International Cotton Advisory Committee

CSITC
Global - Round Trial 2016 - 4
General Evaluation

Section One: Result Distribution
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Section One: Result Distribution

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Optional Parameters
- -Summary Table
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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
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** Faserinstitut Bremen are a Cooperation Partner with ICA Bremen*

Global - Round Trial 2016 - 4

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

Micronaire							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			3.263	3.698	4.272	4.418	
Reference Values for Evaluation			3.263	3.698	4.272	4.418	
Number Of Instruments			140	140	140	140	**140**
Inter-Instrument Variation	based on 30 tests	SD	0.059	0.062	0.060	0.063	**0.061**
		CV %	1.8	1.7	1.4	1.4	**1.6**
	based on 6 tests	SD	0.063	0.066	0.065	0.065	**0.065**
		CV %	1.9	1.8	1.5	1.5	**1.7**
	based on single tests	SD	0.070	0.074	0.071	0.073	**0.072**
		CV %	2.2	2.0	1.7	1.7	**1.9**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.023	0.024	0.023	0.027	**0.024**
		CV %	0.7	0.7	0.5	0.6	**0.6**
	between single tests on one day	SD	0.030	0.031	0.034	0.035	**0.032**
		CV %	0.9	0.8	0.8	0.8	**0.8**
	between all tests on different days	SD	0.040	0.040	0.041	0.045	**0.041**
		CV %	1.2	1.1	1.0	1.0	**1.1**

Strength							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			31.219	33.720	27.585	24.836	
Reference Values for Evaluation			31.219	33.720	27.585	24.836	
Number Of Instruments			139	139	139	139	**139**
Inter-Instrument Variation	based on 30 tests	SD	0.999	0.910	0.792	0.513	**0.804**
		CV %	3.2	2.7	2.9	2.1	**2.7**
	based on 6 tests	SD	1.099	0.992	0.879	0.660	**0.908**
		CV %	3.5	2.9	3.2	2.7	**3.1**
	based on single tests	SD	1.230	1.128	0.993	0.846	**1.049**
		CV %	3.9	3.3	3.6	3.4	**3.6**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.338	0.354	0.286	0.270	**0.312**
		CV %	1.1	1.0	1.0	1.1	**1.1**
	between single tests on one day	SD	0.562	0.526	0.494	0.448	**0.508**
		CV %	1.8	1.6	1.8	1.8	**1.7**
	between all tests on different days	SD	0.666	0.651	0.590	0.530	**0.609**
		CV %	2.1	1.9	2.1	2.1	**2.1**

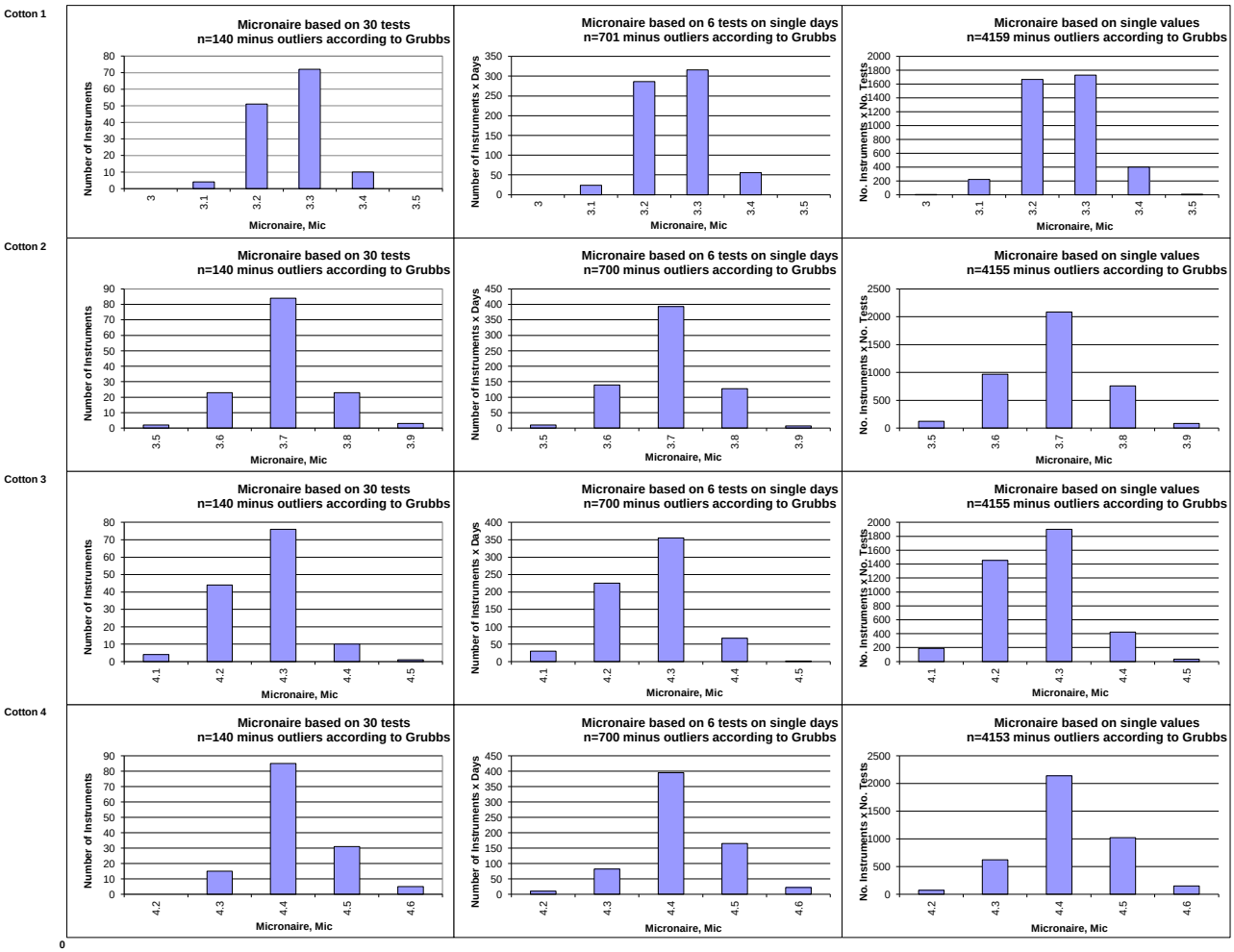
Length							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			1.0635	1.1862	1.0240	1.0042	
Reference Values for Evaluation			1.0635	1.1862	1.0240	1.0042	
Number Of Instruments			140	140	140	140	**140**
Inter-Instrument Variation	based on 30 tests	SD	0.0087	0.0092	0.0101	0.0105	**0.0096**
		CV %	0.8	0.8	1.0	1.1	**0.9**
	based on 6 tests	SD	0.0120	0.0108	0.0121	0.0118	**0.0117**
		CV %	1.1	0.9	1.2	1.2	**1.1**
	based on single tests	SD	0.0160	0.0148	0.0161	0.0151	**0.0155**
		CV %	1.5	1.2	1.6	1.5	**1.5**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.0056	0.0058	0.0058	0.0056	**0.0057**
		CV %	0.5	0.5	0.6	0.6	**0.5**
	between single tests on one day	SD	0.0099	0.0097	0.0102	0.0090	**0.0097**
		CV %	0.9	0.8	1.0	0.9	**0.9**
	between all tests on different days	SD	0.0113	0.0112	0.0118	0.0107	**0.0112**
		CV %	1.1	0.9	1.1	1.1	**1.1**

Uniformity							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			80.228	83.722	79.182	79.620	
Reference Values for Evaluation			80.228	83.722	79.182	79.620	
Number Of Instruments			139	139	139	139	**139**
Inter-Instrument Variation	based on 30 tests	SD	0.390	0.399	0.460	0.506	**0.439**
		CV %	0.5	0.5	0.6	0.6	**0.5**
	based on 6 tests	SD	0.475	0.490	0.577	0.593	**0.534**
		CV %	0.6	0.6	0.7	0.7	**0.7**
	based on single tests	SD	0.685	0.695	0.769	0.826	**0.744**
		CV %	0.9	0.8	1.0	1.0	**0.9**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.252	0.252	0.275	0.297	**0.269**
		CV %	0.3	0.3	0.3	0.4	**0.3**
	between single tests on one day	SD	0.512	0.459	0.522	0.535	**0.507**
		CV %	0.6	0.5	0.7	0.7	**0.6**
	between all tests on different days	SD	0.559	0.524	0.587	0.594	**0.566**
		CV %	0.7	0.6	0.7	0.7	**0.7**

Color Rd							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			77.227	75.371	80.026	77.795	
Reference Values for Evaluation			77.227	75.371	80.026	77.795	
Number Of Instruments			134	134	134	134	**134**
Inter-Instrument Variation	based on 30 tests	SD	0.600	0.755	0.590	0.649	**0.649**
		CV %	0.8	1.0	0.7	0.8	**0.8**
	based on 6 tests	SD	0.660	0.755	0.555	0.684	**0.664**
		CV %	0.9	1.0	0.7	0.9	**0.9**
	based on single tests	SD	0.700	0.794	0.572	0.705	**0.693**
		CV %	0.9	1.1	0.7	0.9	**0.9**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.155	0.148	0.124	0.132	**0.140**
		CV %	0.2	0.2	0.2	0.2	**0.2**
	between single tests on one day	SD	0.189	0.159	0.144	0.159	**0.163**
		CV %	0.2	0.2	0.2	0.2	**0.2**
	between all tests on different days	SD	0.260	0.227	0.207	0.225	**0.230**
		CV %	0.3	0.3	0.3	0.3	**0.3**

Color +b							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			12.302	13.138	10.365	12.509	
Reference Values for Evaluation			12.302	13.138	10.365	12.509	
Number Of Instruments			134	134	134	134	**134**
Inter-Instrument Variation	based on 30 tests	SD	0.242	0.296	0.242	0.304	**0.271**
		CV %	2.0	2.3	2.3	2.4	**2.2**
	based on 6 tests	SD	0.283	0.321	0.259	0.336	**0.300**
		CV %	2.3	2.4	2.5	2.7	**2.5**
	based on single tests	SD	0.308	0.341	0.288	0.378	**0.329**
		CV %	2.5	2.6	2.8	3.0	**2.7**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.103	0.101	0.089	0.093	**0.097**
		CV %	0.8	0.8	0.9	0.7	**0.8**
	between single tests on one day	SD	0.093	0.087	0.087	0.099	**0.092**
		CV %	0.8	0.7	0.8	0.8	**0.8**
	between all tests on different days	SD	0.152	0.161	0.121	0.139	**0.143**
		CV %	1.2	1.2	1.2	1.1	**1.2**

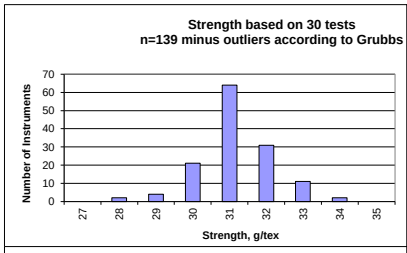
Test Result Distributions
Micronaire

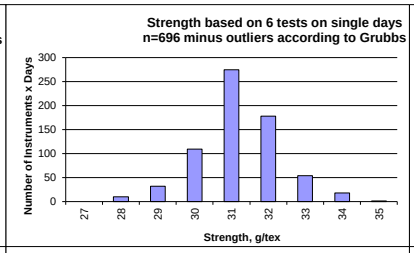


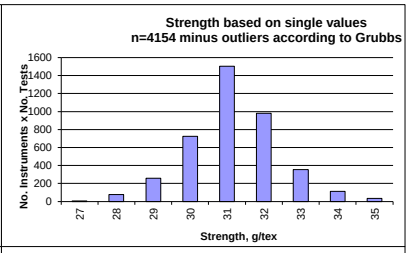
(Only results from instruments/days/single tests that are not regarded as outliers according to Grubbs' method.)
(classes are defined as > lower limit and <= upper limit)

Test Result Distributions
Strength

Cotton 1







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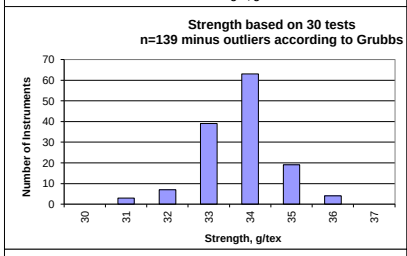
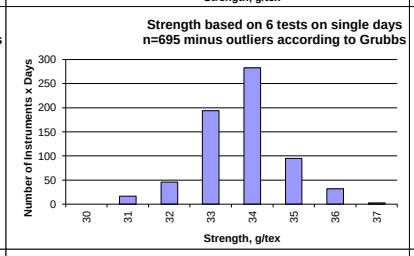
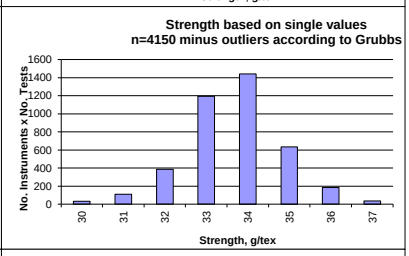
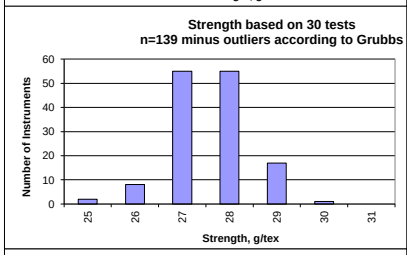
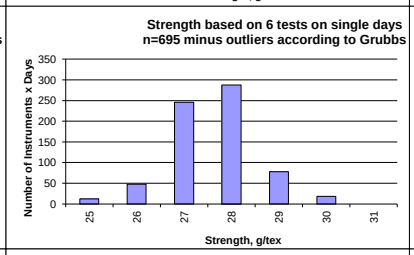


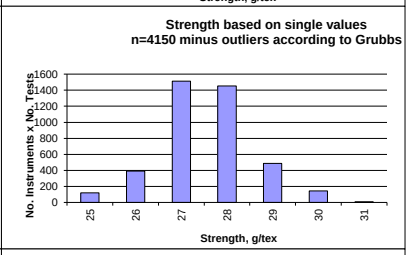




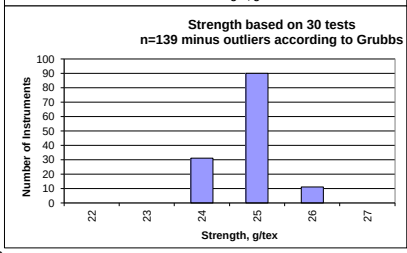
Cotton 3

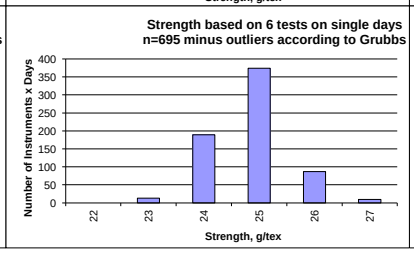


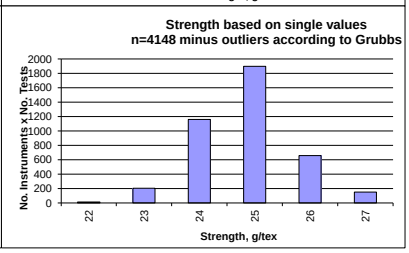




Cotton 4







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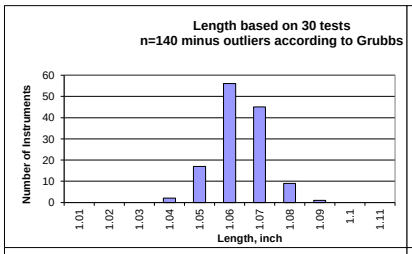
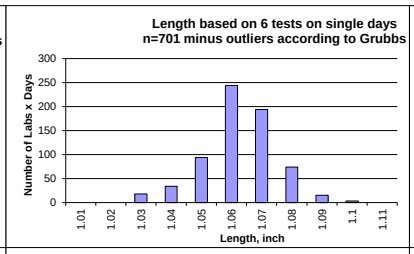
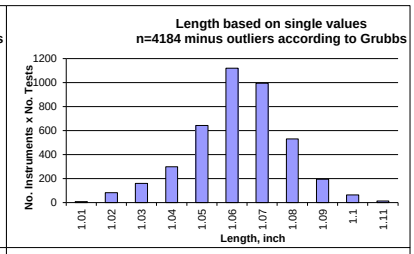
(Only results from instruments/days/single tests that are not regarded as outliers according to Grubbs' method)
(classes are defined as > lower limit and <= upper limit)

Test Result Distributions
Length

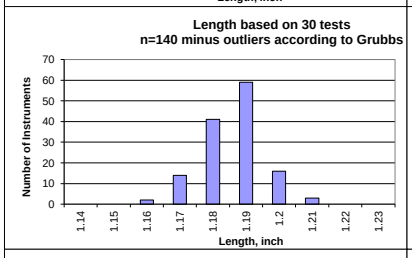
Cotton 1

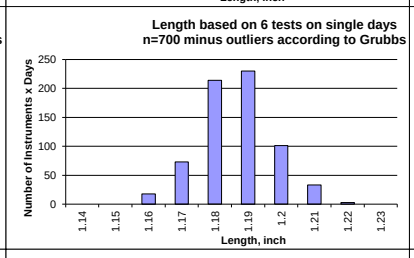


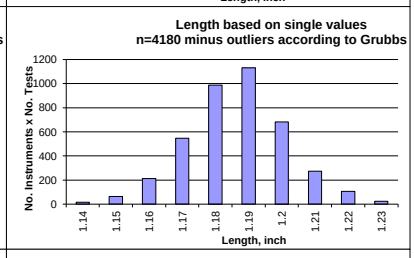




Cotton 2







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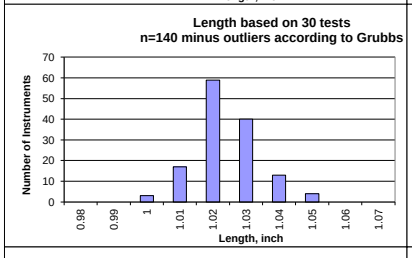

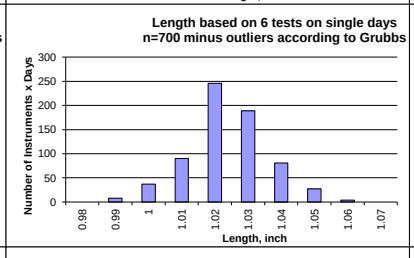

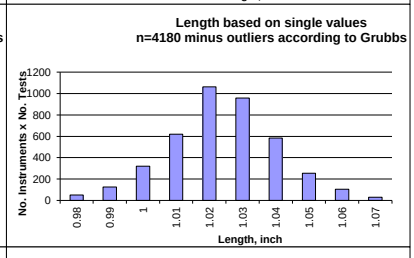

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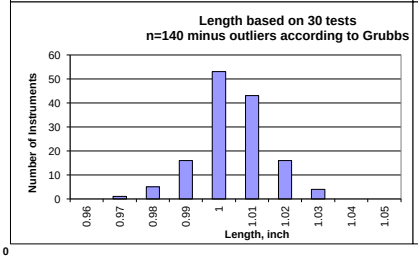

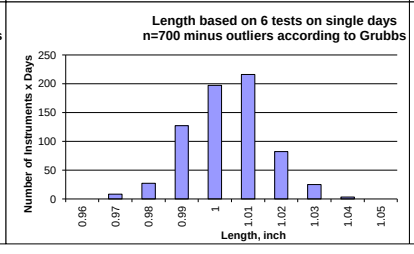

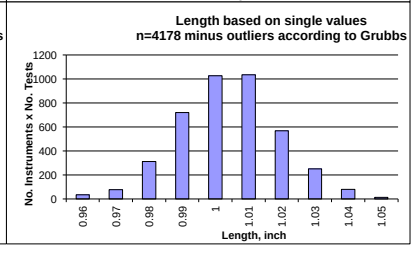

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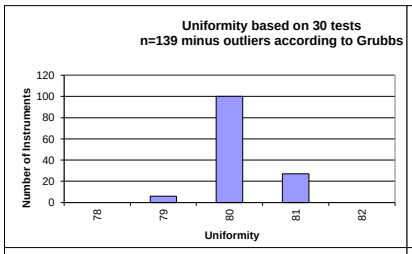
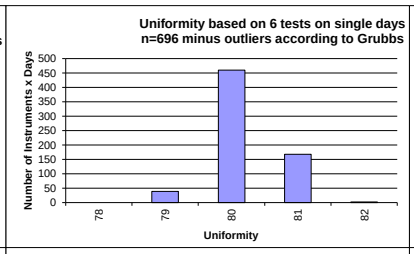
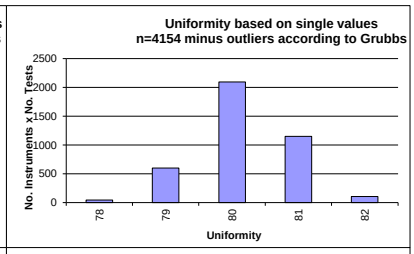
(Only results from instruments/days/single tests that are not regarded as outliers according to Grubbs' method)
(classes are defined as > lower limit and <= upper limit)

Test Result Distributions
Uniformity

Cotton 1







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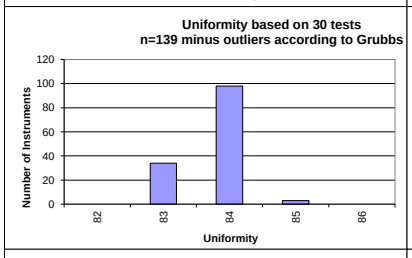

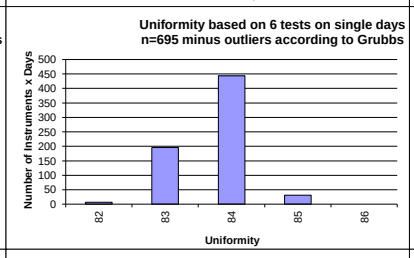

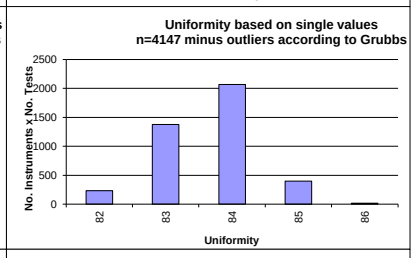

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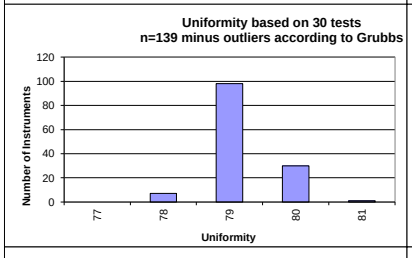
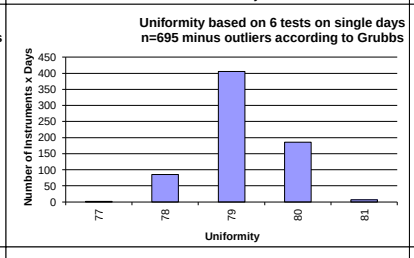
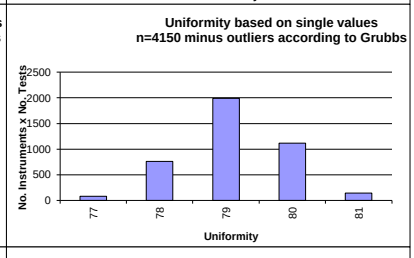
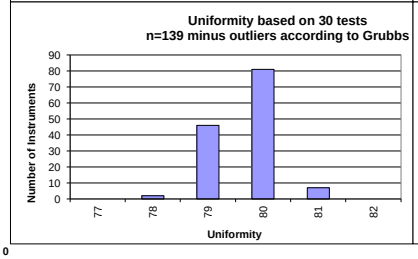
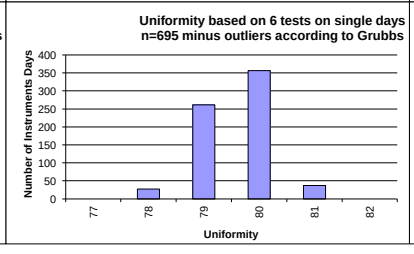


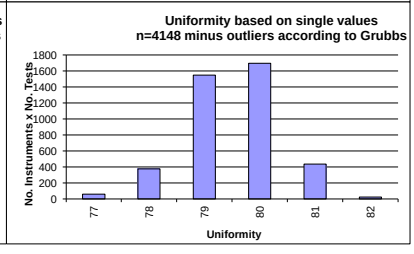




Cotton 4







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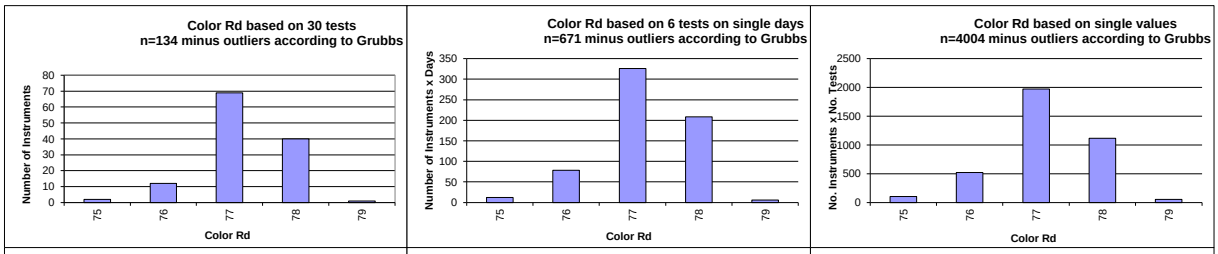
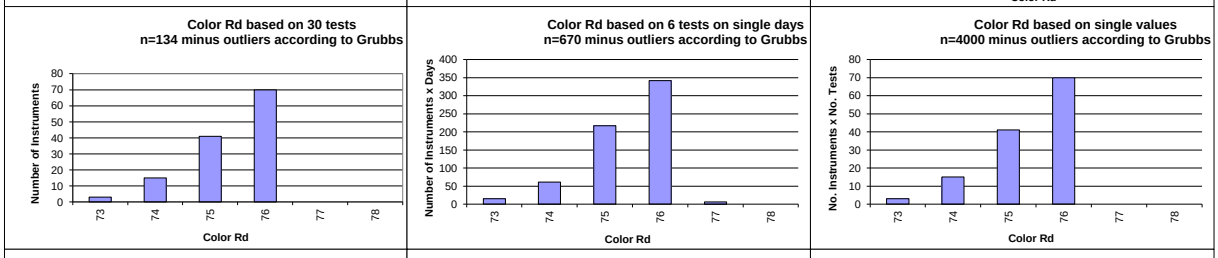
(Only results from instruments/days/single tests that are not regarded as outliers according to Grubbs' method)
(classes are defined as > lower limit and <= upper limit)

Test Result Distributions
Color Rd

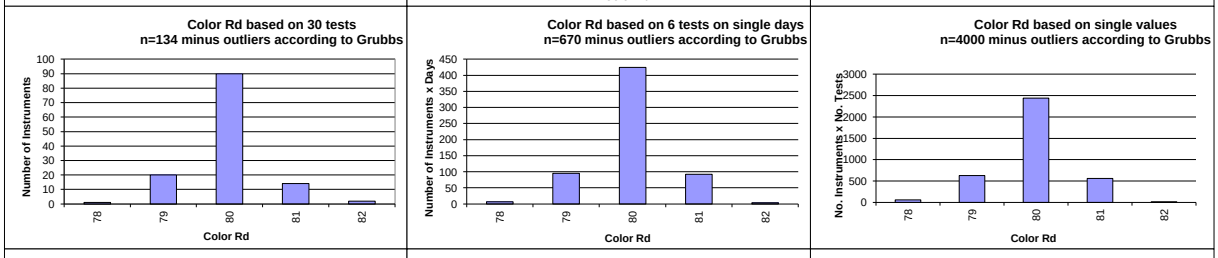
Cotton 1



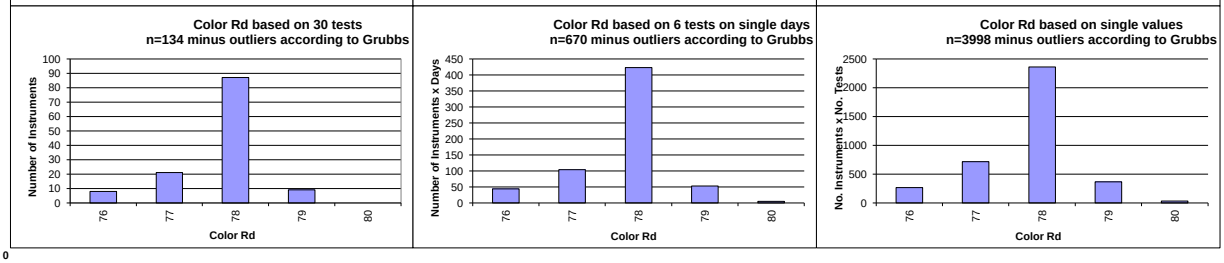
Cotton 2



Cotton 3



Cotton 4



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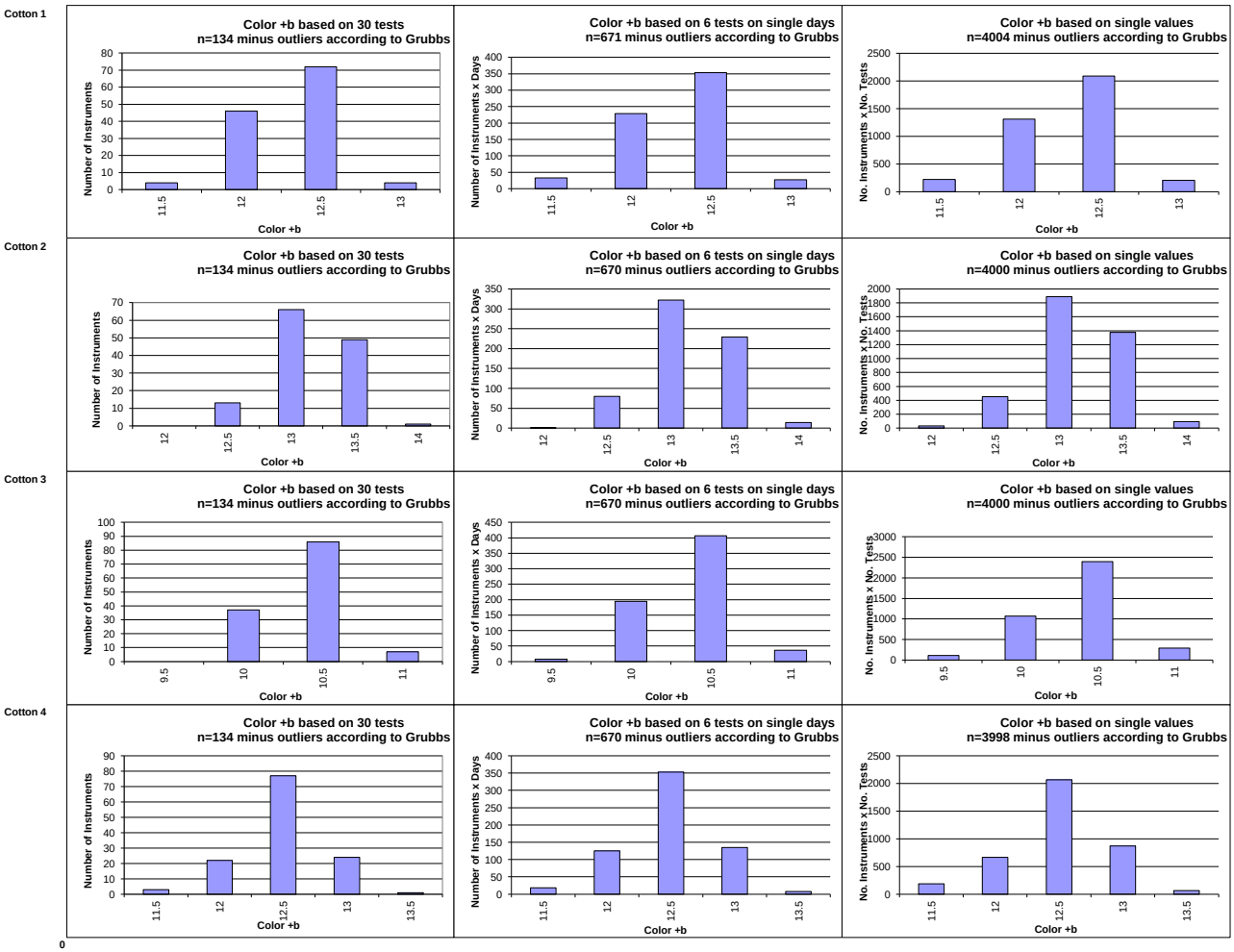
(Only results from instruments/days/single tests that are not regarded as outliers according to Grubbs' method)
(classes are defined as > lower limit and <= upper limit)

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

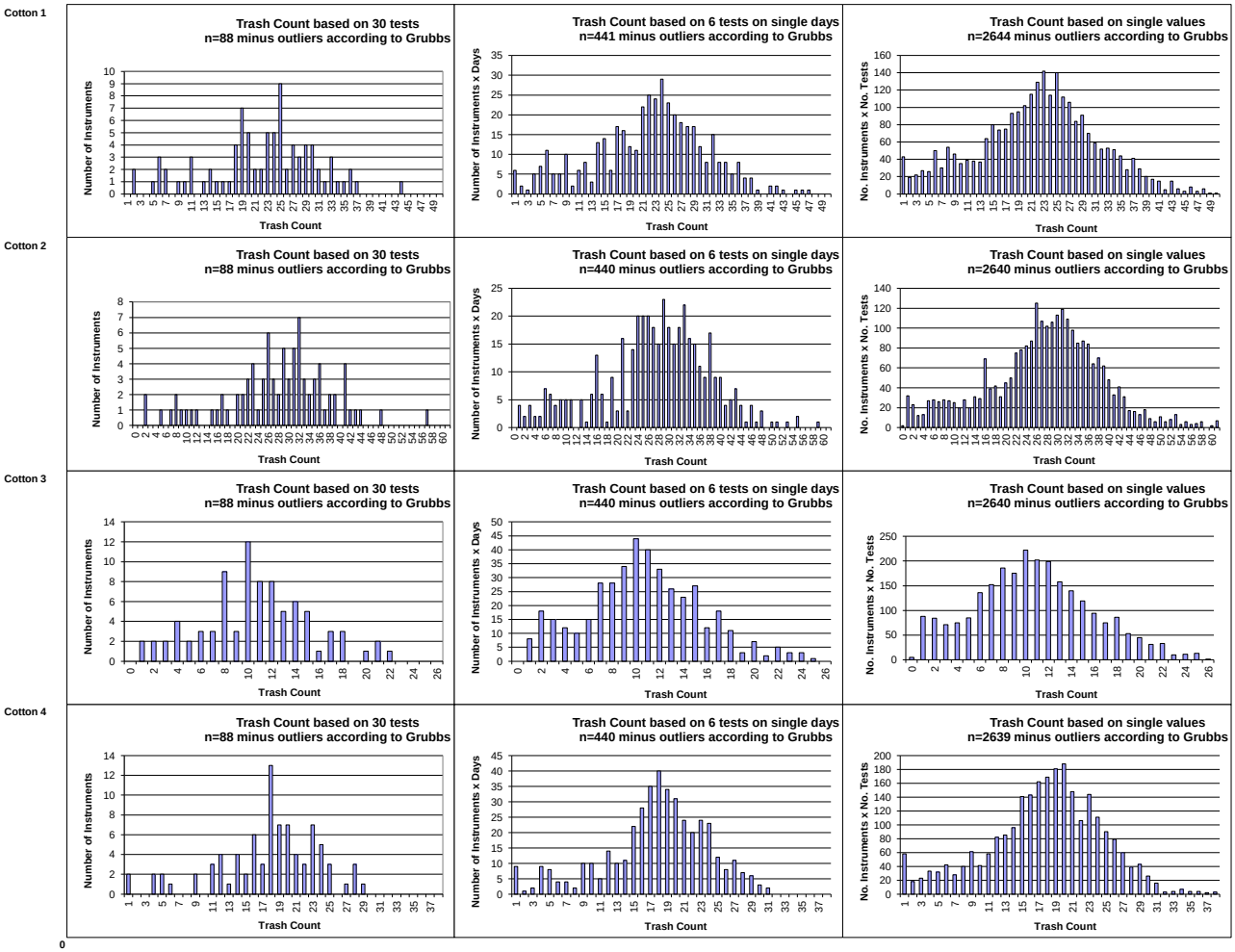
Trash Count							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			22.13	27.70	10.73	17.81	
Reference Values for Evaluation			22.13	27.70	10.73	17.81	
Number Of Instruments			88	88	88	88	**88**
Inter-Instrument Variation	based on 30 tests	SD	8.60	10.46	4.63	6.07	**7.44**
		CV %	38.9	37.8	43.1	34.1	**38.5**
	based on 6 tests	SD	8.92	10.58	4.92	6.29	**7.68**
		CV %	40.3	38.2	45.9	35.3	**39.9**
	based on single tests	SD	9.47	11.19	5.21	6.83	**8.18**
		CV %	42.8	40.4	48.6	38.3	**42.5**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	1.91	2.12	1.31	1.59	**1.73**
		CV %	8.6	7.7	12.2	8.9	**9.4**
	between single tests on one day	SD	2.40	2.52	1.62	2.19	**2.18**
		CV %	10.9	9.1	15.1	12.3	**11.8**
	between all tests on different days	SD	3.21	3.67	2.18	2.96	**3.01**
		CV %	14.5	13.3	20.3	16.6	**16.2**

Trash Area							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			0.189	0.215	0.098	0.170	
Reference Values for Evaluation			0.189	0.215	0.098	0.170	
Number Of Instruments			88	88	88	88	**88**
Inter-Instrument Variation	based on 30 tests	SD	0.061	0.069	0.029	0.048	**0.052**
		CV %	32.5	32.2	29.2	28.2	**30.5**
	based on 6 tests	SD	0.061	0.067	0.032	0.052	**0.053**
		CV %	32.1	31.2	33.0	30.3	**31.6**
	based on single tests	SD	0.067	0.073	0.037	0.061	**0.059**
		CV %	35.5	33.8	37.6	35.9	**35.7**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.020	0.022	0.014	0.020	**0.019**
		CV %	10.8	10.4	14.7	11.9	**12.0**
	between single tests on one day	SD	0.026	0.027	0.015	0.025	**0.023**
		CV %	13.7	12.3	15.8	14.6	**14.1**
	between all tests on different days	SD	0.037	0.039	0.024	0.040	**0.035**
		CV %	19.7	18.2	25.0	23.8	**21.7**

Maturity							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			83.01	84.57	84.32	85.42	
Reference Values for Evaluation			83.01	84.57	84.32	85.42	
Number Of Instruments			91	91	91	91	**91**
Inter-Instrument Variation	based on 30 tests	SD	1.18	1.14	1.65	1.80	**1.44**
		CV %	1.4	1.4	2.0	2.1	**1.7**
	based on 6 tests	SD	1.21	1.18	1.62	1.81	**1.45**
		CV %	1.5	1.4	1.9	2.1	**1.7**
	based on single tests	SD	1.15	1.24	1.61	1.84	**1.46**
		CV %	1.4	1.5	1.9	2.2	**1.7**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.17	0.19	0.19	0.18	**0.18**
		CV %	0.2	0.2	0.2	0.2	**0.2**
	between single tests on one day	SD	0.24	0.24	0.29	0.28	**0.26**
		CV %	0.3	0.3	0.3	0.3	**0.3**
	between all tests on different days	SD	0.38	0.40	0.45	0.43	**0.42**
		CV %	0.5	0.5	0.5	0.5	**0.5**

SFI							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			11.27	7.51	12.47	12.61	
Reference Values for Evaluation			11.27	7.51	12.47	12.61	
Number Of Instruments			102	102	101	102	**102**
Inter-Instrument Variation	based on 30 tests	SD	1.09	0.51	1.18	1.18	**0.99**
		CV %	9.7	6.8	9.5	9.3	**8.8**
	based on 6 tests	SD	1.18	0.57	1.24	1.26	**1.06**
		CV %	10.4	7.6	10.0	10.0	**9.5**
	based on single tests	SD	1.27	0.65	1.40	1.38	**1.17**
		CV %	11.2	8.7	11.2	11.0	**10.5**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.38	0.19	0.37	0.35	**0.32**
		CV %	3.3	2.6	3.0	2.8	**2.9**
	between single tests on one day	SD	0.59	0.31	0.61	0.61	**0.53**
		CV %	5.3	4.1	4.9	4.9	**4.8**
	between all tests on different days	SD	0.68	0.37	0.68	0.68	**0.60**
		CV %	6.1	5.0	5.4	5.4	**5.5**

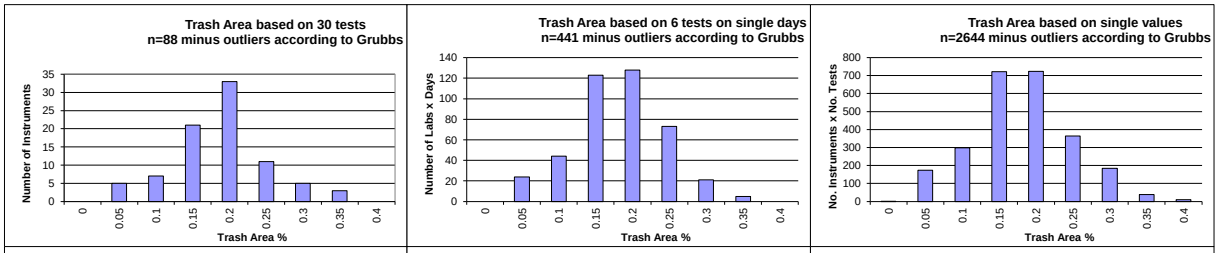
Test Result Distributions
Trash Count



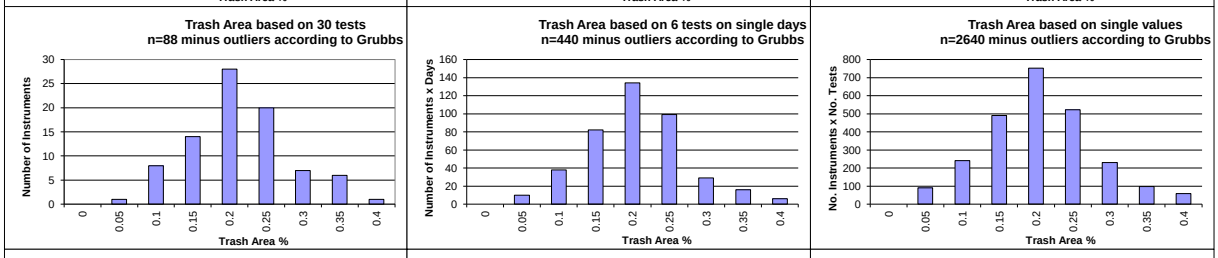
(Only results from instruments/days/single tests that are not regarded as outliers according to Grubbs' method)
(classes are defined as > lower limit and <= upper limit)

Test Result Distributions
Trash Area

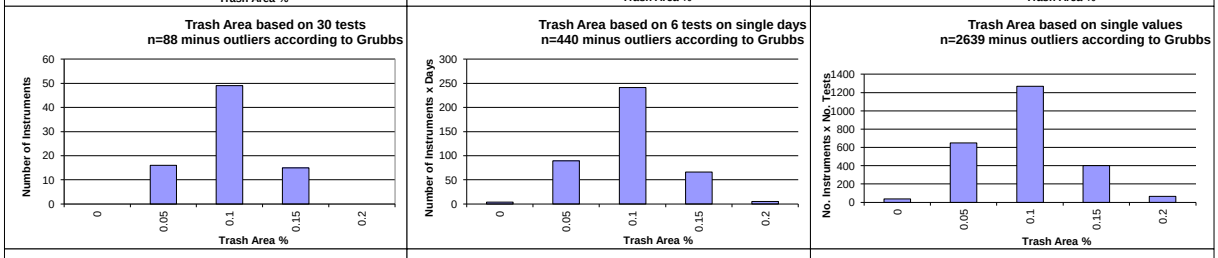
Cotton 1



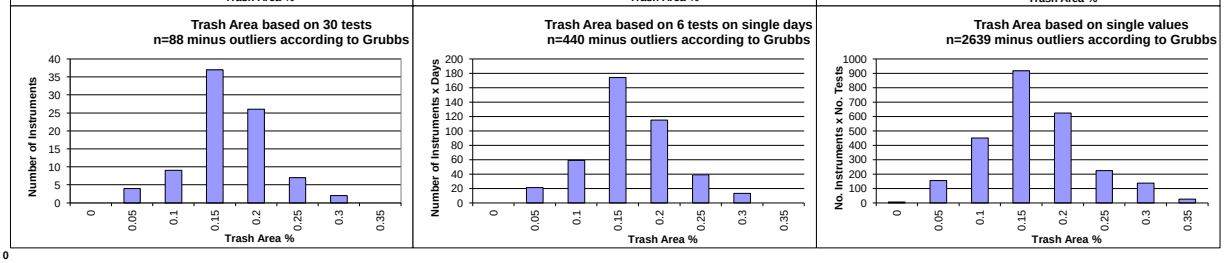
Cotton 2



Cotton 3



Cotton 4



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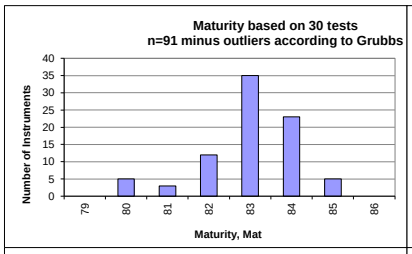
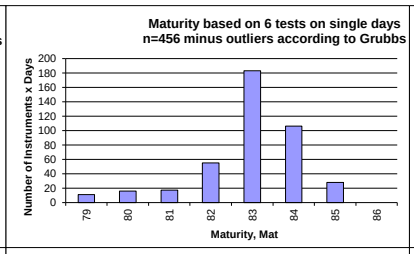
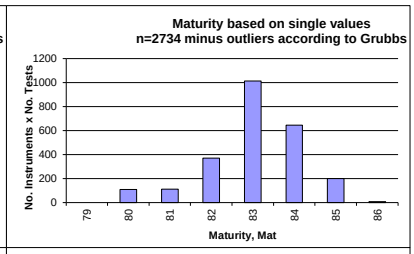
(Only results from instruments/days/single tests that are not regarded as outliers according to Grubbs' method)
(classes are defined as > lower limit and <= upper limit)

Test Result Distributions
Maturity

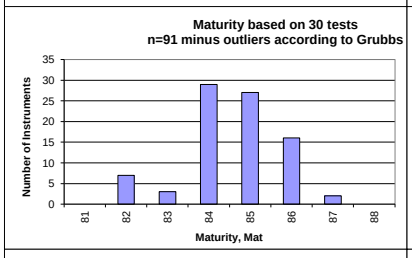
Cotton 1

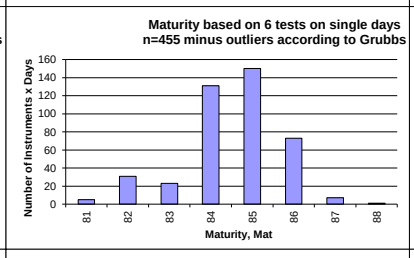


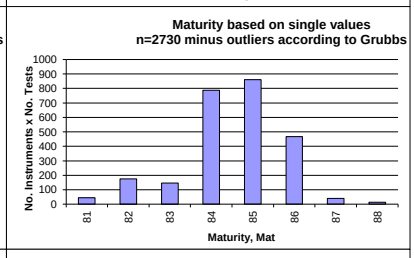




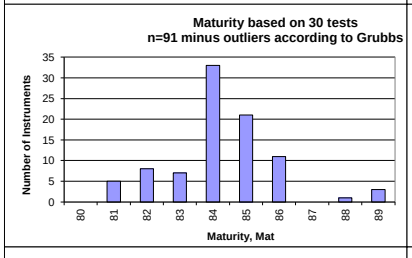
Cotton 2

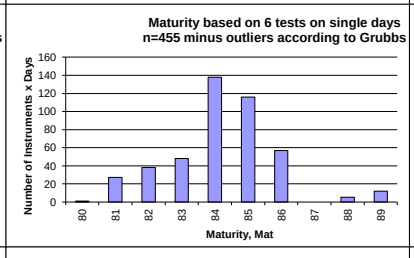


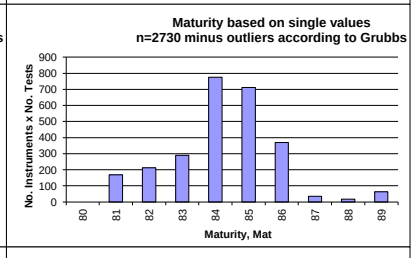




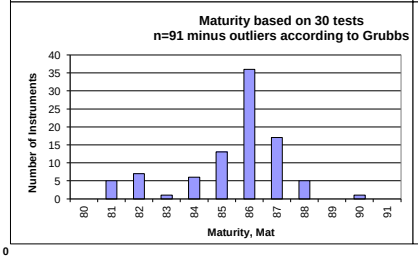
Cotton 3

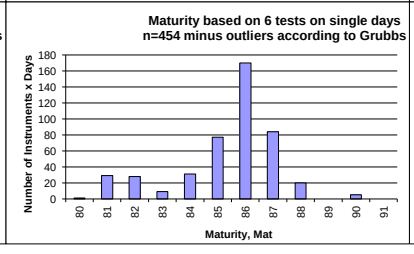


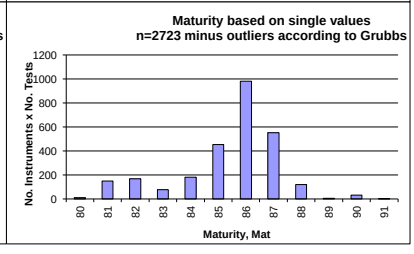




Cotton 4







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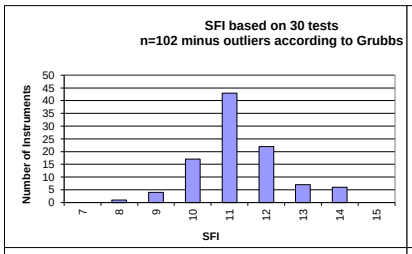
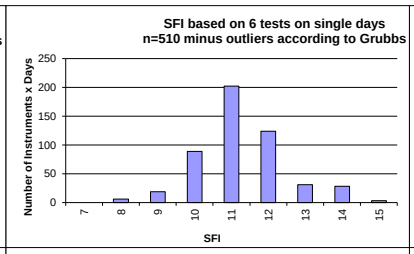
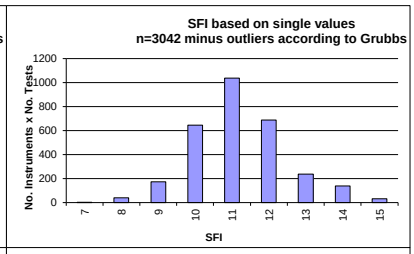
(classes are defined as > lower limit and <= upper limit)

Test Result Distributions
SFI

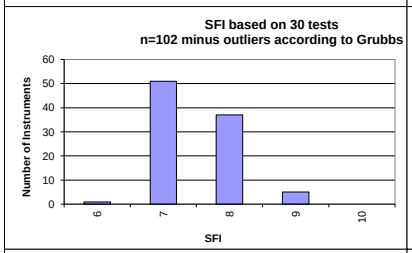
Cotton 1

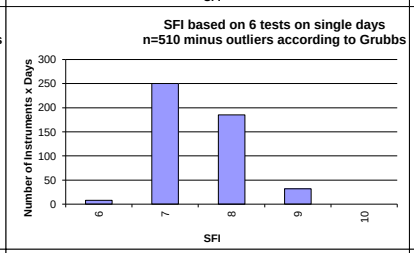


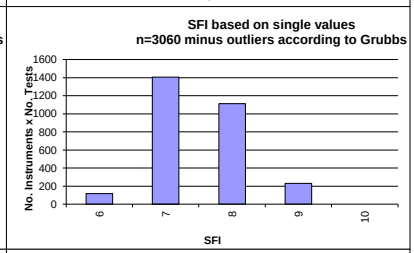




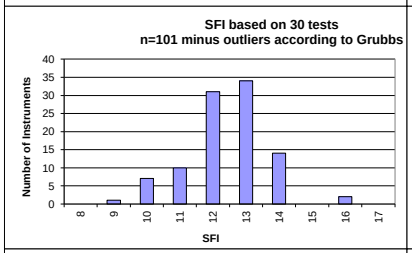
Cotton 2

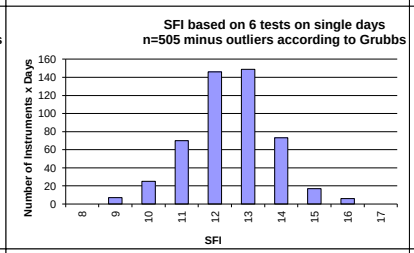


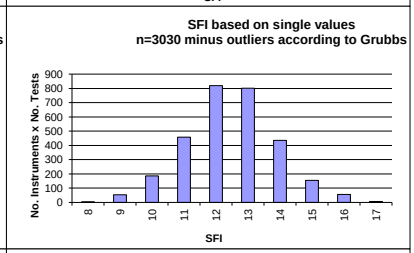




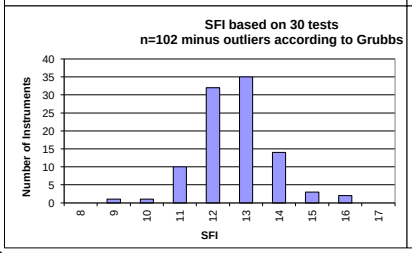
Cotton 3

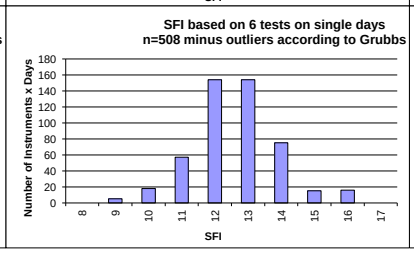


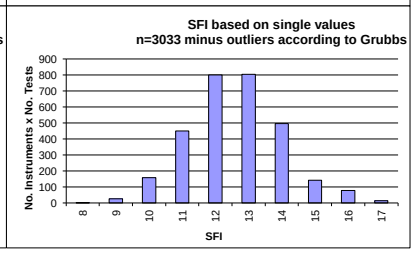




Cotton 4







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(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 - 4
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*

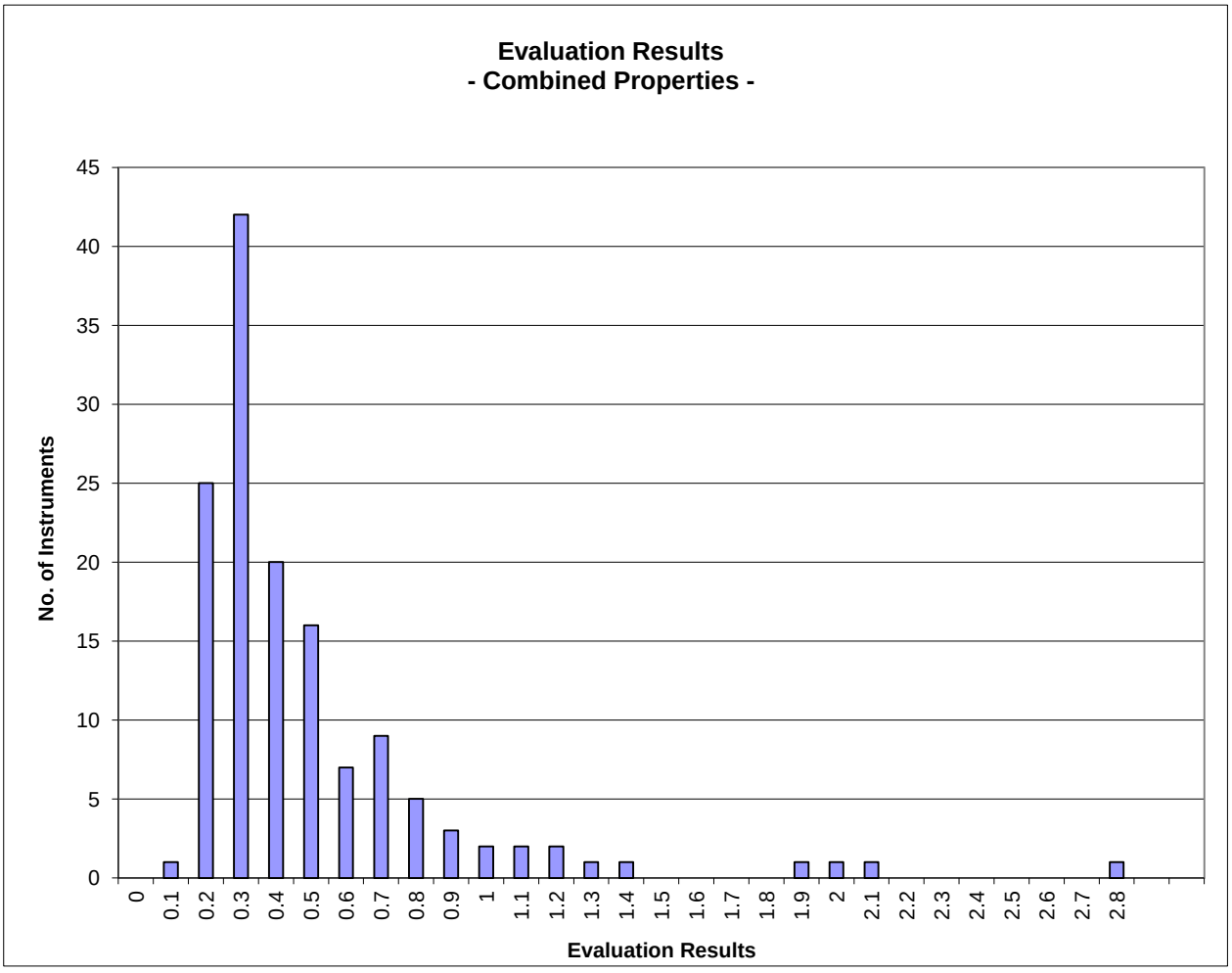
Instrument Evaluation

- Graph of Combined Properties -

According to ICAC CSITC Task Force Recommendations

Global - Round Trial 2016 - 4

		Evaluation Combined Prop.
Statistics	Average	0.49
	Median	0.35
	Best Instrument	0.15
	Worst Instrument	2.78



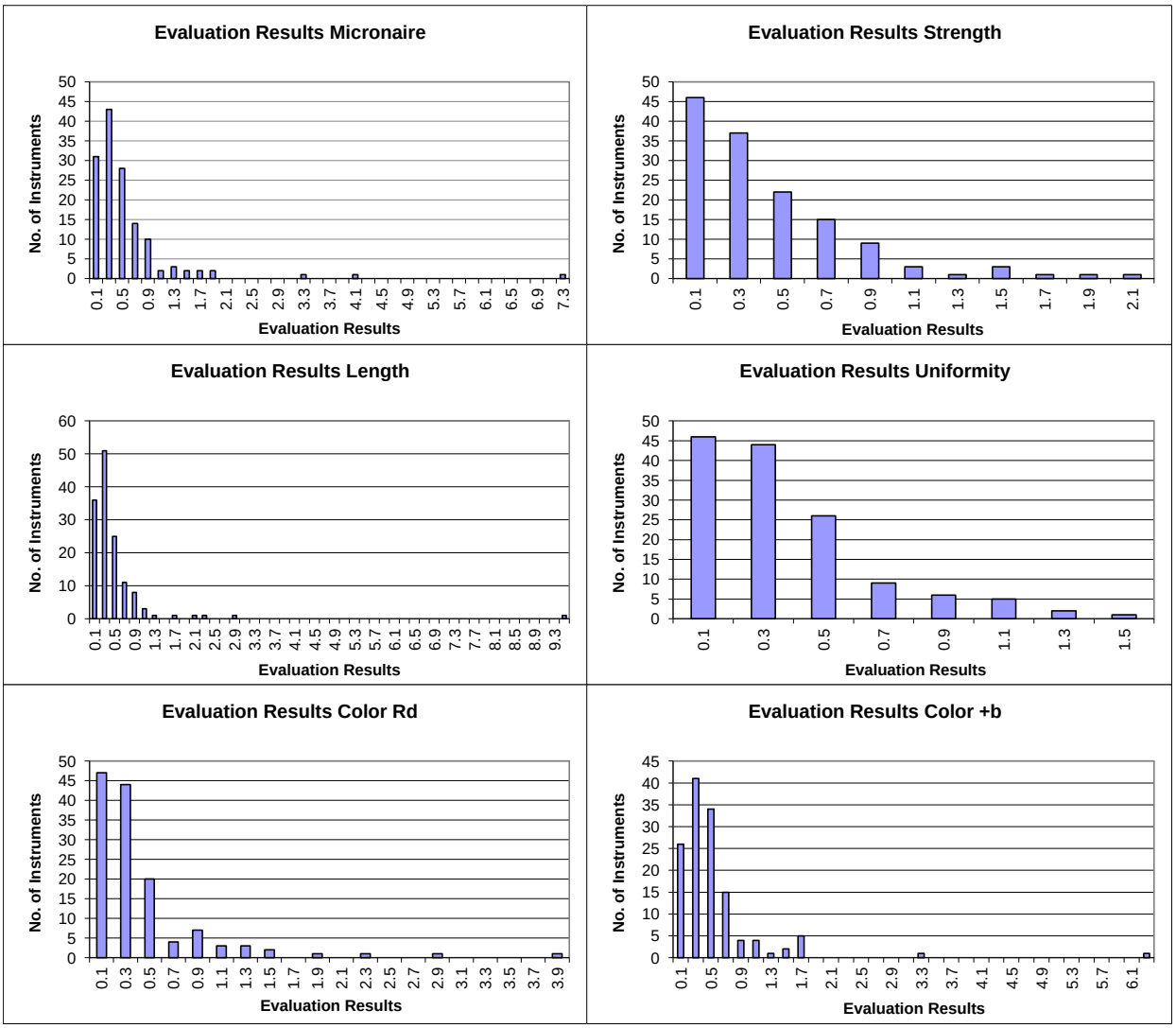
x-Axis shows midpoints of classes

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 - 4

		Evaluation Micronaire	Evaluation Strength	Evaluation Length	Evaluation Uniformity	Evaluation Color Rd	Evaluation Color +b
Statistics	Average	0.57	0.45	0.51	0.38	0.43	0.55
	Median	0.37	0.33	0.32	0.29	0.27	0.40
	Best Instr.	0.04	0.07	0.07	0.06	0.06	0.04
	Worst Instr.	7.35	2.02	9.42	1.60	3.84	6.30



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 - 4
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:
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** Faserinstitut Bremen are a Cooperation Partner with ICA Bremen*

Within Limits Evaluation

Based on average of 30 test results for each sample

	Micronaire	Strength	Length	Uniformity	Color Rd	Color +b
Limits	0.20	2.0	0.030	2.0	1.5	0.5
	units	g/tex	inch	%	units	units
Average % Results within Limits	97.1	95.0	96.1	98.7	89.6	87.9
Completely within limits	95.0	90.6	90.7	95.7	82.8	76.9
% of Instruments ≥75% within limits	97.1	93.5	95.7	99.3	88.8	87.3
% of Instruments ≥50% within limits	97.9	95.7	98.6	100.0	91.8	90.3

Percentage of Results Within Limits						
Instrument	**Micronaire**	**Strength**	**Length**	**Uniformity**	**Color Rd**	**Color +b**
GL164-001-01	100	100	100	100	100	100
GL164-001-02	100	100	100	100	100	100
GL164-002-01	100	100	100	100	100	100
GL164-004-20	100	100	100	100	100	100
GL164-004-21	100	100	100	100	100	100
GL164-006-01	100	75	100	100	50	100
GL164-007-31	100	100	100	100	100	100
GL164-007-32	100	100	100	100	100	100
GL164-009-03	75	25	100	100	0	50
GL164-010-01	100	100	100	100	100	100
GL164-011-17	100	100	100	100	100	100
GL164-011-18	100	100	100	100	100	100
GL164-012-02	100	100	100	100	100	100
GL164-013-01	100	75	75	100	0	100
GL164-014-01	100	100	100	100	100	100
GL164-016-01	100	100	100	100	0	25
GL164-016-02	100	100	100	100	100	100
GL164-016-03	100	50	100	100	0	100
GL164-016-04	100	25	50	100	100	75
GL164-017-01	100	100	100	100		
GL164-018-01	100	100	100	100	100	100
GL164-019-01	100	100	100	100	100	25
GL164-019-02	100	100	100	100	100	50
GL164-019-03	100	100	100	100	100	100
GL164-019-04	100	100	100	100	75	75
GL164-020-03	100	100	100	100	100	100
GL164-021-01	100	100	100	100	100	100
GL164-021-06	100	100	100	100	100	100
GL164-021-07	100	100	100	100	100	100
GL164-022-01	100	100	100	100	100	100
GL164-022-02	100	100	100	100	100	100
GL164-023-18	100	100	100	100	100	100
GL164-023-19	100	100	100	100	75	75
GL164-024-33	100	50	100	100	100	100

GL164-024-34	100	100	100	100	100	100
GL164-025-01	75	100	100	100		
GL164-025-02	100	100	100	100		
GL164-026-01	50	100	75	100	25	0
GL164-027-01	100	100	100	100	100	100
GL164-028-01	100	100	75	100	100	100
GL164-030-01	100	100	100	100	100	100
GL164-030-02	100	100	100	100	100	25
GL164-031-01	100	100	100	100	100	100
GL164-031-04	100	100	100	100	100	100
GL164-031-05	100	100	100	100	100	100
GL164-032-01	100	100	100	100	100	75
GL164-032-02	100	100	100	100	100	100
GL164-033-01	100	100	100	100	100	100
GL164-033-02	100	100	100	100	100	75
GL164-033-05	100	100	100	100	100	100
GL164-033-07	100	100	100	100	100	100
GL164-034-03	100	100	100	100	100	100
GL164-035-01	100	75	25	75	100	100
GL164-036-01	100	100	100	100	100	75
GL164-037-01	100	50	0	100	100	100
GL164-038-01	100	100	100	100	25	75
GL164-040-01	100	100	100	100	100	100
GL164-041-03	100	100	100	100	100	100
GL164-042-01	100	100	100	100	100	100
GL164-042-02	100	100	100	100	100	100
GL164-043-01	100	25	100	100	100	75
GL164-044-01	100	100	100	100	100	75
GL164-045-01	100	100	100	100	100	100
GL164-046-01	100	100	100	100	25	100
GL164-046-02	100	100	100	100	25	100
GL164-048-01	100	100	100	100	0	25
GL164-048-02	100	100	100	100	0	25
GL164-048-03	100	100	100	100	100	75
GL164-048-04	100	100	100	100	100	75
GL164-049-04	100	100	100	100	100	100
GL164-050-04	100	100	100	100	100	100
GL164-051-01	100	100	100	100	100	100
GL164-051-03	100	100	100	100	100	100
GL164-052-04	100	100	100	100	100	75
GL164-052-05	100	100	100	100	100	100
GL164-053-01	100	100	100	100	100	0
GL164-054-01	100	100	100	100	100	100
GL164-056-04	100	100	100	100	100	100
GL164-058-01	100	100	100	100	100	100
GL164-058-02	100	100	100	100	100	100
GL164-058-04	100	100	100	100	100	25
GL164-060-24	100	100	100	100	100	100
GL164-060-62	100	100	100	100	100	100
GL164-062-01	100	100	100	100	100	100
GL164-066-01	100	100	75	75	75	25
GL164-066-06	100	100	75	75	75	25
GL164-067-01	100	100	100	100	100	100
GL164-069-01	100	100	100	100	100	100
GL164-070-01	100	100	100	100	100	100

GL164-071-01	100	100	100	100	100	100
GL164-072-06	100	100	100	100	100	100
GL164-074-01	100	100	100	100	100	100
GL164-075-01	100	100	100	100	100	100
GL164-076-02	100	100	100	100	100	100
GL164-077-01	100	100	100	100	100	100
GL164-078-01	0	100	50	100	75	100
GL164-080-01	100	100	100	100	100	100
GL164-080-03	100	100	100	100	100	100
GL164-081-02	100	100	100	100	100	100
GL164-081-03	100	100	100	100	100	100
GL164-081-05	100	100	100	100	100	100
GL164-081-06	100	100	100	100	100	100
GL164-082-30	100	100	100	100	100	100
GL164-082-33	100	100	100	100	100	100
GL164-083-09	100	100	75	50	50	100
GL164-083-11	100	100	75	75	50	75
GL164-084-01	100	100	100	100	100	100
GL164-085-01	100	100	100	100	100	100
GL164-086-02	100	100	100	100	100	100
GL164-086-03	100	100	100	100	75	0
GL164-086-04	100	25	100	100	0	50
GL164-086-06	100	25	100	100	75	0
GL164-086-07	100	100	100	100	100	100
GL164-086-08	100	100	100	100	100	100
GL164-087-29	100	100	100	100	100	100
GL164-091-01	100	100	100	100	100	100
GL164-092-01	100	100	100	100	100	100
GL164-093-01	100	100	100	100	100	100
GL164-094-02	25	100	100	100		
GL164-094-03	100	100	100	100	100	100
GL164-095-01	100	100	100	100	100	100
GL164-096-01	100	75	100	100		
GL164-099-03	100	100	100	100	100	100
GL164-100-01	100	100	100	100	50	50
GL164-101-01	0	25	50	75	75	25
GL164-102-01	100	100	100	100	100	100
GL164-102-02	100	100	100	100	100	100
GL164-103-03	100	100	100	100	100	100
GL164-103-06	100	100	100	100	100	100
GL164-104-01	100	100	100	100	100	100
GL164-104-02	100	100	100	100	100	100
GL164-105-01	100	100	100	100	100	100
GL164-106-03	100	100	100	100	100	100
GL164-106-13	100	100	100	100	100	100
GL164-106-14	100	100	100	100	100	100
GL164-107-01	100	100	100	100	100	100
GL164-108-01	100	100	100	100	100	75
GL164-109-01	100	100	100	100	100	100
GL164-109-02	100	100	100	100	100	100
GL164-110-05	75		50			

Within Limits Evaluation

Based on Single Test Results

	Micronaire	Strength	Length	Uniformity	Color Rd	Color +b
Limits	0.20	2.0	0.030	2.0	1.5	0.5
	units	g/tex	inch	%	units	units
Average % Results within Limits	96.1	90.5	93.9	97.1	89.3	85.3
% of Instruments 100% within limits	68.6	32.4	30.0	48.9	60.4	34.3
% of Instruments ≥95% within limits	86.4	62.6	71.4	89.2	76.9	55.2
% of Instruments ≥75% within limits	96.4	86.3	95.0	96.4	85.1	78.4
% of Instruments ≥65% within limits	96.4	93.5	96.4	98.6	87.3	86.6
% of Instruments ≥50% within limits	98.6	95.0	98.6	100.0	91.8	89.6

Percentage of Results Within Limits						
Instrument	**Micronaire**	**Strength**	**Length**	**Uniformity**	**Color Rd**	**Color +b**
GL164-001-01	100	100	100	100	98	71
GL164-001-02	95	99	93	100	95	85
GL164-002-01	100	100	100	100	100	100
GL164-004-20	100	85	99	100	100	96
GL164-004-21	100	75	100	100	100	100
GL164-006-01	100	68	98	100	67	87
GL164-007-31	100	99	97	98	100	100
GL164-007-32	100	98	100	100	100	100
GL164-009-03	58	39	98	99	0	66
GL164-010-01	100	100	93	100	98	73
GL164-011-17	100	89	100	100	100	100
GL164-011-18	100	86	100	100	100	100
GL164-012-02	100	100	100	100	89	93
GL164-013-01	95	69	71	85	0	97
GL164-014-01	99	93	98	100	98	79
GL164-016-01	84	83	88	94	0	24
GL164-016-02	100	98	99	100	98	99
GL164-016-03	91	42	88	98	2	90
GL164-016-04	99	33	55	91	83	80
GL164-017-01	100	73	88	98		
GL164-018-01	99	99	98	100	100	98
GL164-019-01	83	94	88	100	100	39
GL164-019-02	92	99	89	99	95	50
GL164-019-03	98	97	94	100	96	100
GL164-019-04	83	99	95	89	75	75
GL164-020-03	100	99	99	98	100	100
GL164-021-01	100	100	100	100	100	100
GL164-021-06	100	100	100	100	100	100
GL164-021-07	100	100	100	100	100	95
GL164-022-01	100	96	100	100	100	100

GL164-022-02	100	100	100	100	100	100
GL164-023-18	100	98	100	100	100	93
GL164-023-19	96	85	95	100	80	80
GL164-024-33	100	60	93	98	100	100
GL164-024-34	100	73	94	100	99	99
GL164-025-01	82	93	93	99		
GL164-025-02	91	74	95	99		
GL164-026-01	56	71	85	84	38	0
GL164-027-01	100	100	100	96	98	90
GL164-028-01	100	100	78	97	100	100
GL164-030-01	100	95	97	99	98	79
GL164-030-02	98	98	95	98	77	22
GL164-031-01	100	100	100	100	100	100
GL164-031-04	100	100	100	100	100	93
GL164-031-05	100	100	100	100	100	98
GL164-032-01	92	98	97	98	93	57
GL164-032-02	93	98	95	98	91	63
GL164-033-01	100	98	99	100	100	99
GL164-033-02	100	100	100	100	99	83
GL164-033-05	100	98	99	100	100	100
GL164-033-07	100	100	100	100	100	96
GL164-034-03	100	98	98	100	100	100
GL164-035-01	100	68	54	67	98	89
GL164-036-01	100	95	85	98	96	73
GL164-037-01	95	50	0	90	100	85
GL164-038-01	100	90	93	96	48	74
GL164-040-01	99	96	100	100	100	100
GL164-041-03	95	92	98	100	100	93
GL164-042-01	100	91	100	99	100	99
GL164-042-02	100	67	98	99	100	95
GL164-043-01	100	31	100	98	93	79
GL164-044-01	100	100	99	99	98	78
GL164-045-01	100	100	100	98	99	99
GL164-046-01	98	74	82	96	57	97
GL164-046-02	98	74	82	96	57	97
GL164-048-01	98	94	98	95	13	28
GL164-048-02	98	94	98	95	13	28
GL164-048-03	98	98	99	100	100	65
GL164-048-04	100	99	95	100	100	86
GL164-049-04	100	98	89	99	100	99
GL164-050-04	100	100	100	99	100	100
GL164-051-01	92	87	94	99	100	93
GL164-051-03	98	90	97	94	100	97
GL164-052-04	100	90	98	98	100	81
GL164-052-05	100	88	99	100	100	91
GL164-053-01	100	97	98	99	98	12
GL164-054-01	100	100	100	100	100	100
GL164-056-04	100	97	98	99	100	100
GL164-058-01	100	91	91	98	100	88
GL164-058-02	100	99	99	100	100	100
GL164-058-04	100	96	100	100	100	40
GL164-060-24	100	100	99	100	100	100
GL164-060-62	100	96	99	100	100	99
GL164-062-01	100	100	100	100	100	100
GL164-066-01	100	95	97	73	63	25

GL164-066-06	100	98	87	72	71	38
GL164-067-01	100	80	98	100	98	94
GL164-069-01	100	97	93	80	100	99
GL164-070-01	100	100	100	99	100	100
GL164-071-01	100	89	100	100	99	98
GL164-072-06	100	100	98	100	98	71
GL164-074-01	100	100	100	100	100	93
GL164-075-01	100	99	98	100	100	93
GL164-076-02	98	98	98	99	96	98
GL164-077-01	100	94	99	99	100	100
GL164-078-01	0	83	61	97	84	100
GL164-080-01	100	100	96	98	100	100
GL164-080-03	100	100	99	96	100	100
GL164-081-02	100	100	96	100	100	100
GL164-081-03	100	95	94	98	100	100
GL164-081-05	99	100	98	100	100	100
GL164-081-06	100	100	93	100	100	100
GL164-082-30	100	96	100	100	100	100
GL164-082-33	100	93	97	98	100	100
GL164-083-09	100	100	86	59	59	91
GL164-083-11	100	100	90	60	37	69
GL164-084-01	100	100	98	100	100	99
GL164-085-01	100	100	100	100	100	93
GL164-086-02	98	93	98	100	98	98
GL164-086-03	99	75	82	97	73	45
GL164-086-04	96	39	86	97	14	58
GL164-086-06	100	48	84	97	57	47
GL164-086-07	100	81	98	100	93	100
GL164-086-08	93	89	96	96	100	96
GL164-087-29	100	100	93	100	100	73
GL164-091-01	100	100	98	99	100	100
GL164-092-01	100	100	93	100	100	100
GL164-093-01	99	97	93	100	96	73
GL164-094-02	50	84	99	99		
GL164-094-03	100	93	100	100	100	96
GL164-095-01	100	98	98	98	100	75
GL164-096-01	99	75	98	100		
GL164-099-03	100	100	98	100	90	97
GL164-100-01	93	98	98	100	48	37
GL164-101-01	3	35	72	75	63	22
GL164-102-01	100	100	99	98	100	100
GL164-102-02	100	98	99	99	100	100
GL164-103-03	100	100	100	100	100	100
GL164-103-06	100	100	100	100	100	100
GL164-104-01	100	93	98	99	100	98
GL164-104-02	100	76	98	100	100	90
GL164-105-01	93	100	100	99	100	100
GL164-106-03	100	99	100	99	100	100
GL164-106-13	100	100	100	99	100	100
GL164-106-14	100	100	100	99	100	100
GL164-107-01	100	98	100	99	100	95
GL164-108-01	98	97	85	93	100	74
GL164-109-01	100	100	100	100	100	93
GL164-109-02	100	100	100	100	100	98
GL164-110-05	88		36			