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1 The Farnsworth D-15 Color Vision Test

Background

If you are reading this manual you likely have been designated as one of the test administrators who will be administering the Farnsworth D-15 Color Vision Test (the “Farnsworth”) to TSA Transportation Security Officer (TSO) candidates. It is extremely important that you are thoroughly familiar with the contents of this manual and have attended the test administrator training prior to administering the Farnsworth to TSO candidates. In addition, you should complete a number of practice administrations after you have attended the training and before you administer the test “live.”

This test is an important component of the TSA TSO selection process. The purpose of this test is to ensure that all candidates have sufficient ability to discriminate colors to perform the TSO job effectively. (NOTE: the term “discriminate” here means to make a clear distinction or distinguish.) Some of the equipment used by TSOs to screen bags uses colors to indicate various attributes of the item being screened (e.g., density). Therefore, it is essential that persons hired and deployed as TSO’s have the capacity to see these colors and tell them apart. This is what is meant by “color discrimination.”

There are several things you should keep in mind in your role as a test administrator. In addition to the requirements that you be trained and thoroughly familiar with all test protocols, it is essential that all candidates be tested in exactly the same fashion. Standardization in the administration of this test is critical to ensuring that all candidates are treated consistently and fairly within and across airports. Deviations from the protocol described in this manual could impact the effectiveness of the TSO selection process and also result in or contribute to legal challenges to the TSO selection process. It is also important to note that a candidate can choose to exit at any time during the administration of the Farnsworth D-15 Color Vision Test.

You must do your utmost to ensure that every test administration is conducted in the same way. If there is a deviation from the standard procedure you should document what happened using an Airport Assessment Incident Report (AAIR). Follow guidelines and procedures outlined in the TSO Local Hiring Manual for determining when an AAIR is needed and how to complete and submit an AAIR (refer to a copy of the AAIR posted on the Document Library).

Overview of the Farnsworth D-15 Color Vision Test

Color discrimination is tested using the Farnsworth D-15 Test. This test is used to determine a candidate’s ability to distinguish shades and hues of colors. The testing procedure involves the selection and ordering of caps. The candidate passes if he/she can distinguish shades and hues of colors (i.e., red, green, yellow, blue, orange, purple) and place the caps in the correct order of sequential hues. Pass/fail distinctions are determined by the number of “crossings” or mistakes in the ordering of the caps by the candidate during the test. If a candidate has made 2 or more crossings he/she “fails” that test administration (if it is the first test administration then the candidate must be retested). A “crossing” (i.e., mistake) is defined as caps that are incorrectly placed next to each other (i.e., adjacent caps whose difference in shade and hue exceed a predetermined level). The numerical determination of a crossing is a difference of 5 or greater between two adjacent caps.
IMPORTANT: Color filters for enhancing color discrimination (i.e., contact lenses or glasses that “correct” color vision) are prohibited and may not be worn during the administration of this test.

Set-Up Requirements
The following test materials and testing environment must be prepared prior to administering the test to a candidate:

Farnsworth D-15 Kit
• (1) Plexiglas case
• (15) Uniquely numbered caps
• (1) Black mat
• (1) Blank Farnsworth D-15 Color Vision Test score sheet

Testing Environment
• (1) Table large enough to display the black mat and all of the caps
• (2) Chairs
• (1) Black pen
• (1) Watch or clock (to ensure participants receive three (3) minutes to complete the test)
• (1) Computer with internet connectivity to the Dashboard (an alternate scoring option will be presented later in the manual when a computer and/or internet connectivity is unavailable)

Adequate light to distinguish shades and hues of the caps
Farnsworth D-15 Color Vision Scoring Worksheets (if applicable)

Prior to the candidate arriving at the testing area the test administrator should place the black mat flat onto the testing surface and then remove the caps from the Plexiglas case and place them in a random fashion on the black mat. The caps should be placed close to each other in a group with the number side down. Once the caps have been arranged they should be covered with the black mat so the candidate cannot see the caps when he/she enters the room.

Note: The candidate and the test administrator should not touch any part of the colored area on any of the caps because the oil and/or sweat from a person's skin can damage the pigments on the caps. The test administrator should ensure that the caps are not exposed to prolonged and direct sunlight because this too will damage and fade the colors on the caps.

Testing Protocol
X-chrome lenses or color filter lenses are not allowed (these are contact lenses that correct color vision). Candidates must remove these lenses prior to taking the test.

The test is designed to be conducted so that the caps are approximately 20” away from the candidate’s eyes.

Reference Cap
The “reference cap” is the starting point for the test. This cap does not have a number on the non-colored side of the cap. It is either blank on the number side or is marked with a zero (0).

Numbers on the Caps
All other caps (except for the reference cap) have an individual number on the non-colored side of the cap. Each cap’s
unique number is used when scoring the test.

Administering the Test

This section is designed to walk the test administrator through each step of the process for administering the color vision test including preparation, administration, scoring and notifying the candidate of the results.

Before you greet and escort a candidate into the room:

Ensure a copy of the Farnsworth D-15 Color Vision Score Sheet is available to record the results from the candidate’s color vision test administration. Fill out the form with the Candidate’s Name, Social Security Number, Assessment Location, and Date Tested. Make sure the written information matches the information provided in the dashboard. Once you ensure the above information is correct, enter the first and last name of the person who will administer the color vision exam. If the information does not match, please contact the TSA HR Help Desk 1-877-872-7990.

Remove the caps from the Plexiglas case and arrange them in a random fashion on the black mat. Make sure the test is positioned in direct light so the colors on the caps will be easy to read. Once the caps have been arranged, be sure to cover them up with the black mat so the candidate cannot see the caps when entering the room.

Make sure that the Farnsworth D-15 Color Vision Administration, Passed Color Vision, and Failed Color Vision Scripts are on the desk and readily accessible (refer to Appendix C – Airport Assessment Scripts – posted on the Document Library).

Administering the Farnsworth D-15 Color Vision Test

1. Review the Candidate Details in the dashboard to ensure the system has the correct Candidate Name, SSN, and Airport Where Assessed.
2. Greet and escort the candidate into the room and indicate where to sit. If there are other TSA staff members in the room introduce each of them as well.
3. Once the candidate has been seated and has stowed away any personal items, uncover the caps and allow the candidate to view the caps while you read the Farnsworth D-15 Color Vision Administration Script.
4. As with any other script used in the assessment process it is very important that you read this script verbatim. This is important information that the candidate needs to know to complete the test. Any deviations from the script may affect the ability of the candidate to successfully complete the test.
5. If the candidate has any questions take the time to respond to those questions, as long as the questions pertain to the color vision test. Do not respond to questions about any other steps in the assessment process.
6. After responding to any questions the candidate may have indicate whether the Candidate Wishes to Proceed or Declines to Proceed by selecting the appropriate box in the dashboard, and then click Proceed to Scoring Page.
7. Once the candidate is ready to begin identify the reference cap for the candidate to ensure that the candidate understands that the reference cap is the starting point. Throughout the test it is important that the test administrator observe the candidate to ensure that he/she is following the directions. Also, make sure that the candidate is comfortable. Observe the examination from a distance where you can see what is happening without intruding on the candidate’s space.
8. The candidate may continue working on the test until he/she indicates that it is complete or until the allotted three (3) minutes has expired. Once the candidate states that he/she is finished the candidate
can no longer make any changes to the order of the caps. Place the caps into the Plexiglas case in the order in which the candidate arranged them, while the candidate observes. Allowing the candidate to observe will decrease the likelihood that a candidate will claim that the test administrator made changes to the order of the caps.

Scoring the Test

Once all of the caps have been returned to the case:

- Place the cover on the case
- Turn the Plexiglas case over
- Place it in an area where the candidate cannot see the numbers on the bottom of the caps

To score the test:

- Record the candidate’s responses on the Farnsworth Color Vision Score Sheet, while keeping the score sheet out of the candidate’s view.
- Begin with the first cap the candidate placed next to the reference cap and record the number in the first box.
- Record each additional response in the successive boxes on the score sheet.
- Review the responses entered on the score sheet to verify that they match the order of the caps in the case.
- After confirmation of cap order, launch the Color Vision Scoring Program from the dashboard (Refer to Appendix J in the TSO Local Hiring Manual for detailed information on accessing and using the dashboard – Local Hiring Dashboard User’s Manual).
- Enter the candidate’s responses from the score sheet into the appropriate spaces in the Test Administration # 1 scoring area.

Once the candidate’s responses are entered, the scoring program will provide the # of Crossings as well as an overall result.

Note: If the same cap number is entered more than once, the scoring program will indicate in red the entries that need correction. Once the entries are corrected, click Verify Data Entry. If any of the boxes are left blank, the scoring program will indicate to complete all entry boxes. If the candidate did not complete the test in the allotted three (3) minutes and did not place all the caps in order, click the box indicating that the candidate did not use all the cap(s) within the allotted time period and click Verify Data Entry.

To ensure that the initial test results were entered correctly the scoring program will require that the cap numbers be reentered a second time.

Passing Candidates

If the candidate passed the color vision test on the first attempt he/she does NOT need to take the test a second time:

- Record the # of Crossings as indicated by the scoring program on the candidate’s score sheet
- Place a check in the Retest “No” box under Test 1
• Place a check in the **Qualified** box
• The test administrator must sign and print his/her name in the spaces indicated on the score sheet
• In the Color Vision Scoring Program click the **Return to Dashboard** link. The program will automatically update the candidate’s score for the color vision test in the dashboard.
• Return to the candidate (if the computer terminal is in a different room). Inform the candidate that he/she has passed the color vision test and move directly into the next step of the process.

Put the Plexiglas case away and place the candidate’s score sheet in the candidate’s designated candidate folder (Refer to Chapter 7-Airport Assessment in the TSO Local Hiring Manual for information on creating and maintaining candidate folders). According to the Code of Federal Regulations and TSA policy, materials related to employee selection should be retained for a minimum of two years (Sec 335.103). While retained, care must be taken to ensure the confidentiality of all selection-related materials.

### Candidates Requiring Retest

**If the candidate failed to arrange all 15 caps within the three (3) minute timeframe:**

• Place a check in the box on the score sheet under **Test 1** which says “Candidate did not arrange all 15 caps within test time limit”.
• Record the # of Crossings on the score sheet as indicated by the scoring program
• Place a check in the **Retest: Yes** box under **Test 1**.

**If the candidate arranged all 15 caps but failed the test:**

• Record the # of Crossings as indicated by the scoring program onto the candidate’s score sheet
• Place a check in the **Retest: Yes** box under **Test 1**
• Click the **Retest** link shown on the computer screen (located under the candidate’s results)
• Leave the program open on the computer terminal
• Return with the Plexiglas case and the candidate’s score sheet to where the candidate is sitting (if the computer terminal is in a different room). Inform the candidate that they will be taking the test a second time.
• **Do not inform the candidate of his/her results from the first test.**
• Prepare the test for the second administration while the candidate is in the room.
• **Reread the Farnsworth D-15 Color Vision Test Administration Script** and re-administer the test following the instructions previously described

Once the candidate has completed the second test, score the test in the same manner as the first test. This time, however, you will enter the order of the caps into the scoring program using the **Test Administration # 2** scoring area and click **Verify Data Entry**. Record the # of Crossings on the score sheet and indicate whether or not the candidate has passed by checking the appropriate box on the score sheet (**Qualified or Failed**).

**If the candidate failed to arrange all 15 caps in the three (3) minute time limit,** place a check under **Test 2** in the “Candidate did not arrange all 15 caps within test time limit:” box. Finally, the test administrator must sign and print his/her name in the allocated space on the score sheet.

**If the candidate passed the second test,** click the **Return to Dashboard** link (located under the candidate’s results). Return to the candidate with the Plexiglas case and the candidate’s score sheet (if the computer terminal is in a different room). Inform the candidate that he/she has passed and move directly into the next step of the process.
If the candidate failed the second test, verify the results of both tests checking that no data entry mistakes were made. If no data entry errors are found, inform the candidate that he/she did not pass the color vision test by reading the Failed Color Vision Script (Appendix C) in the TSO Local Hiring Manual. Click the Return to Dashboard link.

All Farnsworth D-15 Color Vision Score Sheets and Worksheets must be placed into the candidate’s folder after color vision testing is complete. Return all personal items to the candidate and exit the candidate from the assessment process.

If a data entry error is found before processing a candidate further, you must call the TSA HR Help Desk 1-877-872-7990 and complete and submit an AAIR.

Frequently Asked Questions By Test Administrators

“Who will need a Farnsworth D-15 test kit?”

Farnsworth D-15 test kits are required for all TSA Security Officer Color Vision tests as it is the only TSA approved color vision screening test. Farnsworth test kits are required by all airports.

“How many Farnsworth tests do I need?”

It is recommended that each Category X and I airport have at least two (2) sets of the Farnsworth D-15 Color Vision Tests with all other airports having one (1) set of the Farnsworth D-15 Color Vision Test.

“How can we order a replacement Farnsworth Kit?”

TSA HQ will provide airports with their first Farnsworth D-15 Color Vision kits thereafter it becomes the sole responsibility of the airport to contact the vendor to order replacement or additional kits when needed. To order a Farnsworth Kit, contact:

Richmond Products, Inc.
4400 Silver Avenue S.E.
Albuquerque, NM 87108
505-275-2406 810-885-8319

NOTE: To purchase a black mat visit the nearest home accessory/decorator or retailer (e.g., Bed Bath & Beyond, Target). Ask for a black fabric placemat approximately 18 inches wide and 40 inches long.

“How often should the Farnsworth Kit be replaced?”

Typically, Farnsworth Kits should be replaced after 2 years of use. Being careful not to touch the colored portions of the caps and minimizing the amount of time that the caps are in light (e.g., storing the kits in a dark closet when not testing candidates) can help ensure maximum use of the kits.
Frequently Asked Questions By Candidates

“Can I wear glasses?”

You may wear your glasses, but not if they are color tinted, and you cannot take the test if you are wearing X-chrome lenses.

“How long do I have?”

You will be given three (3) minutes to complete the test after it has been explained to you and you tell me you are ready.

“Can I change my answers?”

Within the three minutes allotted you may re-arrange the caps until you are satisfied but when you have told me you are finished or when three (3) minutes have elapsed, you will no longer be able to change your answers.

“Why do I have to take the test again, did I do something wrong?”

We want to recheck your answers to ensure that you understood the directions and that the test was conducted correctly.

“How many mistakes can I make and pass?”

Your test is being scored according to the standard set by the TSA and I cannot tell you what that is.

“Do I lay out the caps light to dark?”

It is the colors you are arranging, not their lightness or darkness.

I will now repeat the relevant lines from the script.

“To complete this test, you must first select the cap whose color, or hue, most closely matches the color of the reference cap. Place this cap to the right of the reference cap on the black mat. Please continue the test by selecting the next cap whose color most closely matches the color of the previously selected cap. Place this cap next to the previously selected cap.”

Reinforce to the candidate that he/she must pick the one cap with the closest color to the reference cap and then the one with the closest color to each previous cap selected, focusing on one cap at a time.

“But I’ve never been color blind my whole life.”

This test is capable of detecting variations in color discrimination and you may have been able to distinguish some colors but not have total color blindness. The passing level has been determined by the TSA based on the specific requirements for color discrimination necessary in the position you have applied for.

NOTE: Most testing errors occur either because of inadequate lighting or misunderstood instructions. The terms “hue,
shade, color and tint” are often understood differently by different people. If there is any confusion expressed, repeat the line from the script reinforcing that the candidate picks the one cap with the closest color to the reference cap, then the one with the closest color to each previous cap selected, focusing on one cap at a time.

**Alternative Scoring Method**

The dashboard’s color vision scoring program is the only scoring method you should use. However, if internet access is unavailable or you are unable to access a computer you may use the alternative scoring method outlined below. Candidate assessment processes remain the same despite the use of this alternative scoring method.

**NOTE:** You should **ONLY** use this alternative method if access to a computer or the dashboard is unavailable. Even if you are forced to utilize this alternative method, you MUST enter candidate responses into the dashboard as soon as internet access becomes available. All forms (i.e., Farnsworth D-15 Color Vision Score Sheet and Farnsworth D-15 Scoring Worksheet) must be included in each candidate’s assessment folder.

**Manual Scoring using the Farnsworth Scoring Worksheet**

When the dashboard scoring program is unavailable (i.e., you do not have access to a computer and/or the internet) use the Farnsworth D-15 Color Vision Scoring Worksheet provided at the end of this manual. The worksheet provides step-by-step instructions for determining how a candidate performed on the test. If you have to use the Farnsworth D-15 Color Vision Scoring Worksheet make sure to place it along with the candidate’s score sheet into the candidate’s folder after the candidate’s color vision testing is complete. An example of how to complete the forms (i.e., Farnsworth D-15 Color Vision Score Sheet and Scoring Worksheet) as part of the manual scoring process is provided on the following three pages.
# Farnsworth D-15 Color Vision Scoring Worksheet

Candidate Name: Jane Candidate  
Candidate SSN: 000-00-0000

Assessment Location: XYZ  
Date Tested: 3/01/2006  
Administrator: Sign Name John Administrator

## Test 1

**Instructions**: For each row, subtract the smaller (lower) number from the larger (higher) number and write that number in the Difference column.

<table>
<thead>
<tr>
<th>Step</th>
<th>Cap Position &amp; Directions</th>
<th>Cap #</th>
<th>Cap #</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Enter the cap numbers for the caps in Positions #0 (Reference cap) and #1</td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>Enter the cap numbers for the caps in Positions #1 and #2</td>
<td>3</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>Enter the cap numbers for the caps in Positions #2 and #3</td>
<td>4</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>Enter the cap numbers for the caps in Positions #3 and #4</td>
<td>6</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>Enter the cap numbers for the caps in Positions #4 and #5</td>
<td>7</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>Enter the cap numbers for the caps in Positions #6 and #7</td>
<td>8</td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>Enter the cap numbers for the caps in Positions #8 and #9</td>
<td>9</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>Enter the cap numbers for the caps in Positions #8 and #9</td>
<td>10</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>9</td>
<td>Enter the cap numbers for the caps in Positions #9 and #10</td>
<td>1</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>10</td>
<td>Enter the cap numbers for the caps in Positions #10 and #11</td>
<td>11</td>
<td>12</td>
<td>1</td>
</tr>
<tr>
<td>11</td>
<td>Enter the cap numbers for the caps in Positions #11 and #12</td>
<td>12</td>
<td>13</td>
<td>1</td>
</tr>
<tr>
<td>12</td>
<td>Enter the cap numbers for the caps in Positions #12 and #13</td>
<td>13</td>
<td>14</td>
<td>1</td>
</tr>
<tr>
<td>13</td>
<td>Enter the cap numbers for the caps in Positions #13 and #14</td>
<td>14</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>14</td>
<td>Enter the cap numbers for the caps in Positions #14 and #15</td>
<td>15</td>
<td>15</td>
<td>0</td>
</tr>
</tbody>
</table>

16 Count the number of times that the difference between two caps was 5 or greater (e.g., 5, 6, 7, …) for Steps #1-15 above and enter the result here: 4

17 If the result you entered for Step #16 was 2 or greater (e.g., 2, 3, 4, 5, …) or if the candidate failed to arrange all 15 caps in the 3 minutes then the candidate must be RETESTED.

- Write the number from Step #16 in the Test 1 “Number of Crossings” box on the Score Sheet and place a check in the “Retest: “Yes” box
- If the candidate failed to arrange all 15 caps then place a check in the “Candidate did not arrange all 15 caps within test time limit” box
- Follow instructions for administration and scoring of Test 2

18 If the result you entered for Step #16 was less than 2 (i.e., 0 or 1) then the candidate has QUALIFIED and will not be retested.

- Write the number from Step #16 in the Test 1 “Number of Crossings” box on the Score Sheet and place a check in the “Retest: “No” box
- Place a check in the “QUALIFIED” box
- Have the Test Administrator print/sign their name (the Test Administrator will be you if you administered the test)
- Add the date that the test was scored next to the Test Administrator’s printed name
- Follow established procedures for QUALIFIED candidates as outlined in the TSO Guidance Manual

9/1/2006, Reformatted 1/2/09
Farnsworth D-15 Color Vision Scoring Worksheet

Candidate Name: Jane Candidate   Candidate SSN: 000-00-0000
Assessment Location: X Y 2   Date Tested: 3/01/2006
Administrator: John Administrator   Print Name: John Administrator

Test 2 (If Necessary)

Instructions: ONLY ADMINISTER IF THE CANDIDATE DID NOT QUALIFY/PASS TEST 1.
For each row, subtract the smaller (lower) number from the larger (higher) number and write that number in the difference column.

<table>
<thead>
<tr>
<th>Step</th>
<th>Cap Position &amp; Directions</th>
<th>Cap #</th>
<th>Cap #</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Enter the cap numbers for the caps in Positions #0 (Reference cap) and #1</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>Enter the cap numbers for the caps in Positions #1 and #2</td>
<td>2</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>Enter the cap numbers for the caps in Positions #2 and #3</td>
<td>3</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>Enter the cap numbers for the caps in Positions #3 and #4</td>
<td>4</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>Enter the cap numbers for the caps in Positions #4 and #5</td>
<td>5</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>Enter the cap numbers for the caps in Positions #5 and #6</td>
<td>6</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>Enter the cap numbers for the caps in Positions #6 and #7</td>
<td>7</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>Enter the cap numbers for the caps in Positions #7 and #8</td>
<td>8</td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>Enter the cap numbers for the caps in Positions #8 and #9</td>
<td>9</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>Enter the cap numbers for the caps in Positions #9 and #10</td>
<td>10</td>
<td>11</td>
<td>1</td>
</tr>
<tr>
<td>11</td>
<td>Enter the cap numbers for the caps in Positions #10 and #11</td>
<td>11</td>
<td>12</td>
<td>1</td>
</tr>
<tr>
<td>12</td>
<td>Enter the cap numbers for the caps in Positions #11 and #12</td>
<td>12</td>
<td>13</td>
<td>1</td>
</tr>
<tr>
<td>13</td>
<td>Enter the cap numbers for the caps in Positions #12 and #13</td>
<td>13</td>
<td>14</td>
<td>1</td>
</tr>
<tr>
<td>14</td>
<td>Enter the cap numbers for the caps in Positions #13 and #14</td>
<td>14</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>15</td>
<td>Enter the cap numbers for the caps in Positions #14 and #15</td>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Count the number of times that the difference between two caps was 5 or greater (e.g., 5, 6, 7, ... ... ) for Steps #1-15 above and enter the result here</td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>17</td>
<td>If the result you entered for Step #16 was 2 or greater (e.g., 2, 3, 4, 5, ...) or if the candidate failed to arrange all 15 caps in the 3 minutes then the candidate has FAILED</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Write the number from Step #16 in the Test 2 &quot;Number of Crossings&quot; box on the Score Sheet</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- If the candidate failed to arrange all 15 caps then place a check in the &quot;Candidate did not arrange all 15 caps within test time limit&quot; box</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Place a check in the &quot;FAILED&quot; box</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Have the Test Administrator print/sign their name (the Test Administrator will be you if you administered the test)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Add the date that the test was scored next to the Test Administrator's printed name</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Follow established procedures for FAILED candidates as outlined in the TSO Guidance Manual</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>If the result you entered for Step #16 was less than 2 (i.e., 0 or 1) then the candidate has QUALIFIED</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Write the number from Step #16 in the Test 2 &quot;Number of Crossings&quot; box on the Score Sheet</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Place a check in the &quot;QUALIFIED&quot; box</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Have the Test Administrator print/sign their name (the Test Administrator will be you if you administered the test)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Add the date that the test was scored next to the Test Administrator's printed name</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Follow established procedures for QUALIFIED candidates as outlined in the TSO Guidance Manual</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Farnsworth D-15 Color Vision Score Sheet**

Candidate Name: Jane Candidate

Candidate SSN: 000-00-0000

Assessment Location: XYZ

Date Tested: 3/01/2006

### Test 1

<table>
<thead>
<tr>
<th>Position</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cap #</td>
<td></td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
<td>14</td>
<td>15</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Candidate did not arrange all 15 caps within test time limit: [ ]

Number of Crossings: 4  Retest: Yes [X]  No [ ]

### Test 2

<table>
<thead>
<tr>
<th>Position</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cap #</td>
<td></td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
<td>14</td>
<td>15</td>
</tr>
</tbody>
</table>

Candidate did not arrange all 15 caps within test time limit: [ ]

Number of Crossings: 0

[ ] QUALIFIED

[ ] FAILED

John Administrator

Print the Test Administrator’s Legal Name: ____________________________

Date: 3/01/2006

Test Administrator’s Signature: ____________________________
Appendix P – Farnsworth D-15 Color Vision Score Sheet

Candidate Name: __________________________________________________
Candidate SSN: ___________________________________________________
Assessment Location: ______________________________________________
Date Tested: _____________________________________________________

<table>
<thead>
<tr>
<th>Test 1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Position</strong></td>
</tr>
<tr>
<td><strong>Cap #</strong></td>
</tr>
</tbody>
</table>

Candidate did not arrange all 15 caps within test time limit: ☐
Number of Crossings: ☐  Retest: Yes ☐ No ☐

<table>
<thead>
<tr>
<th>Test 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Position</strong></td>
</tr>
<tr>
<td><strong>Cap #</strong></td>
</tr>
</tbody>
</table>

Candidate did not arrange all 15 caps within test time limit: ☐
Number of Crossings: ☐

☐ QUALIFIED  ☐ FAILED

Print the Test Administrator’s Legal Name ___________________________ Date ___________________________

Test Administrator’s Signature

9/1/2006, Reformatted 1/2/09
**Farnsworth D-15 Color Vision Scoring Worksheet**

Candidate Name: ____________________________  Candidate SSN: _____________________________  
Assessment Location: ________________________  Date Tested: ________________________________  
Administrator: Sign Name_____________________  Print Name __________________________________

**Test 1**

*Instructions: For each row,* subtract the smaller (lower) number from the larger (higher) number and write that number in the difference column.

<table>
<thead>
<tr>
<th>Step</th>
<th>Cap Position &amp; Directions</th>
<th>Cap #</th>
<th>Cap #</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Enter the cap numbers for the caps in Positions #0 (Reference cap) and #1</td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>Enter the cap numbers for the caps in Positions #1 and #2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Enter the cap numbers for the caps in Positions #2 and #3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Enter the cap numbers for the caps in Positions #3 and #4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Enter the cap numbers for the caps in Positions #4 and #5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Enter the cap numbers for the caps in Positions #5 and #6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Enter the cap numbers for the caps in Positions #6 and #7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Enter the cap numbers for the caps in Positions #7 and #8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Enter the cap numbers for the caps in Positions #8 and #9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Enter the cap numbers for the caps in Positions #9 and #10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Enter the cap numbers for the caps in Positions #10 and #11</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Enter the cap numbers for the caps in Positions #11 and #12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Enter the cap numbers for the caps in Positions #12 and #13</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Enter the cap numbers for the caps in Positions #13 and #14</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Enter the cap numbers for the caps in Positions #14 and #15</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Count the number of times that the difference between two caps was 5 or greater (e.g., 5, 6, 7, ….) for Steps #1-15 above and enter the result here</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>If the result you entered for Step #16 was 2 or greater (e.g., 2, 3, 4, 5, ….) or if the candidate failed to arrange all 15 caps in the 3 minutes then the candidate must be RETESTED</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Write the number from Step #16 in the Test 1 “Number of Crossings” box on the Score Sheet and place a check in the “Retest:” “Yes” box
- If the candidate failed to arrange all 15 caps then place a check in the “Candidate did not arrange all 15 caps within test time limit” box
- Follow instructions for administration and scoring of Test 2

| 18   | If the result you entered for Step #16 was less than 2 (i.e., 0 or 1) then the candidate has QUALIFIED and will not be retested |      |      |            |

- Write the number from Step #16 in the Test 1 “Number of Crossings” box on the Score Sheet and place a check in the “Retest:” “No” box
- Place a check in the “QUALIFIED” box
- Have the Test Administrator print/sign their name (the Test Administrator will be you if you administered the test)
- Add the date that the test was scored next to the Test Administrator’s printed name
- Follow established procedures for QUALIFIED candidates as outlined in the TSO Local Hiring Manual

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**Farnsworth D-15 Color Vision Scoring Worksheet**

**Candidate Name:** ____________________________  **Candidate SSN:** _____________________________

**Assessment Location:** ________________________  **Date Tested:** ______________________________

**Administrator:**  **Sign Name:**_____________________  **Print Name:** __________________________________

---

### Test 2 (If Necessary)

**Instructions:** ONLY ADMINISTER IF THE CANDIDATE DID NOT QUALIFY/PASS TEST 1. For each row, subtract the smaller (lower) number from the larger (higher) number and write that number in the difference column.

<table>
<thead>
<tr>
<th>Step</th>
<th>Cap Position &amp; Directions</th>
<th>Cap #</th>
<th>Cap #</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Enter the cap numbers for the caps in Positions #0 (Reference cap) and #1</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Enter the cap numbers for the caps in Positions #1 and #2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Enter the cap numbers for the caps in Positions #2 and #3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Enter the cap numbers for the caps in Positions #3 and #4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Enter the cap numbers for the caps in Positions #4 and #5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Enter the cap numbers for the caps in Positions #5 and #6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Enter the cap numbers for the caps in Positions #6 and #7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Enter the cap numbers for the caps in Positions #7 and #8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Enter the cap numbers for the caps in Positions #8 and #9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Enter the cap numbers for the caps in Positions #9 and #10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Enter the cap numbers for the caps in Positions #10 and #11</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Enter the cap numbers for the caps in Positions #11 and #12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Enter the cap numbers for the caps in Positions #12 and #13</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Enter the cap numbers for the caps in Positions #13 and #14</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Enter the cap numbers for the caps in Positions #14 and #15</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Count the number of times that the difference between two caps was 5 or greater (e.g., 5, 6, 7, ….) for Steps #1-15 above and enter the result here</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| 17   | **If the result you entered for Step #16 was 2 or greater (e.g., 2, 3, 4, 5, ….) or if the candidate failed to arrange all 15 caps in the 3 minutes then the candidate has FAILED**  
Write the number from Step #16 in the Test 2 "Number of Crossings" box on the Score Sheet  
If the candidate failed to arrange all 15 caps then place a check in the “Candidate did not arrange all 15 caps within test time limit” box  
Place a check in the “FAILED” box  
Have the Test Administrator print/sign their name (the Test Administrator will be you if you administered the test)  
Add the date that the test was scored next to the Test Administrator’s printed name  
Follow established procedures for FAILED candidates as outlined in the TSO Local Hiring Manual |       |       |            |
| 18   | **If the result you entered for Step #16 was less than 2 (i.e., 0 or 1) then the candidate has QUALIFIED**  
Write the number from Step #16 in the Test 2 “Number of Crossings” box on the Score Sheet  
Place a check in the “QUALIFIED” box  
Have the Test Administrator print/sign their name (the Test Administrator will be you if you administered the test)  
Add the date that the test was scored next to the Test Administrator’s printed name  
Follow established procedures for QUALIFIED candidates as outlined in the TSO Local Hiring Manual |       |       |            |

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Color Vision Scoring Sheets can also be found in Appendix P.