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## Spectrolab Supporting Boeing's CST-100 Starliner



Spectrolab produces solar cells for Boeing's CST-100 Starliner.  
*Credit: Boeing*

### **Spectrolab, Inc.**

#### **Description:**

Spectrolab Inc., a wholly owned subsidiary of The Boeing Company based in Sylmar, Calif., was founded in 1956. Spectrolab's origins can be traced to a group of engineers who began providing high-quality optical filters and mirrors to the government. Spectrolab is now the world's leading provider of epitaxial wafers, space solar cells and solar panels, concentrator terrestrial solar cells, high intensity searchlights and sensor products.

#### **Support for Boeing's CST-100 Starliner Program:**

In support of Boeing's Commercial Crew Transportation System (CCTS), called the CST-100 Starliner, Spectrolab is producing more than 3,500 solar cells for each spacecraft.

These solar cells will power Starliner for crew missions to and from the International Space Station and while docked to the station for approximately six months at a time.

#### **General Capabilities:**

- Boeing will use solar energy to power the company's CST-100 Starliner for crew missions to and from the International Space Station as part of NASA's Commercial Crew Program.
- The system also will create enough power to run the Starliner's systems while it is docked to the station for approximately six months at a time.

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A Boeing Company

- Solar cells made of three distinct cell layers will capture different portions of the energy spectrum to convert solar energy into more than 2,900 watts of usable electricity for the Starliner.
- The solar cells are incorporated into the micro-meteoroid debris shield located at the bottom of the spacecraft's service module.

## Interesting Facts:

- Spectrolab provides space solar products to the commercial satellite industry, the Department of Defense, NASA and global aerospace companies.
- Spectrolab has now been in operation for 65 years, and has supported over 800 satellite launches.
- Spectrolab has built and delivered a world record four million multi-junction gallium arsenide solar cells at its 180,000 square-foot facility in Sylmar, California.
- Spectrolab's pioneering work in space solar cells led to the development of its line of high-intensity searchlights in use by government and commercial customers around the world today.
- Spectrolab established its credibility in the space industry in 1958 with Pioneer 1, which carried the company's first body-mounted solar panels into space.
- From the 1969 Apollo 11 moon landing to the International Space Station to NASA's Mars Rover Opportunity and Juno missions, Spectrolab solar cells have helped power the United States in space for the past six decades.
- As a national asset and key part of the aerospace industrial base, Spectrolab's enabling capabilities are key to powering the next generation of U.S. space programs.

## Background:

- Founded 1956 by local entrepreneur Alfred Mann
- Based in Sylmar, Calif.
- A wholly owned subsidiary of The Boeing Company
- More than 200 employees
- The only semiconductor foundry within Boeing

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