

Lafayette College Partners with Sollum Technologies for Lighting Study

By [Sollum Technologies](#)

[Lafayette College](#), under the leadership of [Robert Elliott, Ph.D.](#), announced it's embarking on a new lighting study to measure the effects of advanced LED lighting on the growth and quality of various crops on Feb. 4. The lab, based in Easton, Pa., uses [Sollum Technologies'](#) dynamic LED lighting solution to create optimal growing conditions for each crop.

Dr. Elliott, Professor of Environmental Engineering at Lafayette College, said that Sollum's "customizable light recipes and zoning capabilities allow us to fine-tune growing conditions across multiple independent environments, which is critical to producing meaningful, repeatable results that will advance agricultural science and ecological engineering."

The research area consists of 12 independent cells, each measuring 1m by 1m, equipped with advanced control and monitoring systems. These systems regulate temperature, humidity, vapor pressure deficit (VPD), light timing, CO₂ levels, irrigation volume, substrate electrical conductivity (EC), and more. This design allows precise replication of varied growing conditions, and tests of ecosystem responses along

environmental gradients, setting a new standard for agricultural research.

This lighting study is further strengthened by a collaboration with [Agritecture](#), whose expertise in urban agriculture and controlled environment agriculture (CEA) research has guided the lab's focus on addressing the industry's evolving needs.

Dr. Elliott and his team will work closely with [Sollum's agronomy experts](#) to develop and implement tailored lighting strategies throughout the project. "Access to Sollum's agronomy team brings tremendous value to this collaboration," added Dr. Elliott. "Their support bridges the gap between theoretical research and practical applications, enabling growers to adopt sustainable and efficient farming practices."

[Sollum Technologies](#) designed the only 100% dynamic LED lighting solution that modulates the full spectrum of the Sun's natural light to illuminate closed environments such as greenhouses, research centers and laboratories.

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