

USDA Rice Studio and LED Lighting Update



GRAIN INSPECTION ADVISORY COMMITTEE

**CATHY BRENNER
CHIEF, INSPECTION INSTRUMENTATION BRANCH
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United States Department of Agriculture

USDA Rice Studio



July 2014 Resolution -

The Advisory Committee recommends that GIPSA continue its work to utilize technology enhancements to advance efficiencies for grain inspections. For example, GIPSA should continue its work with the USDA Rice Studio (rice scanner project) by connecting with industry stakeholders for feasibility of using the technology for further evaluations: including rice broken sizing, color, and potential uses with other grains.



USDA Rice Studio – Development Timeline



- **Sept – Dec 2014 – Field Performance Study (FPS)**
 - In process
- **March 2015 – Complete FPS**
- **July 2015 – Program Guidance Issued**
- **August 2015 – Implementation for official use**



USDA Rice Studio Performance Study



- **Seven inspection sites in Arkansas, California, Louisiana and Texas**
- **Compare USDA Rice Studio % Total Broken Kernels and % Milling Yield to Official Results**
- **Target 10% of samples tested submitted to TSD**
- **Evaluate quality control processes**



LED Lighting



July 2014 Resolution –

The Advisory Committee recommends that GIPSA continue its work with updating inspection lab lighting standards. Lab lighting is crucial for proper visual quality analysis. Advancements in LED technology and lower overall cost should prove this technology a suitable replacement for current approved lighting technology.

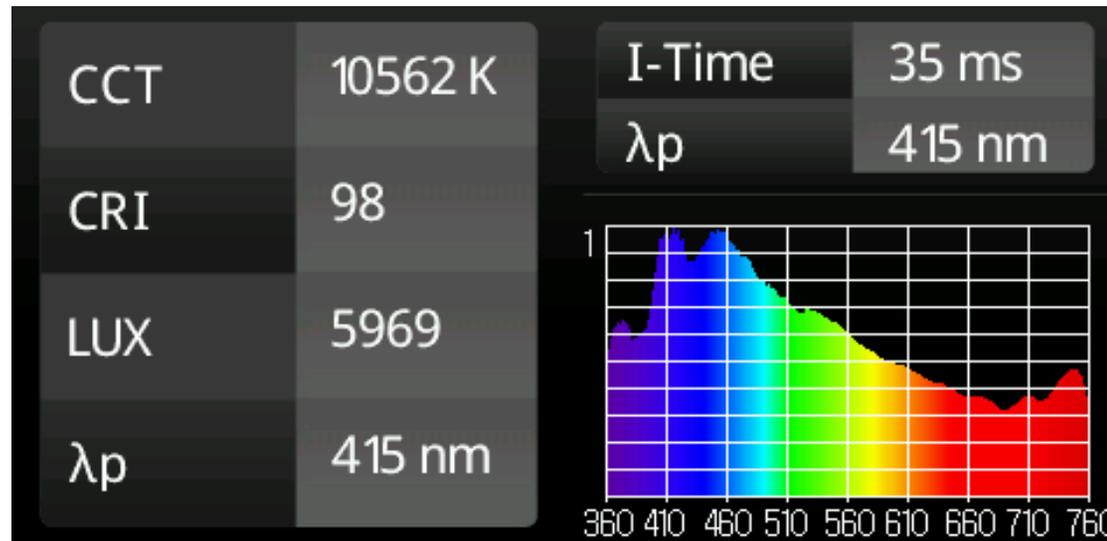


FGIS Lighting Specifications



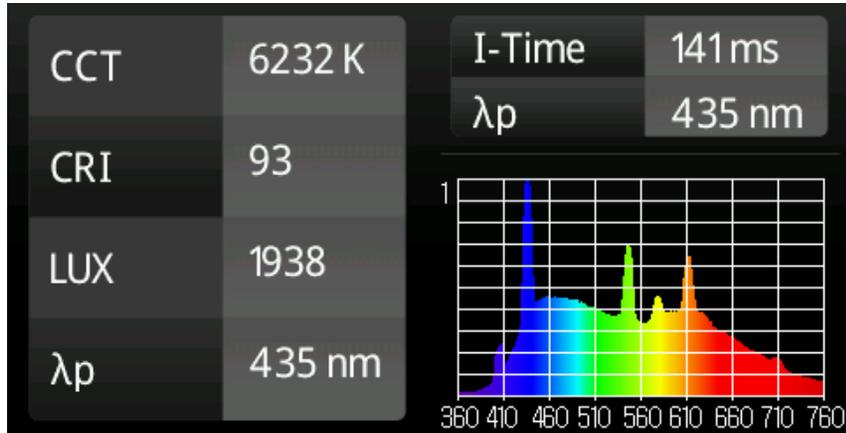
- Color Rendering Index (CRI) ≥ 92
- Color Temperature 7500 °K

North Facing Sky Light

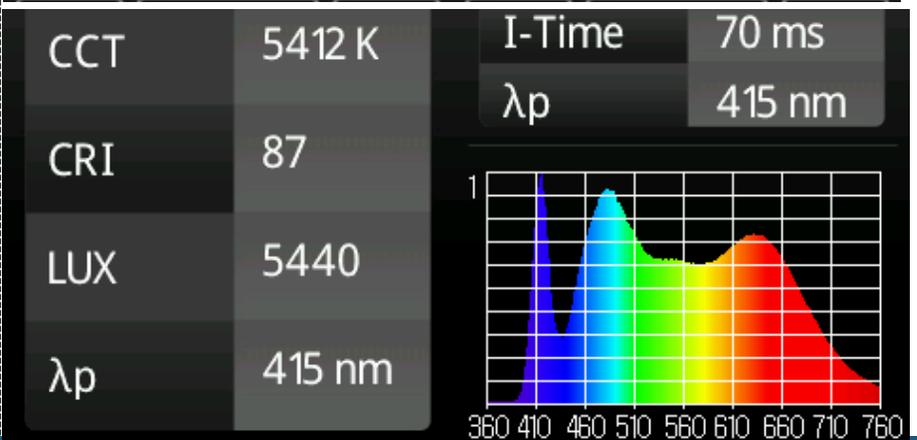
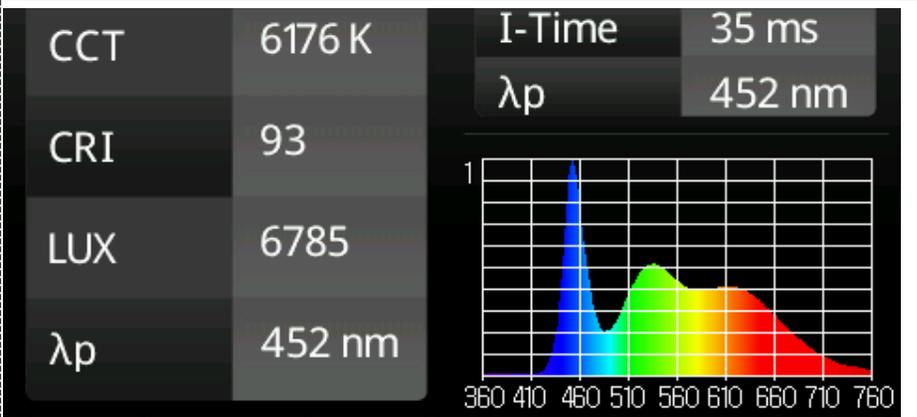


Available Lighting Options

Approved T-8 Fluorescent Lamp



High CRI LEDs



Plans for FY 2015



- **Research project - how does lighting affect visual assessment of grain?**
- **Programming RGB LED lights to vary color rendering levels and color temperatures**
- **Input from Canadian Grain Commission**
- **Draft LED lighting requirements by 9/30**



Questions? Comments?



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