Testing of Pre-ox PAN Calibration Materials

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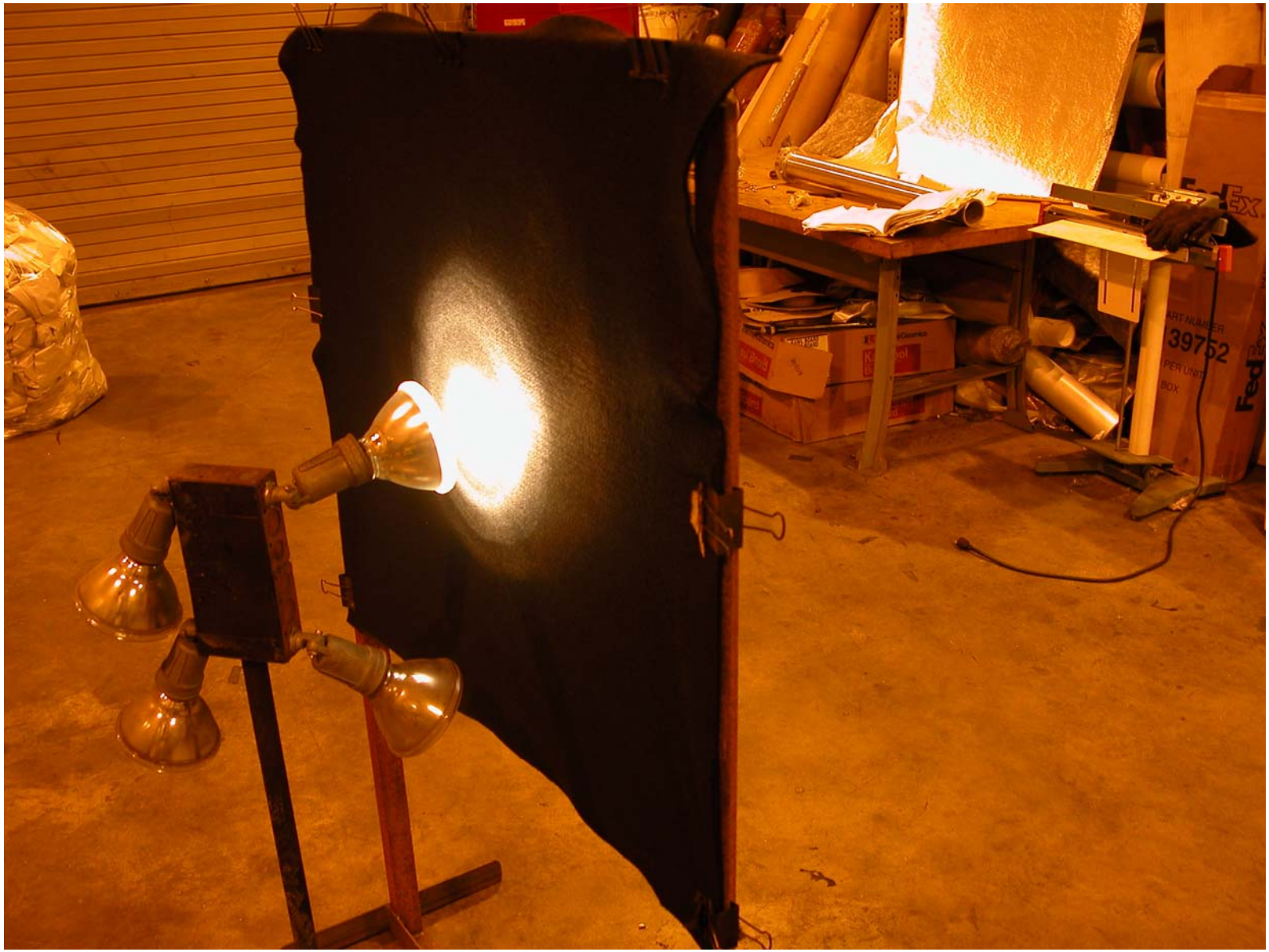
Consistency of Test Data Using “Off-the-Shelf” Materials



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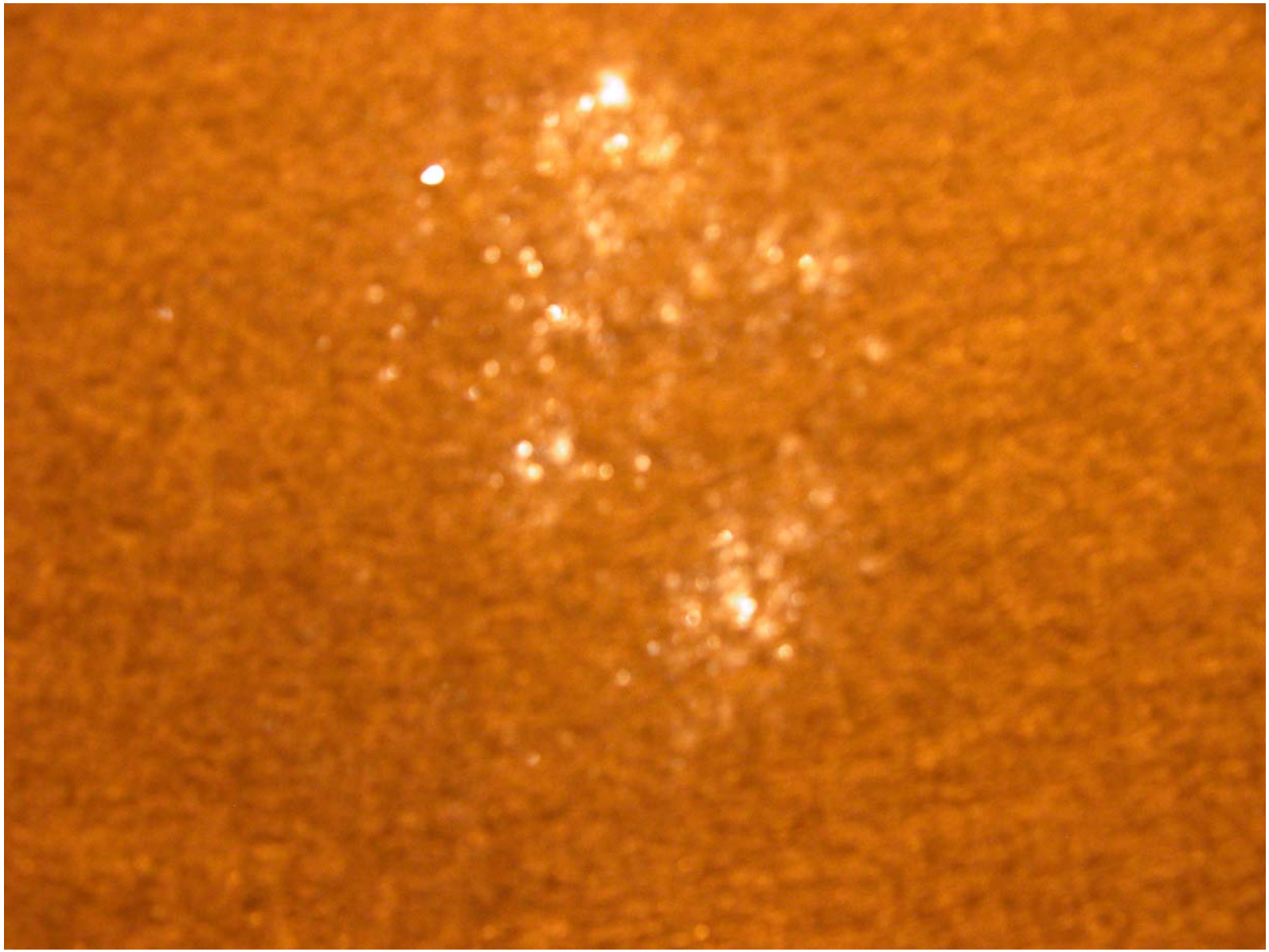

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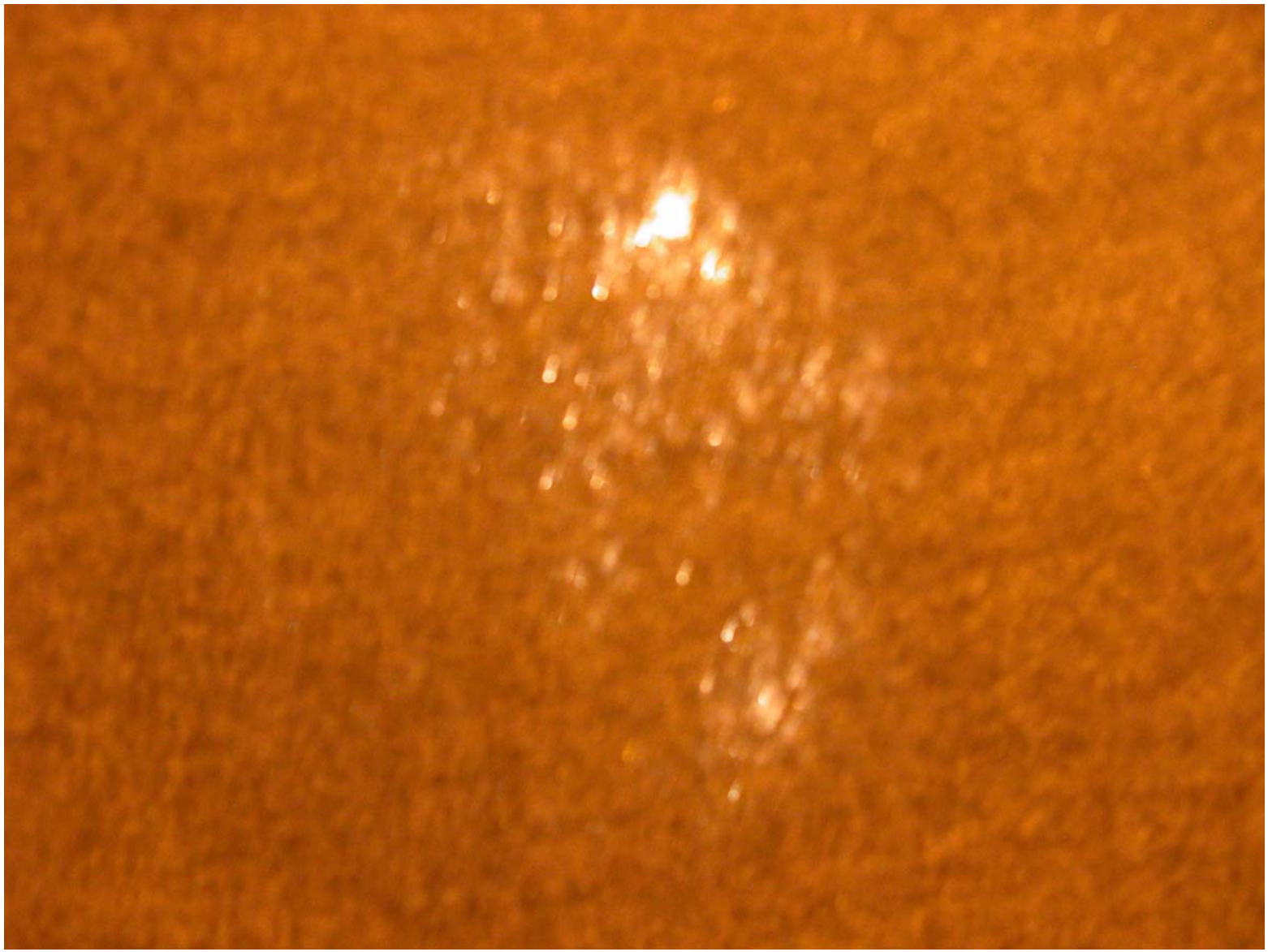
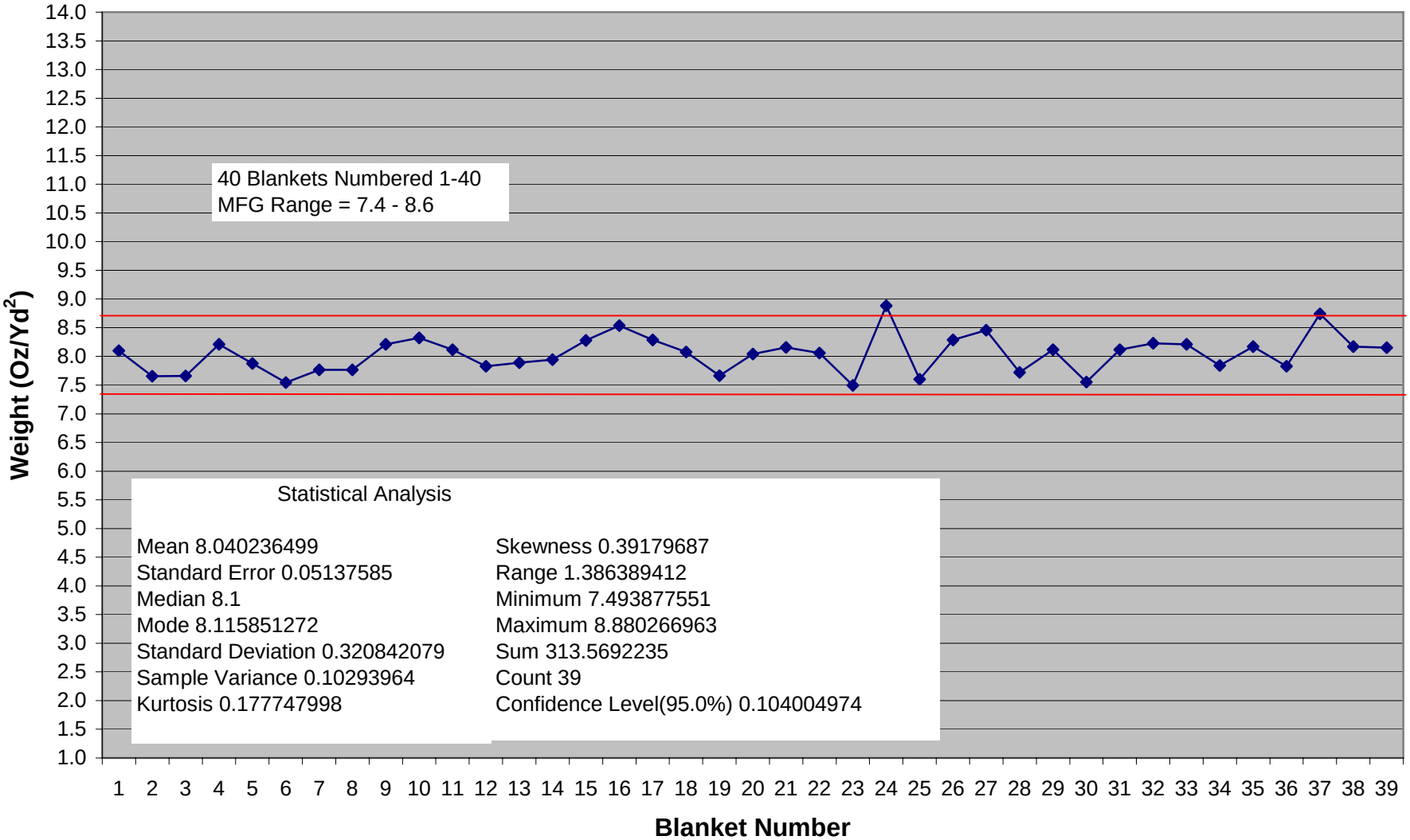
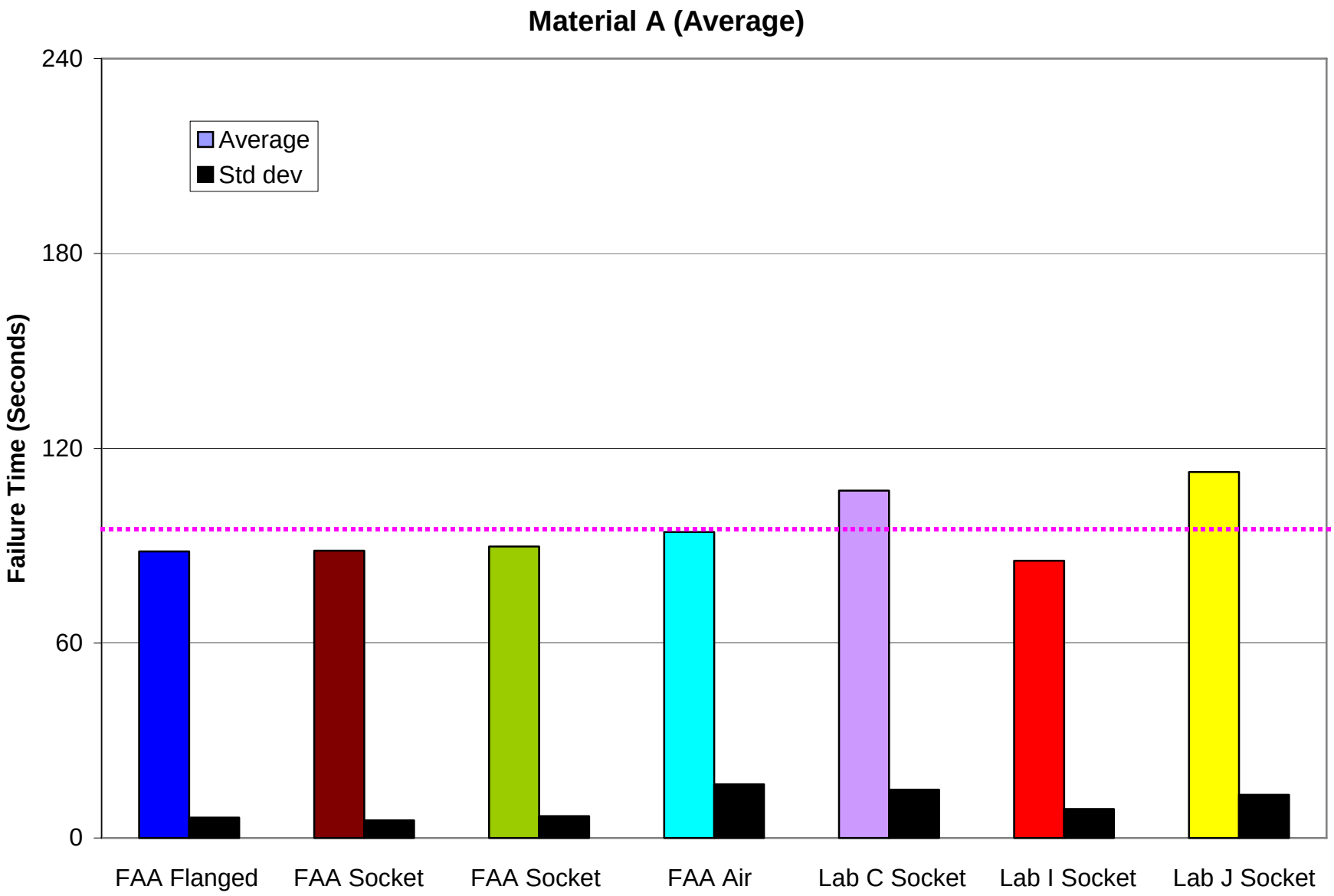


Tex Tech Style 362
(8.0 Oz/Yd^2 PAN Blanket)



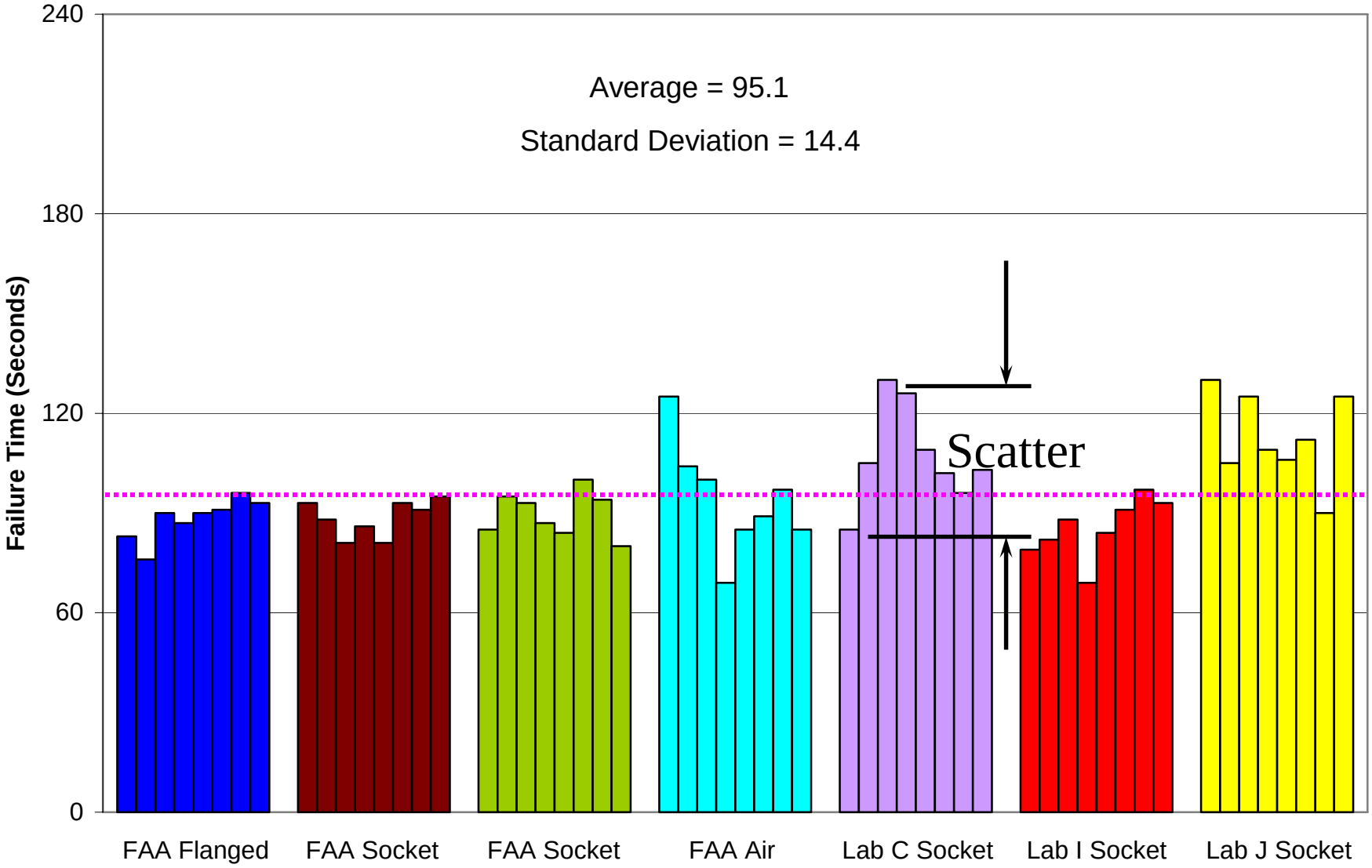
Statistical Analysis

Mean 8.040236499	Skewness 0.39179687
Standard Error 0.05137585	Range 1.386389412
Median 8.1	Minimum 7.493877551
Mode 8.115851272	Maximum 8.880266963
Standard Deviation 0.320842079	Sum 313.5692235
Sample Variance 0.10293964	Count 39
Kurtosis 0.177747998	Confidence Level(95.0%) 0.104004974


Material A (Average)
Failure Time (Seconds)
240
180
120
60
0
Average
Std dev
FAA Flanged
FAA Socket
FAA Socket
FAA Air
Lab C Socket
Lab I Socket
Lab J Socket

Data Scatter

Material A

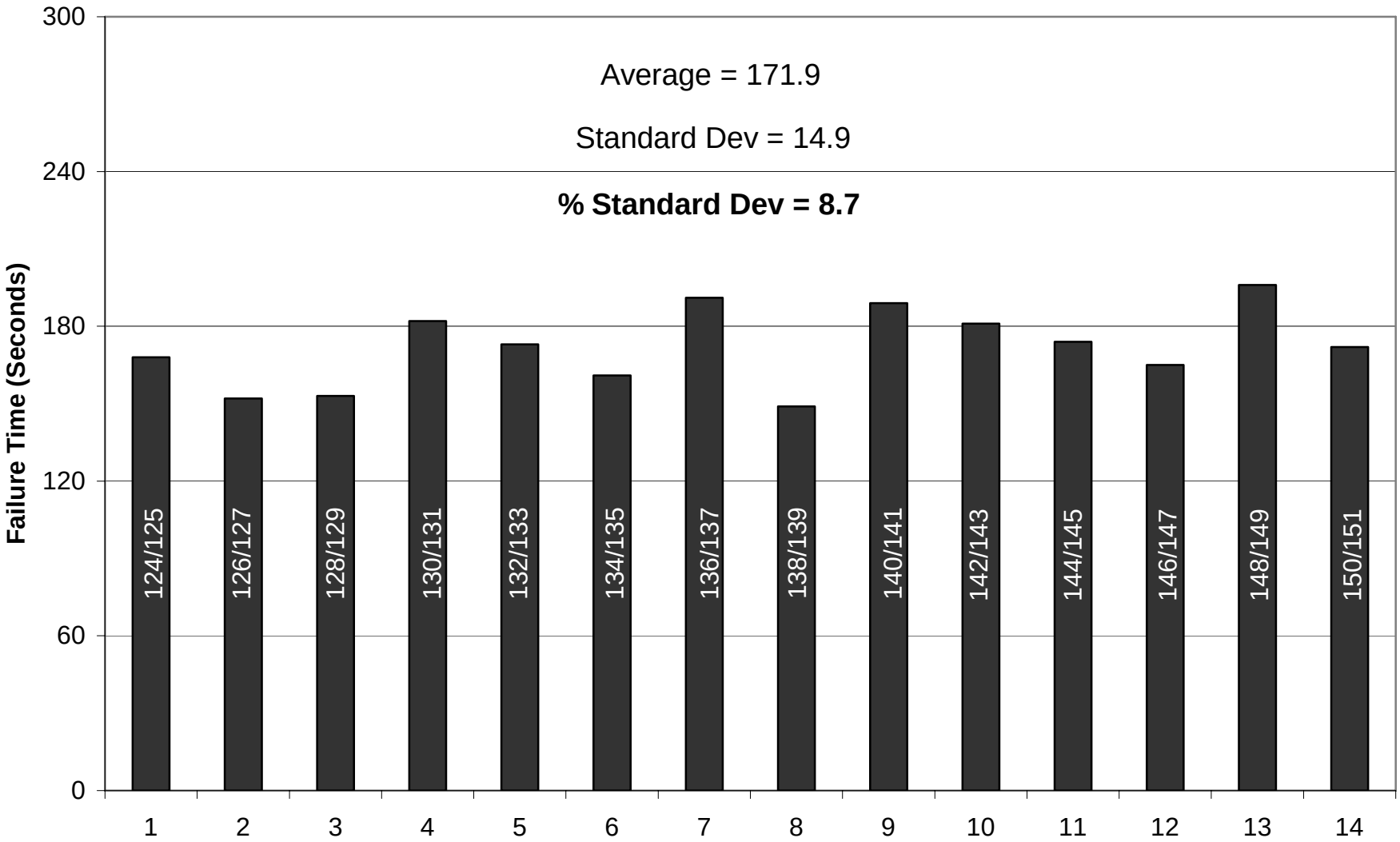


Purpose-Built Materials Supplied by TexTech

362R: Stock material, used in previous round robins

TTI produced 1 roll of 8 oz/yd^2 fabric using Zoltek fiber to simulate the performance of the roll produced in November of 2005. Although TTI used the same basic manufacturing methods, they did slow the machine down, and focused on good weight and thickness distribution for the roll. Each blanket was weighed and mapped for aerial density.

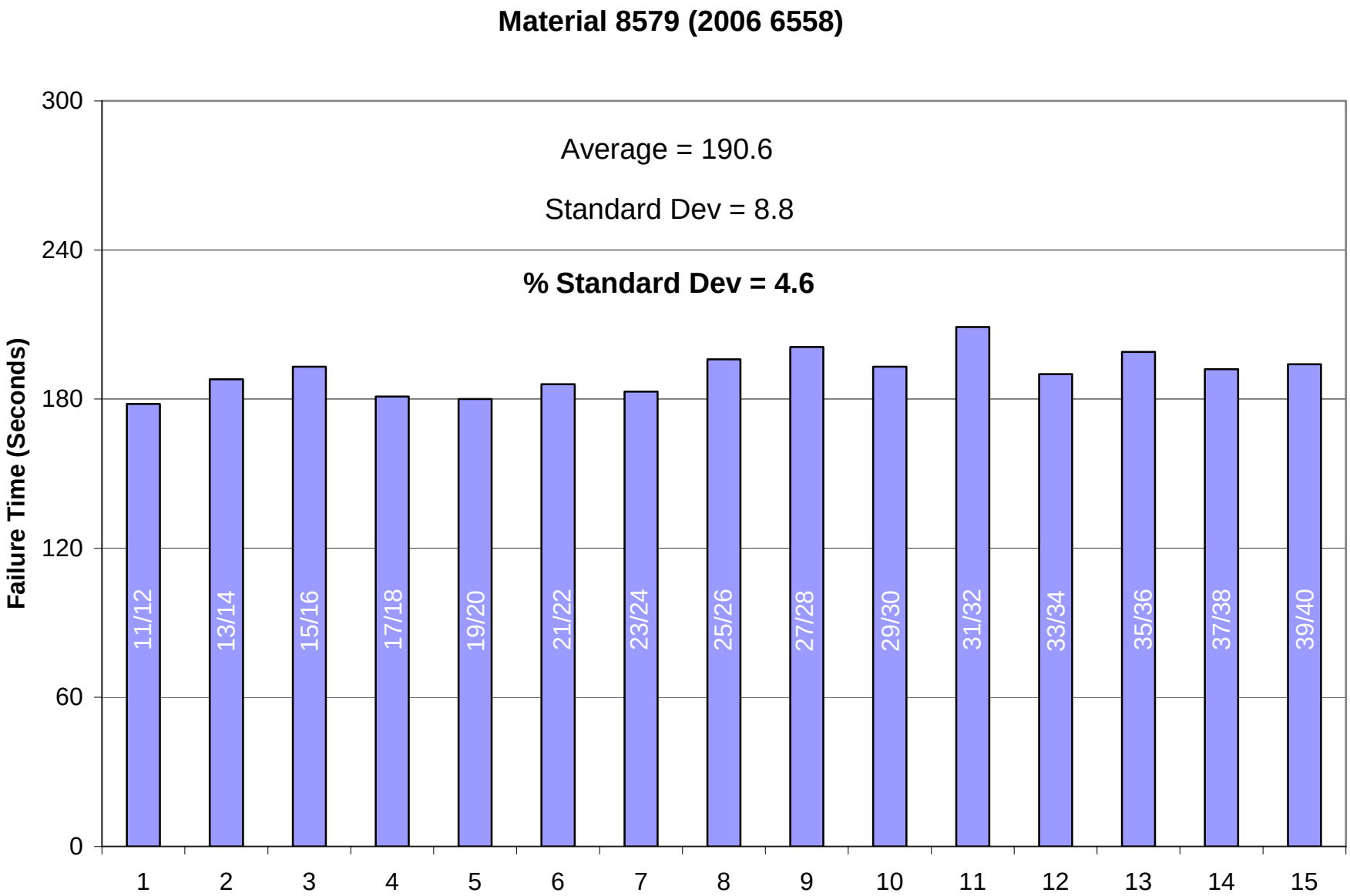
Material 362R (2006 6557)



Purpose-Built Materials Supplied by TexTech

Material 8579, slightly heavier 10 oz/yd^2

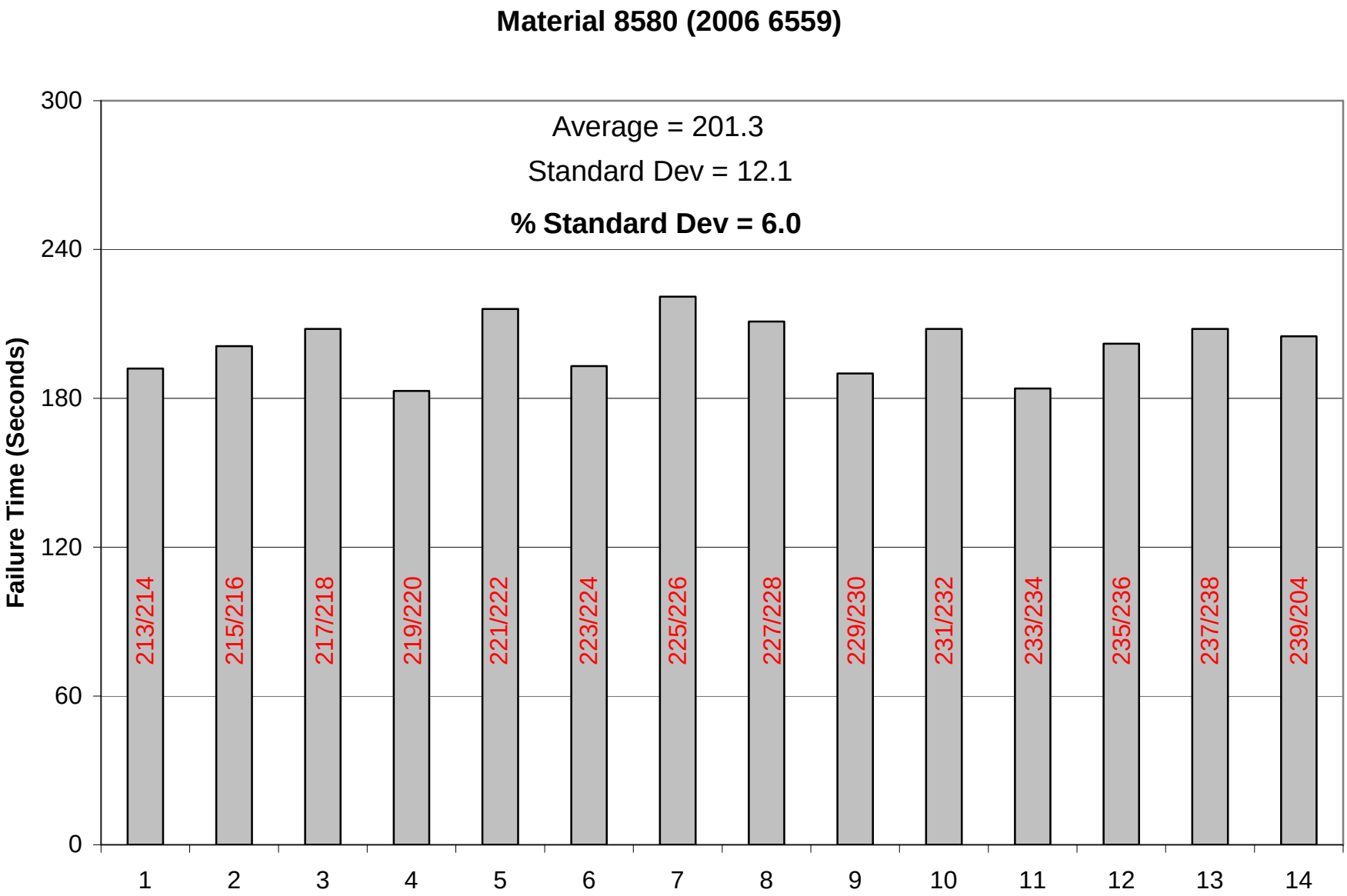
TTI produced a slightly heavier weight (10 oz/yd^2) using the Zoltex fiber with a decrease in the fabric thickness. This produced a fabric with a higher density (g/cc) than the previous trails. The trial has increased fabric layers. Again, the draft was reduced to increase the consistency and reduce any visible windows.


Material 8579 (2006 6558)
Average = 190.6
Standard Dev = 8.8
% Standard Dev = 4.6
Failure Time (Seconds)
300
240
180
120
60
0
11/12
13/14
15/16
17/18
19/20
21/22
23/24
25/26
27/28
29/30
31/32
33/34
35/36
37/38
39/40
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15

Purpose-Built Materials Supplied by TexTech

Material 8580, slightly heavier 10 oz/yd^2

TTI produced a slightly heavier weight (10 oz/yd^2) material using the Zoltex Fiber in order to extend the burnthrough time slightly and gain a greater understanding of the system. The trial increased the number of indivic batt layers from 15 to approximately 23 in order to increase the overall homogeneity of the material and hopefully provide a predictable burnthrough time. The draft was also reduced to "0" if possible to increase the consistency and reduce any visible windows.


Material 8580 (2006 6559)
Average = 201.3
Standard Dev = 12.1
% Standard Dev = 6.0
Failure Time (Seconds)
300
240
180
120
60
0
213/214
215/216
217/218
219/220
221/222
223/224
225/226
227/228
229/230
231/232
233/234
235/236
237/238
239/204
1
2
3
4
5
6
7
8
9
10
11
12
13
14

Interim Findings from Calibration Trials

FAA Lab, Original burner during Round Robin 8:

% Standard Deviation for Material A = 7.1

% Standard Deviation for Material B = 13.6

FAA Lab, Original burner during Calibration Trials:

% Standard Deviation for Material 362R = 8.7

% Standard Deviation for Material 8579 = 4.6

% Standard Deviation for Material 8580 = 6.0