



## International Cotton Advisory Committee



# CSITC Global - Round Trial 2016 - 3 General Evaluation

### **Section One: Result Distribution**

Section Two: Instrument Evaluation

Section Three: Within Limits Evaluation

### Section One: Result Distribution

#### Content:

##### Mandatory Parameters

- Summary Table
- Distribution Graphs

##### Optional Parameters

- Summary Table
- Distribution Graphs

#### Executed By:

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#### System Provided by:

Generation 10 Limited



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\* Faserinstitut Bremen are a Cooperation Partner with ICA Bremen

Global - Round Trial 2016 - 3

Inter-Instrument Averages, Inter-Instrument Variations, Typical within-instrument Variations

| Micronaire                                   |                                          |      |          |          |          |          |              |
|----------------------------------------------|------------------------------------------|------|----------|----------|----------|----------|--------------|
|                                              |                                          |      | Cotton 1 | Cotton 2 | Cotton 3 | Cotton 4 | Average      |
| Average of Instruments (Grubbs)              |                                          |      | 5.081    | 4.347    | 4.622    | 4.143    |              |
| Reference Values for Evaluation              |                                          |      | 5.081    | 4.347    | 4.622    | 4.143    |              |
| Number Of Instruments                        |                                          |      | 148      | 148      | 148      | 148      | <b>148</b>   |
| Inter-Instrument Variation                   | based on 30 tests                        | SD   | 0.046    | 0.057    | 0.049    | 0.054    | <b>0.051</b> |
|                                              |                                          | CV % | 0.9      | 1.3      | 1.1      | 1.3      | <b>1.1</b>   |
|                                              | based on 6 tests                         | SD   | 0.051    | 0.065    | 0.056    | 0.061    | <b>0.058</b> |
|                                              |                                          | CV % | 1.0      | 1.5      | 1.2      | 1.5      | <b>1.3</b>   |
|                                              | based on single tests                    | SD   | 0.064    | 0.075    | 0.066    | 0.072    | <b>0.069</b> |
|                                              |                                          | CV % | 1.3      | 1.7      | 1.4      | 1.7      | <b>1.5</b>   |
| Typical within-instrument Variation (Median) | between different days with each 6 tests | SD   | 0.019    | 0.025    | 0.023    | 0.025    | <b>0.023</b> |
|                                              |                                          | CV % | 0.4      | 0.6      | 0.5      | 0.6      | <b>0.5</b>   |
|                                              | between single tests on one day          | SD   | 0.036    | 0.037    | 0.033    | 0.036    | <b>0.036</b> |
|                                              |                                          | CV % | 0.7      | 0.9      | 0.7      | 0.9      | <b>0.8</b>   |
|                                              | between all tests on different days      | SD   | 0.042    | 0.045    | 0.041    | 0.047    | <b>0.044</b> |
|                                              |                                          | CV % | 0.8      | 1.0      | 0.9      | 1.1      | <b>1.0</b>   |

| Strength                                     |                                          |      |          |          |          |          |              |
|----------------------------------------------|------------------------------------------|------|----------|----------|----------|----------|--------------|
|                                              |                                          |      | Cotton 1 | Cotton 2 | Cotton 3 | Cotton 4 | Average      |
| Average of Instruments (Grubbs)              |                                          |      | 25.807   | 34.214   | 30.928   | 23.327   |              |
| Reference Values for Evaluation              |                                          |      | 25.807   | 34.214   | 30.928   | 23.327   |              |
| Number Of Instruments                        |                                          |      | 147      | 147      | 147      | 147      | <b>147</b>   |
| Inter-Instrument Variation                   | based on 30 tests                        | SD   | 0.572    | 0.955    | 0.663    | 0.640    | <b>0.707</b> |
|                                              |                                          | CV % | 2.2      | 2.8      | 2.1      | 2.7      | <b>2.5</b>   |
|                                              | based on 6 tests                         | SD   | 0.646    | 1.064    | 1.029    | 0.709    | <b>0.862</b> |
|                                              |                                          | CV % | 2.5      | 3.1      | 3.3      | 3.0      | <b>3.0</b>   |
|                                              | based on single tests                    | SD   | 0.801    | 1.220    | 1.103    | 0.840    | <b>0.991</b> |
|                                              |                                          | CV % | 3.1      | 3.6      | 3.6      | 3.6      | <b>3.5</b>   |
| Typical within-instrument Variation (Median) | between different days with each 6 tests | SD   | 0.265    | 0.322    | 0.307    | 0.233    | <b>0.281</b> |
|                                              |                                          | CV % | 1.0      | 0.9      | 1.0      | 1.0      | <b>1.0</b>   |
|                                              | between single tests on one day          | SD   | 0.459    | 0.572    | 0.487    | 0.462    | <b>0.495</b> |
|                                              |                                          | CV % | 1.8      | 1.7      | 1.6      | 2.0      | <b>1.8</b>   |
|                                              | between all tests on different days      | SD   | 0.540    | 0.659    | 0.568    | 0.522    | <b>0.572</b> |
|                                              |                                          | CV % | 2.1      | 1.9      | 1.8      | 2.2      | <b>2.0</b>   |

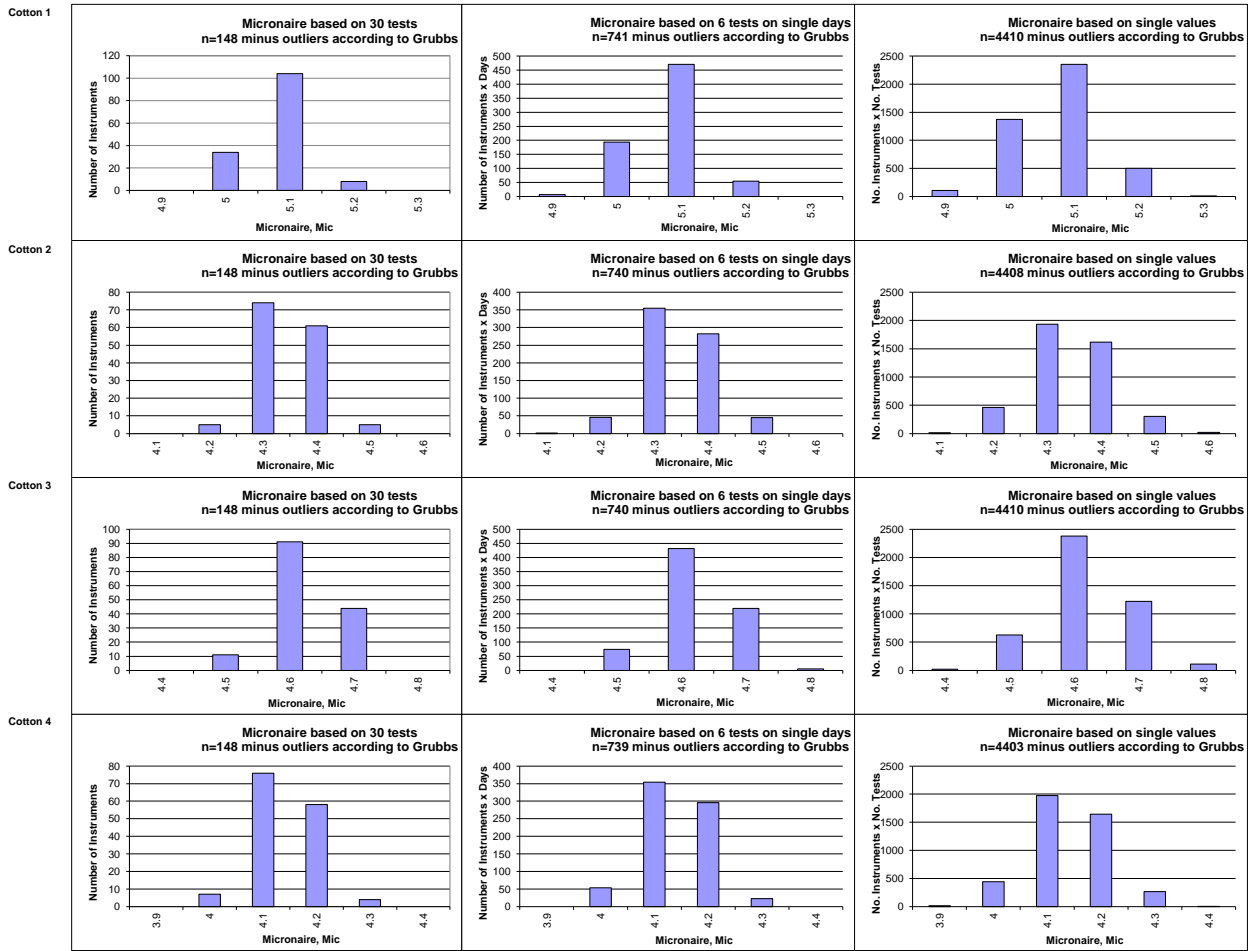
| Length                                       |                                          |      |          |          |          |          |               |
|----------------------------------------------|------------------------------------------|------|----------|----------|----------|----------|---------------|
|                                              |                                          |      | Cotton 1 | Cotton 2 | Cotton 3 | Cotton 4 | Average       |
| Average of Instruments (Grubbs)              |                                          |      | 1.0259   | 1.1909   | 1.1673   | 0.9887   |               |
| Reference Values for Evaluation              |                                          |      | 1.0259   | 1.1909   | 1.1673   | 0.9887   |               |
| Number Of Instruments                        |                                          |      | 148      | 148      | 148      | 148      | <b>148</b>    |
| Inter-Instrument Variation                   | based on 30 tests                        | SD   | 0.0109   | 0.0102   | 0.0112   | 0.0109   | <b>0.0108</b> |
|                                              |                                          | CV % | 1.1      | 0.9      | 1.0      | 1.1      | <b>1.0</b>    |
|                                              | based on 6 tests                         | SD   | 0.0122   | 0.0119   | 0.0129   | 0.0123   | <b>0.0123</b> |
|                                              |                                          | CV % | 1.2      | 1.0      | 1.1      | 1.2      | <b>1.1</b>    |
|                                              | based on single tests                    | SD   | 0.0165   | 0.0158   | 0.0169   | 0.0161   | <b>0.0163</b> |
|                                              |                                          | CV % | 1.6      | 1.3      | 1.4      | 1.6      | <b>1.5</b>    |
| Typical within-instrument Variation (Median) | between different days with each 6 tests | SD   | 0.0058   | 0.0060   | 0.0055   | 0.0054   | <b>0.0057</b> |
|                                              |                                          | CV % | 0.6      | 0.5      | 0.5      | 0.6      | <b>0.5</b>    |
|                                              | between single tests on one day          | SD   | 0.0102   | 0.0103   | 0.0097   | 0.0100   | <b>0.0100</b> |
|                                              |                                          | CV % | 1.0      | 0.9      | 0.8      | 1.0      | <b>0.9</b>    |
|                                              | between all tests on different days      | SD   | 0.0112   | 0.0127   | 0.0108   | 0.0113   | <b>0.0115</b> |
|                                              |                                          | CV % | 1.1      | 1.1      | 0.9      | 1.1      | <b>1.1</b>    |

| Uniformity                                   |                                          |      |          |          |          |          |              |
|----------------------------------------------|------------------------------------------|------|----------|----------|----------|----------|--------------|
|                                              |                                          |      | Cotton 1 | Cotton 2 | Cotton 3 | Cotton 4 | Average      |
| Average of Instruments (Grubbs)              |                                          |      | 79.843   | 83.585   | 82.926   | 78.397   |              |
| Reference Values for Evaluation              |                                          |      | 79.843   | 83.585   | 82.926   | 78.397   |              |
| Number Of Instruments                        |                                          |      | 147      | 147      | 147      | 147      | <b>147</b>   |
| Inter-Instrument Variation                   | based on 30 tests                        | SD   | 0.420    | 0.343    | 0.478    | 0.522    | <b>0.441</b> |
|                                              |                                          | CV % | 0.5      | 0.4      | 0.6      | 0.7      | <b>0.5</b>   |
|                                              |                                          | SD   | 0.513    | 0.445    | 0.557    | 0.570    | <b>0.522</b> |
|                                              | based on 6 tests                         | CV % | 0.6      | 0.5      | 0.7      | 0.7      | <b>0.6</b>   |
|                                              |                                          | SD   | 0.753    | 0.661    | 0.739    | 0.767    | <b>0.730</b> |
|                                              |                                          | CV % | 0.9      | 0.8      | 0.9      | 1.0      | <b>0.9</b>   |
| Typical within-instrument Variation (Median) | between different days with each 6 tests | SD   | 0.278    | 0.243    | 0.255    | 0.273    | <b>0.262</b> |
|                                              |                                          | CV % | 0.3      | 0.3      | 0.3      | 0.3      | <b>0.3</b>   |
|                                              | between single tests on one day          | SD   | 0.535    | 0.503    | 0.476    | 0.539    | <b>0.513</b> |
|                                              |                                          | CV % | 0.7      | 0.6      | 0.6      | 0.7      | <b>0.6</b>   |
|                                              | between all tests on different days      | SD   | 0.617    | 0.552    | 0.520    | 0.612    | <b>0.575</b> |
|                                              |                                          | CV % | 0.8      | 0.7      | 0.6      | 0.8      | <b>0.7</b>   |

| Color Rd                                     |                                          |      |          |          |          |          |              |
|----------------------------------------------|------------------------------------------|------|----------|----------|----------|----------|--------------|
|                                              |                                          |      | Cotton 1 | Cotton 2 | Cotton 3 | Cotton 4 | Average      |
| Average of Instruments (Grubbs)              |                                          |      | 73.986   | 76.222   | 79.034   | 75.960   |              |
| Reference Values for Evaluation              |                                          |      | 73.986   | 76.222   | 79.034   | 75.960   |              |
| Number Of Instruments                        |                                          |      | 145      | 145      | 145      | 145      | <b>145</b>   |
| Inter-Instrument Variation                   | based on 30 tests                        | SD   | 0.586    | 0.573    | 0.576    | 0.541    | <b>0.569</b> |
|                                              |                                          | CV % | 0.8      | 0.8      | 0.7      | 0.7      | <b>0.7</b>   |
|                                              |                                          | SD   | 0.618    | 0.586    | 0.637    | 0.563    | <b>0.601</b> |
|                                              | based on 6 tests                         | CV % | 0.8      | 0.8      | 0.8      | 0.7      | <b>0.8</b>   |
|                                              |                                          | SD   | 0.666    | 0.616    | 0.682    | 0.598    | <b>0.640</b> |
|                                              |                                          | CV % | 0.9      | 0.8      | 0.9      | 0.8      | <b>0.8</b>   |
| Typical within-instrument Variation (Median) | between different days with each 6 tests | SD   | 0.164    | 0.137    | 0.162    | 0.122    | <b>0.146</b> |
|                                              |                                          | CV % | 0.2      | 0.2      | 0.2      | 0.2      | <b>0.2</b>   |
|                                              | between single tests on one day          | SD   | 0.188    | 0.167    | 0.162    | 0.147    | <b>0.166</b> |
|                                              |                                          | CV % | 0.3      | 0.2      | 0.2      | 0.2      | <b>0.2</b>   |
|                                              | between all tests on different days      | SD   | 0.280    | 0.256    | 0.278    | 0.224    | <b>0.259</b> |
|                                              |                                          | CV % | 0.4      | 0.3      | 0.4      | 0.3      | <b>0.3</b>   |

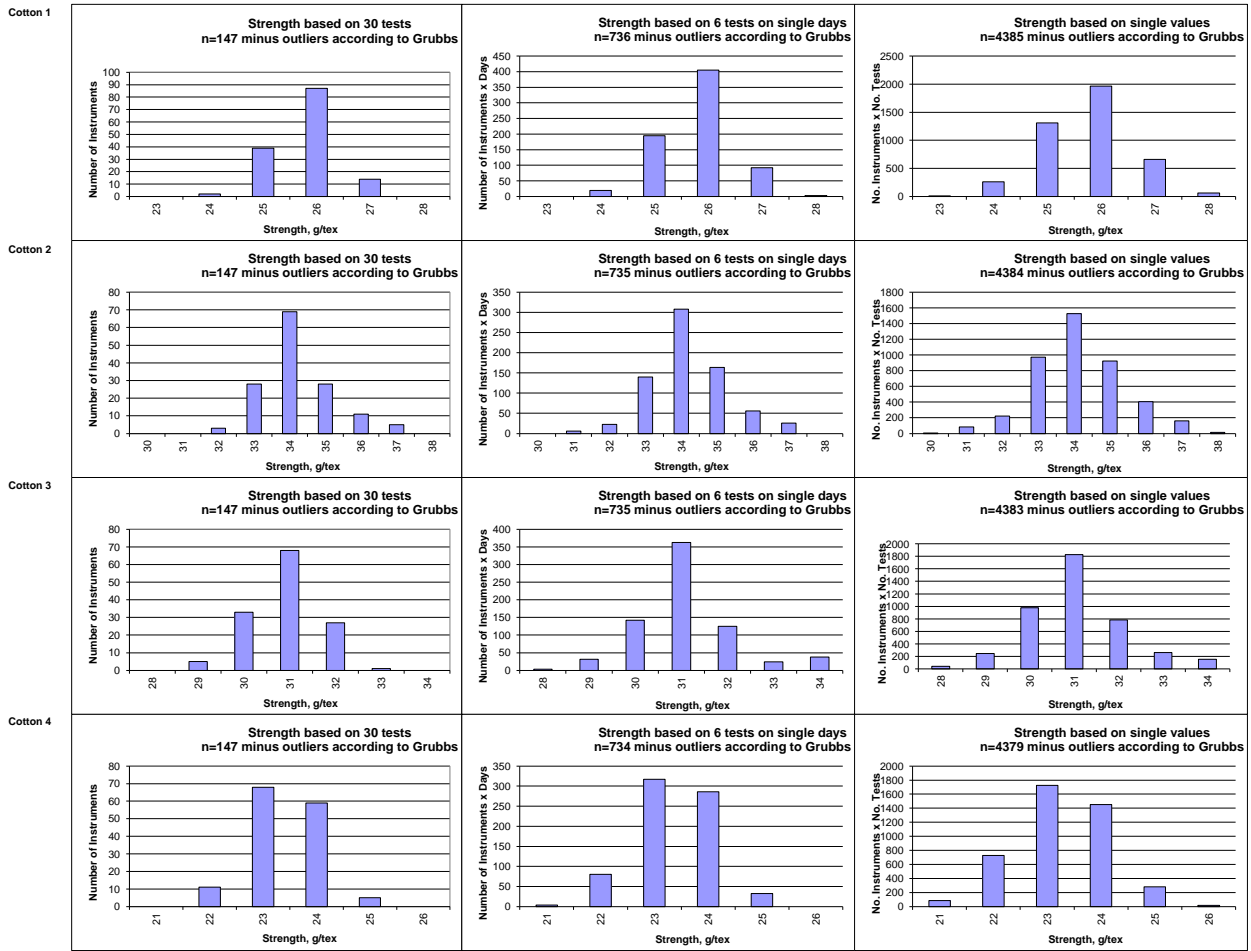
| Color +b                                     |                                          |      |          |          |          |          |              |
|----------------------------------------------|------------------------------------------|------|----------|----------|----------|----------|--------------|
|                                              |                                          |      | Cotton 1 | Cotton 2 | Cotton 3 | Cotton 4 | Average      |
| Average of Instruments (Grubbs)              |                                          |      | 8.250    | 13.686   | 9.873    | 11.821   |              |
| Reference Values for Evaluation              |                                          |      | 8.250    | 13.686   | 9.873    | 11.821   |              |
| Number Of Instruments                        |                                          |      | 145      | 145      | 145      | 145      | <b>145</b>   |
| Inter-Instrument Variation                   | based on 30 tests                        | SD   | 0.171    | 0.368    | 0.217    | 0.262    | <b>0.254</b> |
|                                              |                                          | CV % | 2.1      | 2.7      | 2.2      | 2.2      | <b>2.3</b>   |
|                                              |                                          | SD   | 0.191    | 0.400    | 0.240    | 0.277    | <b>0.277</b> |
|                                              | based on 6 tests                         | CV % | 2.3      | 2.9      | 2.4      | 2.3      | <b>2.5</b>   |
|                                              |                                          | SD   | 0.218    | 0.429    | 0.263    | 0.291    | <b>0.300</b> |
|                                              |                                          | CV % | 2.6      | 3.1      | 2.7      | 2.5      | <b>2.7</b>   |
| Typical within-instrument Variation (Median) | between different days with each 6 tests | SD   | 0.079    | 0.093    | 0.077    | 0.079    | <b>0.082</b> |
|                                              |                                          | CV % | 1.0      | 0.7      | 0.8      | 0.7      | <b>0.8</b>   |
|                                              | between single tests on one day          | SD   | 0.084    | 0.095    | 0.088    | 0.083    | <b>0.088</b> |
|                                              |                                          | CV % | 1.0      | 0.7      | 0.9      | 0.7      | <b>0.8</b>   |
|                                              | between all tests on different days      | SD   | 0.121    | 0.148    | 0.125    | 0.122    | <b>0.129</b> |
|                                              |                                          | CV % | 1.5      | 1.1      | 1.3      | 1.0      | <b>1.2</b>   |

Test Result Distributions  
Micronaire



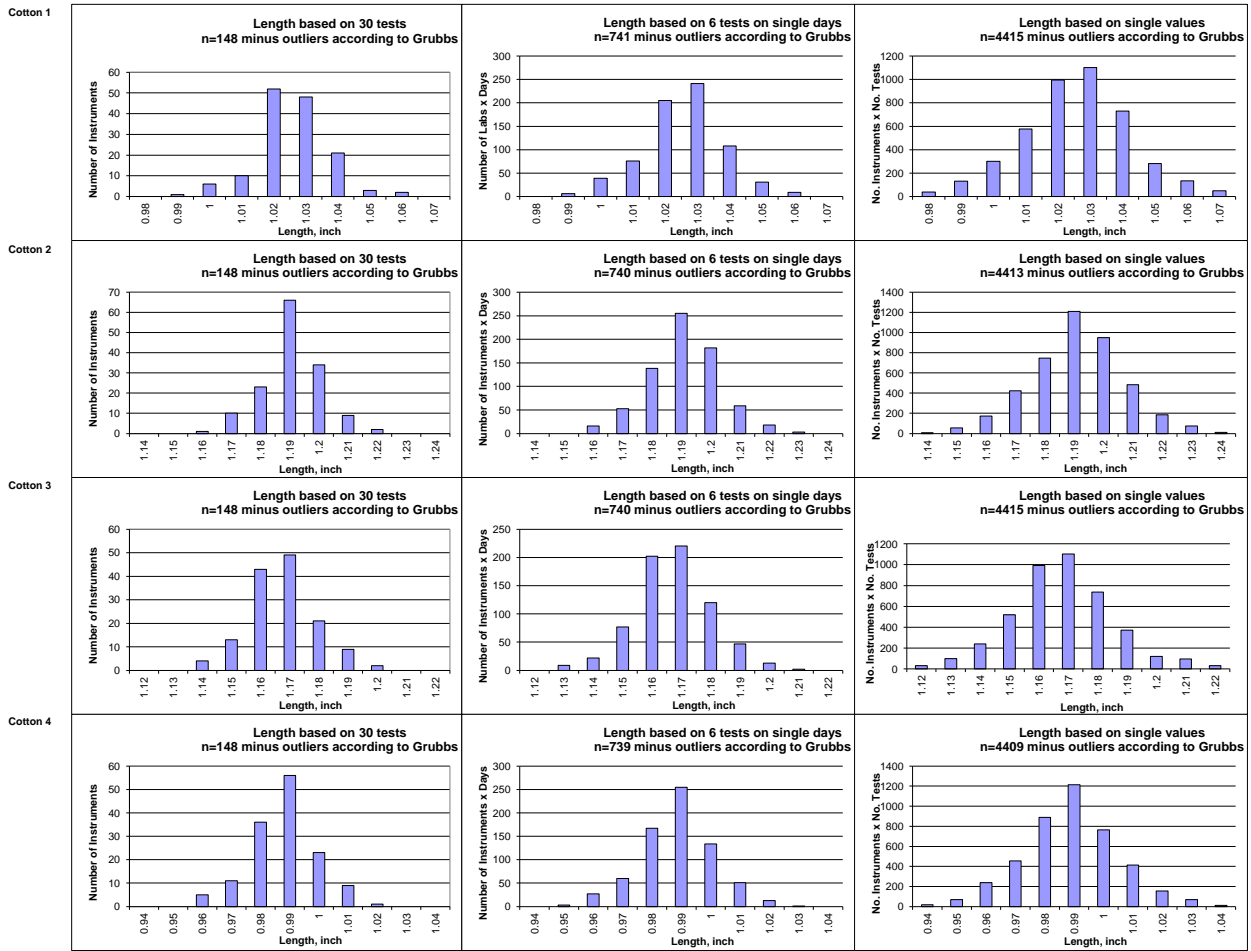
(Only results from instruments/days/single tests that are not regarded as outliers according to Grubbs' method.)  
(classes are defined as > lower limit and <= upper limit)

Test Result Distributions  
Strength



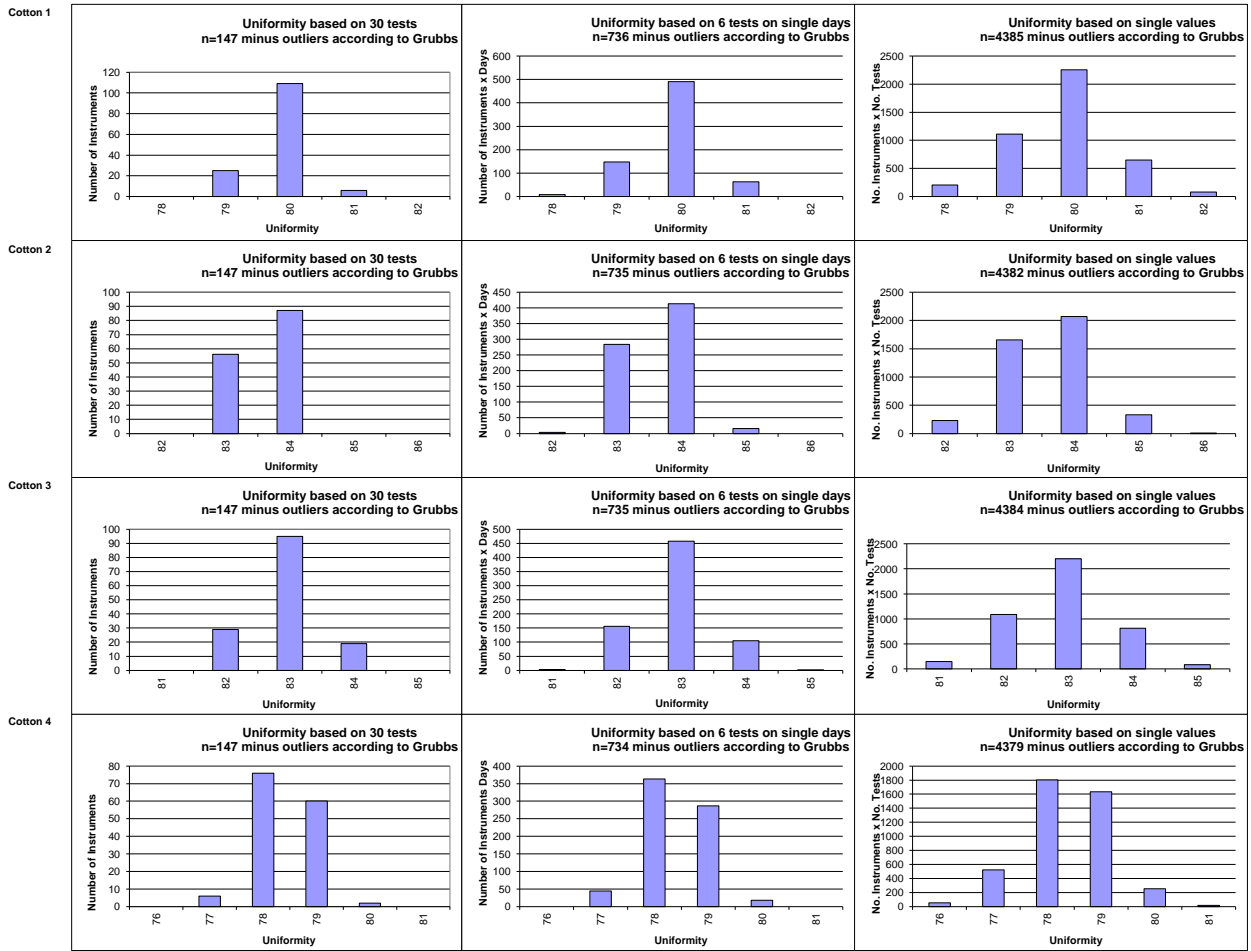
(Only results from instruments/days/single tests that are not regarded as outliers according to Grubbs' method)  
(classes are defined as > lower limit and <= upper limit)

Test Result Distributions  
Length



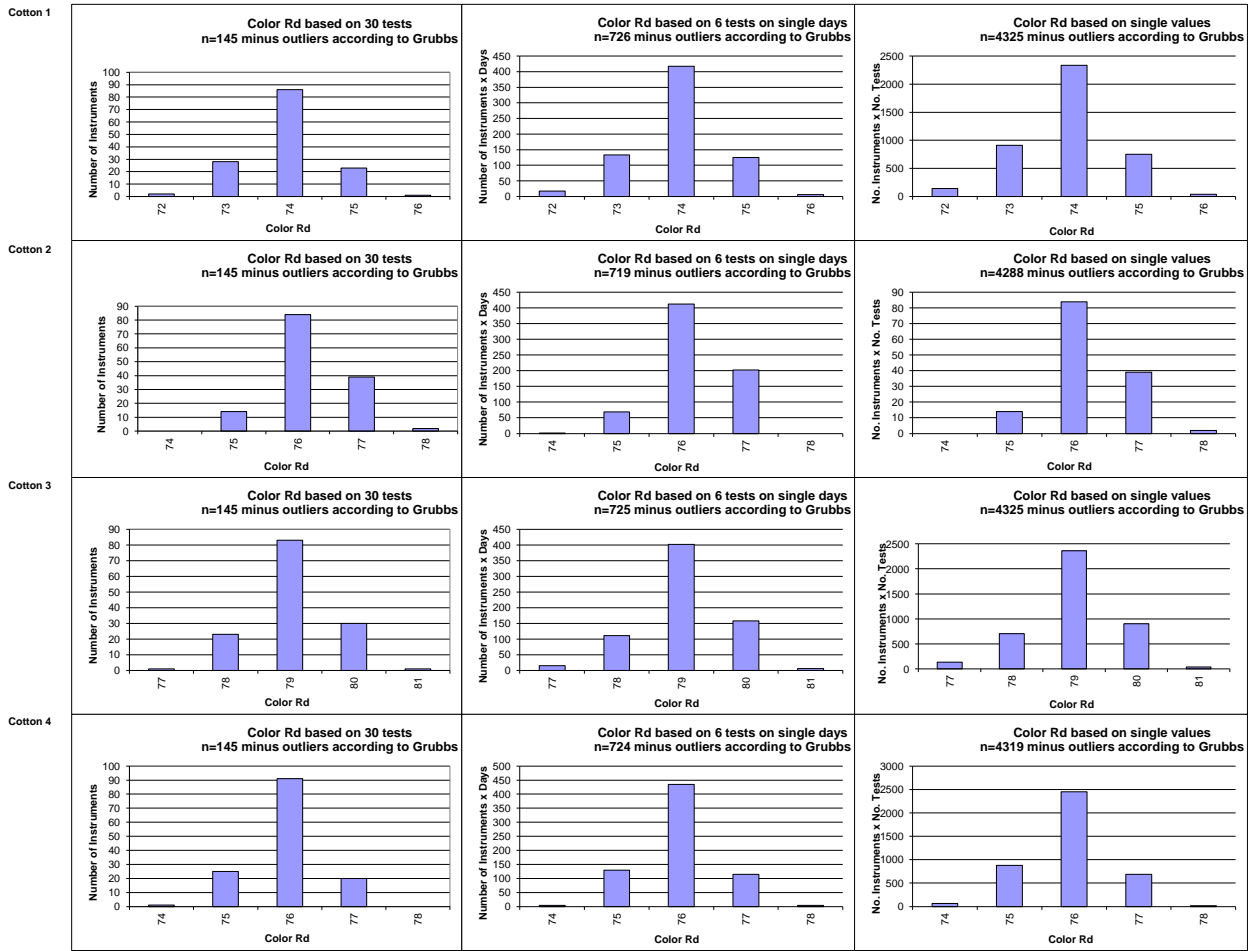
(Only results from instruments/days/single tests that are not regarded as outliers according to Grubbs' method)  
(classes are defined as > lower limit and <= upper limit)

Test Result Distributions  
Uniformity



(Only results from instruments/days/single tests that are not regarded as outliers according to Grubbs' method)  
(classes are defined as > lower limit and <= upper limit)

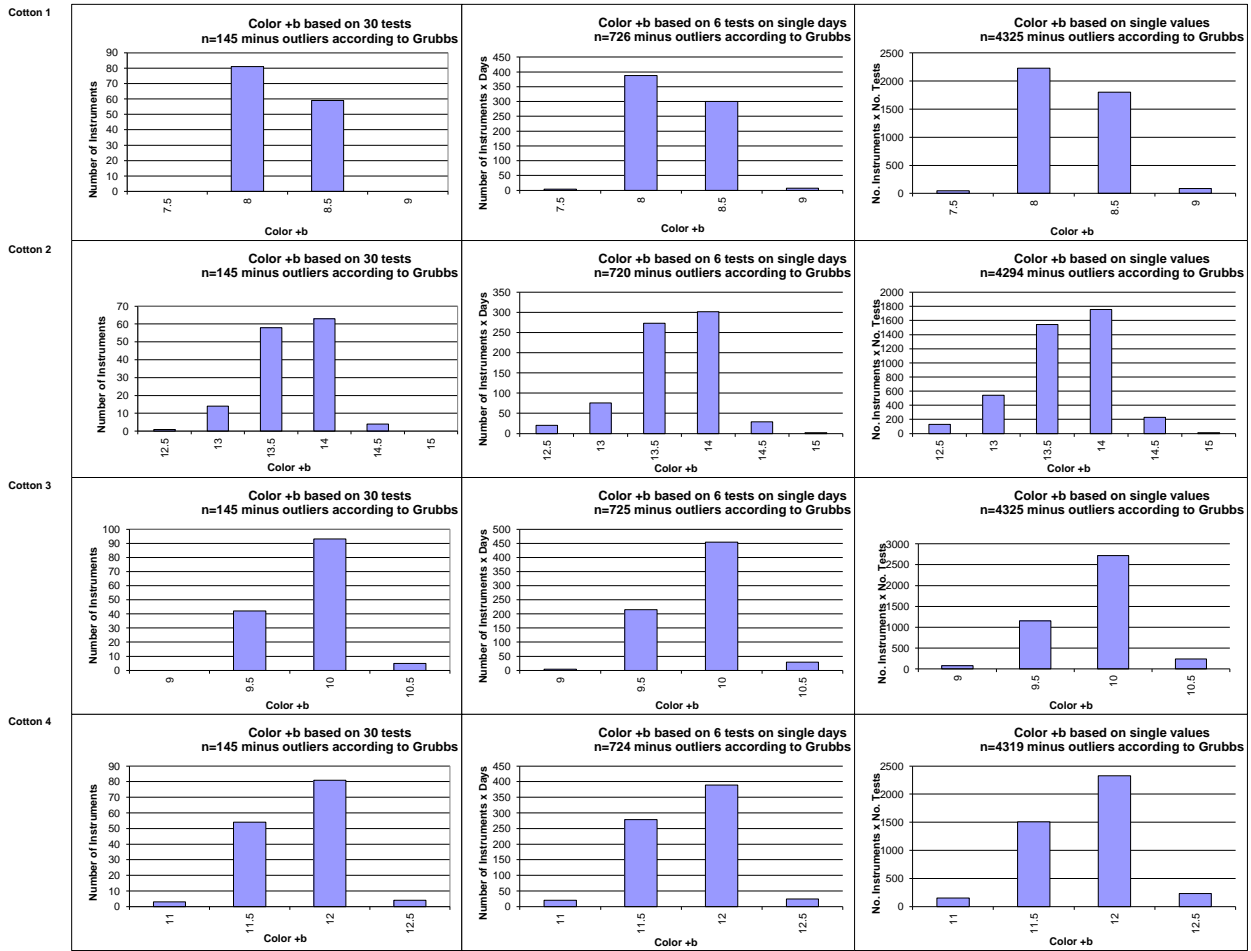
Test Result Distributions  
Color Rd



(Only results from instruments/days/single tests that are not regarded as outliers according to Grubbs' method)  
(classes are defined as > lower limit and <= upper limit)



Test Result Distributions  
Color +b



(Only results from instruments/days/single tests that are not regarded as outliers according to Grubbs' method)  
(classes are defined as > lower limit and <= upper limit)

### Optional Parameters

Inter-Instrument Averages, Inter-Instrument Variations, Typical within-instrument Variations

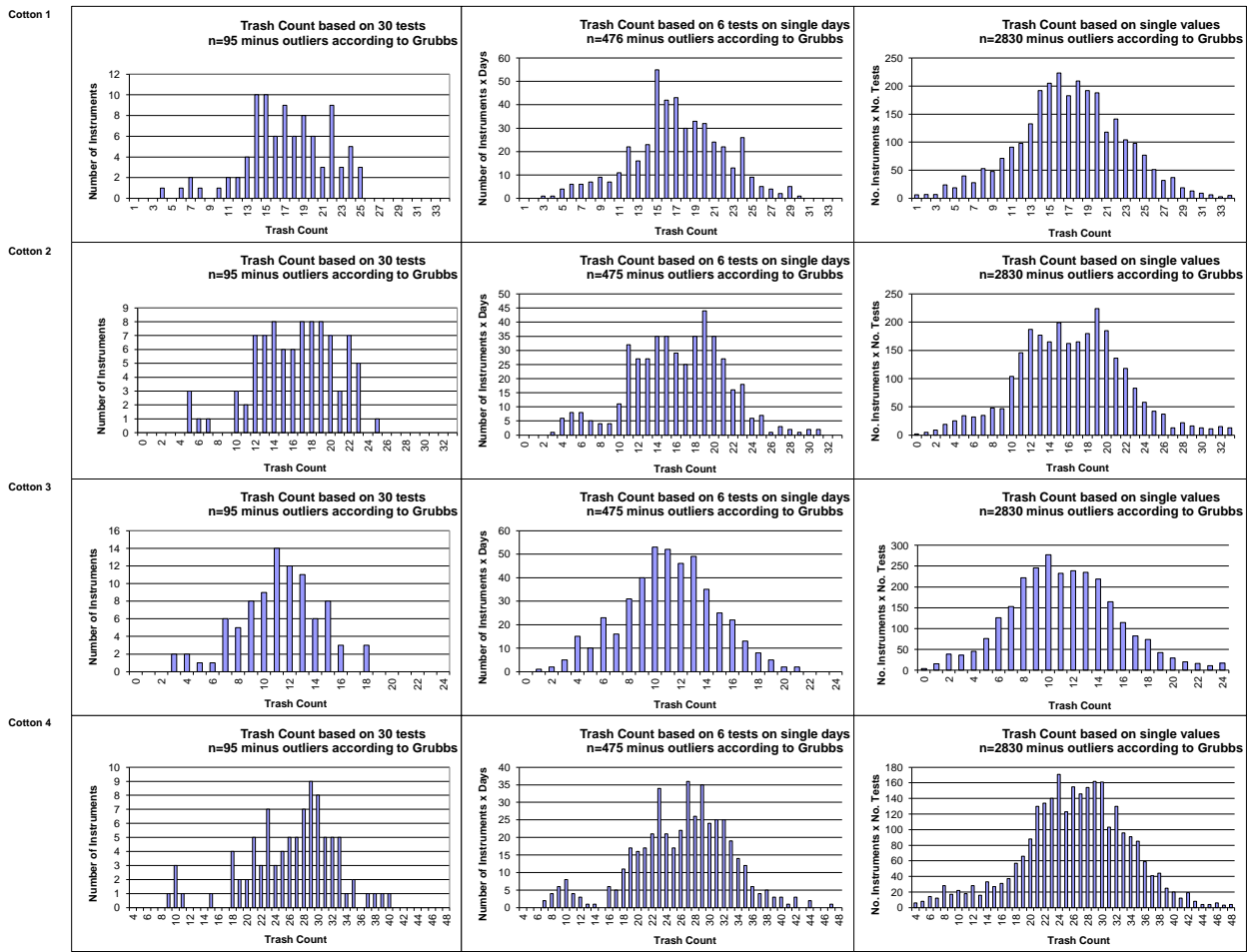
| Trash Count                                  |                                          |      |          |          |          |          |             |
|----------------------------------------------|------------------------------------------|------|----------|----------|----------|----------|-------------|
|                                              |                                          |      | Cotton 1 | Cotton 2 | Cotton 3 | Cotton 4 | Average     |
| Average of Instruments (Grubbs)              |                                          |      | 17.26    | 16.27    | 11.16    | 26.26    |             |
| Reference Values for Evaluation              |                                          |      | 17.26    | 16.27    | 11.16    | 26.26    |             |
| Number Of Instruments                        |                                          |      | 95       | 95       | 95       | 95       | <b>95</b>   |
| Inter-Instrument Variation                   | based on 30 tests                        | SD   | 4.51     | 4.49     | 3.22     | 6.40     | <b>4.66</b> |
|                                              |                                          | CV % | 26.1     | 27.6     | 28.8     | 24.4     | <b>26.7</b> |
|                                              | based on 6 tests                         | SD   | 4.91     | 5.03     | 3.63     | 6.91     | <b>5.12</b> |
|                                              |                                          | CV % | 28.4     | 30.9     | 32.5     | 26.3     | <b>29.6</b> |
|                                              | based on single tests                    | SD   | 5.55     | 5.64     | 4.26     | 7.47     | <b>5.73</b> |
|                                              |                                          | CV % | 32.1     | 34.7     | 38.2     | 28.5     | <b>33.4</b> |
| Typical within-instrument Variation (Median) | between different days with each 6 tests | SD   | 1.64     | 1.79     | 1.38     | 2.12     | <b>1.73</b> |
|                                              |                                          | CV % | 9.5      | 11.0     | 12.3     | 8.1      | <b>10.2</b> |
|                                              | between single tests on one day          | SD   | 2.49     | 2.21     | 1.91     | 2.79     | <b>2.35</b> |
|                                              |                                          | CV % | 14.4     | 13.6     | 17.1     | 10.6     | <b>13.9</b> |
|                                              | between all tests on different days      | SD   | 3.06     | 2.86     | 2.28     | 3.83     | <b>3.01</b> |
|                                              |                                          | CV % | 17.7     | 17.6     | 20.5     | 14.6     | <b>17.6</b> |

| Trash Area                                   |                                          |      |          |          |          |          |              |
|----------------------------------------------|------------------------------------------|------|----------|----------|----------|----------|--------------|
|                                              |                                          |      | Cotton 1 | Cotton 2 | Cotton 3 | Cotton 4 | Average      |
| Average of Instruments (Grubbs)              |                                          |      | 0.201    | 0.147    | 0.120    | 0.272    |              |
| Reference Values for Evaluation              |                                          |      | 0.201    | 0.147    | 0.120    | 0.272    |              |
| Number Of Instruments                        |                                          |      | 95       | 95       | 95       | 95       | <b>95</b>    |
| Inter-Instrument Variation                   | based on 30 tests                        | SD   | 0.048    | 0.047    | 0.035    | 0.070    | <b>0.050</b> |
|                                              |                                          | CV % | 23.8     | 31.9     | 29.4     | 25.9     | <b>27.8</b>  |
|                                              | based on 6 tests                         | SD   | 0.059    | 0.047    | 0.037    | 0.070    | <b>0.053</b> |
|                                              |                                          | CV % | 29.5     | 31.9     | 30.9     | 25.8     | <b>29.5</b>  |
|                                              | based on single tests                    | SD   | 0.072    | 0.051    | 0.041    | 0.083    | <b>0.062</b> |
|                                              |                                          | CV % | 35.7     | 34.8     | 34.0     | 30.6     | <b>33.8</b>  |
| Typical within-instrument Variation (Median) | between different days with each 6 tests | SD   | 0.028    | 0.019    | 0.018    | 0.032    | <b>0.024</b> |
|                                              |                                          | CV % | 13.8     | 13.2     | 14.8     | 11.9     | <b>13.4</b>  |
|                                              | between single tests on one day          | SD   | 0.041    | 0.023    | 0.022    | 0.040    | <b>0.031</b> |
|                                              |                                          | CV % | 20.4     | 15.9     | 17.9     | 14.8     | <b>17.2</b>  |
|                                              | between all tests on different days      | SD   | 0.054    | 0.031    | 0.031    | 0.053    | <b>0.042</b> |
|                                              |                                          | CV % | 26.7     | 21.3     | 25.4     | 19.6     | <b>23.3</b>  |

| Maturity                                     |                                          |      |          |          |          |          |             |
|----------------------------------------------|------------------------------------------|------|----------|----------|----------|----------|-------------|
|                                              |                                          |      | Cotton 1 | Cotton 2 | Cotton 3 | Cotton 4 | Average     |
| Average of Instruments (Grubbs)              |                                          |      | 88.22    | 85.55    | 86.85    | 84.95    |             |
| Reference Values for Evaluation              |                                          |      | 88.22    | 85.55    | 86.85    | 84.95    |             |
| Number Of Instruments                        |                                          |      | 98       | 98       | 98       | 98       | <b>98</b>   |
| Inter-Instrument Variation                   | based on 30 tests                        | SD   | 0.89     | 1.56     | 1.34     | 0.95     | <b>1.18</b> |
|                                              |                                          | CV % | 1.0      | 1.8      | 1.5      | 1.1      | <b>1.4</b>  |
|                                              | based on 6 tests                         | SD   | 0.93     | 1.60     | 1.35     | 0.96     | <b>1.21</b> |
|                                              |                                          | CV % | 1.1      | 1.9      | 1.5      | 1.1      | <b>1.4</b>  |
|                                              | based on single tests                    | SD   | 0.97     | 1.60     | 1.39     | 1.55     | <b>1.38</b> |
|                                              |                                          | CV % | 1.1      | 1.9      | 1.6      | 1.8      | <b>1.6</b>  |
| Typical within-instrument Variation (Median) | between different days with each 6 tests | SD   | 0.17     | 0.22     | 0.11     | 0.18     | <b>0.17</b> |
|                                              |                                          | CV % | 0.2      | 0.3      | 0.1      | 0.2      | <b>0.2</b>  |
|                                              | between single tests on one day          | SD   | 0.27     | 0.31     | 0.17     | 0.24     | <b>0.25</b> |
|                                              |                                          | CV % | 0.3      | 0.4      | 0.2      | 0.3      | <b>0.3</b>  |
|                                              | between all tests on different days      | SD   | 0.41     | 0.46     | 0.31     | 0.38     | <b>0.39</b> |
|                                              |                                          | CV % | 0.5      | 0.5      | 0.4      | 0.4      | <b>0.4</b>  |

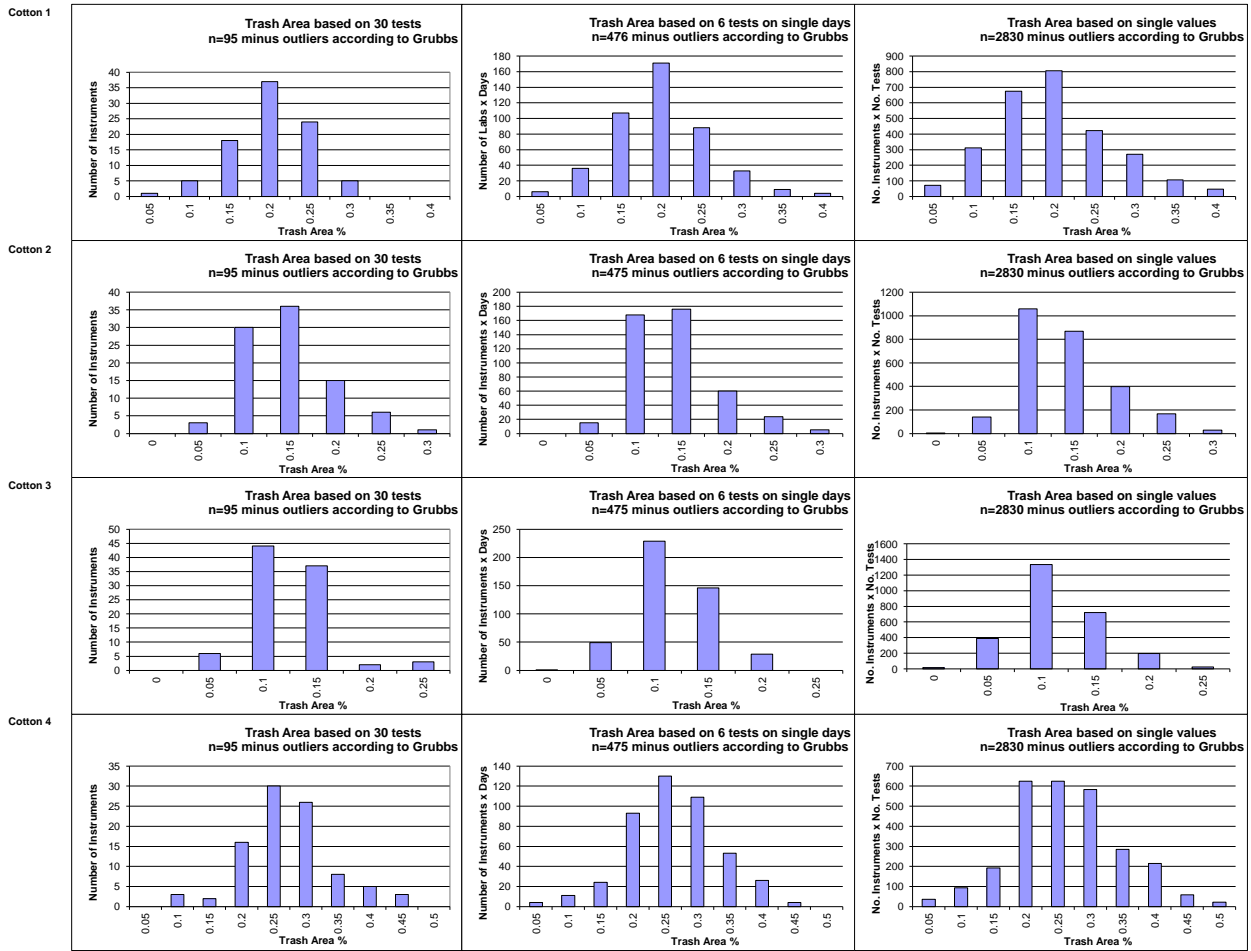
| SFI                                                 |                                          |      |          |          |          |          |             |
|-----------------------------------------------------|------------------------------------------|------|----------|----------|----------|----------|-------------|
|                                                     |                                          |      | Cotton 1 | Cotton 2 | Cotton 3 | Cotton 4 | Average     |
| <b>Average of Instruments (Grubbs)</b>              |                                          |      | 12.04    | 7.45     | 8.29     | 14.37    |             |
| <b>Reference Values for Evaluation</b>              |                                          |      | 12.04    | 7.45     | 8.29     | 14.37    |             |
| <b>Number Of Instruments</b>                        |                                          |      | 109      | 109      | 109      | 109      | <b>109</b>  |
| <b>Inter-Instrument Variation</b>                   | based on 30 tests                        | SD   | 1.11     | 0.49     | 0.58     | 1.47     | <b>0.91</b> |
|                                                     |                                          | CV % | 9.2      | 6.6      | 6.9      | 10.2     | <b>8.2</b>  |
|                                                     | based on 6 tests                         | SD   | 1.16     | 0.55     | 0.58     | 1.55     | <b>0.96</b> |
|                                                     |                                          | CV % | 9.6      | 7.3      | 7.0      | 10.8     | <b>8.7</b>  |
|                                                     | based on single tests                    | SD   | 1.29     | 0.64     | 0.66     | 1.69     | <b>1.07</b> |
|                                                     |                                          | CV % | 10.7     | 8.6      | 8.0      | 11.8     | <b>9.8</b>  |
| <b>Typical within-instrument Variation (Median)</b> | between different days with each 6 tests | SD   | 0.32     | 0.17     | 0.18     | 0.33     | <b>0.25</b> |
|                                                     |                                          | CV % | 2.6      | 2.3      | 2.1      | 2.3      | <b>2.3</b>  |
|                                                     | between single tests on one day          | SD   | 0.60     | 0.29     | 0.34     | 0.69     | <b>0.48</b> |
|                                                     |                                          | CV % | 5.0      | 3.9      | 4.1      | 4.8      | <b>4.4</b>  |
|                                                     | between all tests on different days      | SD   | 0.68     | 0.33     | 0.37     | 0.76     | <b>0.53</b> |
|                                                     |                                          | CV % | 5.6      | 4.5      | 4.4      | 5.3      | <b>4.9</b>  |

Test Result Distributions  
Trash Count



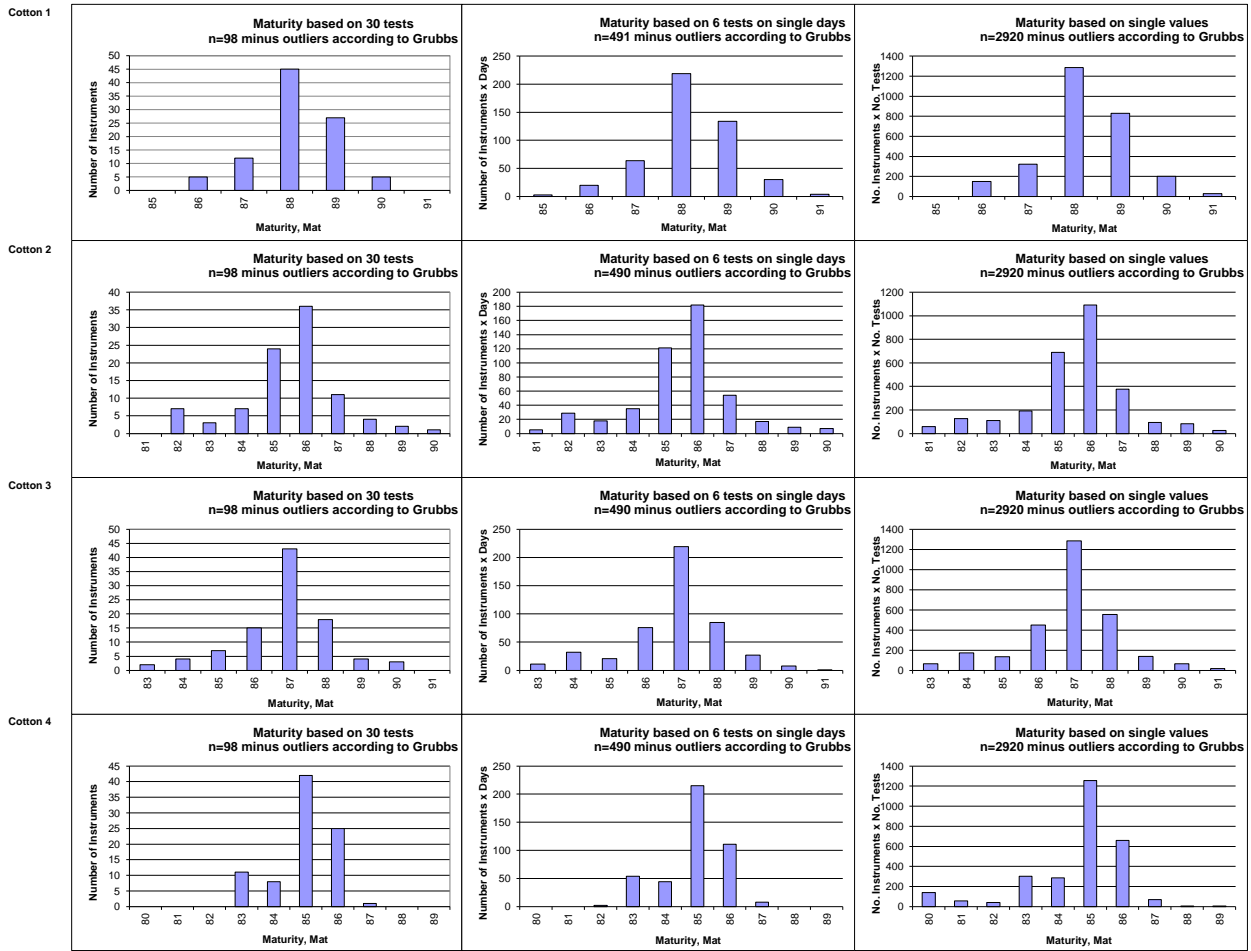
(Only results from instruments/days/single tests that are not regarded as outliers according to Grubbs' method)  
(classes are defined as > lower limit and <= upper limit)

Test Result Distributions  
Trash Area



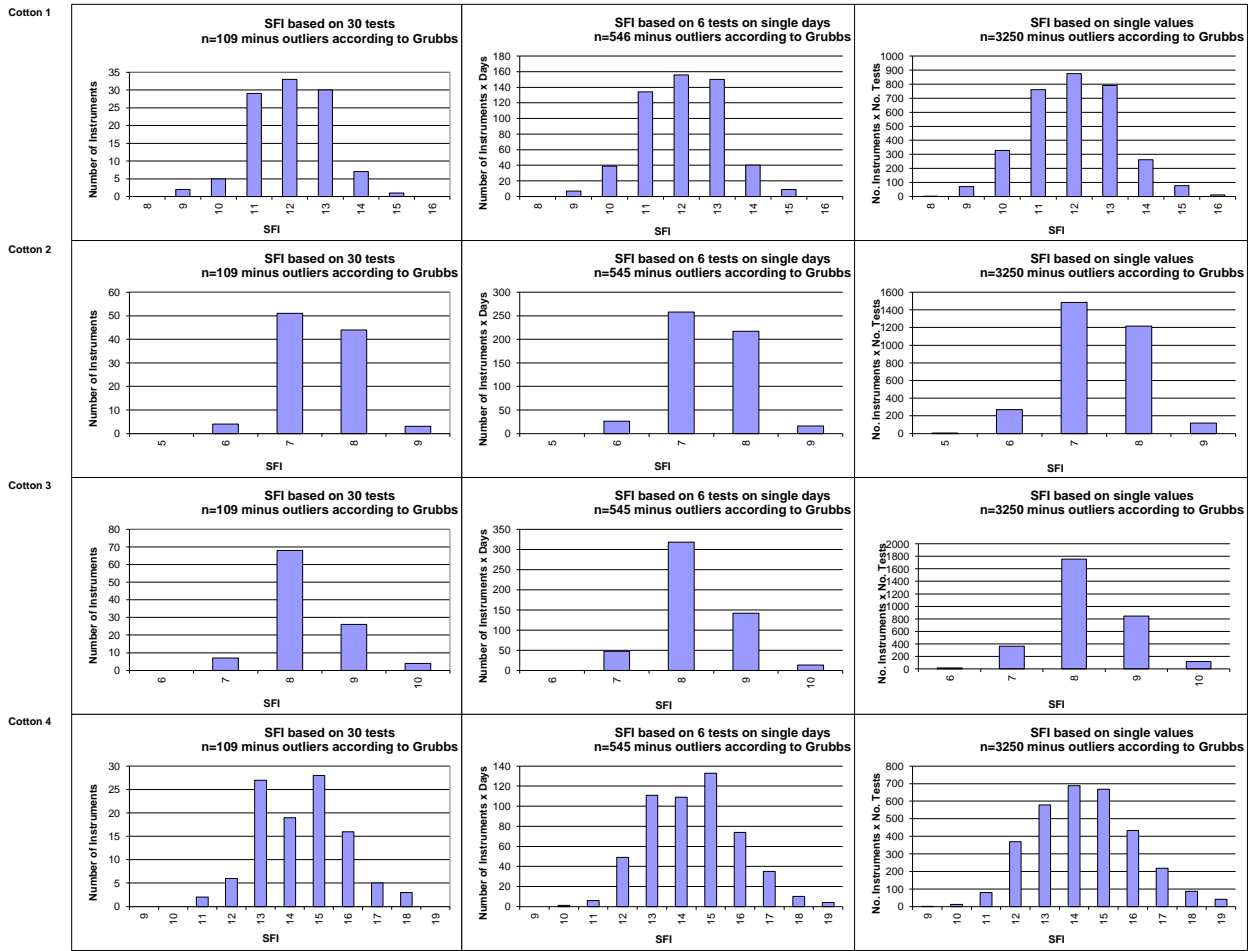
(Only results from instruments/days/single tests that are not regarded as outliers according to Grubbs' method)  
(classes are defined as > lower limit and <= upper limit)

Test Result Distributions  
Maturity



(Only results from instruments/days/single tests that are not regarded as outliers according to Grubbs' method.)  
(classes are defined as > lower limit and <= upper limit)

Test Result Distributions  
SFI



(Only results from instruments/days/single tests that are not regarded as outliers according to Grubbs' method)  
(classes are defined as > lower limit and <= upper limit)



International Cotton Advisory Committee



## CSITC Global - Round Trial 2016 - 3 General Evaluation

Section One: Result Distribution

**Section Two: Instrument Evaluation**

Section Three: Within Limits Evaluation

### Section Two: Instrument Evaluation

Content:

- Evaluation of Combined Parameters
- Evaluation of Single Parameters

Executed By:

Faserinstitut Bremen e.V., Bremen, Germany\*  
USDA-AMS, Memphis, TN, USA

System Provided by:

Generation 10 Limited



This report is an outcome of the Project CFC/ICAC/33 – CSITC, which benefitted from support from the Common Fund for Commodities and the European Union, partners in Commodity Development.

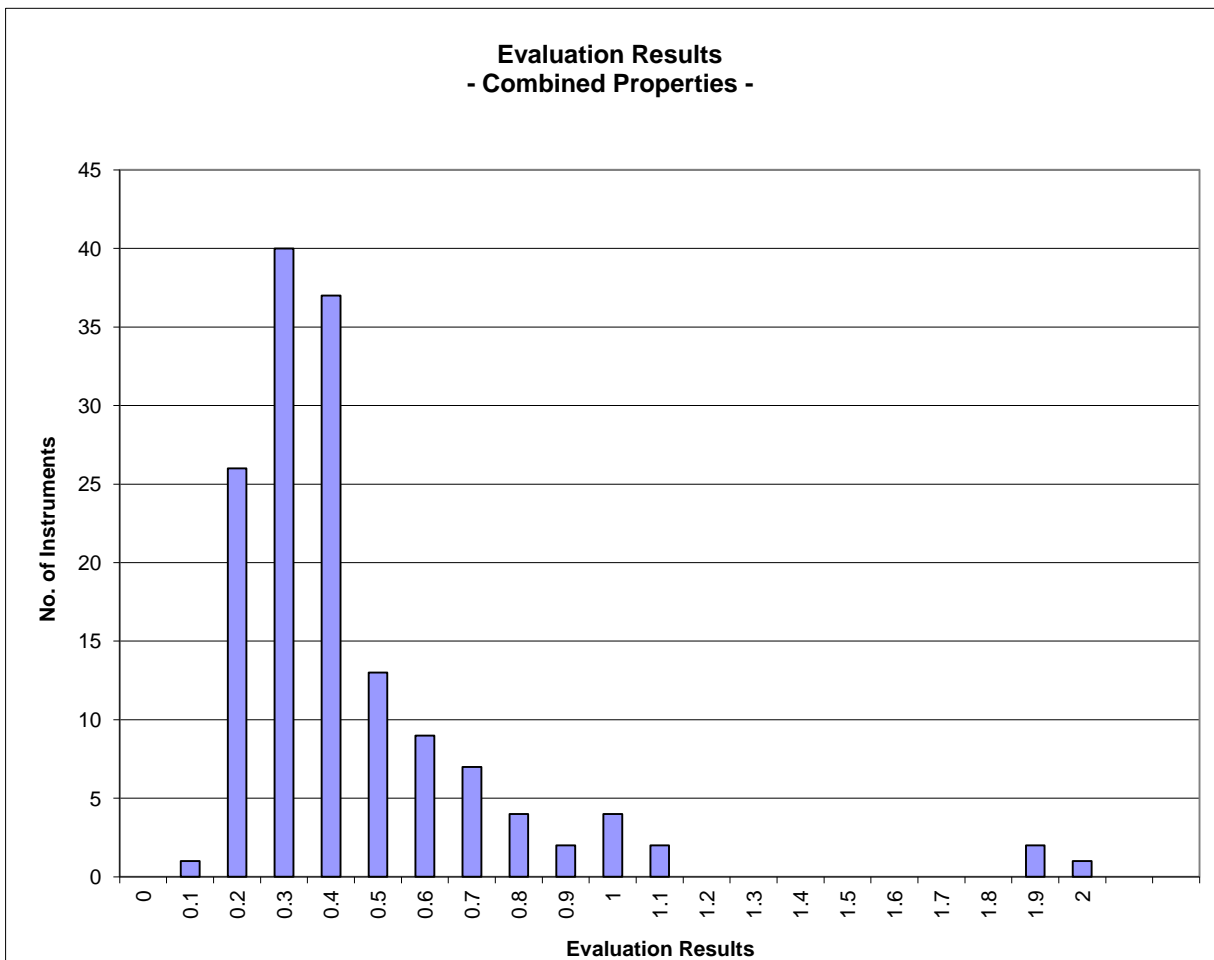


\* Faserinstitut Bremen are a Cooperation Partner with ICA Bremen



Instrument Evaluation  
 - Graph of Combined Properties -  
 According to ICAC CSITC Task Force Recommendations  
 Global - Round Trial 2016 - 3

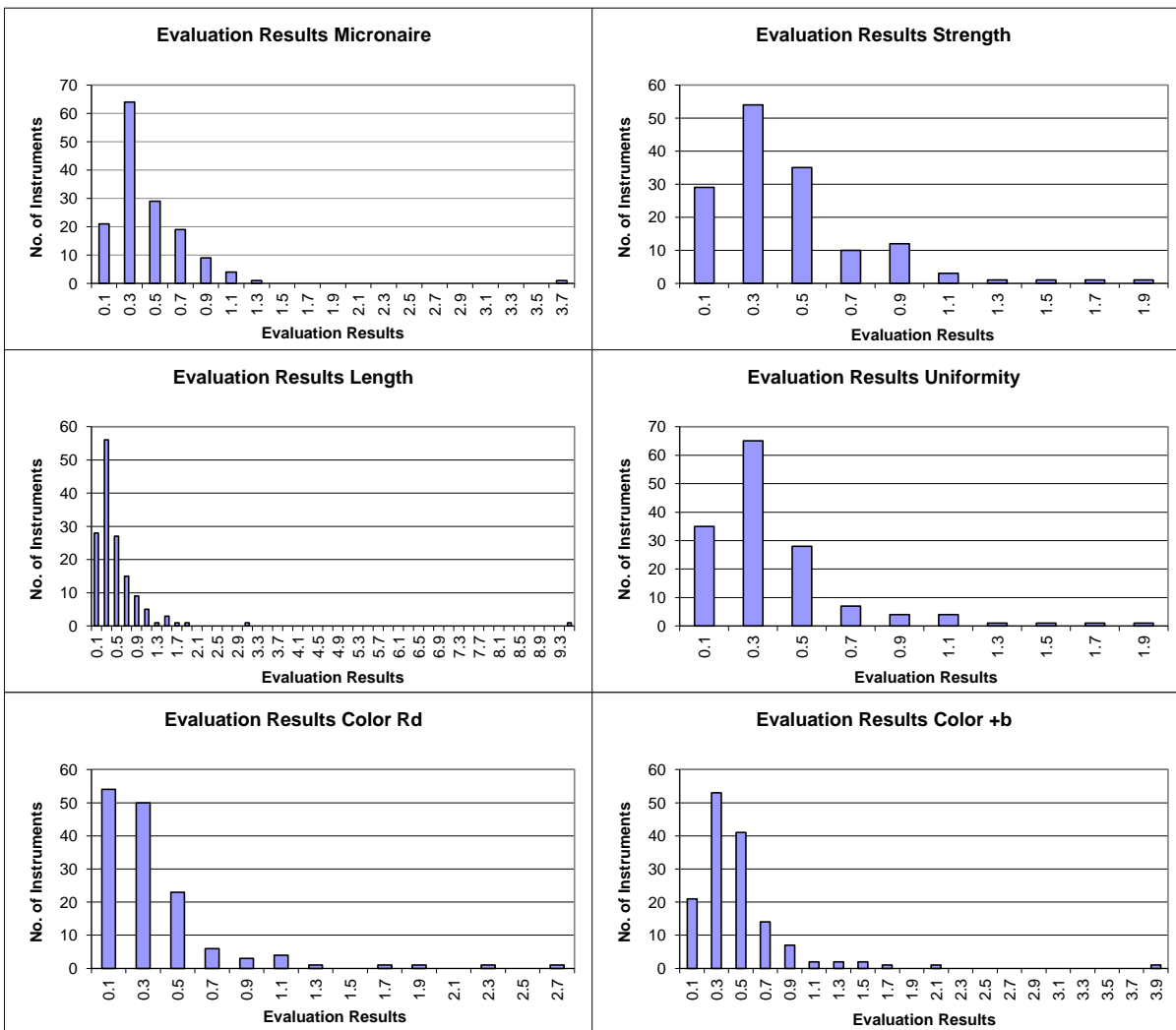
|                   |                  | <b>Evaluation<br/>Combined Prop.</b> |
|-------------------|------------------|--------------------------------------|
| <b>Statistics</b> | Average          | 0.45                                 |
|                   | Median           | 0.36                                 |
|                   | Best Instrument  | 0.15                                 |
|                   | Worst Instrument | 2.03                                 |



x-Axis shows midpoints of classes  
 The evaluation results are entered based on the unrounded values  
 (classes are defined as > lower limit and <= upper limit)

Instrument Evaluation  
 - Graph of Single Properties -  
 According to ICAC CSITC Task Force Recommendations  
 Global - Round Trial 2016 - 3

|            |              | Evaluation Micronaire | Evaluation Strength | Evaluation Length | Evaluation Uniformity | Evaluation Color Rd | Evaluation Color +b |
|------------|--------------|-----------------------|---------------------|-------------------|-----------------------|---------------------|---------------------|
| Statistics | Average      | 0.44                  | 0.43                | 0.54              | 0.39                  | 0.37                | 0.48                |
|            | Median       | 0.34                  | 0.35                | 0.35              | 0.31                  | 0.26                | 0.38                |
|            | Best Instr.  | 0.04                  | 0.05                | 0.06              | 0.03                  | 0.04                | 0.07                |
|            | Worst Instr. | 3.60                  | 2.00                | 9.55              | 1.86                  | 2.61                | 3.85                |



x-Axis shows midpoints of classes  
 The evaluation results are entered based on the unrounded values



## International Cotton Advisory Committee



# CSITC Global - Round Trial 2016 - 3 General Evaluation

Section One: Result Distribution  
Section Two: Instrument Evaluation  
**Section Three: Within Limits Evaluation**

### Section Three: Within Limits Evaluation

#### Content:

- Based on Average of 30 Test Results
- Based on Single Test Results

Executed By:  
Faserinstitut Bremen e.V., Bremen, Germany\*  
USDA-AMS, Memphis, TN, USA

System Provided by:  
Generation 10 Limited



This report is an outcome of the Project CFC/ICAC/33 – CSITC, which benefitted from support from the Common Fund for Commodities and the European Union, partners in Commodity Development.



\* Faserinstitut Bremen are a Cooperation Partner with ICA Bremen

## Within Limits Evaluation

Based on average of 30 test results for each sample

|                                     | <b>Micronaire</b> | <b>Strength</b> | <b>Length</b> | <b>Uniformity</b> | <b>Color Rd</b> | <b>Color +b</b> |
|-------------------------------------|-------------------|-----------------|---------------|-------------------|-----------------|-----------------|
| Limits                              | 0.20              | 2.0             | 0.030         | 2.0               | 1.5             | 0.5             |
|                                     | units             | g/tex           | inch          | %                 | units           | units           |
| Average % Results within Limits     | 99.3              | 94.4            | 95.1          | 99.3              | 94.1            | 91.2            |
| Completely within limits            | 99.3              | 83.7            | 88.5          | 98.0              | 89.0            | 77.2            |
| % of Instruments ≥75% within limits | 99.3              | 96.6            | 93.9          | 99.3              | 93.8            | 91.7            |
| % of Instruments ≥50% within limits | 99.3              | 98.0            | 98.6          | 100.0             | 96.6            | 97.2            |

| Percentage of Results Within Limits |                   |                 |               |                   |                 |                 |
|-------------------------------------|-------------------|-----------------|---------------|-------------------|-----------------|-----------------|
| <b>Instrument</b>                   | <b>Micronaire</b> | <b>Strength</b> | <b>Length</b> | <b>Uniformity</b> | <b>Color Rd</b> | <b>Color +b</b> |
| GL163-001-01                        | 100               | 100             | 100           | 100               | 100             | 100             |
| GL163-001-02                        | 100               | 100             | 100           | 100               | 100             | 100             |
| GL163-002-01                        | 100               | 100             | 100           | 100               | 100             | 100             |
| GL163-003-01                        | 100               | 100             | 100           | 100               | 100             | 100             |
| GL163-004-01                        | 100               | 100             | 50            | 75                | 100             | 100             |
| GL163-005-01                        | 100               | 100             | 100           | 100               | 100             | 100             |
| GL163-005-02                        | 100               | 100             | 100           | 100               | 100             | 100             |
| GL163-005-03                        | 100               | 100             | 100           | 100               | 100             | 100             |
| GL163-006-01                        | 100               | 75              | 100           | 100               | 100             | 100             |
| GL163-007-05                        | 100               |                 | 50            |                   |                 |                 |
| GL163-008-01                        | 100               | 100             | 100           | 100               | 100             | 100             |
| GL163-008-02                        | 100               | 100             | 100           | 100               | 100             | 100             |
| GL163-009-01                        | 100               | 100             | 0             | 100               | 100             | 100             |
| GL163-010-03                        | 100               | 100             | 100           | 100               | 100             | 100             |
| GL163-011-09                        | 100               | 75              | 75            | 100               | 50              | 75              |
| GL163-011-11                        | 100               | 75              | 100           | 100               | 50              | 75              |
| GL163-013-01                        | 100               | 100             | 100           | 100               | 50              | 25              |
| GL163-015-01                        | 100               | 100             | 100           | 100               | 100             | 100             |
| GL163-016-01                        | 100               | 75              | 100           | 100               | 100             | 100             |
| GL163-017-01                        | 100               | 100             | 100           | 100               | 100             | 100             |
| GL163-017-02                        | 100               | 100             | 100           | 100               | 100             | 100             |
| GL163-019-01                        | 100               | 100             | 100           | 100               | 100             | 100             |
| GL163-019-02                        | 100               | 100             | 100           | 100               | 100             | 75              |
| GL163-019-03                        | 100               | 100             | 100           | 100               | 100             | 50              |
| GL163-019-04                        | 100               | 100             | 100           | 100               | 100             | 100             |
| GL163-020-01                        | 100               | 100             | 100           | 100               | 100             | 100             |
| GL163-021-01                        | 100               | 100             | 100           | 100               | 100             | 100             |
| GL163-022-01                        | 100               | 75              | 100           | 100               | 100             | 100             |
| GL163-022-04                        | 100               | 75              | 100           | 100               | 100             | 100             |
| GL163-023-53                        | 100               | 100             | 100           | 100               | 100             | 100             |
| GL163-023-60                        | 100               | 100             | 100           | 100               | 100             | 100             |
| GL163-024-03                        | 100               | 100             | 100           | 100               | 100             | 100             |
| GL163-024-06                        | 100               | 100             | 100           | 100               | 100             | 100             |
| GL163-025-01                        | 100               | 100             | 50            | 100               | 100             | 75              |
| GL163-026-13                        | 100               | 25              | 100           | 100               |                 |                 |
| GL163-027-28                        | 100               | 100             | 100           | 100               | 50              | 50              |
| GL163-028-15                        | 100               | 100             | 100           | 100               | 100             | 100             |
| GL163-028-16                        | 100               | 100             | 100           | 100               | 100             | 100             |
| GL163-030-01                        | 100               | 100             | 50            | 100               | 0               | 100             |
| GL163-031-01                        | 100               | 100             | 100           | 100               | 100             | 100             |

|              |     |     |     |     |     |     |
|--------------|-----|-----|-----|-----|-----|-----|
| GL163-031-02 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-032-01 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-033-01 | 0   | 100 | 100 | 100 | 0   | 0   |
| GL163-034-01 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-036-03 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-038-03 | 100 | 25  | 75  | 100 | 75  | 100 |
| GL163-038-05 | 100 | 0   | 50  | 100 | 100 | 100 |
| GL163-039-04 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-040-01 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-041-01 | 100 | 100 | 50  | 100 | 100 | 100 |
| GL163-043-12 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-043-14 | 100 | 100 | 100 | 100 | 100 | 75  |
| GL163-044-01 | 100 | 75  | 75  | 100 | 100 | 75  |
| GL163-045-01 | 100 | 75  | 75  | 100 | 100 | 100 |
| GL163-045-06 | 100 | 75  | 75  | 100 | 100 | 100 |
| GL163-046-01 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-046-03 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-047-01 | 100 | 75  | 100 | 100 | 100 | 50  |
| GL163-048-01 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-049-02 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-049-04 | 100 | 100 | 100 | 100 | 0   | 50  |
| GL163-049-07 | 100 | 75  | 100 | 100 | 100 | 100 |
| GL163-049-08 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-051-02 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-051-03 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-052-20 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-052-21 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-054-01 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-054-02 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-055-06 | 100 | 75  | 75  | 100 | 100 | 100 |
| GL163-055-07 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-055-08 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-056-01 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-057-01 | 100 | 100 | 100 | 100 | 75  | 100 |
| GL163-058-01 | 100 | 100 | 100 | 100 | 100 | 75  |
| GL163-059-01 | 100 | 75  | 100 | 100 | 100 | 75  |
| GL163-059-02 | 100 | 100 | 100 | 100 | 75  | 100 |
| GL163-059-05 | 100 | 75  | 100 | 100 | 100 | 75  |
| GL163-059-07 | 100 | 75  | 100 | 100 | 100 | 75  |
| GL163-061-01 | 100 | 100 | 100 | 100 | 75  | 100 |
| GL163-062-01 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-062-02 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-062-04 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-063-03 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-063-07 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-063-08 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-063-09 | 100 | 75  | 100 | 100 | 100 | 100 |
| GL163-063-10 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-063-11 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-063-12 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-063-13 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-063-14 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-064-02 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-065-12 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-066-01 | 100 | 100 | 100 | 100 | 100 | 75  |
| GL163-067-01 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-067-04 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-067-05 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-068-01 | 100 | 75  | 100 | 100 | 0   | 0   |
| GL163-069-03 | 100 | 100 | 100 | 100 | 100 | 100 |

|              |     |     |     |     |     |     |
|--------------|-----|-----|-----|-----|-----|-----|
| GL163-070-01 | 100 | 50  | 100 | 100 | 25  | 50  |
| GL163-072-01 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-074-01 | 100 | 100 | 100 | 100 | 100 | 75  |
| GL163-074-02 | 100 | 100 | 100 | 100 | 100 | 75  |
| GL163-074-04 | 100 | 100 | 75  | 100 | 100 | 75  |
| GL163-074-05 | 100 | 100 | 100 | 100 | 100 | 75  |
| GL163-075-14 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-076-01 | 100 | 100 | 100 | 100 | 100 | 75  |
| GL163-076-02 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-077-01 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-078-02 | 100 | 100 | 100 | 100 |     |     |
| GL163-078-03 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-080-01 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-081-01 | 100 | 75  | 100 | 100 | 100 | 75  |
| GL163-081-02 | 100 | 75  | 100 | 100 | 100 | 75  |
| GL163-084-01 | 100 | 100 | 100 | 100 | 75  | 50  |
| GL163-084-02 | 100 | 100 | 100 | 100 | 100 | 75  |
| GL163-084-03 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-084-04 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-085-01 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-085-02 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-085-03 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-085-04 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-088-01 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-090-01 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-091-02 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-094-06 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-095-04 | 100 | 100 | 100 | 100 | 100 | 50  |
| GL163-095-05 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-096-01 | 100 | 100 | 75  | 75  | 100 | 100 |
| GL163-097-01 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-098-01 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-099-02 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-099-03 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-099-05 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-099-06 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-101-01 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-102-01 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-104-01 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-104-05 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-104-09 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-104-11 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-104-12 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-105-01 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-106-01 | 100 | 100 | 100 | 100 | 100 | 75  |
| GL163-107-01 | 100 | 50  | 100 | 100 | 75  | 25  |
| GL163-107-02 | 100 | 100 | 25  | 50  | 100 | 50  |
| GL163-107-03 | 100 | 100 | 50  | 100 | 75  | 75  |
|              |     |     |     |     |     |     |

## Within Limits Evaluation

Based on Single Test Results

|                                     | <b>Micronaire</b> | <b>Strength</b> | <b>Length</b> | <b>Uniformity</b> | <b>Color Rd</b> | <b>Color +b</b> |
|-------------------------------------|-------------------|-----------------|---------------|-------------------|-----------------|-----------------|
| Limits                              | 0.20              | 2.0             | 0.030         | 2.0               | 1.5             | 0.5             |
|                                     | units             | g/tex           | inch          | %                 | units           | units           |
| Average % Results within Limits     | 98.3              | 92.3            | 93.2          | 97.4              | 92.7            | 87.0            |
| % of Instruments 100% within limits | 67.6              | 36.7            | 27.0          | 48.3              | 65.5            | 26.2            |
| % of Instruments ≥95% within limits | 93.9              | 68.7            | 70.9          | 90.5              | 83.4            | 46.9            |
| % of Instruments ≥75% within limits | 99.3              | 92.5            | 93.2          | 96.6              | 90.3            | 84.1            |
| % of Instruments ≥65% within limits | 99.3              | 95.2            | 95.3          | 99.3              | 91.7            | 89.7            |
| % of Instruments ≥50% within limits | 99.3              | 98.0            | 98.6          | 100.0             | 93.8            | 95.2            |

| Percentage of Results Within Limits |                   |                 |               |                   |                 |                 |
|-------------------------------------|-------------------|-----------------|---------------|-------------------|-----------------|-----------------|
| <b>Instrument</b>                   | <b>Micronaire</b> | <b>Strength</b> | <b>Length</b> | <b>Uniformity</b> | <b>Color Rd</b> | <b>Color +b</b> |
| GL163-001-01                        | 100               | 88              | 93            | 96                | 100             | 98              |
| GL163-001-02                        | 100               | 88              | 97            | 98                | 99              | 94              |
| GL163-002-01                        | 100               | 100             | 99            | 100               | 100             | 98              |
| GL163-003-01                        | 100               | 96              | 95            | 98                | 94              | 86              |
| GL163-004-01                        | 96                | 91              | 58            | 78                | 78              | 93              |
| GL163-005-01                        | 99                | 100             | 97            | 100               | 100             | 90              |
| GL163-005-02                        | 99                | 100             | 97            | 100               | 100             | 90              |
| GL163-005-03                        | 99                | 100             | 97            | 100               | 100             | 90              |
| GL163-006-01                        | 100               | 83              | 99            | 100               | 100             | 93              |
| GL163-007-05                        | 91                |                 | 50            |                   |                 |                 |
| GL163-008-01                        | 99                | 97              | 97            | 99                | 96              | 75              |
| GL163-008-02                        | 100               | 98              | 96            | 98                | 97              | 71              |
| GL163-009-01                        | 95                | 100             | 0             | 95                | 100             | 100             |
| GL163-010-03                        | 100               | 97              | 93            | 100               | 100             | 94              |
| GL163-011-09                        | 100               | 75              | 84            | 100               | 48              | 86              |
| GL163-011-11                        | 100               | 75              | 78            | 100               | 43              | 71              |
| GL163-013-01                        | 99                | 99              | 95            | 99                | 39              | 16              |
| GL163-015-01                        | 100               | 98              | 93            | 98                | 100             | 92              |
| GL163-016-01                        | 100               | 75              | 100           | 99                | 100             | 100             |
| GL163-017-01                        | 100               | 97              | 100           | 100               | 100             | 100             |
| GL163-017-02                        | 100               | 98              | 100           | 100               | 100             | 99              |
| GL163-019-01                        | 100               | 100             | 99            | 100               | 100             | 100             |
| GL163-019-02                        | 100               | 100             | 100           | 100               | 100             | 75              |
| GL163-019-03                        | 96                | 99              | 98            | 96                | 100             | 52              |
| GL163-019-04                        | 99                | 100             | 98            | 99                | 100             | 100             |
| GL163-020-01                        | 100               | 100             | 100           | 100               | 100             | 86              |
| GL163-021-01                        | 98                | 96              | 98            | 98                | 100             | 97              |
| GL163-022-01                        | 100               | 75              | 96            | 98                | 100             | 100             |
| GL163-022-04                        | 100               | 75              | 96            | 98                | 100             | 100             |
| GL163-023-53                        | 100               | 98              | 95            | 96                | 100             | 100             |
| GL163-023-60                        | 100               | 98              | 98            | 99                | 100             | 100             |
| GL163-024-03                        | 99                | 100             | 100           | 100               | 100             | 100             |
| GL163-024-06                        | 100               | 99              | 100           | 100               | 100             | 100             |
| GL163-025-01                        | 96                | 88              | 71            | 71                | 100             | 58              |
| GL163-026-13                        | 91                | 37              | 82            | 98                |                 |                 |
| GL163-027-28                        | 100               | 100             | 95            | 100               | 53              | 51              |

|              |     |     |     |     |     |     |
|--------------|-----|-----|-----|-----|-----|-----|
| GL163-028-15 | 100 | 98  | 100 | 100 | 100 | 100 |
| GL163-028-16 | 100 | 98  | 99  | 100 | 100 | 100 |
| GL163-030-01 | 99  | 82  | 42  | 74  | 19  | 78  |
| GL163-031-01 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-031-02 | 100 | 99  | 100 | 97  | 98  | 100 |
| GL163-032-01 | 99  | 88  | 100 | 94  | 100 | 100 |
| GL163-033-01 | 23  | 97  | 99  | 90  | 6   | 6   |
| GL163-034-01 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-036-03 | 100 | 95  | 100 | 99  | 100 | 99  |
| GL163-038-03 | 95  | 34  | 58  | 82  | 75  | 89  |
| GL163-038-05 | 100 | 21  | 52  | 84  | 93  | 98  |
| GL163-039-04 | 99  | 100 | 98  | 99  | 100 | 85  |
| GL163-040-01 | 100 | 100 | 88  | 100 | 100 | 90  |
| GL163-041-01 | 84  | 96  | 74  | 97  | 98  | 99  |
| GL163-043-12 | 100 | 98  | 100 | 100 | 100 | 95  |
| GL163-043-14 | 100 | 96  | 100 | 100 | 95  | 88  |
| GL163-044-01 | 100 | 83  | 87  | 98  | 99  | 83  |
| GL163-045-01 | 100 | 75  | 78  | 100 | 100 | 99  |
| GL163-045-06 | 100 | 75  | 82  | 100 | 100 | 96  |
| GL163-046-01 | 100 | 100 | 96  | 95  | 100 | 97  |
| GL163-046-03 | 100 | 100 | 96  | 95  | 100 | 97  |
| GL163-047-01 | 98  | 63  | 94  | 95  | 90  | 60  |
| GL163-048-01 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-049-02 | 100 | 88  | 99  | 100 | 98  | 70  |
| GL163-049-04 | 99  | 84  | 93  | 99  | 0   | 48  |
| GL163-049-07 | 100 | 63  | 76  | 98  | 100 | 76  |
| GL163-049-08 | 96  | 93  | 94  | 94  | 96  | 93  |
| GL163-051-02 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-051-03 | 100 | 100 | 100 | 100 | 100 | 96  |
| GL163-052-20 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-052-21 | 100 | 98  | 100 | 100 | 100 | 100 |
| GL163-054-01 | 100 | 100 | 99  | 100 | 100 | 99  |
| GL163-054-02 | 100 | 100 | 100 | 100 | 100 | 98  |
| GL163-055-06 | 98  | 85  | 83  | 95  | 100 | 88  |
| GL163-055-07 | 98  | 90  | 97  | 100 | 100 | 86  |
| GL163-055-08 | 98  | 93  | 90  | 99  | 97  | 86  |
| GL163-056-01 | 99  | 98  | 98  | 99  | 98  | 91  |
| GL163-057-01 | 86  | 96  | 100 | 100 | 53  | 83  |
| GL163-058-01 | 98  | 90  | 93  | 99  | 98  | 86  |
| GL163-059-01 | 100 | 72  | 100 | 99  | 100 | 74  |
| GL163-059-02 | 96  | 89  | 93  | 100 | 98  | 96  |
| GL163-059-05 | 100 | 78  | 98  | 100 | 99  | 75  |
| GL163-059-07 | 99  | 73  | 100 | 100 | 99  | 96  |
| GL163-061-01 | 100 | 92  | 98  | 99  | 68  | 93  |
| GL163-062-01 | 100 | 90  | 98  | 98  | 94  | 86  |
| GL163-062-02 | 100 | 94  | 93  | 93  | 99  | 100 |
| GL163-062-04 | 100 | 99  | 99  | 100 | 100 | 89  |
| GL163-063-03 | 99  | 100 | 98  | 98  | 100 | 100 |
| GL163-063-07 | 100 | 100 | 97  | 100 | 100 | 94  |
| GL163-063-08 | 100 | 100 | 96  | 100 | 100 | 100 |
| GL163-063-09 | 99  | 77  | 99  | 99  | 100 | 100 |
| GL163-063-10 | 100 | 88  | 100 | 100 | 100 | 98  |
| GL163-063-11 | 100 | 100 | 94  | 99  | 100 | 100 |
| GL163-063-12 | 100 | 100 | 98  | 99  | 100 | 100 |
| GL163-063-13 | 100 | 99  | 100 | 100 | 100 | 100 |
| GL163-063-14 | 100 | 99  | 100 | 99  | 100 | 100 |
| GL163-064-02 | 99  | 100 | 97  | 100 | 100 | 90  |
| GL163-065-12 | 100 | 99  | 100 | 100 | 100 | 95  |
| GL163-066-01 | 100 | 96  | 98  | 98  | 100 | 73  |
| GL163-067-01 | 100 | 100 | 100 | 100 | 100 | 100 |



|              |     |     |     |     |     |     |
|--------------|-----|-----|-----|-----|-----|-----|
| GL163-067-04 | 100 | 100 | 99  | 100 | 100 | 100 |
| GL163-067-05 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-068-01 | 91  | 83  | 85  | 93  | 15  | 0   |
| GL163-069-03 | 100 | 100 | 97  | 100 | 97  | 93  |
| GL163-070-01 | 98  | 58  | 98  | 99  | 10  | 35  |
| GL163-072-01 | 100 | 100 | 100 | 99  | 100 | 81  |
| GL163-074-01 | 100 | 98  | 90  | 99  | 96  | 78  |
| GL163-074-02 | 100 | 100 | 94  | 98  | 86  | 69  |
| GL163-074-04 | 100 | 100 | 73  | 100 | 96  | 56  |
| GL163-074-05 | 100 | 97  | 92  | 100 | 98  | 83  |
| GL163-075-14 | 100 | 99  | 99  | 99  | 100 | 90  |
| GL163-076-01 | 98  | 100 | 97  | 100 | 100 | 71  |
| GL163-076-02 | 99  | 100 | 98  | 100 | 100 | 93  |
| GL163-077-01 | 100 | 100 | 95  | 100 | 100 | 85  |
| GL163-078-02 | 100 | 93  | 100 | 98  |     |     |
| GL163-078-03 | 100 | 91  | 100 | 100 | 100 | 98  |
| GL163-080-01 | 100 | 100 | 87  | 98  | 97  | 62  |
| GL163-081-01 | 100 | 75  | 96  | 99  | 100 | 78  |
| GL163-081-02 | 100 | 73  | 94  | 99  | 100 | 78  |
| GL163-084-01 | 89  | 90  | 92  | 95  | 57  | 43  |
| GL163-084-02 | 97  | 98  | 88  | 98  | 92  | 60  |
| GL163-084-03 | 96  | 100 | 98  | 99  | 100 | 99  |
| GL163-084-04 | 96  | 99  | 98  | 99  | 100 | 99  |
| GL163-085-01 | 92  | 100 | 99  | 99  | 100 | 100 |
| GL163-085-02 | 100 | 100 | 97  | 99  | 100 | 100 |
| GL163-085-03 | 100 | 98  | 98  | 100 | 100 | 99  |
| GL163-085-04 | 100 | 100 | 94  | 98  | 100 | 97  |
| GL163-088-01 | 100 | 100 | 100 | 100 | 100 | 100 |
| GL163-090-01 | 100 | 100 | 100 | 100 | 100 | 97  |
| GL163-091-02 | 100 | 96  | 98  | 100 | 97  | 92  |
| GL163-094-06 | 98  | 100 | 98  | 100 | 94  | 82  |
| GL163-095-04 | 99  | 97  | 98  | 98  | 100 | 68  |
| GL163-095-05 | 100 | 95  | 96  | 95  | 98  | 86  |
| GL163-096-01 | 100 | 100 | 79  | 66  | 99  | 99  |
| GL163-097-01 | 100 | 99  | 100 | 100 | 98  | 79  |
| GL163-098-01 | 100 | 98  | 99  | 99  | 100 | 100 |
| GL163-099-02 | 100 | 100 | 98  | 100 | 100 | 99  |
| GL163-099-03 | 100 | 100 | 100 | 100 | 100 | 94  |
| GL163-099-05 | 100 | 100 | 99  | 100 | 100 | 100 |
| GL163-099-06 | 100 | 100 | 100 | 100 | 100 | 94  |
| GL163-101-01 | 100 | 97  | 99  | 100 | 100 | 98  |
| GL163-102-01 | 100 | 94  | 98  | 99  | 100 | 100 |
| GL163-104-01 | 100 | 96  | 100 | 100 | 100 | 94  |
| GL163-104-05 | 100 | 96  | 98  | 98  | 99  | 98  |
| GL163-104-09 | 100 | 98  | 99  | 100 | 100 | 94  |
| GL163-104-11 | 100 | 98  | 99  | 100 | 100 | 94  |
| GL163-104-12 | 100 | 95  | 99  | 100 | 100 | 97  |
| GL163-105-01 | 98  | 100 | 100 | 100 | 100 | 92  |
| GL163-106-01 | 100 | 100 | 96  | 99  | 100 | 77  |
| GL163-107-01 | 99  | 57  | 78  | 70  | 44  | 23  |
| GL163-107-02 | 100 | 96  | 56  | 58  | 73  | 59  |
| GL163-107-03 | 88  | 69  | 86  | 89  | 85  | 80  |
|              |     |     |     |     |     |     |