

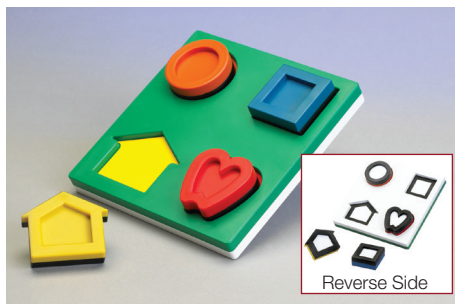
Visual Acuity Tests: lea SYMBOLS®

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 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 6.75" x 6.75" (17.2 cm x 17.2 cm). The 4 symbol puzzle pieces are approximately 2" x 2" (5.1 cm x 5.1 cm) each.

..... 251600



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 1.6" x 2.75" (4 cm x 7 cm).

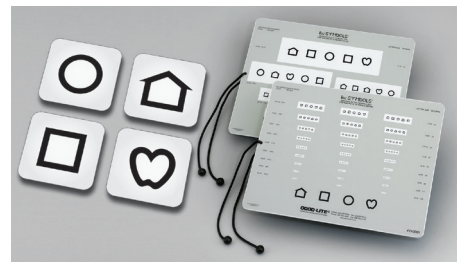
..... 252500



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, and 20 foot equivalency for visual acuity value at 40 cm testing distance. Includes training cards and instructions. Paper cards measure 1.6" x 2.75" (4 cm x 7 cm).

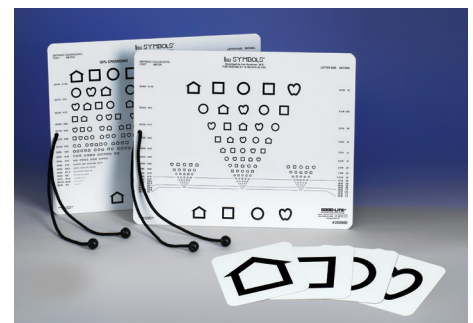
..... 251500



LEA SYMBOLS® Near Vision Screener (16 inches/40 centimeters)

This test is designed for amblyopia screening and testing children who have difficulties when tested with the standard near vision card (#250800). The background is gray with the exception of a white rectangle spaced at 100% surrounding each line of symbols. Line sizes from 20/400 to 20/16 (6/120 to 6/4.8) equivalent, 0.05 to 1.25. Printed on two sides. Response key is printed on the test card. Includes training cards and instructions. Screener measures 8" x 10" (20.3 cm x 25.4 cm).

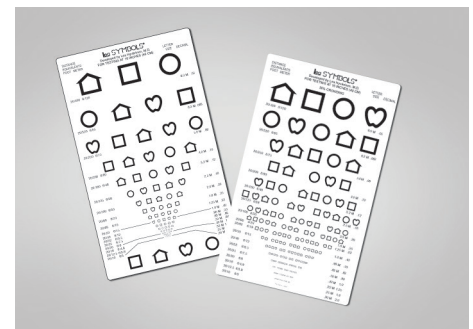
..... 252000



LEA SYMBOLS® Near Vision Card (16 inches/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 8" x 10" (20.3 cm x 25.4 cm).

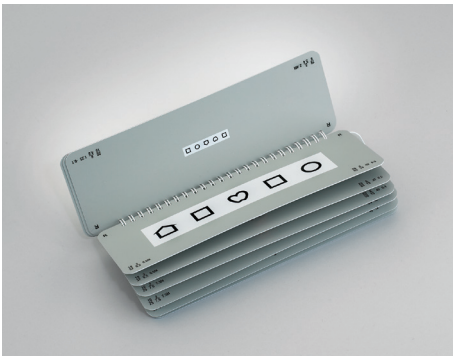
..... 250800



LEA SYMBOLS® Pocket-Sized Near Vision Card (16 inches/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. 3.75" x 6.25" (9.5 cm x 15.9 cm).

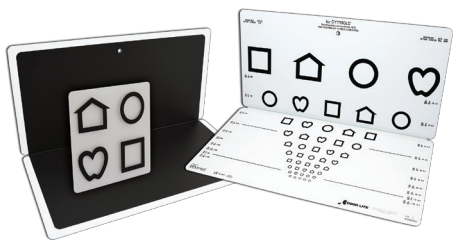
..... 250950



LEA SYMBOLS® Distance Vision Screener (10 feet/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. Pages are offset for easy flipping. Instructions are printed on the inside cover. 10 pages, 3.25" x 9" (8.25 cm x 22.9 cm).

..... 259900

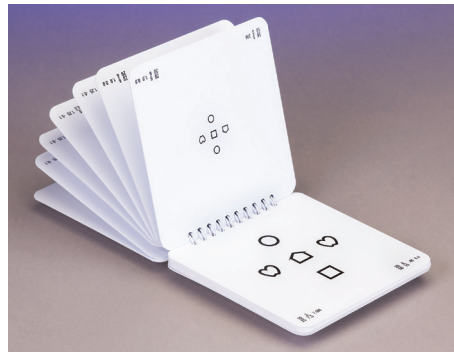


LEA SYMBOLS® 10-Line Distance Chart (10 feet/3 meters)

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, and instructions. 16" x 16" (40.6 cm x 40.6 cm). Folds to 16" x 8" (40.6 cm x 20.3 cm).

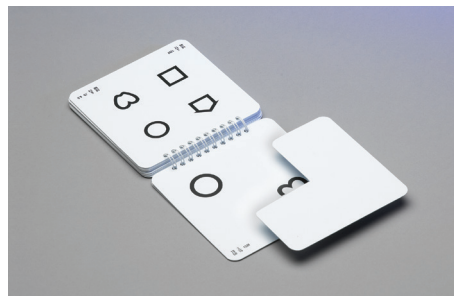
..... 250250



LEA SYMBOLS® Crowded Symbol Book (10 feet/3 meters)

The Crowded 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 and instructions. 16 offset pages, 5" x 5" (12.7 cm x 12.7 cm).

..... 250700



LEA SYMBOLS® Single Symbol Book (10 feet/3 meters)

The Single Symbol Book is designed for testing children and adults who have difficulties in perception of symbols in lines. The visual acuity values measured with single symbols are often several lines better than the line acuity values in persons with impaired vision and, thus, overestimate the quality of visual functioning. Single optotype line sizes from 20/200 to 20/8 (6/60 to 6/2.4) equivalent, 0.10 to 2.50. Includes isolating mask, response key and instructions. 13 offset pages for easy flipping. 5" x 5" (12.7 cm x 12.7 cm).

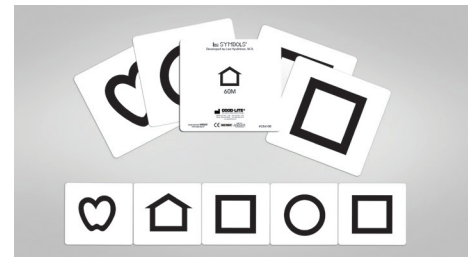
..... 250600



LEA SYMBOLS® Flash Cards (10 feet/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 and instructions. 30 cards per set, 4" x 5" (10 cm x 12.7 cm) to 5" x 5" (12.7 cm x 12.7 cm).

..... 252700



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:

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

60M cards are approx. 8.6" x 8.6" (21.9 cm x 21.9 cm). 40M cards are approx. 6" x 6" (15.25 cm x 15.25 cm).

..... 256100



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,

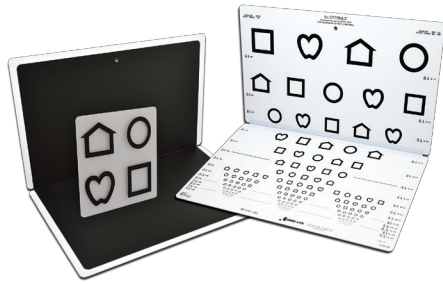
but very few answers, such as:

- 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.

..... 790000

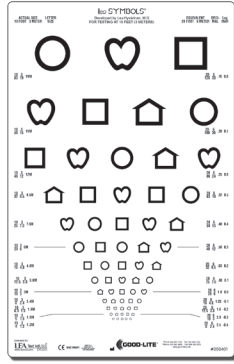
LEA Core Vision Tests



LEA SYMBOLS® 15-Line Distance Chart (10 feet/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 and instructions. 17" x 21" (43 cm x 53.4 cm). Folds to 17" x 10.5" (43 cm x 26.7 cm).

Set **250150**

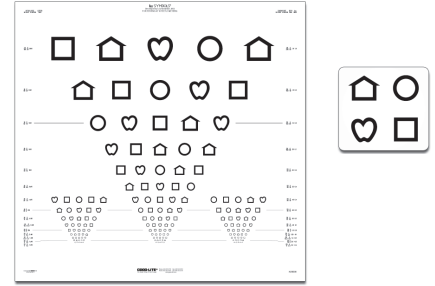


LEA SYMBOLS® 13-Line Translucent Distance Chart (10 feet/3 meters)

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. This chart can either be wall mounted or used in an illuminated cabinet found on page 26. Includes response key and instructions.

Set **250400**

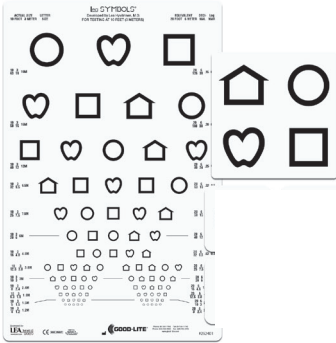
Chart Only **250401**



LEA SYMBOLS® 15-Line Translucent ETDRS-Style Distance Chart for ESV3000 Cabinet (10 feet/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 and instructions. 24.5" x 25.5" (62 cm x 65 cm).

Set **250300**

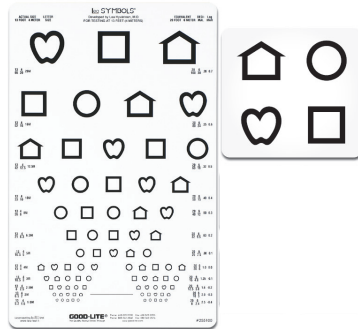


LEA SYMBOLS® 13-Line Translucent Distance Chart (10 feet/3 meters)

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 and instructions.

Set **252400**

Chart Only **252401**

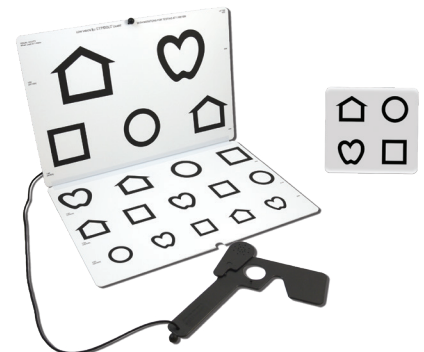


LEA SYMBOLS® 12-Line Translucent Distance Chart (13 feet/4 meters)

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 and instructions.

Set **255100**

Chart Only **255101**



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 16" x 21.5" (40.7 cm x 54.6 cm). Folds to 16" x 10.75" (40.7 cm x 27.3 cm).

Set **258000**

Visual Acuity Tests:



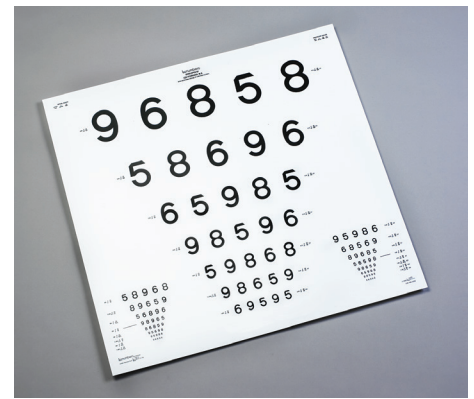
LEA NUMBERS® were developed for international studies in occupational health and school health services. Letters like the Sloan letters are used in the

Western world and in the old colonies of western empires but not in a large part of the

Lea-numbers®

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® 15-Line Translucent ETDRS-Style Distance Chart for ESV3000 Cabinet (13 feet/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.

270200



LEA NUMBERS® Near Vision Card (16 inches/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 8" x 10" (20.3 cm x 25.4 cm).

270900



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 20/400 to 20/10 (6/120 to 6/3) equivalent, 0.05 to 2.00. Card measures 8" x 10" (20.3 cm x 25.4 cm).

274100

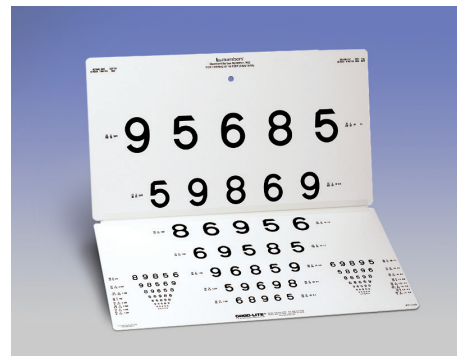


LEA NUMBERS® Pocket-Sized Near Card (16 inches/40 centimeters)

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. 3.75" x 6.25" (9.5 cm x 15.9 cm).

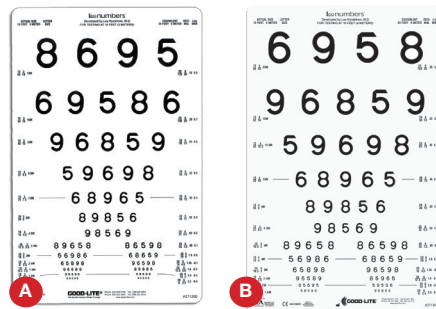
271000



LEA NUMBERS® 15-Line Distance Chart (10 feet/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. 18" x 20" (45.7 cm x 50.8 cm). Folds to 18" x 10" (45.7 cm x 25.4 cm).

271100



A LEA NUMBERS® 13-Line Translucent Distance Chart (10 feet/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

B LEA NUMBERS® 12-Line Translucent Distance Chart (13 feet, 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

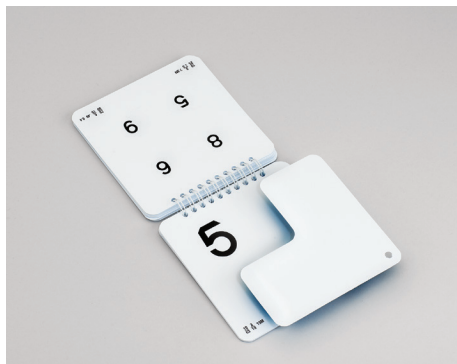


LEA NUMBERS® Chart for Vision Rehabilitation (40 inches/1 meter)

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 16" x 21.5" (40.7 cm x 54.6 cm). Folds to 16" x 10.75" (40.7 cm x 27.3 cm).

272100

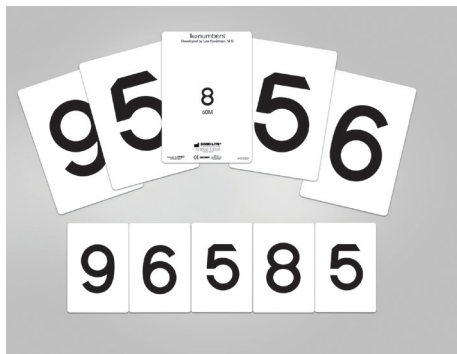
PLEASE NOTE: 9 x 14 LEA NUMBERS® Charts can either be wall mounted or used in an illuminated cabinet found on page 29.



LEA NUMBERS® Single Number Book (10 feet/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. 5" x 5" (12.7 cm x 12.7 cm).

..... 274000



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. 6" x 9" (15.25 cm x 22.9 cm). 40M cards are approx. 4" x 6" (10.2 cm x 15.25 cm).

..... 272400

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 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 1 m, 0.5 m, and 0.3 at 3 m. Test includes a response key, recording forms, and instructions. 6 pages, 3.25" x 9" (8.25 cm x 22.9 cm).

..... 251100

Mixed Order 251200

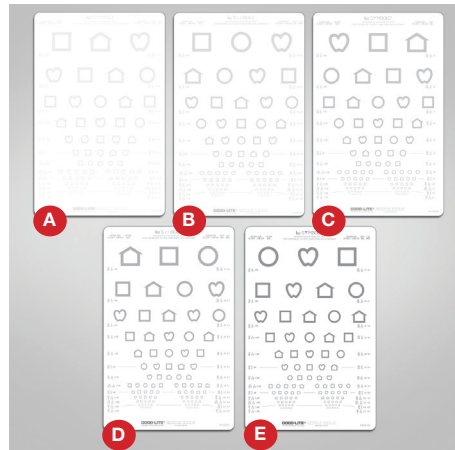


LEA NUMBERS® Low Contrast Test, 10M

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, 3.25" x 9" (8.25 cm x 22.9 cm).

..... 270400

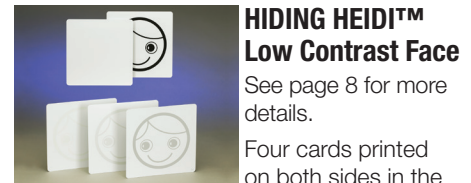
Mixed Order 270500



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



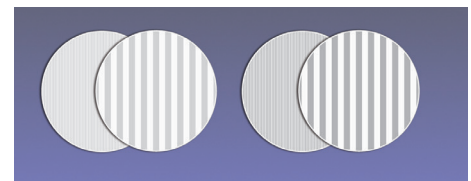
HIDING HEIDI™ Low Contrast Face

See page 8 for more details.

Four cards printed on both sides in the following contrast levels: black, 25%, 10%, 5%, 2.5%, and 1.25%. Cards are 9" x 9" (23 cm x 23 cm). Includes instructions.

Double Sided (four cards, shown) . . 253500

Single Sided (seven cards) 253510



LEA GRATINGS™ Low Contrast 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 8" (20 cm) in diameter.

..... 253400

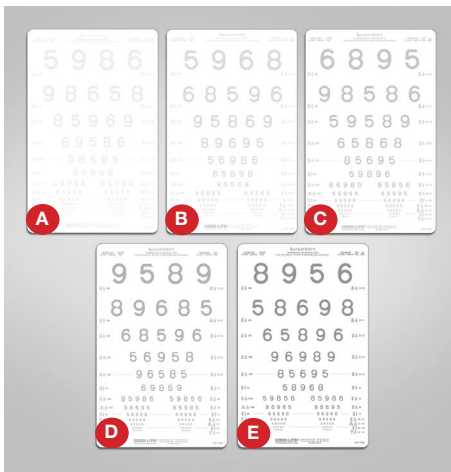
Cognitive Vision

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.

It is important that all cognitive visual functions are assessed, from seeing the orientation of lines and size of objects to different recognition functions and more complicated perceptual tasks. For example, a child who has lost recognition of facial features only may be misunderstood when he/she does not greet people whom the child knows well. Likewise, children who do not perceive facial expressions may be taken as autistic when they cannot function in a group of toddlers whose communication is through body language. For more information, go to the Instructions Link:

www.lea-test.fi



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**

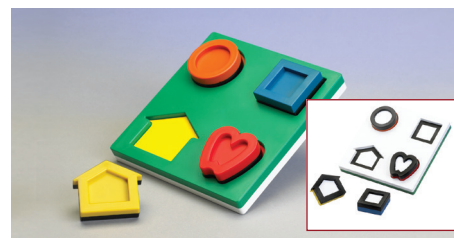
Visual Field



LEA FLICKER WAND™

The LEA Flicker Wand is 26.5" (67.3 cm) long with a 20" (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.

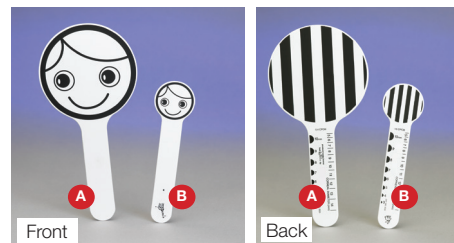
..... **280000**



LEA 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 6.75" x 6.75" (17.2 cm x 17.2 cm). The 4 symbol puzzle pieces are approximately 2" x 2" (5.1 cm x 5.1 cm) each.

..... **251600**



Small and Medium HEIDI™ Fixation Paddles

The small 2" (5 cm) diameter "smiling face" fixation paddle was developed based on studies by Robert Fanz. Features include grating on reverse side, small pictures of a bunny and a giraffe for demanding fixation, and pupil size and corneal diameter measurement on the handle. The medium 5" (13 cm) diameter fixation paddle is for assessing children with severe disabilities to determine the distance at which the children respond to a high-contrast face figure.

- A** Medium Target **253100**
- B** Small Target **253000**

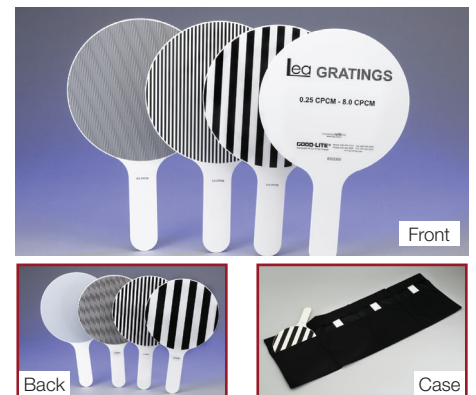


LEA GRATINGS™ Acuity Test

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 8" (20 cm) in diameter.

..... **251300**



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 8" (20 cm) in diameter.

..... **253300**



HIDING HEIDI™ Low Contrast Face

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 9" x 9" (23 cm x 23 cm). Includes instructions.

Double Sided (Four Cards) **253500**

Single Sided (Seven Cards) **253510**



HEIDI™ Expressions

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 4" x 4" (10.16 cm x 10.16 cm).

. **254505**



LEA RECTANGLES GAME™

This educational toy is a modified version of Efron'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 4" (10.16 cm) each.

. **254600**



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**

Adaptation Test



Cone Adaptation Test

The test consists of 15, 2" x 2" (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**

Color Vision Test



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 diameter of the stimulus area is 1.3" (3.3 cm), and can be reduced by using dark gray restriction rings with an opening of 0.47" (1.2 cm) in diameter. Acrylic case includes a cloth storage pouch. Travel tube comes with black cloth. Both come with recording forms and instructions.

Single Set

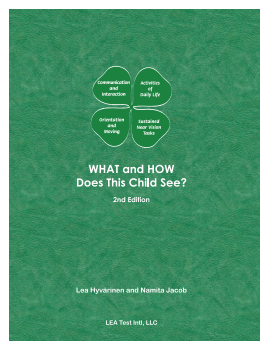
A With Acrylic Case **260200**

B With Travel Tube **260260**

Double Set (Shown on page 10)

With Acrylic Case **260100**

With Travel Tube **260160**



"WHAT and HOW Does this Child See?" Second Edition

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.

Hardcover Book **791000**

DVD **792000**

USB Key **793000**

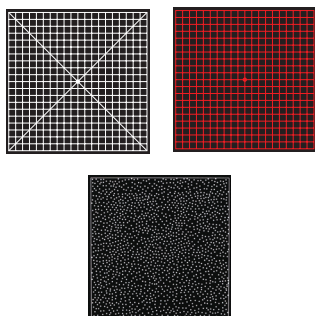
Color Vision Tests



HRR Standard Pseudoisochromatic Test

Quickly screens for normal color vision and congenital and acquired color vision defects, classifying to type—protan/deutan (red/green) and tritan (blue/yellow)—and extent of defect. This test is ideal for pediatric testing, because it uses simple shapes (O, X, Δ) that are easily recognized by children. Special non-glare laminate keeps colors from becoming distorted and prevents fingerprint smudges. Reversible occluding glasses are included.

- Unlaminated **730006**
- Laminated **730005**



HRR/Amsler Combination Color Book

HRR and Amsler Grid combined into one easy to use book. The book contains 7 different amsler charts including Standard Chart, Diagonal, Red on Black Standard and Minute Juxta-Central.

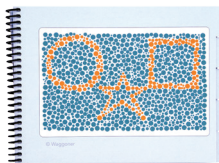
- Laminated **730020**
- Unlaminated **730021**



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.

..... **730050**



Color Vision Testing Made Easy

Waggoner Color Vision Testing Made Easy (CVTME) is the pediatric gold standard for identifying genetic (red/green) color vision deficiencies in children as young as 3. It consists of one demonstration plate and 9 test plates displaying circle, star, and/or square throughout the plates and can be completed in under 60 seconds.

..... **730060**



True Daylight Illuminator

The True Daylight Illuminator is specifically designed to provide the optimal light when using Panel 16, Farnsworth 100 Hue, Farnsworth D15 and Lanthony Desaturated D15 color tests. The Daylight bulb gives off 6280 degree K light which closely matches the standards set by the International Commission of Illumination and had been approved by the U.S. Food and Drug Administration and the U.S. Defense Personnel Support Center for the armed forces.

The dual purpose tray can be either folded for use with color books or folded flat for arrangement color testing.

Daylight illumination has been found to be very important for acquired color vision defects (such as Plaquenil screening) and critical occupational applications. Consistency of lighting from exam to exam is very important in detection of drug interactions. Further, the use of daylight has been found to be very beneficial in stereopsis, and visual acuity testing.

True Daylight Illuminator comes wired with a power cord only for 110V. 220V available for an extra fee. Color tests not included.

..... **612600**