

# Predicting Final Brightness using Kappa Analyzer and Machine Brightness Scanner

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**West Fraser**

# Agenda

- Overview of the Hinton bleach plant
- Kappa Analyzer/Sample locations
- Machine Brightness/Dirt Scanner
- Advantages of being able to predict machine brightness
- Example of using trends to predict brightness
- Operator Training
  - Brightness vs CEK & Bleach feed kappa
  - Troubleshooting guide

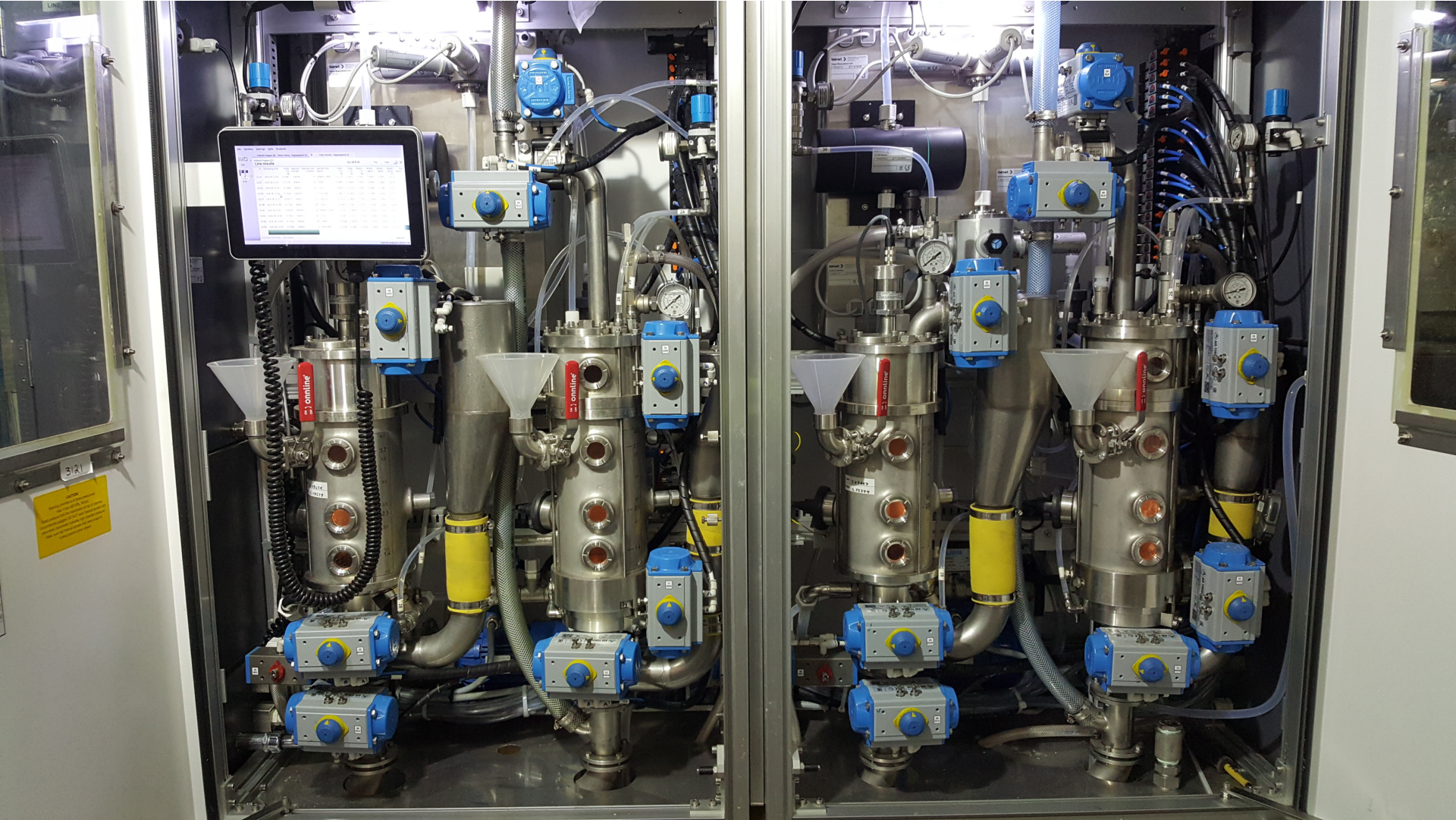




# Kappa Analyzer



# Kappa Analyzer – Brightness/Kappa Unit



# Kappa Analyzer – Fiber Analyzer



# Machine Brightness/Dirt Scanner



Basis Weight

Moisture

Brightness

Dirt

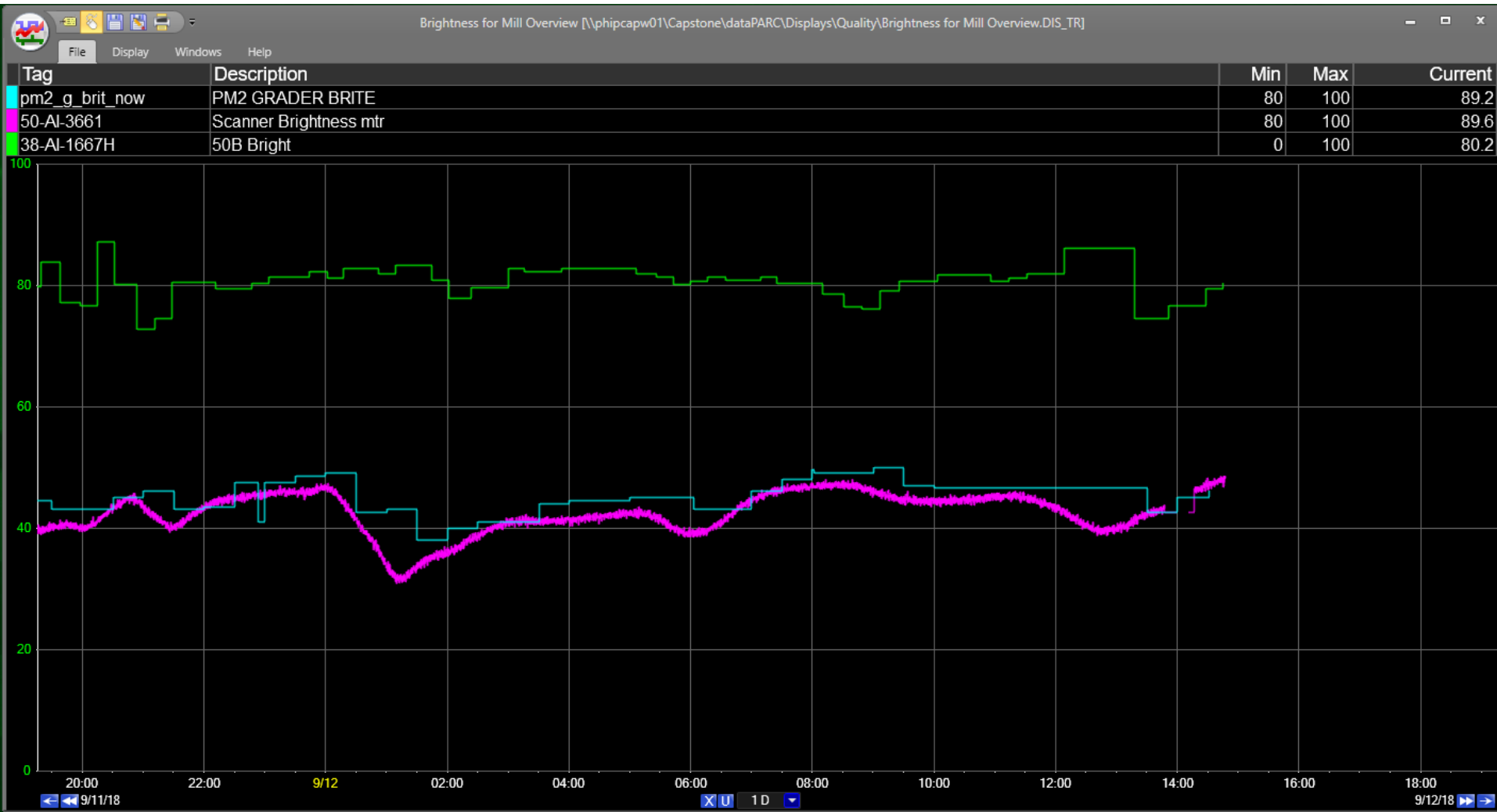


# Advantages of Predicting Machine Brightness

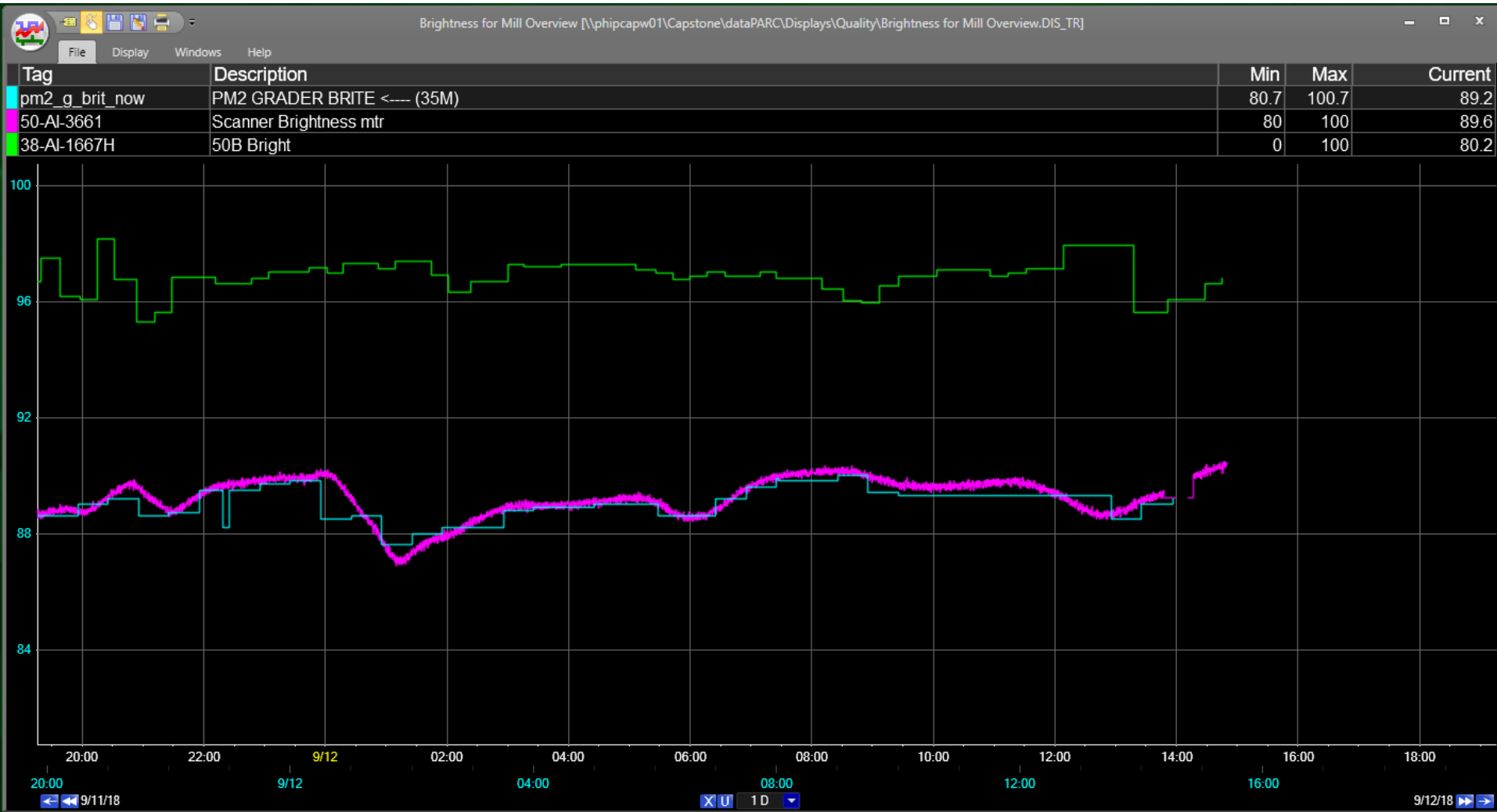
- The machine team can switch products hours in advanced
- Less surprises
- Bleach operators can react instantly
- Bleach operators won't over-react to a slight dip in brightness on the machine



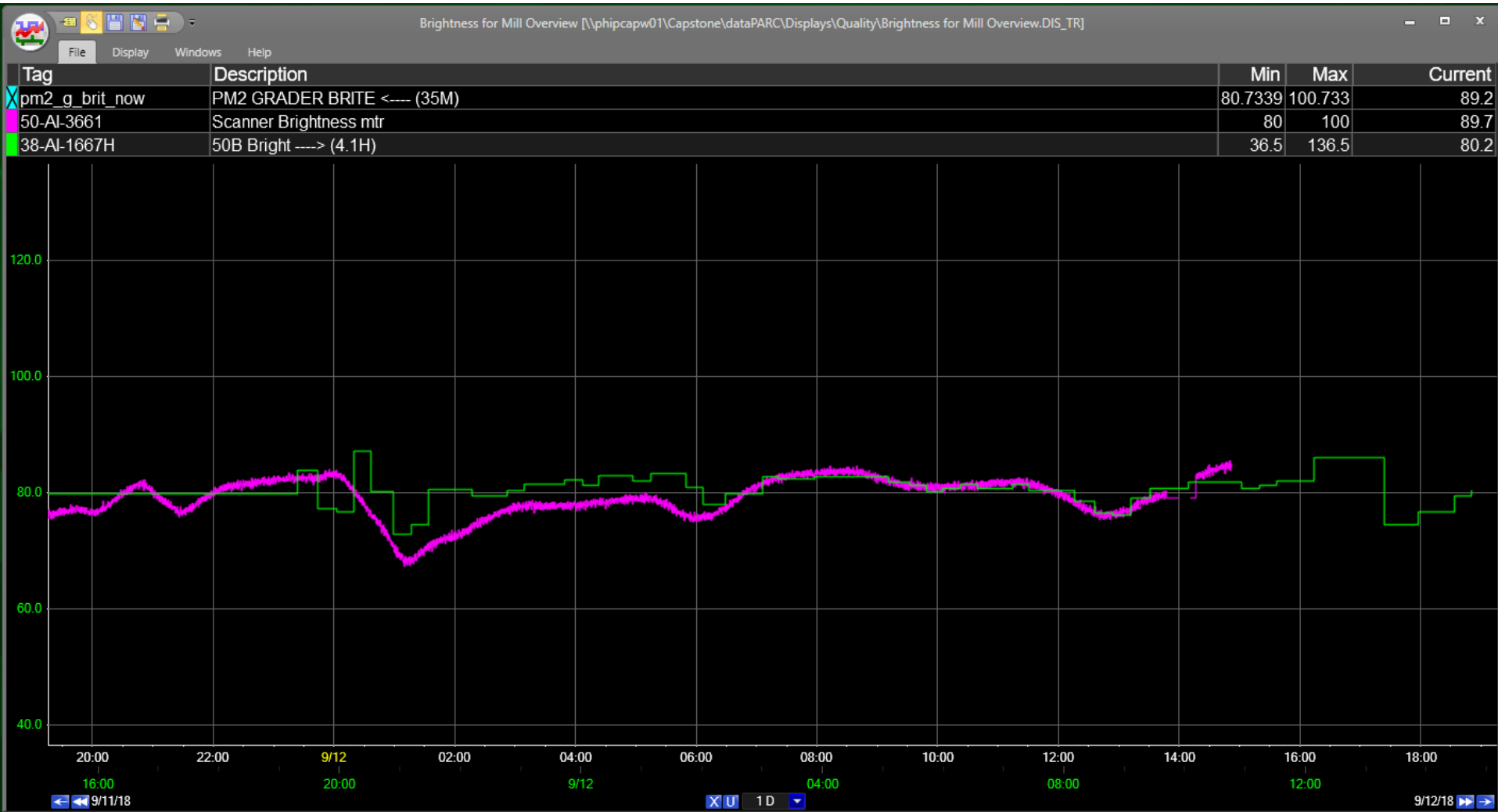
# Using Trends to Predict Brightness



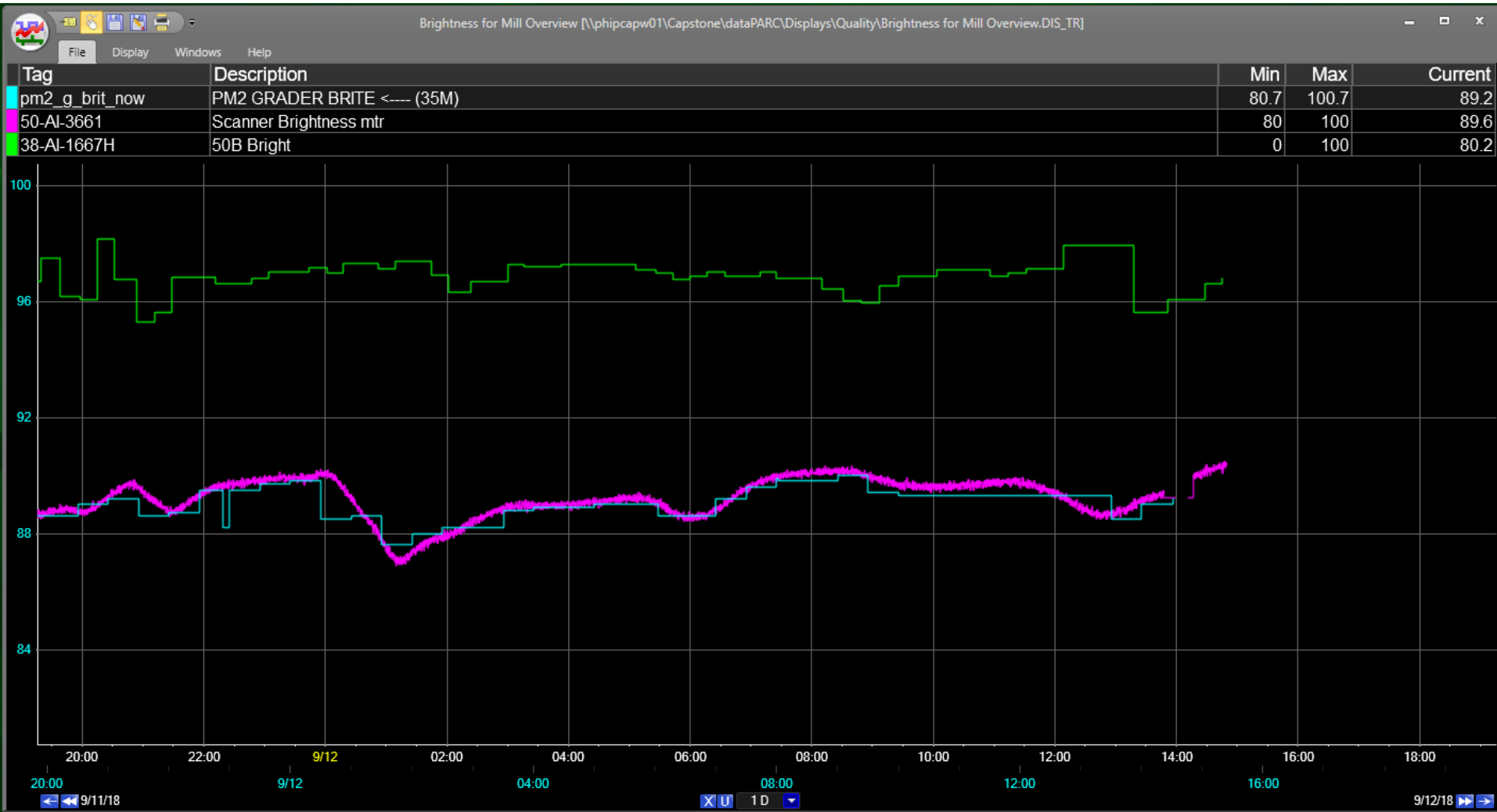
# Using Trends to Predict Brightness



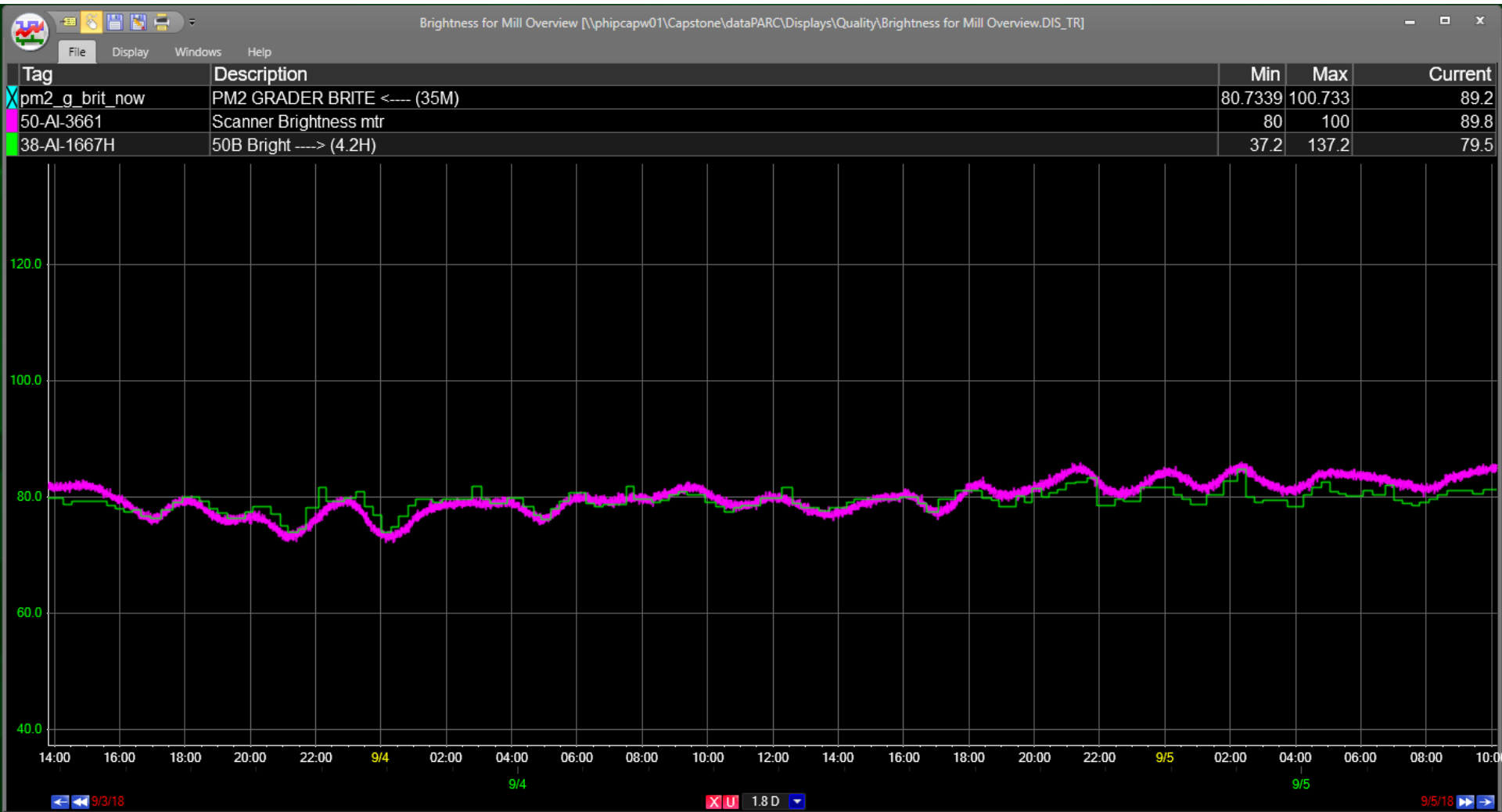
# Using Trends to Predict Brightness



# Using Trends to Predict Brightness



# Using Trends to Predict Brightness



# OPERATOR TRAINING

**Relationship Between Brightness and Kappa**  
**Brightness Troubleshooting Guide**

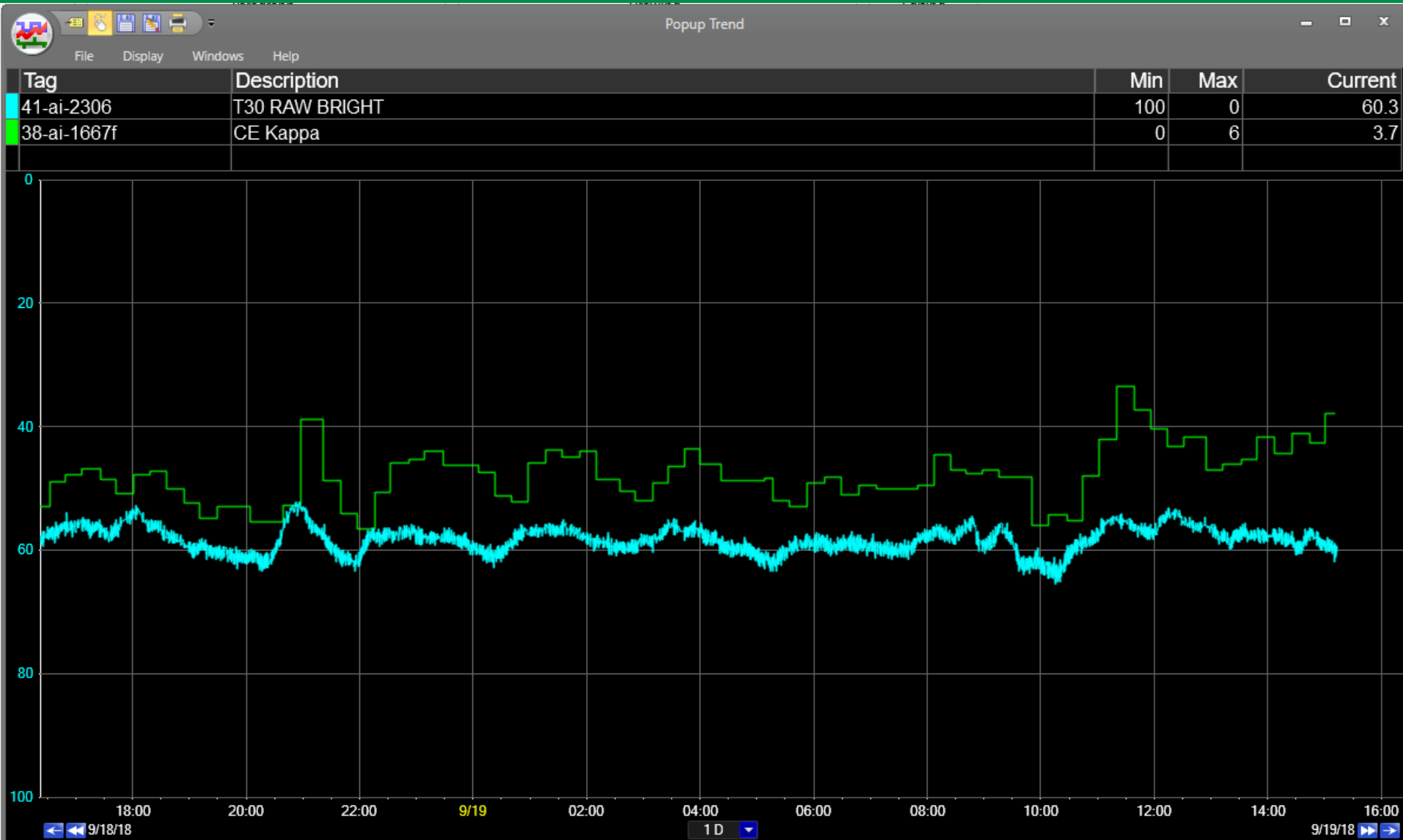


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# Relationship Between Brightness and CEK



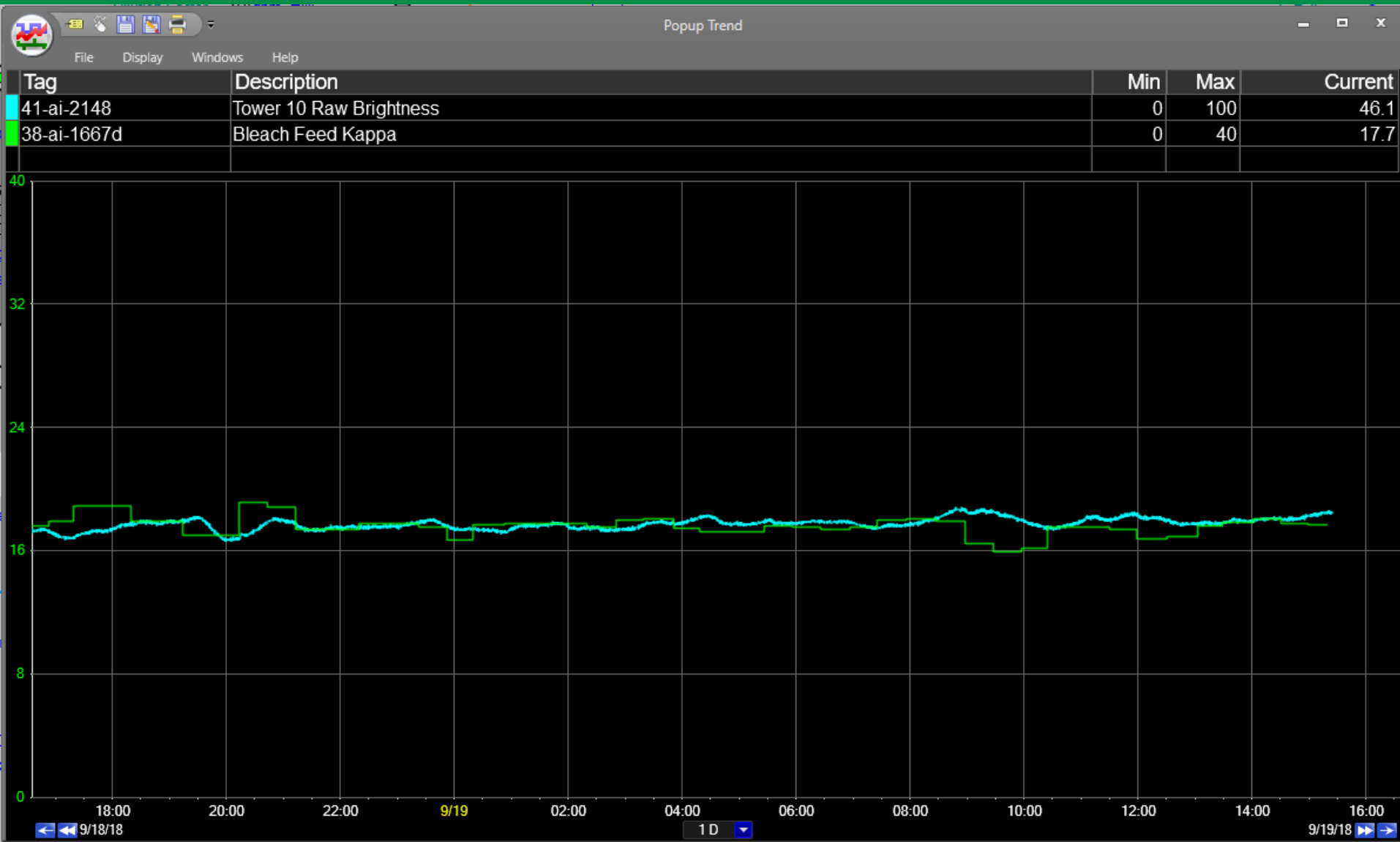
# Relationship Between Brightness and CEK



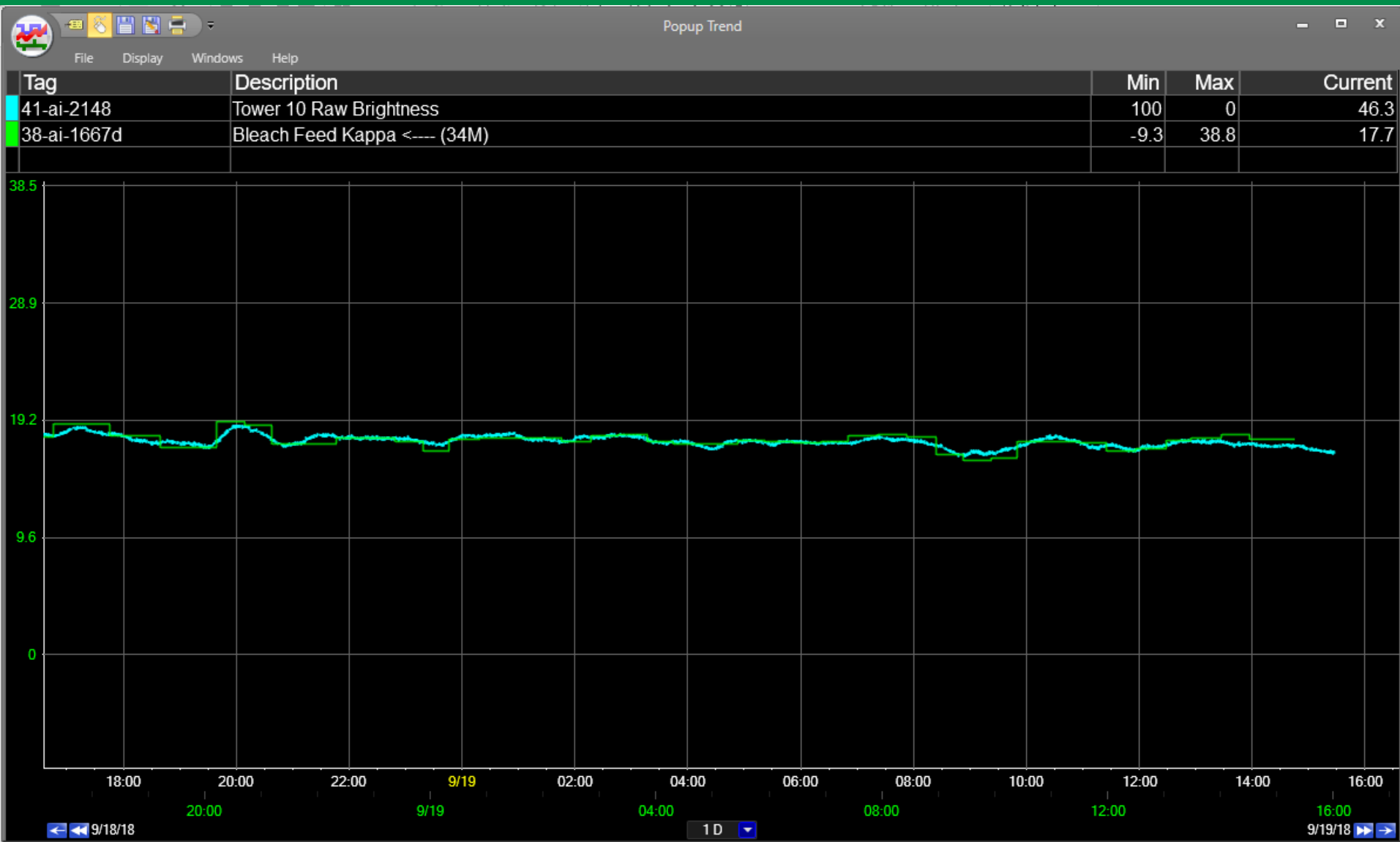
# Relationship Between Brightness and CEK



# Relationship Between Brightness and Feed Kappa



# Relationship Between Brightness and Feed Kappa



# Brightness Troubleshooting Guide

## Preventative

- Monitor all KPI's and keep within range
- Warn warehouse ahead of time if you think there may be a variance in final brightness



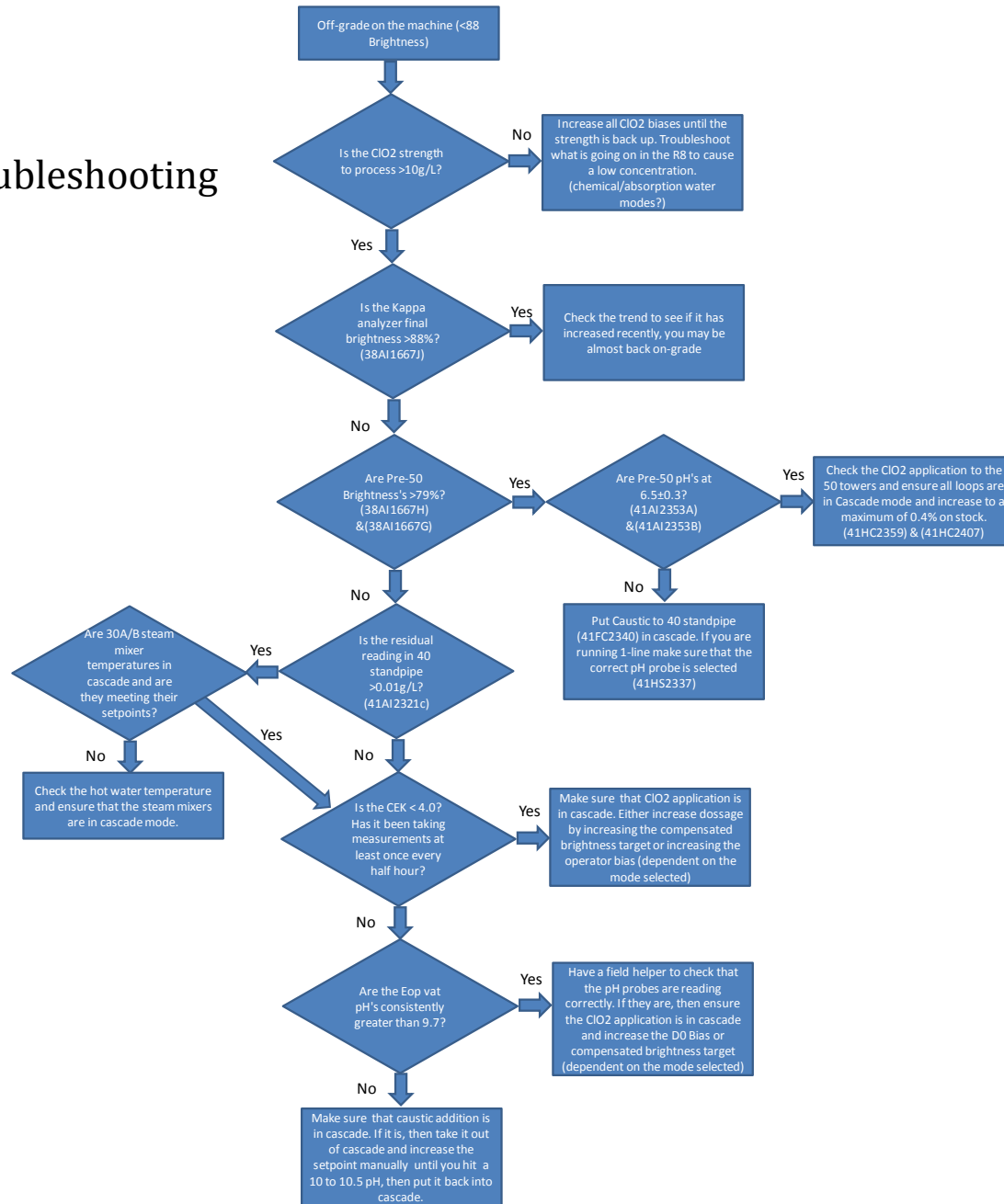
# Brightness Troubleshooting Guide

Reactive (Machine detects it first)

- Trend scanner against pre-D2 brightness
- post D1 ClO<sub>2</sub> residual
- CEK
- Bleach feed kappa
- Pre/post O<sub>2</sub> kappa
- Blowline kappa



# Brightness Troubleshooting



**THANK YOU!**



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