ Floor Lamp regroups all the best features to make it the ultimate reading lamp. The 20 watts daylight™ energy saving bulb (285 watts equiv.) reduces glare and improves contrast allowing you to read and write for a longer time in optimal comfort. With the new multi-swivel system and flexible arm, you can direct the light exactly where you need it and use this lamp near a sofa or at a table. The Flexi-vision™ Floor Lamp is also one of the safest lamps on the market with clear on/off switch location, anti-trip cable holders and low heat shade.

The Swan Lamp
The EasyTwist™ shade with extra long flexi-arm neck reach of 36 cm allows easy positioning of the powerful 18 watts energy saving light. The lamp also includes a crystal clear 1.75X magnification lens on a new longer removable 46 cm flexi-arm.

Foldi™ LED Lamp
The portable LED Foldi™ Lamp features 30 bright daylight™ LEDs to give you comfortable full-spectrum natural daylight which is kind to your eyes, reducing glare which helps reduce eye strain, headaches and red-eye. The Foldi™ will give up to 8 hours of bright white light on batteries and unlimited power using the USB connection to your laptop, making it the ideal travel companion.

The Swan Lamp
The EasyTwist™ shade with extra long flexi-arm neck reach of 36 cm allows easy positioning of the powerful 18 watts energy saving light. The lamp also includes a crystal clear 1.75X magnification lens on a new longer removable 46 cm flexi-arm.

Folds Up

PLEASE NOTE:
All lamps come with CE mark and conformity, adjusted to European power supply.

find more information @ www.gl-europe.com

GL Europe® the Vision Company
ESV3000 ETDRS Standardized Viewer
The only ETDRS viewing cabinet that self-calibrates illumination on the chart surface for both photopic (85 cd/m²) and mesopic (3 cd/m²) light level testing. The unit utilizes the most advanced self-monitoring LED light source patented technology, providing uniform and highly calibrated illumination across the entire testing surface (Patent 5,078,486).

ESV3000 ETDRS Viewer
Individual Items
ESV3000 ETDRS Standardized viewer only.*

ESC2000 ETDRS Standardized Viewer
Our more cost effective ETDRS Viewer when calibrated light levels are not required.

ESC2000 ETDRS Viewer
Individual Items
ESC2000 ETDRS Standardized viewer only.*

† Manual user adjustment required.

* Power plug adaptor may be needed for outlets outside the United States.

ESV3000 Glare Lights
Easy-to-use Glare Lights simply plug in. Turn on and off remotely when used in conjunction with the ESV3000. Set of 2. Can only be used with the ESV3000.

ESV3000 Floor Stand
ESV3000 Floor Stand with casters. The base of the stand measures 69.85 cm. The height is adjustable from a minimum of 83.82 cm to a maximum of 124.46 cm.
4 meters ETDRS Distance Charts
Chart Size: 62 cm x 65 cm

"2000" Series ETDRS Translucent Distance Charts (4 meters)
Proportionally spaced (logMAR) lines; line sizes range from 20/200 to 20/10 (6/60 to 6/3) equivalent, 0.10 to 2.00. Revised version of the original ETDRS series based on more recent research.
A Chart "1" .......................... 500016
B Chart "2" .......................... 500017
C Chart "3" .......................... 500018

Original Series ETDRS Translucent Distance Charts (4 meters)
Proportionally spaced (logMAR) lines; line sizes range from 20/200 to 20/10 (6/60 to 6/3) equivalent, 0.10 to 2.00. Standardized format is used in National Eye Institute-sponsored clinical studies and in low vision evaluations when accurate and repeatable visual acuity measurements are needed.
D Chart "R" .......................... 500013
E Chart "1" .......................... 500014
F Chart "2" .......................... 500015

LEA Symbols ETDRS Translucent Distance Charts (4 meters)
Proportionally spaced (logMAR) lines; line sizes range from 20/160 to 20/8 (6/48 to 6/2.4) equivalent, 0.90 to 2.50. Includes response key, training cards, and instructions. ................................. 253333

LEA Numbers ETDRS Translucent Distance Chart (4 meters)
Proportionally spaced (logMAR) lines; line sizes range from 20/200 to 20/8 (6/60 to 6/2.4) equivalent, 0.10 to 2.50. Chart is available in 3 scrambled versions for repetitive testing.
G .................. 270200
H .................. 270200A
I .................. 270200B

Landolt C ETDRS Translucent Distance Charts (4 meters)
Proportionally spaced (logMAR) lines; line sizes range from 20/200 to 20/10 (6/60 to 6/3) equivalent, 0.10 to 2.00. ................................. 500037

Tumbling E ETDRS Translucent Distance Charts (4 meters)
Proportionally spaced (logMAR) lines; line sizes range from 20/200 to 20/10 (6/60 to 6/3) equivalent, 0.10 to 2.00. ................................. 500044

8 Position Landolt Ring ETDRS Translucent Distance Charts (4 meters)
Proportionally spaced (logMAR) lines; line sizes range from 20/200 to 20/10 (6/60 to 6/3) equivalent, 0.10 to 2.00. ................................. 500070

Note: All charts, except for the low contrast charts, can be hung on a wall.
3 meters ETDRS Distance Charts
Chart Size: 62 cm x 65 cm

LEA Symbols ETDRS Translucent Distance Chart (3 meters)
Proportionally spaced (logMAR) lines; lines range from 20/200 to 20/8 (6/60 to 6/2.4) equivalent, 0.10 to 2.50. Includes response key, training cards, and instructions. 62 cm x 65 cm.

LEA Numbers ETDRS Translucent Distance Chart (3 meters)
Proportionally spaced (logMAR) lines; lines range from 20/200 to 20/8 (6/60 to 6/2.4) equivalent, 0.10 to 2.50.

Original Series ETDRS Translucent Distance Charts (3 meters)
Proportionally spaced (logMAR) lines; line sizes range from 20/200 to 20/10 (6/60 to 6/3) equivalent, 0.10 to 2.00. Revised version of the original ETDRS series based on more recent research.
A Chart "R" .......................... 500046
B Chart "1" .......................... 500047
C Chart "2" .......................... 500048

2 meters ETDRS Distance Charts

ETDRS Rollup Charts

ETDRS Translucent Distance Charts
Our standard ETDRS charts printed on a thinner styrene plastic allowing the chart to be easily rolled up for storage or transporting. Each chart comes with plastic wall hanging clip.

"2000" Series ETDRS Translucent Distance Charts (2 meters)

Original Series ETDRS Translucent Distance Charts (2 meters)

Low Contrast ETDRS Charts can be found on page 17!

Low Contrast ETDRS Charts

Low Contrast ETDRS Charts

Low Contrast ETDRS Charts

Low Contrast ETDRS Charts

Low Contrast ETDRS Charts

Low Contrast ETDRS Charts

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Low Contrast ETDRS Charts

Low Contrast ETDRS Charts

Low Contrast ETDRS Charts

Low Contrast ETDRS Charts

Low Contrast ETDRS Charts

Low Contrast ETDRS Charts
ESV1200 Quantum™ Cabinet
LEDs provide uniform illumination across the entire testing surface. Universal power supply automatically adjusts power. Can be powered by an optional battery pack. The ESV1200 has a compartment in back for chart storage. Charts are not provided with this unit and must be ordered separately. 38.1 cm W x 23.5 cm H x 4.4 cm D. CE and CSA listed.

ESV1500 Quantum™ Cabinet
Calibrated for Research Vision Testing

Similar to the ESV3000 using advanced patented technology, self-calibrating to provided consistent photopic (85 cd/m²) and mesopic (3 cd/m²) illumination on the chart surface. Controlled by infrared wireless remote. The ESV1500 has a compartment in back for chart storage. Charts are not provided with this unit and must be ordered separately. 38.1 cm W x 23.5 cm H x 8.3 cm D. CE and CSA listed.

NOTE: Available in EUROPE upon request only

Measuring Cord
Measuring cord in various lengths ensuring proper visual testing or screening distance.

Similar to the ESV3000 found on page 19 but Portable!

Accessories

Canvas Carrying Case
For ESV1500 and ESV1200 Illuminated Cabinets. Adjustable shoulder strap provides comfort when carrying an illuminated cabinet.

Adjustable Wall Mount for ESV1500 and ESV1200 Illuminated Cabinets
This wall mount can easily adjust to patient’s eye level for more accurate acuity testing or screening. Extends less than 10.2 cm from wall. This wall mount is for ESV1500 and ESV1200 illuminated cabinet only.

Stand for Professional, ESV1500 and ESV1200 Cabinets
Add mobility to your light box with this deluxe universal 5-leg stand. Available with or without casters.

Storage Compartment in back to hold your charts
Rows of LED lights for even illumination across entire surface of the chart
Handle on top for easy transporting
Only 8.3 cm thick

find more information @ www.gl-europe.com
ESV1500 and ESV1200 Translucent Charts
Chart Size: 22.9 cm x 35.6 cm

3 meters Distance Acuity Translucent Charts

LEA Symbols Set or Chart (3 meters)
Proportionally spaced (logMAR) lines; line sizes range from 20/125 to 20/8 (6/38 to 6/2.4) equivalent, 0.16 to 2.50. Set includes response key, training cards, and instructions.
Set .................................................. 250400
Chart Only ...................................... 250401

LEA Symbols Set or Chart (3 meters)
Proportionally spaced (logMAR) lines; line sizes range from 20/125 to 20/8 (6/38 to 6/2.4) equivalent, 0.16 to 2.50 with repetitive left eye/right eye groups. Includes response key, training cards, and instructions.
Set .................................................. 252400
Chart Only ...................................... 252401

LEA Numbers Chart (3 meters)
Proportionally spaced (logMAR) lines; line sizes range from 20/125 to 20/8 (6/38 to 6/2.4) equivalent, 0.16 to 2.50.
.................................................. 271200

Sloan Letters Chart (3 meters)
Proportionally spaced (logMAR) lines; line sizes range from 20/160 to 20/10 (6/48 to 6/3) equivalent, 0.12 to 2.00.
.................................................. 600705

Landolt C Chart
(3 meters)
Proportionally spaced (logMAR) lines; line sizes range from 20/160 to 20/10 (6/48 to 6/3) equivalent, 0.12 to 2.00.
.................................................. 600703

4 meters Translucent Distance Charts

LEA Symbols Set or Chart (4 meters)
Proportionally spaced (logMAR) lines; line sizes range from 20/100 to 20/8 (6/30 to 6/2.4) equivalent, 0.20 to 2.50. Set includes response key, training cards, and instructions.
Set .................................................. 255100
Chart Only ...................................... 255101

A LEA Numbers Chart (4 meters)
Proportionally spaced (logMAR) lines; line sizes range from 20/100 to 20/8 (6/30 to 6/2.4) equivalent, 0.20 to 2.50.
.................................................. 271300

B Sloan Letters Chart (4 meters)
Proportionally spaced (logMAR) lines; line sizes range from 20/125 to 20/10 (6/38 to 6/3) equivalent, 0.16 to 2.00.
.................................................. 600739
ESV1500 and ESV1200 Translucent Charts
Chart Size: 22.9 cm x 35.6 cm

6 meters Translucent Distance Charts
ESV1500 and ESV1200 Translucent Charts
Chart Size: 22.9 cm x 35.6 cm

Sloan Letters Chart (6 meters)
NOTE: Available in EUROPE upon request only
Proportionally spaced (logMAR) lines; line sizes range from 20/80 to 20/10 (6/24 to 6/4.8), 0.25 to 2.00. Lines are labeled with 20' notations only.

Measuring Cord
Measuring cord in various lengths ensuring proper visual testing or screening distance.
1 meter 710001
3 meters 710003
4 meters 710004
6 meters 710006
40 cm 710040
60 cm 710060
66 cm 710066
80 cm 710080

80 cm Intermediate Distance Charts
NOTE: Available in EUROPE upon request only

80 cm Intermediate Distance Charts
80 cm and 66 cm Sloan Letters Intermediate Distance Charts
Charts calibrated to test visual acuity at an intermediate distance of 80 cm or 66 cm. Charts are available in 3 different scrambled versions for repetitive testing situations. Sloan Letters optotype with proportionally spaced lines; line sizes range from 20/400 to 20/10 (6/120 to 6/3) equivalent. Notations for Letter Size, Decimal, and logMAR are also on the chart. Chart fits in Quantum Series, Model A+, and Model A illuminated cabinets. Chart size is 22.9 cm x 35.6 cm. 80 cm testing distance.

66 cm Intermediate Distance Charts
NOTE: Available in EUROPE upon request only

66 cm Intermediate Distance Charts
66 cm Sloan Letters Intermediate Distance Charts

Intermediate Distance Charts
80 cm and 66 cm Sloan Letters Intermediate Distance Charts
Charts calibrated to test visual acuity at an intermediate distance of 80 cm or 66 cm. Charts are available in 3 different scrambled versions for repetitive testing situations. Sloan Letters optotype with proportionally spaced lines; line sizes range from 20/400 to 20/10 (6/120 to 6/3) equivalent. Notations for Letter Size, Decimal, and logMAR are also on the chart. Chart fits in Quantum Series, Model A+, and Model A illuminated cabinets. Chart size is 22.9 cm x 35.6 cm. 80 cm testing distance.

40 centimeters Near Vision Charts

LEA Numbers Near Vision Charts
NOTE: Available in EUROPE upon request only
Proportionally spaced (logMAR) lines; line sizes range from 20/400 to 20/10 (6/120 to 6/3) equivalent. Chart fits in Quantum Series, Model A+, and Model A illuminated cabinets. Chart size is 22.9 cm x 35.6 cm. 40 cm testing distance.

LEA Symbols Near Vision Charts
NOTE: Available in EUROPE upon request only
Proportionally spaced (logMAR) lines; line sizes range from 20/400 to 20/10 (6/120 to 6/3) equivalent. Chart fits in Quantum Series, Model A+, and Model A illuminated cabinets. Chart size is 22.9 cm x 35.6 cm. 40 cm testing distance.

find more information @ www.gl-europe.com

GL Europe® the Vision Company
Super Pinhole Cabinet & Charts

NOTE: Available in EUROPE upon request only

Super Pinhole Macula Cabinet

NOTE: Available in EUROPE upon request only

This Cabinet can assist with testing potential visual acuity when considering cataract surgery for patients with retinal disease, such as macular degeneration. This greatly improved Super Pinhole Macula Cabinet provides uniform illumination across the entire chart. LEDs provide uniform illumination. Universal power supply. Sloan Letters Super Pinhole chart (300304), Extension Cord (300320), and Multiple Pinhole Occluder (700010) are included with the cabinet.

Super Pinhole Macula Charts (1.5 meters)

High contrast charts for the Super Pinhole Macula Cabinet. Optotypes are proportionally spaced (logMAR) lines; line sizes ranging from 20/100 to 20/20 (6/30 to 6/6) equivalent, 0.25 to 1.25.

A Sloan Letters ................. 300304
B Sloan Letters Scrambled ...... 300305
C LEA Numbers ................. 300306
D LEA Symbols .................. 300307

Replacement Extension Cord

Replacement extension cord for the Super Pinhole Macula Cabinet.

................................. 300320

E LEA Symbols Clear Response Key

Response key with LEA Symbols. Printed on one side. Response Key is now translucent to allowing to easily view which optotype the child is pointing to.

................................. 251701

F LEA Symbols Training Cards

Training cards with LEA Symbols. Printed on one side.

................................. 251800
The CSV-1000S test face is widely used for in- or out-of-office screenings and for cataract evaluations. This test presents standard visual acuity from 20/15 to 20/200, 2 rows of spatial frequencies (6 and 12 cycles/degree), and a real-world driver's scene. The test is useful for cataract documentation because it provides a standard acuity score, a functional acuity score, and a real-world simulation.

ETDRS acuity testing is the worldwide standard for visual acuity testing. The CSV-1000 ETDRS test face provides standardized testing of ETDRS acuity. Three different ETDRS tests are available: Chart R, Chart 1, and Chart 2. Chart R

The CSV-1000HGT tests a combination of contrast and glare sensitivity providing the most accurate measure to evaluate cataracts, glaucoma, diabetic eye disease, contact lens performance, refractive surgery, etc. Patented photocell circuitry automatically monitors and calibrates instrument testing light levels. The CSV-1000HGT includes the following: CSV-1000HGT instrument, remote control (with battery), score pads, your choice of test face(s), and instruction manual.

CSV-1000HGT Contrast Testing System
CSV-1000HGT Instrument with Glare Lights and 1 Test Face. Stand sold separately.

Accessories for CSV-1000
Floor Stand with Casters

CSV-1000 Contrast Testing System
The CSV-1000 is the only self-standardized vision testing instrument. In each row of the device, photocell circuitry continually monitors and calibrates the instrument light level. This unique system senses both the external light striking the face of the instrument and the internal light which emanates from the miniature fluorescent bulbs. By measuring both light sources, the patented circuitry (U.S. Patent Number 5,078,486) determines the total light reflected from the instrument face and provides for a constant test luminance level of 85 cd/m².

CSV-1000 Contrast Testing System comes with CSV-1000 unit and one contrast testing chart. Floor stand sold separately.

CSV-1000E Contrast Chart
This test provides for 4 rows of sine-wave gratings. At the recommended test distance of 2.5 meters, these gratings test the spatial frequencies of 3, 6, 12, and 18 cycles/degree. The CSV-1000E provides a full contrast sensitivity curve, which is useful for the evaluation of ocular disease (particularly cataracts, glaucoma, optic neuritis, diabetes, and macular degeneration), contact lenses, and refractive surgery. For cataract evaluation/documentation, a functional acuity score can be obtained directly from the test scoring sheet.
Stereoacuity Screening and Testing

**Combination LEA Symbols and Stereo Fly Acuity Test**
Tests designed to rapidly test for amblyopia and strabismus using gross thru fine stereopsis (4800 to 20 sec of arc). Graded circle test from 400 sec now down to 20 sec with no monocular clues. New improved booklet has answer key on back cover and includes both adult and child polarized viewers. ..................................................... 100050

**Combination LEA Symbols and Stereo Butterfly Acuity Test**
Tests designed to rapidly test for amblyopia and strabismus using gross thru fine stereopsis (2500 to 20 sec of arc). Graded circle test from 400 sec now down to 20 sec with no monocular clues. New improved booklet has answer key on back cover and includes both adult and child polarized viewers. ..................................................... 100750

**Random Dot 2 LEA Symbols Stereoacuity Test**
Designed to rapidly test for amblyopia and strabismus in early and non-readers and non-verbal children and adults. Expanded random dot LEA test (500, 250, 125 sec of arc). Graded circle test now down to 12.5 sec with no monocular clues. New improved booklet has answer key on back cover and includes both adult and child polarized viewers. ..................................................... 101050

**Random Dot 3 LEA Symbols Stereoacuity Test**
Designed to rapidly test for amblyopia and strabismus in early and non-readers and non-verbal children and adults. Expanded Random Dot 3 with LEA Symbols tests gross disparity at 900, 650, 500 and 400 seconds of arc. Test children at 400, 200, 100 seconds of arc. Graded circle test now down to 12.5 seconds with no monocular clues. New improved booklet has answer key on back cover and includes polarized viewers. ..................................................... 100900

**Random Dot E Stereoacuity Test**
Designed to rapidly test for amblyopia and strabismus in early and non-readers and non-verbal children and adults. Choice of dot size acuity (standard and low vision). Includes adult and new child-friendly pediatric viewers with improved test frames. ..................................................... 101550

**Stereo Vision Viewers**
Polarized stereoacuity test viewers.
A Adult ................................................. 103050
B Intermediate .................................... 103175
C Children ......................................... 103150

**Lichtenstein Fixation Box**
The Lichtenstein Fixation Box gives you the added ability to test fusion, as well as to maintain fixation for your younger patients. The box contains a Worth 4-Dot examination, a white fixation light for adults and older children, and a fixation light that changes colors for strabismus measurements or refraction. LEDs provide increased bulb life. Universal power supply. 18.4 cm H x 15.3 cm W x 3.8 cm D. CE and CSA Listed. ..................................................... 995000

**PASS Test™ 2**
Preschool Assessment of Stereopsis with a Smile (PASS) - Stereoacuity test for school assessment of stereopsis in children and non-readers. Includes: 4 Cards (480, 240, Demo, and Blank) with Carrying Case, 1 Pair Pediatric Polarized Viewers, and 1 Pair Intermediate Polarized Viewers.
This test is also part of the VIP Kit developed by the Vision in Preschoolers Study Group for screening the vision of preschoolers. ..................................................... 101200

**PASS Test™ 3**
Preschool Assessment of Stereopsis with a Smile (PASS) - Stereoacuity test for quantitative assessment of stereopsis in children and non-readers. Includes: 6 Cards (480, 240, 120, 60, Demo, and Blank) with Carrying Case, 1 Pair Pediatric Polarized Viewers, and 1 Pair Intermediate Polarized Viewers. ..................................................... 101300

**GL Europe®the Vision Company**
Color Vision Tests

Good-Lite ColorCheck Complete Vision Screener
This test offers both LEA Numbers and Pediatric LEA Symbols screening for protan/deutan (red/green) and plates screening for tritan (blue/yellow). Color plates are larger making the screening of children, adults and low vision patients much easier. Includes user-friendly instructions, tabbed sections, and protective coating on each test page.

Double Set
Includes 2 sets of 16 test caps (32 total), 32 restriction rings, acrylic case, cloth storage pouch, recording forms, and instructions.
A With Case .................. 260100
B With Travel Tube............. 260260

Panel 16 Quantitative Color Vision Test
The Panel 16 Color Vision Test sets display the same hues as the Farnsworth D-15. The diameter of the stimulus area is 3.3 cm, and can be reduced by using dark gray restriction rings with an opening of 1.2 cm in diameter. Travel tube comes with black cloth.

Single Set
Includes 16 test caps, 16 restriction rings, acrylic case, cloth storage pouch, recording forms, and instructions.
A With Case .................. 260000
B With Case .................. 260100
C With Case .................. 260200
D With Travel Tube .......... 260160

Confirmation Flippers
Individual flippers available in various lens configurations. Durable with a soft handle.
Individual Flipper Lens
127025 ...................... +/– 0.25 Lens
127050 ...................... +/– 0.50 Lens
127075 ...................... +/– 0.75 Lens
127100 ...................... +/– 1.00 Lens
127125 ...................... +/– 1.25 Lens
127150 ...................... +/– 1.50 Lens
127175 ...................... +/– 1.75 Lens
127200 ...................... +/– 2.00 Lens

Arrangement Color Vision Size Comparison

Panel 16

Farnsworth D-15

Reduction Ring

Good-Lite offers arrangement color tests with color chips in 2 sizes. The Panel 16 Quantitative Color Test measures 32 mm in diameter with a "Reduction Ring" that restricts the target to the standard size of 12 mm.

Retinoscopy Paddles with Axis Compass
This two-paddle version has one paddle with plus lenses and the other for minus. Optics on both are 0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 4.5, 5.0, 5.5, 6.0, 6.5, 7.0, 8.0, and 12. Includes 180° axis compass printed directly along the top of each paddle. Lenses are 16 mm diameter, recessed to help prevent scratching. Lenses are glass for greater accuracy and durability. Includes protective case.

find more information @ www.gl-europe.com
Who said serious tests had to be done with boring test glasses? Add fun to your pediatric tests with our animal motif frames. Use these fun frames as occluders to increase testability, as pinhole occluders or hyperopia glasses, and during tests requiring anaglyph or polarized glasses, such as stereoacuity tests. Occluders come in left and right pairs with the same frame style. These covered frames are more colorful than shown here and they are surprisingly durable! Not for possession by children below age 3.

<table>
<thead>
<tr>
<th>Lens Type</th>
<th>Butterfly</th>
<th>Horse</th>
<th>Parrot</th>
<th>Tiger</th>
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<tr>
<td>Frosted Occluder</td>
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<td>460911</td>
<td>461011</td>
<td>461111</td>
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<td>Polarized</td>
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<td>462000</td>
<td>462100</td>
<td>460700</td>
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<td>Anaglyph</td>
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<td>461300</td>
<td>461400</td>
<td>461500</td>
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<tr>
<td>+1.50 Hyperopia</td>
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<tr>
<td>+2.50 Hyperopia</td>
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<td>500400</td>
<td>500500</td>
<td>500611</td>
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<tr>
<td>+3.00 Hyperopia</td>
<td>514900</td>
<td>515100</td>
<td>515000</td>
<td>515200</td>
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Measuring Cord
Measuring cord in various lengths ensuring proper visual testing or screening distance.

<table>
<thead>
<tr>
<th>Length</th>
<th>Code</th>
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<tbody>
<tr>
<td>1 meter</td>
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<tr>
<td>3 meters</td>
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<td>4 meters</td>
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<td>80 cm</td>
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