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## Instructions for Use: Farnsworth Dichotomous D-15 (15126)

**Included with Farnsworth Dichotomous D-15 Tests:**  
**C-Daylight Glasses (15115)**  
**Cotton Gloves**  
**Score Sheet**

### Intended Use:

The Farnsworth Dichotomous D-15 is designed to indicate if an individual has a strong or mild color deficiency and/or color normal. The test is composed of caps with high spectral saturation. Failure is suggestive of a strong color deficiency; due to the vivid colors permitting an easy test.

Color arrangement test panels provide a map of all the patient's color confusions for any axis of the patient's color space. Protan, Deutan and Tritan color confusion axes are each evaluated in one test.

### Illumination:

The Farnsworth D-15 Test must be conducted under daylight conditions (CIE- Illuminant-C). This can be accomplished by a Macbeth lamp or by the use of an incandescent 60, 75, or 100 Watt bulb combined with the patient wearing Gulden Ophthalmics "C" Daylight Glasses that accurately color corrects incandescent sources to Illuminant-C (6500oK).

### Handling:

**Do not expose to continuous light or extreme temperatures.** Preservation of the test quality requires the colored surfaces of the caps be protected from becoming faded or soiled. The case & pouch will protect the colors from dirt and from fading due to light when the test is not in use. During the color test procedure, it is necessary to avoid oil and dirt from patients' and examination personnel's hands. Instruct the patient to avoid touching the colored surfaces. White cotton gloves are included with the product for use when handling the colored caps.

### Testing Procedure:

Remove case from pouch. Remove end cap from case. Slide the 15 test caps out of the open end of the case onto the testing surface. The caps should be arranged randomly on the surface. Instruct patient to locate the cap within the group of 15 that is closest in color to the starter cap, which remains fixed in the case. The first cap selected should be placed in the box adjacent to the starter cap. The patient should choose the next cap, which is now closest in color to the one that was just put into the case. This cap is then placed in the case. This process is repeated until all the caps on the testing surface are now back in the case. The patient is allowed to make any final adjustments to the position of any test cap, with the goal of making the caps proceed logically from left to right in terms of their spectral hue progression.

Replace the cap on the case. Turn the case upside-down to view the sequential numbering. Record the order of cap placement on the Gulden test score sheet - connecting the dots on the score sheet creates an interpretable plot.

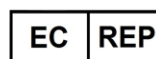
### Interpretation:

Complete passing occurs when the sequence of cap placement is in numerical order and the circular plot has no crossovers. A mild failure occurs when there are crossovers occurring around the circle, usually involving 1 or 2 cap positions. Major errors occur when the crossovers go across the circle graph, frequently defining an axis of the color deficiency type.

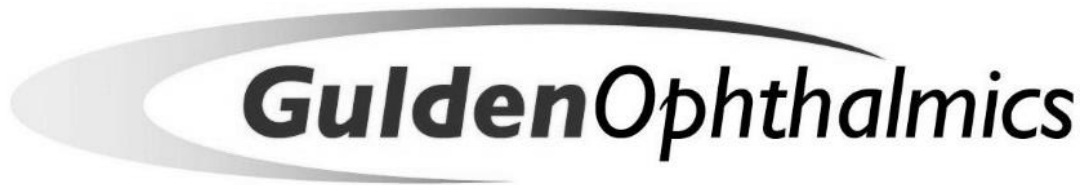
Farnsworth Dichotomous D-15's are Reusable



Gulden Ophthalmics  
225 Cadwalader Avenue  
Elkins Park, PA 19027



Qarad EC-REP BV  
Pas 257  
2440 Geel  
Belgium



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**Instructions for Use: Lanthony Desaturated D-15 (15127)**

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**Included with Lanthony Desaturated D-15 Tests:**  
**C-Daylight Glasses (15115)**  
**Cotton Gloves**  
**Score Sheet**

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**Intended Use:**

The Lanthony Desaturated D-15 is designed to indicate if an individual is color deficient or has normal color perception. The test is composed of caps with low spectral saturation. The Lanthony Desaturated D-15 is much more difficult to correctly complete than the Farnsworth Dichotomous D-15, due to the subdued colors. Failure is suggestive of a color deficiency. The desaturated colors permit more sensitive testing of minor color deficiencies.

Color arrangement test panels provide a map of all of the patient's color confusions for any axis of the patient's color space. Protan, Deutan and Tritan color confusion axes are each evaluated in one test.

**Illumination:**

The Lanthony D-15 Test must be conducted under daylight conditions (CIE- Illuminant-C). This can be accomplished by a Macbeth lamp or by the use of an incandescent 60, 75, or 100 Watt bulb combined with the patient wearing Gulden Ophthalmics "C" Daylight Glasses that accurately color corrects incandescent sources to Illuminant-C (6500oK).

**Handling:**

**Do not expose to continuous light or extreme temperatures.** Preservation of the test quality requires the colored surfaces of the caps be protected from becoming faded or soiled. The case & pouch will protect the colors from dirt and from fading due to light when the test is not in use. During the color test procedure, it is necessary to avoid oil and dirt from patients' and examination personnel's hands. Instruct the patient to avoid touching the colored surfaces. White cotton gloves are included with the product for use when handling the colored caps.

**Testing Procedure:**

Remove case from pouch. Remove end cap from case. Slide the 15 test caps out of the open end of the case onto the testing surface. The caps should be arranged randomly on the surface. Instruct patient to locate the cap within the group of 15 that is closest in color to the starter cap, which remains fixed in the case. The first cap selected should be placed in the box adjacent to the starter cap. The patient should choose the next cap, which is now closest in color to the one that was just put into the case. This cap is then placed in the case. This process is repeated until all the caps on the testing surface are now back in the case. The patient is allowed to make any final adjustments to the position of any test cap, with the goal of making the caps proceed logically from left to right in terms of their spectral hue progression.

Replace the cap on the case. Turn the case upside-down to view the sequential numbering. Record the order of cap placement on the Gulden test score sheet. Connecting the dots on the circular plotting form for each test then plots this order.

**Interpretation:**

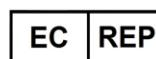
Complete passing occurs when the sequence of cap placement is in numerical order and the circular plot has no crossovers. A mild failure occurs when there are crossovers occurring around the circle, usually involving 1 or 2 cap positions. Major errors occur when the crossovers go across the circle graph, frequently defining an axis of the color deficiency type.

Lanthony Desaturated D-15's are Reusable

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Rev. EDA 1137 // 9/3/2021