International Cotton Advisory Committee

CSITC
Global - Round Trial 2018 - 2
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

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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 2018 - 2

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

Micronaire							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			3.590	4.191	3.675	4.242	
Reference Values for Evaluation			3.590	4.191	3.675	4.242	
Number Of Instruments			122	122	122	122	**122**
Inter-Instrument Variation	based on 30 tests	SD	0.062	0.052	0.066	0.054	**0.058**
		CV %	1.7	1.2	1.8	1.3	**1.5**
	based on 6 tests	SD	0.070	0.056	0.070	0.057	**0.063**
		CV %	2.0	1.3	1.9	1.3	**1.6**
	based on single tests	SD	0.080	0.067	0.081	0.066	**0.074**
		CV %	2.2	1.6	2.2	1.6	**1.9**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.025	0.024	0.027	0.022	**0.025**
		CV %	0.7	0.6	0.7	0.5	**0.6**
	between single tests on one day	SD	0.034	0.032	0.039	0.033	**0.034**
		CV %	0.9	0.8	1.1	0.8	**0.9**
	between all tests on different days	SD	0.046	0.040	0.046	0.040	**0.043**
		CV %	1.3	1.0	1.3	0.9	**1.1**

Strength							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			26.020	32.173	22.307	28.981	
Reference Values for Evaluation			26.020	32.173	22.307	28.981	
Number Of Instruments			122	122	122	122	**122**
Inter-Instrument Variation	based on 30 tests	SD	0.659	0.834	0.578	0.814	**0.721**
		CV %	2.5	2.6	2.6	2.8	**2.6**
	based on 6 tests	SD	0.772	0.915	0.728	0.946	**0.840**
		CV %	3.0	2.8	3.3	3.3	**3.1**
	based on single tests	SD	0.992	1.117	0.913	1.102	**1.031**
		CV %	3.8	3.5	4.1	3.8	**3.8**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.367	0.423	0.317	0.409	**0.379**
		CV %	1.4	1.3	1.4	1.4	**1.4**
	between single tests on one day	SD	0.580	0.618	0.534	0.635	**0.592**
		CV %	2.2	1.9	2.4	2.2	**2.2**
	between all tests on different days	SD	0.686	0.737	0.627	0.758	**0.702**
		CV %	2.6	2.3	2.8	2.6	**2.6**

Length							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			1.0903	1.1588	0.9824	1.0354	
Reference Values for Evaluation			1.0903	1.1588	0.9824	1.0354	
Number Of Instruments			123	123	123	123	**123**
Inter-Instrument Variation	based on 30 tests	SD	0.0097	0.0095	0.0095	0.0112	**0.0100**
		CV %	0.9	0.8	1.0	1.1	**0.9**
	based on 6 tests	SD	0.0116	0.0111	0.0118	0.0128	**0.0119**
		CV %	1.1	1.0	1.2	1.2	**1.1**
	based on single tests	SD	0.0159	0.0152	0.0159	0.0163	**0.0158**
		CV %	1.5	1.3	1.6	1.6	**1.5**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.0060	0.0055	0.0061	0.0055	**0.0058**
		CV %	0.6	0.5	0.6	0.5	**0.5**
	between single tests on one day	SD	0.0108	0.0104	0.0105	0.0103	**0.0105**
		CV %	1.0	0.9	1.1	1.0	**1.0**
	between all tests on different days	SD	0.0123	0.0117	0.0123	0.0114	**0.0119**
		CV %	1.1	1.0	1.3	1.1	**1.1**

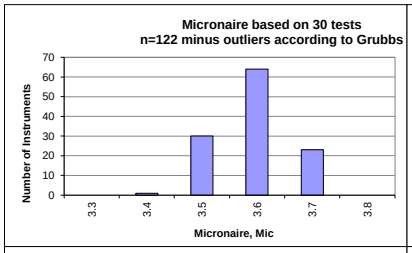
Uniformity							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			79.580	83.900	77.761	80.236	
Reference Values for Evaluation			79.580	83.900	77.761	80.236	
Number Of Instruments			122	122	122	122	**122**
Inter-Instrument Variation	based on 30 tests	SD	0.487	0.414	0.504	0.443	**0.462**
		CV %	0.6	0.5	0.6	0.6	**0.6**
	based on 6 tests	SD	0.582	0.472	0.601	0.541	**0.549**
		CV %	0.7	0.6	0.8	0.7	**0.7**
	based on single tests	SD	0.866	0.659	0.848	0.745	**0.779**
		CV %	1.1	0.8	1.1	0.9	**1.0**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.317	0.237	0.332	0.281	**0.292**
		CV %	0.4	0.3	0.4	0.3	**0.4**
	between single tests on one day	SD	0.577	0.467	0.587	0.510	**0.535**
		CV %	0.7	0.6	0.8	0.6	**0.7**
	between all tests on different days	SD	0.631	0.519	0.665	0.577	**0.598**
		CV %	0.8	0.6	0.9	0.7	**0.7**

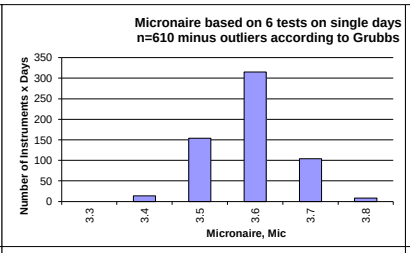
Color Rd							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			72.033	74.881	76.743	77.887	
Reference Values for Evaluation			72.033	74.881	76.743	77.887	
Number Of Instruments			119	119	119	119	**119**
Inter-Instrument Variation	based on 30 tests	SD	0.534	0.488	0.499	0.531	**0.513**
		CV %	0.7	0.7	0.6	0.7	**0.7**
	based on 6 tests	SD	0.576	0.555	0.534	0.561	**0.557**
		CV %	0.8	0.7	0.7	0.7	**0.7**
	based on single tests	SD	0.604	0.616	0.567	0.577	**0.591**
		CV %	0.8	0.8	0.7	0.7	**0.8**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.174	0.177	0.205	0.171	**0.182**
		CV %	0.2	0.2	0.3	0.2	**0.2**
	between single tests on one day	SD	0.169	0.158	0.209	0.151	**0.172**
		CV %	0.2	0.2	0.3	0.2	**0.2**
	between all tests on different days	SD	0.262	0.266	0.333	0.240	**0.275**
		CV %	0.4	0.4	0.4	0.3	**0.4**

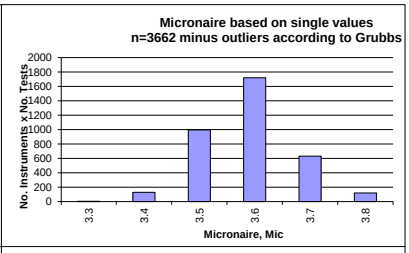
Color +b							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			16.459	15.046	9.156	11.714	
Reference Values for Evaluation			16.459	15.046	9.156	11.714	
Number Of Instruments			119	119	119	119	**119**
Inter-Instrument Variation	based on 30 tests	SD	0.396	0.333	0.217	0.294	**0.310**
		CV %	2.4	2.2	2.4	2.5	**2.4**
	based on 6 tests	SD	0.412	0.325	0.268	0.324	**0.332**
		CV %	2.5	2.2	2.9	2.8	**2.6**
	based on single tests	SD	0.446	0.352	0.291	0.332	**0.355**
		CV %	2.7	2.3	3.2	2.8	**2.8**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.136	0.123	0.099	0.110	**0.117**
		CV %	0.8	0.8	1.1	0.9	**0.9**
	between single tests on one day	SD	0.117	0.112	0.091	0.087	**0.102**
		CV %	0.7	0.7	1.0	0.7	**0.8**
	between all tests on different days	SD	0.199	0.183	0.156	0.154	**0.173**
		CV %	1.2	1.2	1.7	1.3	**1.4**

Test Result Distributions
Micronaire

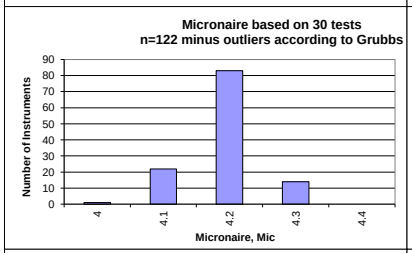
Cotton 1

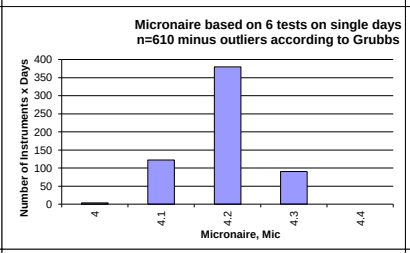


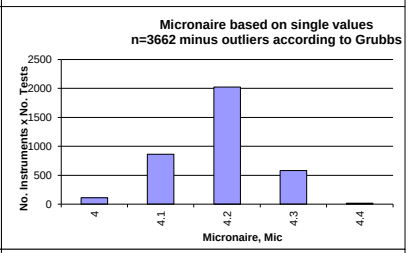




Cotton 2







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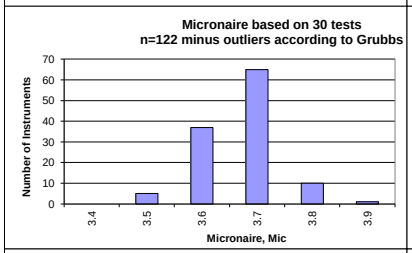
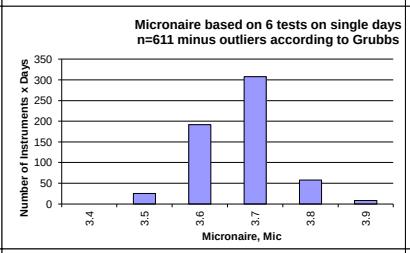
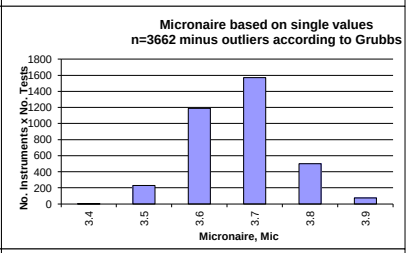
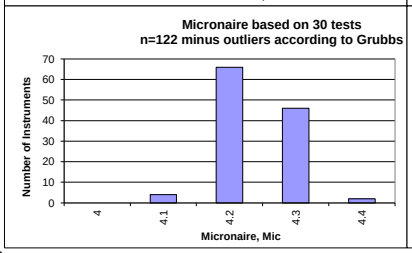
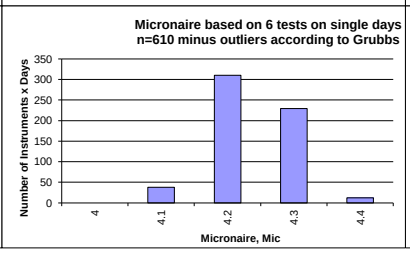


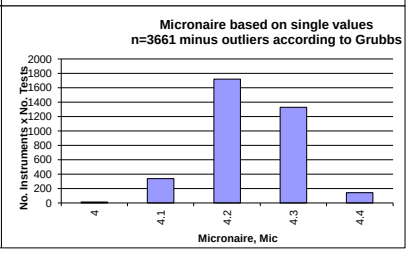




Cotton 4







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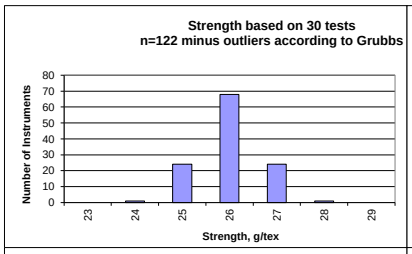
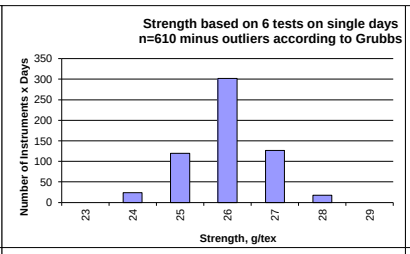
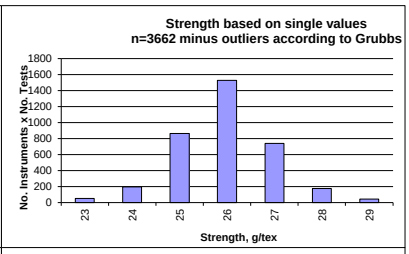
(Only results from instruments/days/single tests that are not regarded as outliers according to Grubbs' method.)
(classes are defined as > lower limit and <= upper limit)

Test Result Distributions
Strength

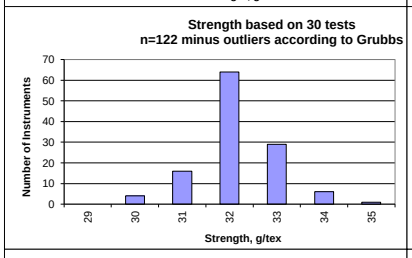
Cotton 1

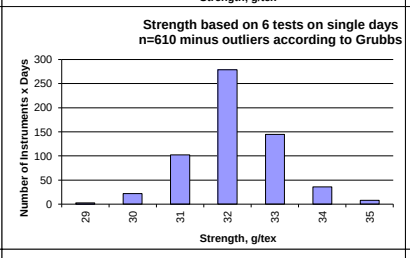


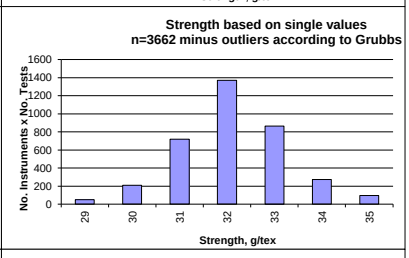




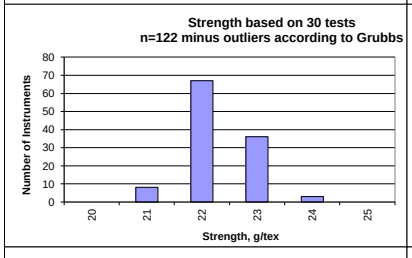
Cotton 2

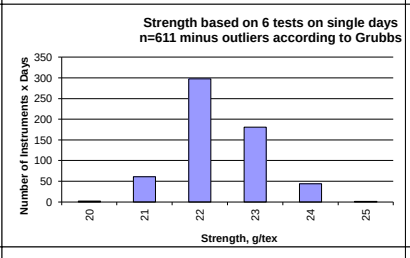


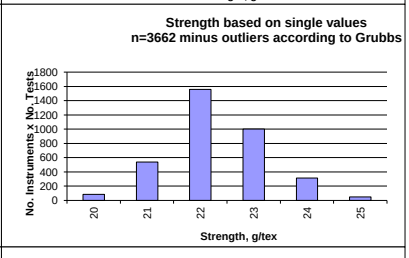




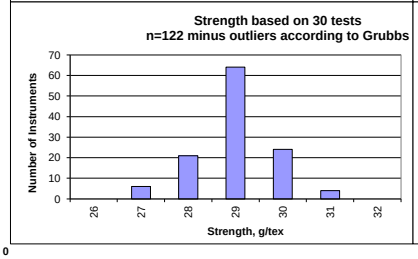
Cotton 3

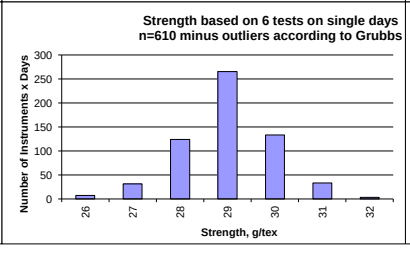


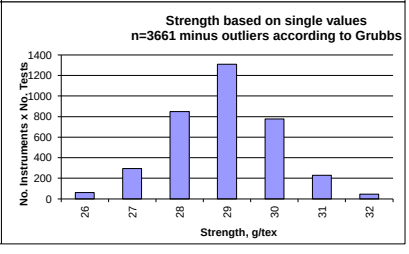




Cotton 4







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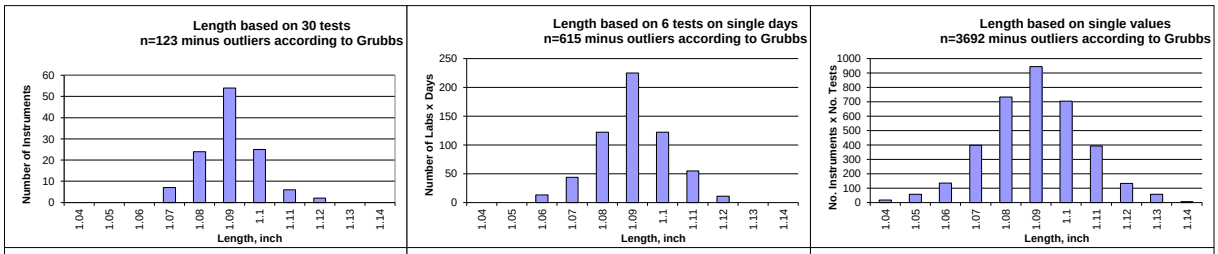
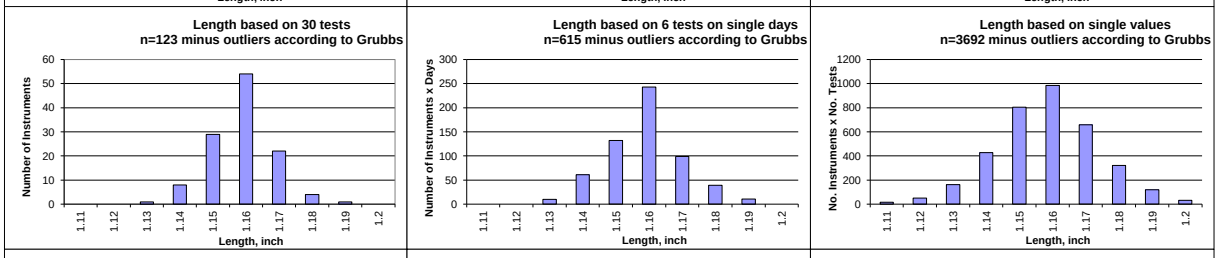
(Only results from instruments/days/single tests that are not regarded as outliers according to Grubbs' method)
(classes are defined as > lower limit and <= upper limit)

Test Result Distributions
Length

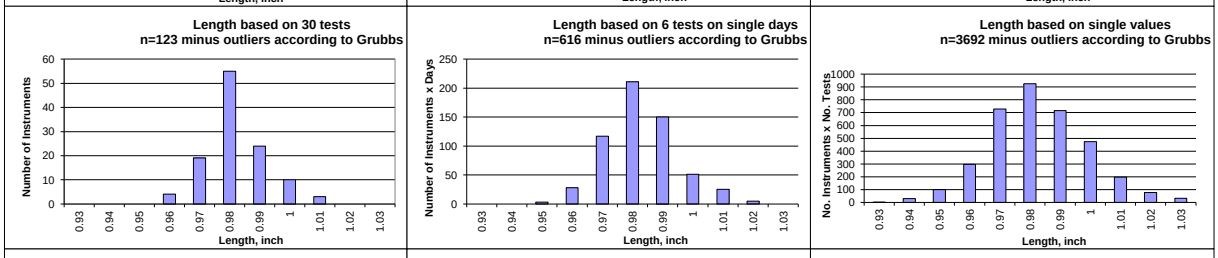
Cotton 1



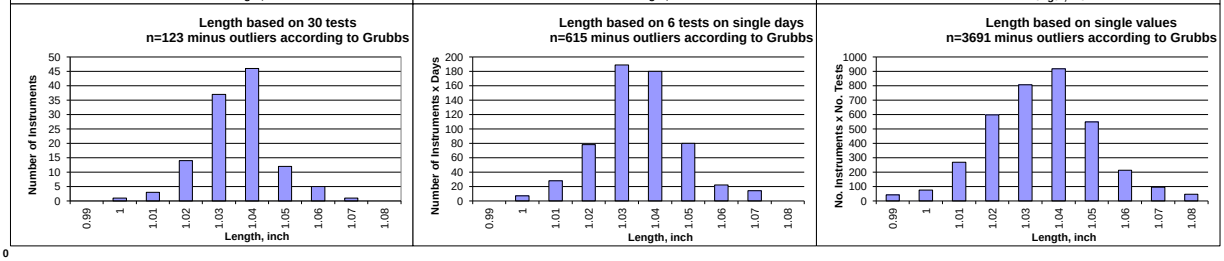
Cotton 2



Cotton 3



Cotton 4



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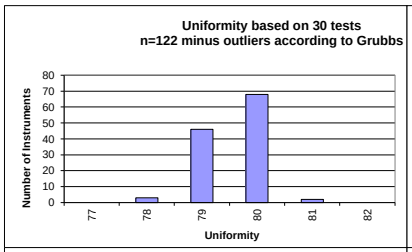
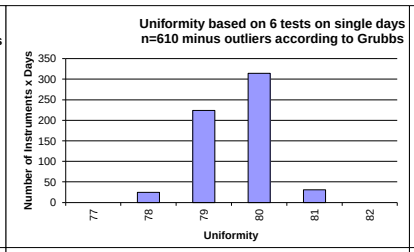
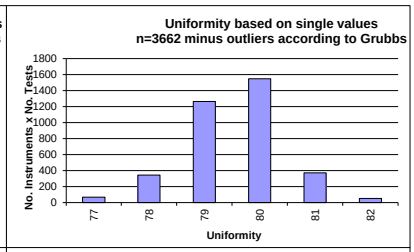
(Only results from instruments/days/single tests that are not regarded as outliers according to Grubbs' method)
(classes are defined as > lower limit and <= upper limit)

Test Result Distributions
Uniformity

Cotton 1







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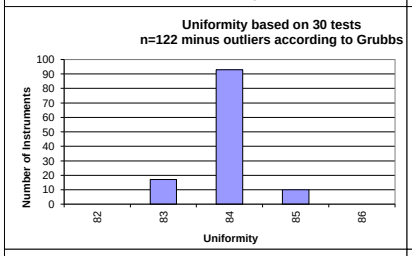
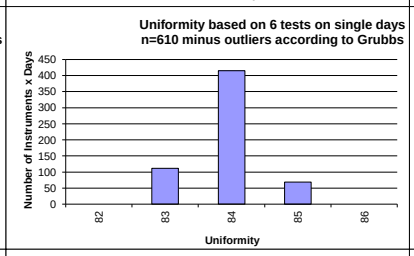
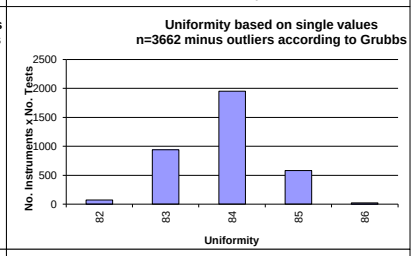
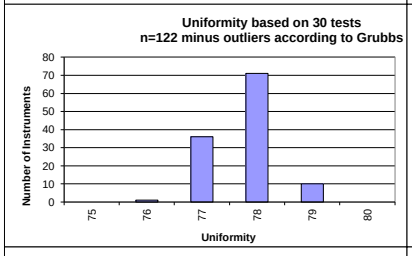
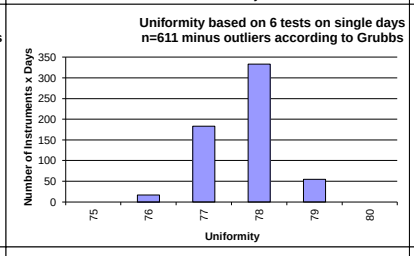


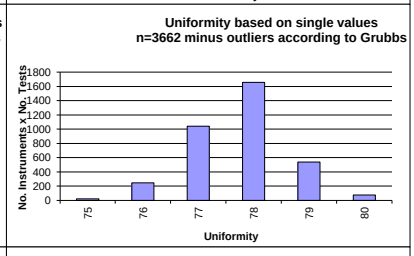




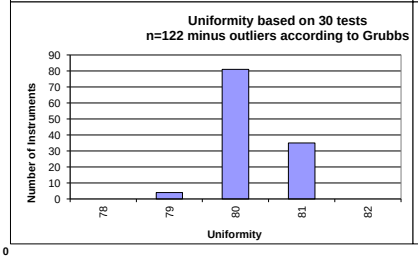
Cotton 3

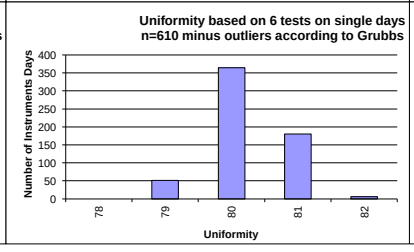


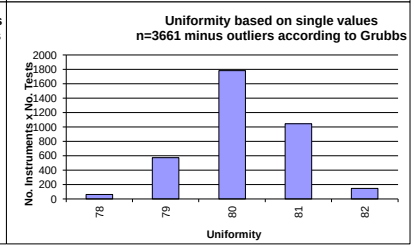




Cotton 4







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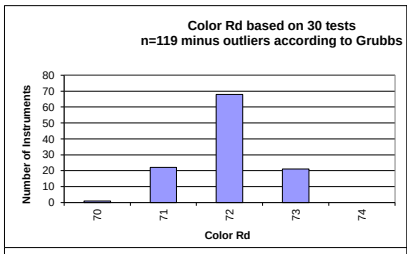
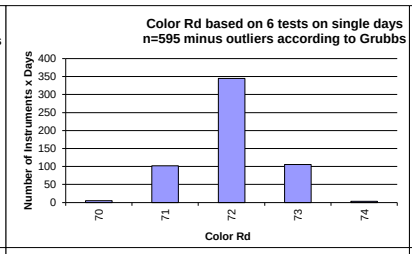
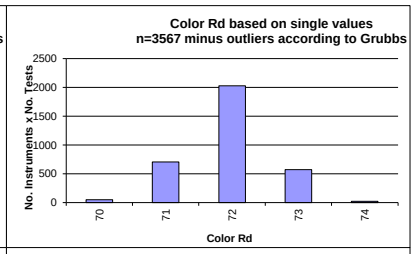
(Only results from instruments/days/single tests that are not regarded as outliers according to Grubbs' method)
(classes are defined as > lower limit and <= upper limit)

Test Result Distributions
Color Rd

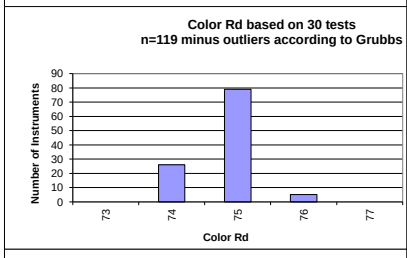
Cotton 1

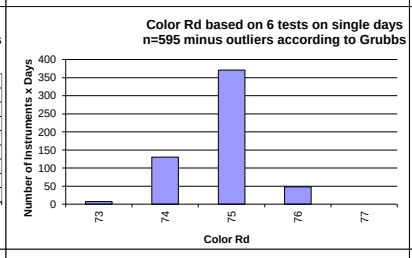


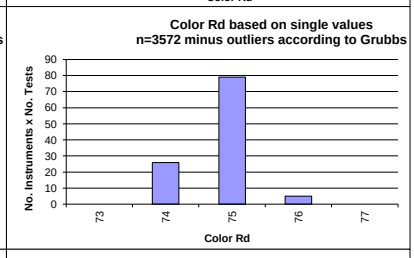




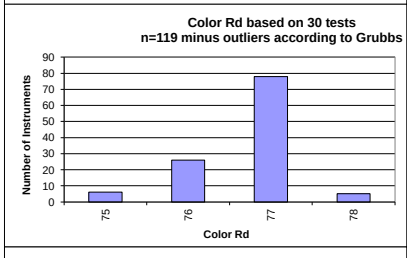
Cotton 2

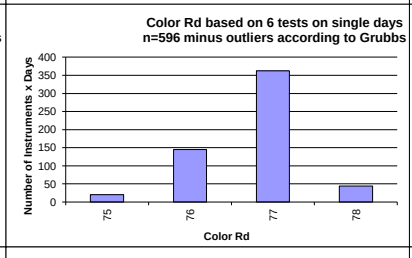


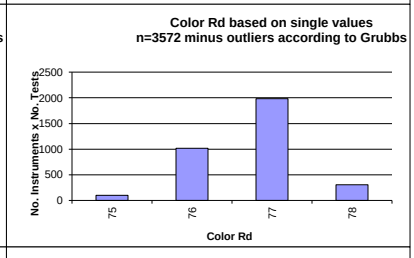




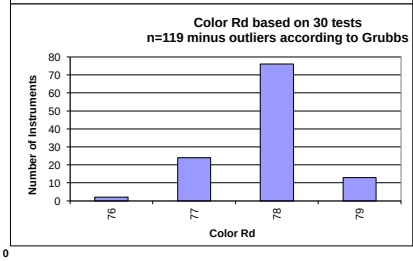
Cotton 3

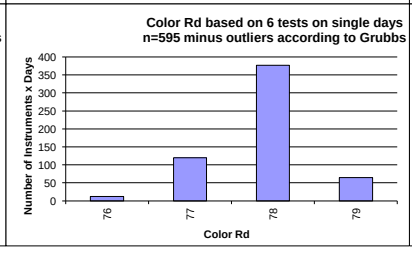


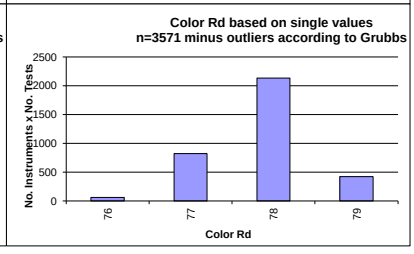




Cotton 4







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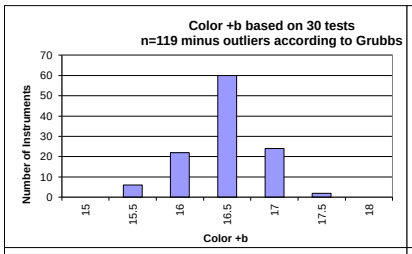
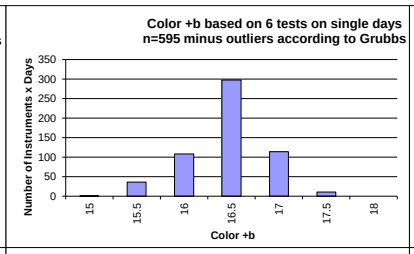
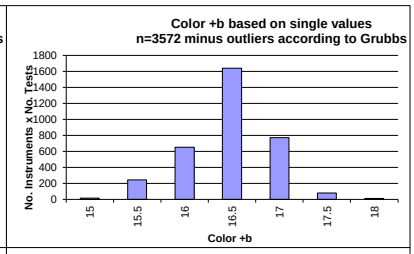
(Only results from instruments/days/single tests that are not regarded as outliers according to Grubbs' method)
(classes are defined as > lower limit and <= upper limit)

Test Result Distributions
Color +b

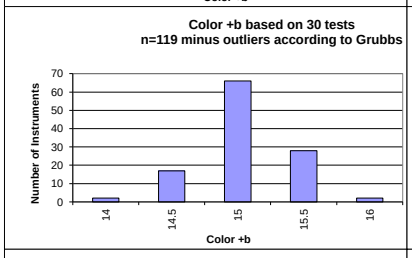
Cotton 1

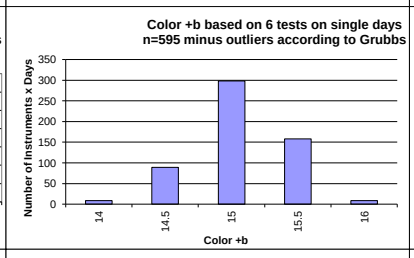


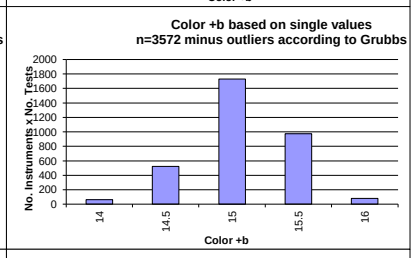




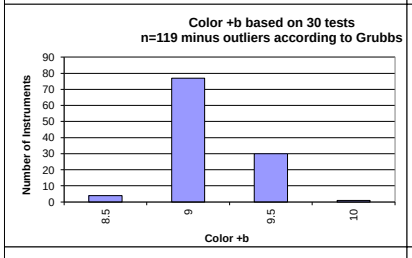
Cotton 2

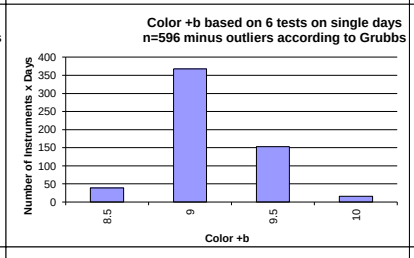


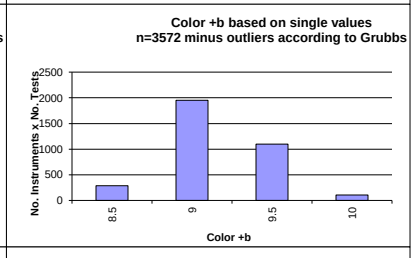




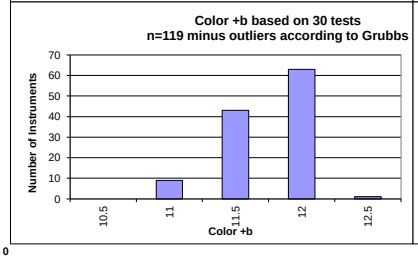
Cotton 3

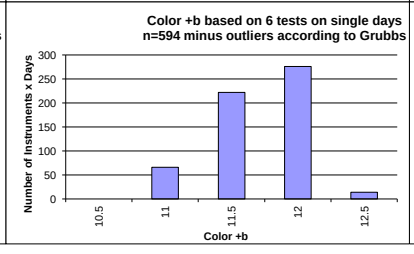


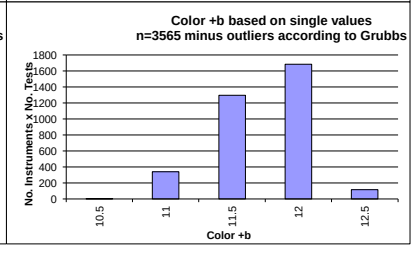




Cotton 4







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(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)			10.96	18.01	34.59	18.25	
Reference Values for Evaluation			10.96	18.01	34.59	18.25	
Number Of Instruments			101	101	101	101	**101**
Inter-Instrument Variation	based on 30 tests	SD	2.96	5.30	9.74	4.55	**5.64**
		CV %	27.0	29.4	28.2	24.9	**27.4**
	based on 6 tests	SD	3.37	5.56	10.30	4.99	**6.05**
		CV %	30.7	30.9	29.8	27.3	**29.7**
	based on single tests	SD	4.38	6.13	11.18	5.57	**6.82**
		CV %	40.0	34.0	32.3	30.5	**34.2**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	1.46	2.00	2.99	1.60	**2.01**
		CV %	13.3	11.1	8.6	8.7	**10.5**
	between single tests on one day	SD	1.84	2.45	3.94	2.42	**2.66**
		CV %	16.8	13.6	11.4	13.3	**13.8**
	between all tests on different days	SD	2.56	3.12	5.50	3.31	**3.62**
		CV %	23.4	17.3	15.9	18.1	**18.7**

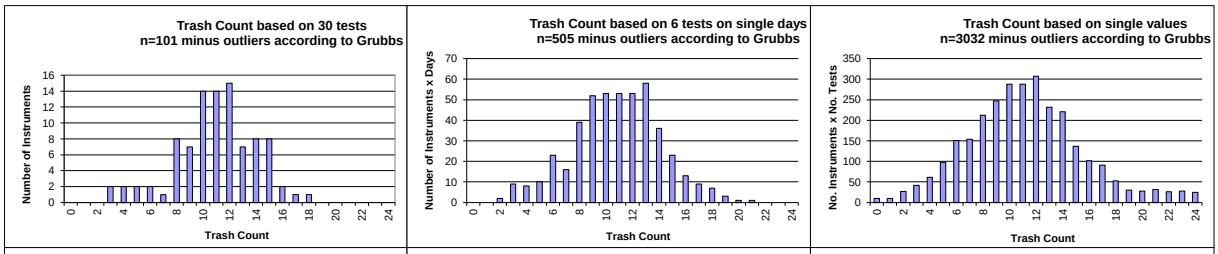
Trash Area							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			0.117	0.154	0.297	0.180	
Reference Values for Evaluation			0.117	0.154	0.297	0.180	
Number Of Instruments			101	101	101	101	**101**
Inter-Instrument Variation	based on 30 tests	SD	0.029	0.037	0.074	0.039	**0.045**
		CV %	25.1	24.3	25.1	21.6	**24.0**
	based on 6 tests	SD	0.035	0.042	0.081	0.042	**0.050**
		CV %	29.7	27.1	27.4	23.2	**26.9**
	based on single tests	SD	0.041	0.048	0.096	0.052	**0.059**
		CV %	34.7	31.2	32.4	28.6	**31.7**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.020	0.020	0.037	0.024	**0.025**
		CV %	16.9	13.0	12.5	13.3	**13.9**
	between single tests on one day	SD	0.022	0.024	0.044	0.031	**0.030**
		CV %	19.1	15.8	14.8	17.0	**16.7**
	between all tests on different days	SD	0.032	0.035	0.064	0.040	**0.043**
		CV %	27.7	22.7	21.5	22.4	**23.6**

Maturity							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			83.76	85.87	85.22	85.46	
Reference Values for Evaluation			83.76	85.87	85.22	85.46	
Number Of Instruments			96	96	96	96	**96**
Inter-Instrument Variation	based on 30 tests	SD	0.90	1.03	0.78	0.92	**0.91**
		CV %	1.1	1.2	0.9	1.1	**1.1**
	based on 6 tests	SD	0.92	1.05	0.79	0.95	**0.93**
		CV %	1.1	1.2	0.9	1.1	**1.1**
	based on single tests	SD	0.98	1.06	1.31	0.99	**1.09**
		CV %	1.2	1.2	1.5	1.2	**1.3**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.15	0.15	0.15	0.15	**0.15**
		CV %	0.2	0.2	0.2	0.2	**0.2**
	between single tests on one day	SD	0.18	0.19	0.25	0.21	**0.21**
		CV %	0.2	0.2	0.3	0.2	**0.2**
	between all tests on different days	SD	0.31	0.31	0.38	0.35	**0.33**
		CV %	0.4	0.4	0.4	0.4	**0.4**

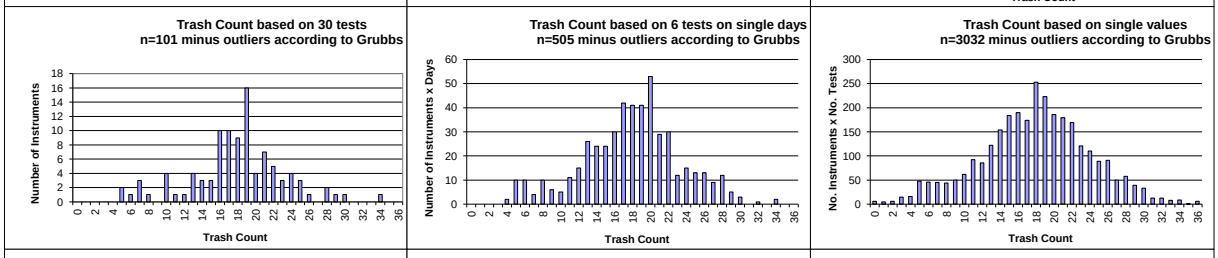
SFI							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			12.01	7.31	15.56	11.35	
Reference Values for Evaluation			12.01	7.31	15.56	11.35	
Number Of Instruments			105	105	105	105	**105**
Inter-Instrument Variation	based on 30 tests	SD	1.35	0.76	1.92	1.11	**1.28**
		CV %	11.2	10.4	12.4	9.7	**10.9**
	based on 6 tests	SD	1.38	0.72	1.97	1.17	**1.31**
		CV %	11.5	9.9	12.7	10.3	**11.1**
	based on single tests	SD	1.45	0.83	2.09	1.32	**1.42**
		CV %	12.1	11.4	13.4	11.6	**12.1**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.35	0.16	0.43	0.28	**0.30**
		CV %	2.9	2.2	2.8	2.5	**2.6**
	between single tests on one day	SD	0.57	0.32	0.77	0.58	**0.56**
		CV %	4.8	4.4	4.9	5.1	**4.8**
	between all tests on different days	SD	0.66	0.35	0.87	0.64	**0.63**
		CV %	5.5	4.8	5.6	5.7	**5.4**

Test Result Distributions
Trash Count

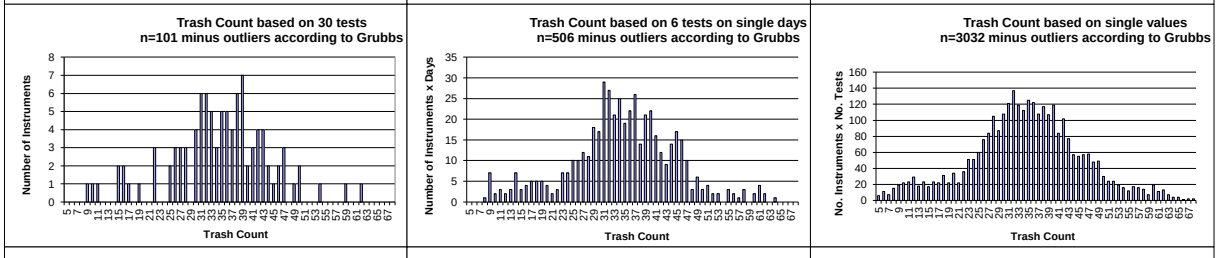
Cotton 1



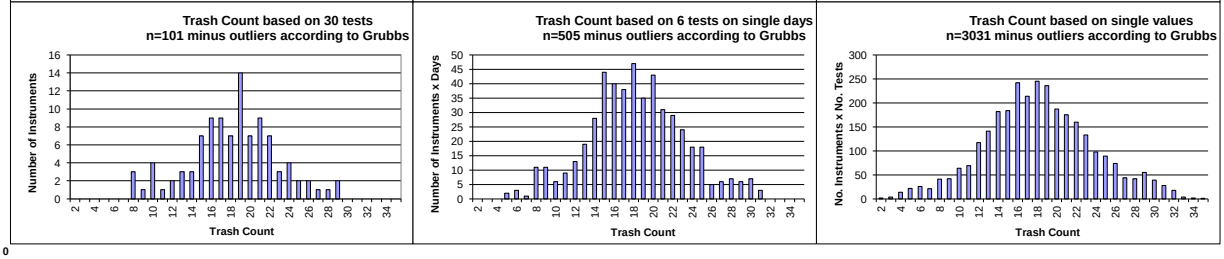
Cotton 2



Cotton 3



Cotton 4



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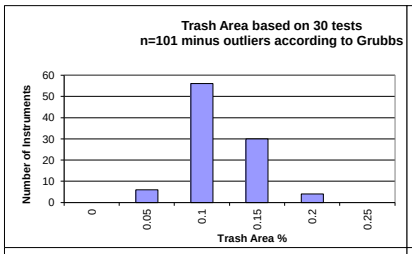
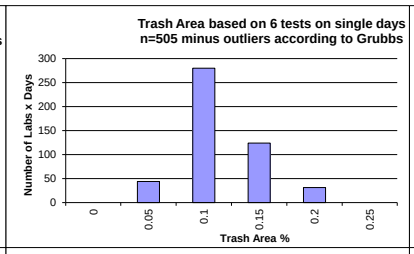
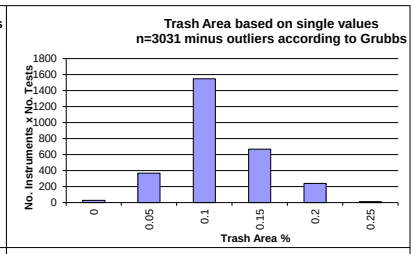
(Only results from instruments/days/single tests that are not regarded as outliers according to Grubbs' method)
(classes are defined as > lower limit and <= upper limit)

Test Result Distributions
Trash Area

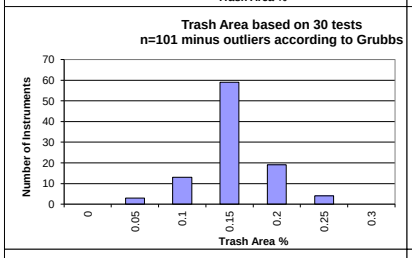
Cotton 1

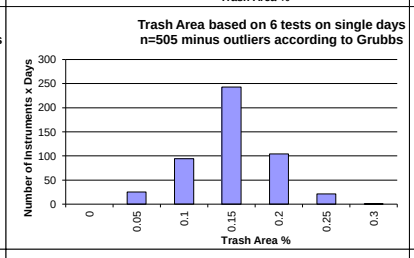


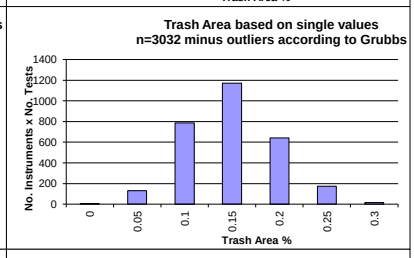




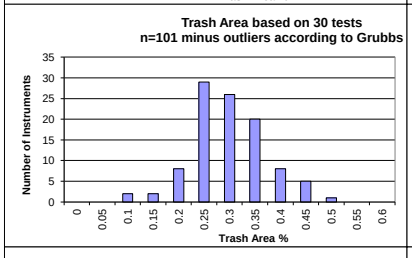
Cotton 2

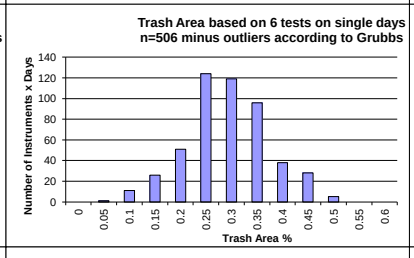


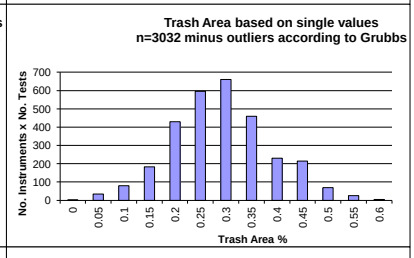




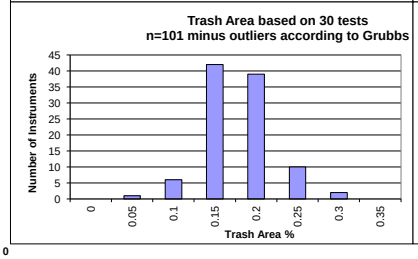
Cotton 3

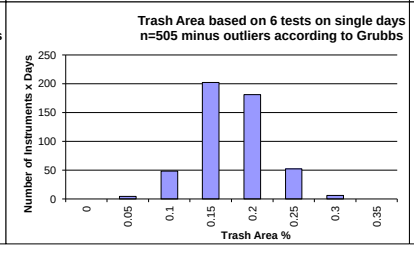


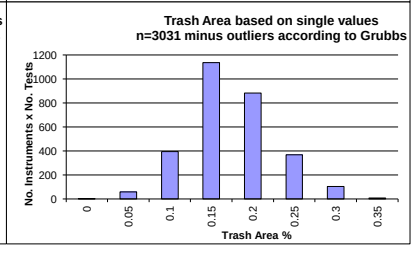




Cotton 4







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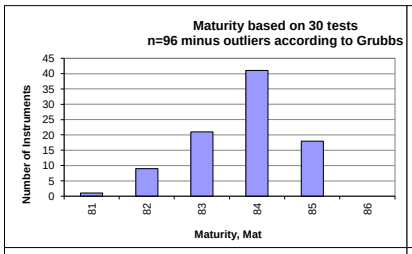
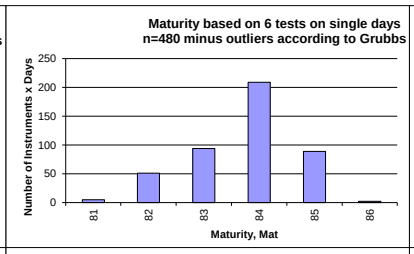
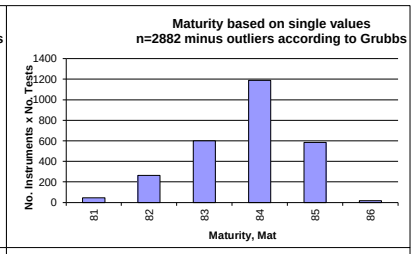
(Only results from instruments/days/single tests that are not regarded as outliers according to Grubbs' method)
(classes are defined as > lower limit and <= upper limit)

Test Result Distributions
Maturity

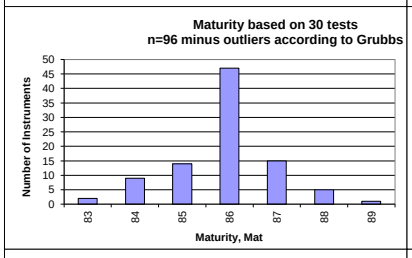
Cotton 1

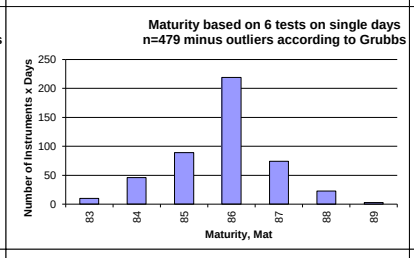


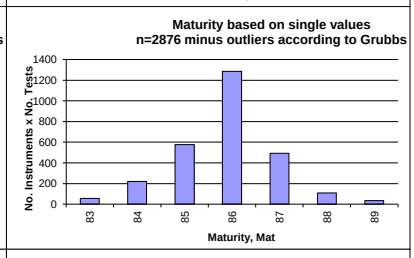




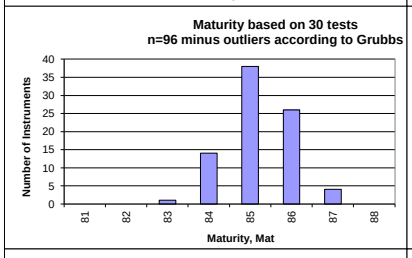
Cotton 2

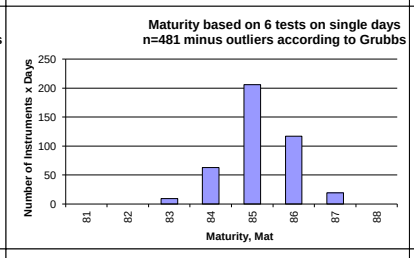


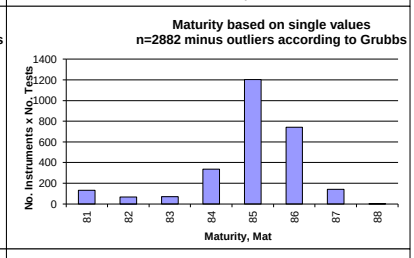




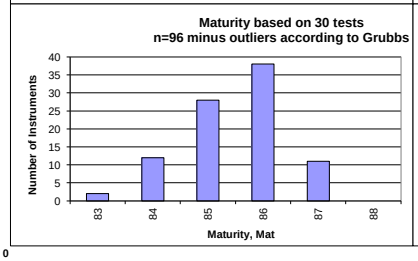
Cotton 3

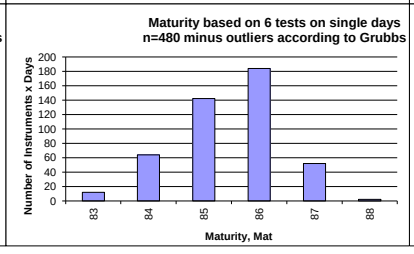


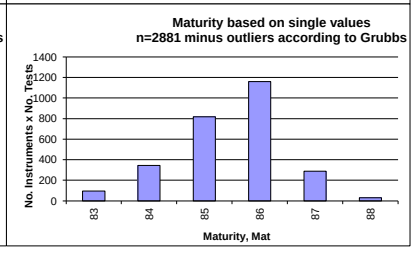




Cotton 4







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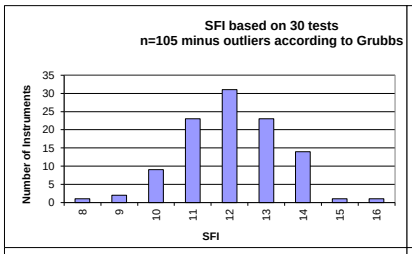
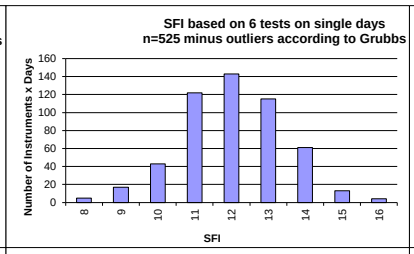
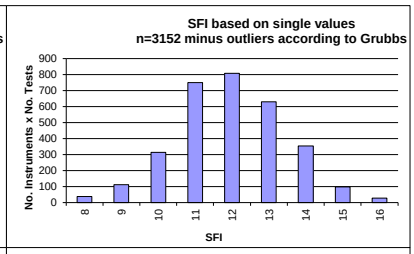
(Only results from instruments/days/single tests that are not regarded as outliers according to Grubbs' method.)
(classes are defined as > lower limit and <= upper limit)

Test Result Distributions
SFI

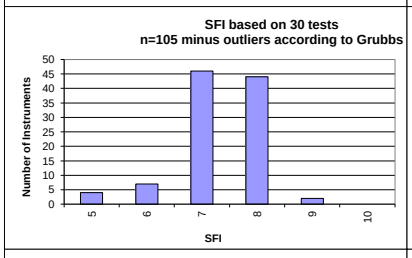
Cotton 1

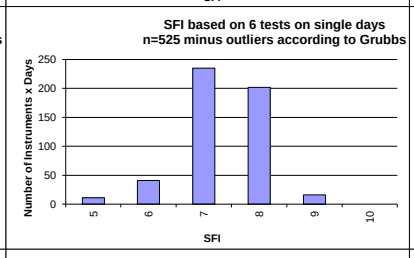


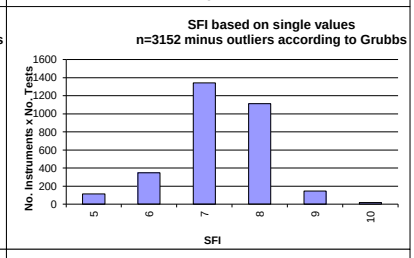




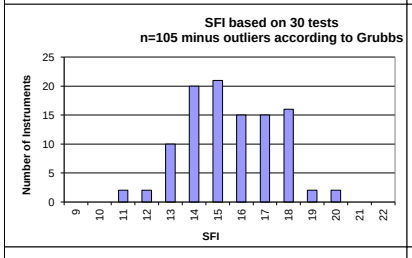
Cotton 2

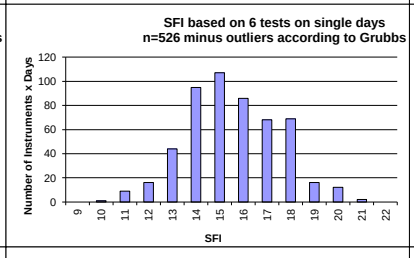


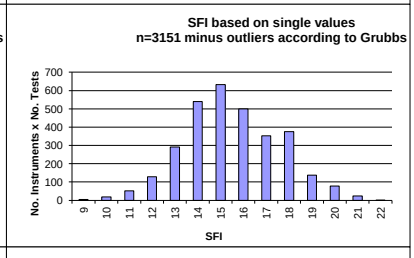




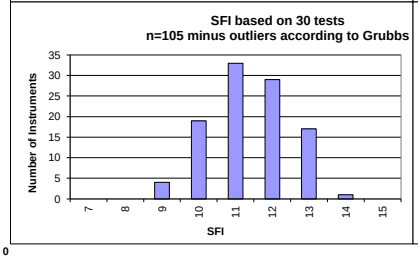
Cotton 3

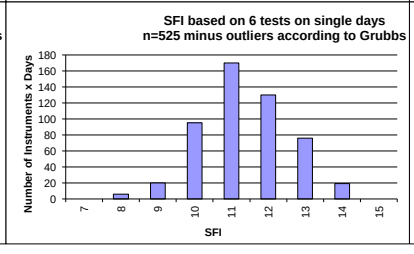


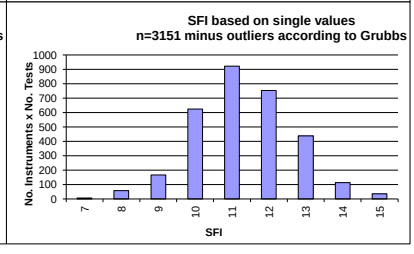




Cotton 4







0

(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 2018 - 2
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*

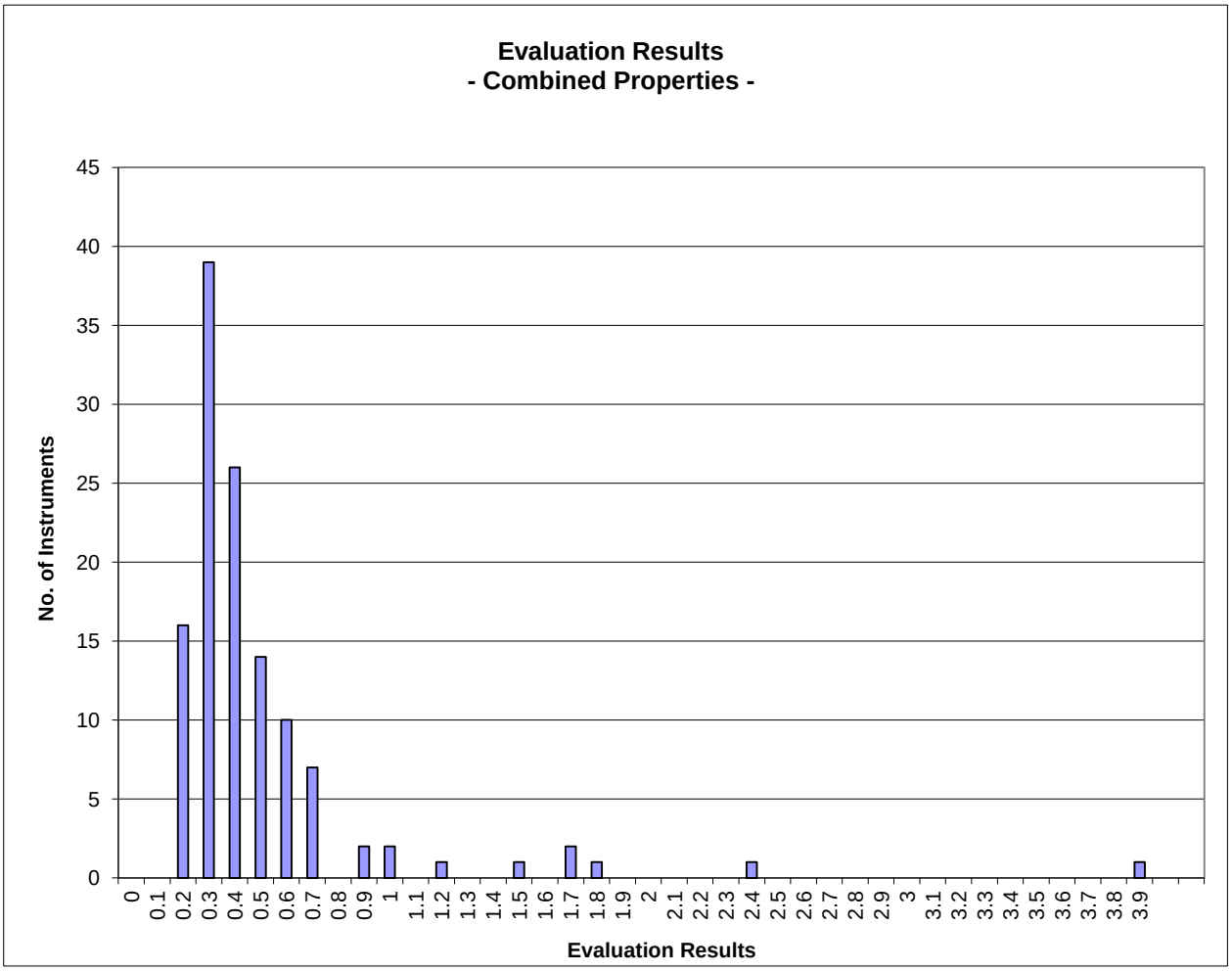
Instrument Evaluation

- Graph of Combined Properties -

According to ICAC CSITC Task Force Recommendations

Global - Round Trial 2018 - 2

		Evaluation Combined Prop.
Statistics	Average	0.49
	Median	0.36
	Best Instrument	0.15
	Worst Instrument	3.90



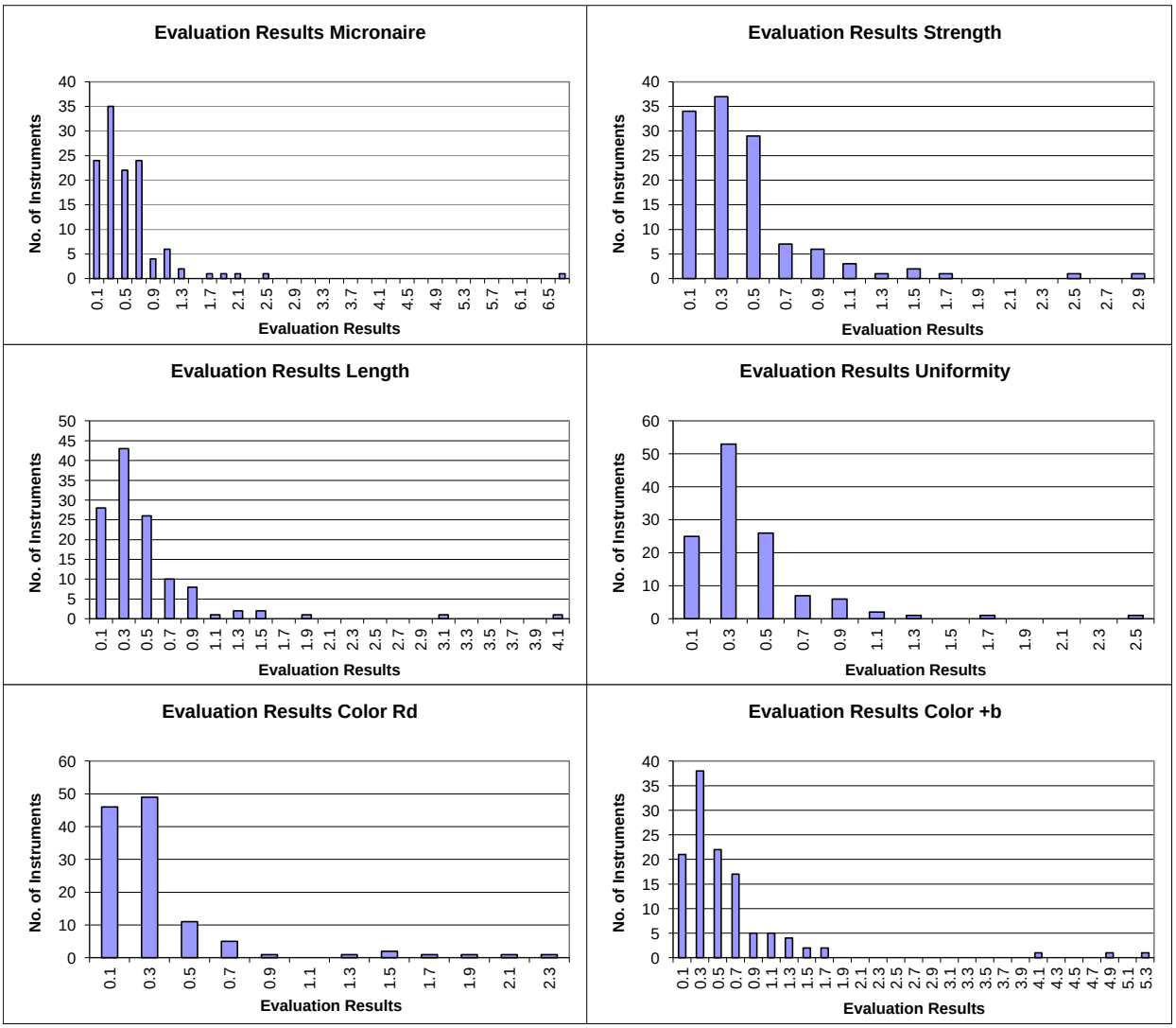
x-Axis shows midpoints of classes

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 2018 - 2

		Evaluation Micronaire	Evaluation Strength	Evaluation Length	Evaluation Uniformity	Evaluation Color Rd	Evaluation Color +b
Statistics	Average	0.56	0.44	0.48	0.41	0.35	0.61
	Median	0.41	0.33	0.36	0.33	0.23	0.41
	Best Instr.	0.04	0.05	0.05	0.03	0.02	0.07
	Worst Instr.	6.71	2.91	4.09	2.57	2.25	5.27



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

International Cotton Advisory Committee

CSITC
Global - Round Trial 2018 - 2
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

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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	97.3	94.5	95.3	98.4	94.7	85.3
Completely within limits	93.4	86.9	89.4	95.9	92.4	70.6
% of Instruments ≥75% within limits	96.7	95.1	95.1	98.4	93.3	84.0
% of Instruments ≥50% within limits	99.2	96.7	97.6	99.2	95.8	91.6

Percentage of Results Within Limits						
Instrument	**Micronaire**	**Strength**	**Length**	**Uniformity**	**Color Rd**	**Color +b**
GL182-001-01	100	100	100	100	100	100
GL182-002-01	100	100	100	100	100	100
GL182-003-04	75	75	75	100	100	25
GL182-007-01	100	100	100	100	100	100
GL182-007-02	100	100	100	100	100	100
GL182-008-01	25	25	25	25	25	0
GL182-008-02	100	100	100	100	100	75
GL182-008-04	100	100	100	100	100	100
GL182-010-03	100	100	100	100	100	100
GL182-012-01	100	100	100	100	100	100
GL182-014-01	100	100	100	100	100	100
GL182-014-02	100	100	100	100	100	100
GL182-015-01	100	100	75	100	100	100
GL182-015-02	100	100	75	100	100	100
GL182-016-53	100	100	100	100	100	100
GL182-016-60	100	100	100	100	100	100
GL182-017-01	100	100	100	100	100	100
GL182-017-02	100	100	100	100	100	100
GL182-018-01	100	75	100	100	100	50
GL182-018-02	100	100	100	100	100	75
GL182-018-03	100	0	100	100	100	100
GL182-019-13	100	100	100	100	100	100
GL182-020-05	100	100	100	100	100	100
GL182-020-12	100	100	100	100	100	100
GL182-021-01		50	50	75		
GL182-022-01	100	75	75	100	100	100
GL182-022-03	100	100	100	100	100	75
GL182-023-01	100	50	75	75	0	0
GL182-024-01	100	100	100	100	100	100
GL182-027-01	100	100	100	100	100	100
GL182-029-02	100	100	100	100	100	100
GL182-029-04	100	75	100	100	25	25
GL182-029-08	100	100	100	100	100	100
GL182-030-01	100	100	100	100	100	100

GL182-030-02	100	100	100	100	100	100
GL182-031-01	100	100	100	100	100	100
GL182-032-01	100	100	100	100	100	25
GL182-032-02	100	100	100	100	100	75
GL182-033-01	50	75	50	50		
GL182-034-01	100	100	100	100	100	75
GL182-036-01	75	75	75	100	0	0
GL182-037-01	100	75	100	100	100	100
GL182-038-01	100	100	100	100	100	100
GL182-038-02	100	100	100	100	50	25
GL182-039-03	100	100	100	100	100	75
GL182-040-01	100	25	100	100	100	100
GL182-040-02	100	25	100	100	100	100
GL182-043-03	100	100	100	100	100	100
GL182-044-01	75		25			
GL182-045-06	100	100	100	100	100	100
GL182-045-07	100	100	100	100	100	100
GL182-045-08	100	100	100	100	100	100
GL182-046-03	100	100	100	100	100	100
GL182-046-07	100	100	100	100	100	75
GL182-046-08	100	100	100	100	100	100
GL182-046-09	100	100	100	100	100	100
GL182-046-10	100	100	100	100	100	100
GL182-046-11	100	100	100	100	100	100
GL182-046-12	100	100	100	100	100	100
GL182-046-13	100	100	100	100	100	100
GL182-046-14	100	100	100	100	100	100
GL182-047-01	100	100	100	100	100	100
GL182-048-01	100	100	100	100	100	100
GL182-049-06	100	100	100	100	100	100
GL182-050-06	100	75	75	100	100	100
GL182-051-01	100	100	100	100	100	0
GL182-052-01	100	100	100	100	100	50
GL182-052-02	100	100	100	100	75	50
GL182-052-03	100	100	100	100	100	75
GL182-052-04	100	100	100	100	100	100
GL182-053-01	100	100	100	100	100	75
GL182-054-01	100	100	100	100	100	75
GL182-055-02	100	100	100	100	100	75
GL182-056-01	100	100	100	100	100	100
GL182-057-03	100	100	100	100	100	100
GL182-057-06	100	100	100	100	100	100
GL182-059-20	100	100	100	100	100	100
GL182-059-24	100	100	100	100	100	100
GL182-060-01	100	100	50	100	50	75
GL182-061-01	100	100	100	100	0	50
GL182-061-02	100	100	100	100	100	100
GL182-061-04	100	100	100	100	100	100
GL182-062-03	100	100	100	100	100	50
GL182-062-04	100	100	100	100	100	50
GL182-062-05	100	100	100	100	100	50
GL182-063-03	100	100	100	100	100	100
GL182-064-01	100	100	0	100	50	50
GL182-066-01	100	100	100	100	100	75
GL182-067-04	100	100	100	100	100	100

GL182-068-09	100	100	100	100	100	100
GL182-068-23	100	100	100	100	100	100
GL182-069-03	100	100	100	100	100	100
GL182-070-31	100	100	100	100	100	100
GL182-070-33	100	100	100	100	100	100
GL182-071-04	100	100	100	100	100	100
GL182-071-05	100	100	100	100	100	100
GL182-071-06	100	100	100	100	100	100
GL182-072-01	100	100	100	75	100	100
GL182-073-02	100	100	100	100	100	100
GL182-073-03	100	100	100	100	100	100
GL182-075-02	100	75	100	100		
GL182-075-03	100	100	100	100	100	100
GL182-076-01	100	100	100	100	100	50
GL182-076-02	100	100	100	100	100	100
GL182-077-01	100	100	100	100	100	100
GL182-077-02	100	100	100	100	100	100
GL182-079-01	100	100	100	100	100	100
GL182-080-01	100	100	100	100	100	75
GL182-080-02	100	100	100	100	100	75
GL182-083-02	100	100	100	100	100	100
GL182-083-05	50	100	100	100	100	0
GL182-083-07	50	100	100	100	100	100
GL182-083-10	75	100	100	100	100	0
GL182-085-01	100	100	100	100	100	100
GL182-085-02	100	100	100	100	100	100
GL182-086-01	100	100	100	100	100	100
GL182-086-02	100	100	100	100	100	100
GL182-087-01	100	100	100	100	100	100
GL182-089-01	100	100	100	100	100	100
GL182-090-03	100	75	100	100	100	100
GL182-091-01	100	100	100	100	100	75
GL182-093-01	100	100	100	100	100	100
GL182-094-02	100	100	100	100	100	100

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	96.7	91.2	93.5	96.7	93.7	81.0
% of Instruments 100% within limits	63.9	23.8	29.3	41.0	63.9	18.5
% of Instruments ≥95% within limits	87.7	61.5	75.6	86.9	84.0	37.8
% of Instruments ≥75% within limits	96.7	91.0	93.5	96.7	92.4	75.6
% of Instruments ≥65% within limits	96.7	95.1	95.9	98.4	93.3	79.8
% of Instruments ≥50% within limits	98.4	95.9	95.9	99.2	94.1	89.9

Percentage of Results Within Limits						
Instrument	**Micronaire**	**Strength**	**Length**	**Uniformity**	**Color Rd**	**Color +b**
GL182-001-01	100	97	99	100	100	95
GL182-002-01	100	90	98	100	99	96
GL182-003-04	89	83	81	83	90	79
GL182-007-01	100	98	96	100	100	94
GL182-007-02	100	99	93	100	100	97
GL182-008-01	20	27	25	25	25	0
GL182-008-02	100	100	100	100	100	88
GL182-008-04	100	100	100	100	100	99
GL182-010-03	100	100	88	99	100	100
GL182-012-01	100	98	99	100	100	78
GL182-014-01	100	96	99	97	100	96
GL182-014-02	100	96	99	97	100	96
GL182-015-01	93	84	82	100	86	53
GL182-015-02	100	96	88	99	93	54
GL182-016-53	100	97	100	100	100	100
GL182-016-60	100	98	99	100	100	100
GL182-017-01	100	100	99	100	97	94
GL182-017-02	100	100	98	100	99	93
GL182-018-01	96	63	98	98	100	52
GL182-018-02	98	84	77	98	100	79
GL182-018-03	99	21	96	99	85	82
GL182-019-13	100	93	98	99	100	90
GL182-020-05	100	98	93	99	98	97
GL182-020-12	99	97	94	97	98	100
GL182-021-01		38	49	74		
GL182-022-01	99	77	84	94	100	63
GL182-022-03	94	91	96	97	100	73
GL182-023-01	99	73	68	70	18	1
GL182-024-01	100	100	99	99	100	100
GL182-027-01	100	83	99	99	100	95

GL182-029-02	95	88	98	93	100	92
GL182-029-04	94	76	96	96	32	30
GL182-029-08	98	93	89	97	100	99
GL182-030-01	99	93	98	99	100	82
GL182-030-02	100	100	100	100	100	88
GL182-031-01	98	97	93	98	99	98
GL182-032-01	100	100	100	99	100	38
GL182-032-02	100	100	100	100	100	68
GL182-033-01	48	74	42	50		
GL182-034-01	99	100	99	99	100	83
GL182-036-01	80	75	71	89	3	2
GL182-037-01	100	69	95	100	99	83
GL182-038-01	98	98	97	98	95	93
GL182-038-02	94	98	99	98	53	31
GL182-039-03	100	93	98	96	99	63
GL182-040-01	100	39	80	93	83	94
GL182-040-02	100	38	80	93	83	94
GL182-043-03	100	98	95	94	99	97
GL182-044-01	83		25			
GL182-045-06	98	97	92	98	86	95
GL182-045-07	99	86	93	100	99	100
GL182-045-08	100	88	96	96	100	100
GL182-046-03	100	100	100	99	100	97
GL182-046-07	98	98	100	100	100	63
GL182-046-08	96	88	97	100	100	93
GL182-046-09	100	98	100	99	100	88
GL182-046-10	99	98	100	100	98	100
GL182-046-11	100	98	98	93	100	92
GL182-046-12	100	99	100	99	100	95
GL182-046-13	100	98	99	98	100	100
GL182-046-14	100	99	99	98	99	100
GL182-047-01	100	98	98	98	99	98
GL182-048-01	100	100	100	100	100	92
GL182-049-06	100	100	95	99	100	98
GL182-050-06	100	80	86	100	91	81
GL182-051-01	98	83	97	99	99	14
GL182-052-01	100	96	96	89	99	43
GL182-052-02	100	99	90	95	75	44
GL182-052-03	100	100	100	98	100	80
GL182-052-04	100	100	100	100	100	100
GL182-053-01	100	72	98	100	100	77
GL182-054-01	100	98	99	99	96	73
GL182-055-02	100	94	98	99	100	80
GL182-056-01	100	98	100	100	100	94
GL182-057-03	100	100	98	100	100	100
GL182-057-06	100	100	100	100	100	100
GL182-059-20	100	100	100	100	100	100
GL182-059-24	100	100	100	98	100	100
GL182-060-01	100	94	69	87	32	78
GL182-061-01	100	93	100	98	46	44
GL182-061-02	98	93	99	100	100	100
GL182-061-04	100	100	99	99	100	97
GL182-062-03	100	98	100	100	100	63
GL182-062-04	100	95	98	99	100	57
GL182-062-05	98	97	99	100	100	59

GL182-063-03	100	95	99	100	100	96
GL182-064-01	92	94	47	95	38	62
GL182-066-01	100	88	86	97	99	69
GL182-067-04	99	86	96	92	100	82
GL182-068-09	100	97	100	100	100	100
GL182-068-23	100	95	100	100	100	100
GL182-069-03	98	98	98	100	98	92
GL182-070-31	99	95	99	98	100	88
GL182-070-33	100	99	99	98	95	90
GL182-071-04	98	94	100	100	100	85
GL182-071-05	100	94	100	100	100	83
GL182-071-06	98	99	100	99	100	88
GL182-072-01	100	90	81	81	98	79
GL182-073-02	100	96	99	99	100	98
GL182-073-03	100	98	99	100	100	100
GL182-075-02	100	79	95	98		
GL182-075-03	100	100	100	96	100	99
GL182-076-01	100	98	100	99	100	63
GL182-076-02	100	97	100	100	90	77
GL182-077-01	100	88	100	100	98	88
GL182-077-02	100	88	99	97	100	81
GL182-079-01	100	95	98	98	100	93
GL182-080-01	100	100	100	100	100	85
GL182-080-02	100	100	100	100	100	85
GL182-083-02	79	100	100	100	100	92
GL182-083-05	51	100	96	100	100	8
GL182-083-07	55	100	97	100	100	63
GL182-083-10	83	100	94	100	100	3
GL182-085-01	100	100	100	100	100	100
GL182-085-02	100	100	100	100	100	100
GL182-086-01	98	99	97	100	100	94
GL182-086-02	98	93	93	99	98	97
GL182-087-01	93	90	100	95	100	84
GL182-089-01	100	95	100	100	100	99
GL182-090-03	99	68	89	99	100	88
GL182-091-01	100	98	99	99	96	73
GL182-093-01	99	94	98	98	100	100
GL182-094-02	100	93	98	100	94	95