FLUENCE
WHO WE ARE

DAVE COHEN – CEO, Fluence Bioengineering

MARCH 2019

FLUENCE
BY OSRAM

EXPLORING THE INTERACTION BETWEEN LIFE AND LIGHT

Creating the **most powerful** and **energy-efficient LED lighting solutions** for commercial crop productions and research applications

FLUENCE BY OSRAM

FACTS & FIGURES

Headquarters & Manufacturing: Austin, TX, USA
60,000 Sq Ft
50,000 fixtures/month capacity

18 Patents/Patents Pending by EOY 2018

Employees: ~130

Wholly-Owned Subsidiary of OSRAM
($4.7B FY 2017)

Leading LED Supplier in the Global Cannabis Market

Serving over 35 Countries

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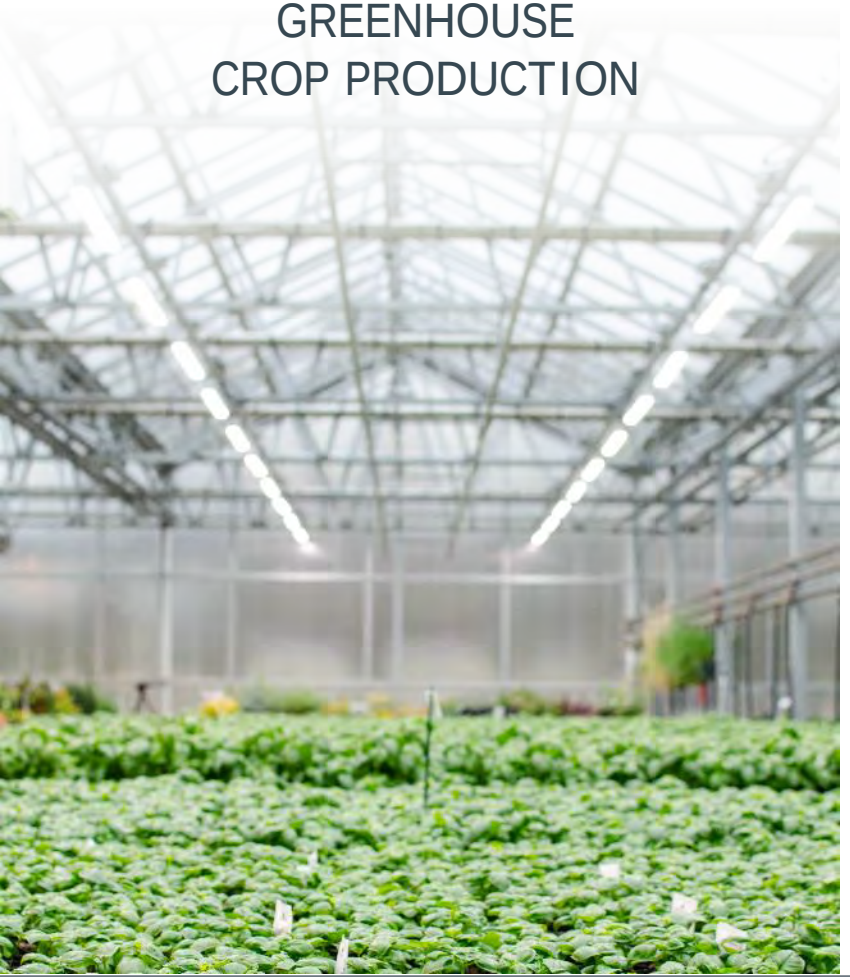
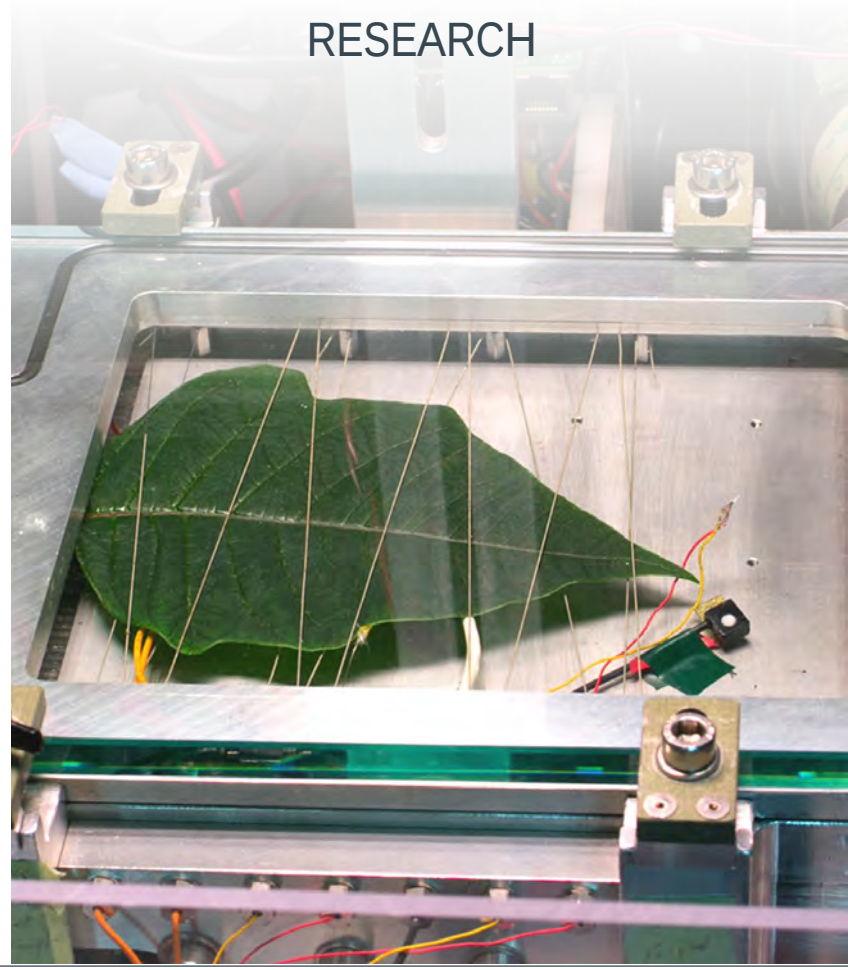
MARKET FOCUS

GREENHOUSE
CROP PRODUCTION



INDOOR VERTICAL FARMING

RESEARCH



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260+ Commercial Cannabis Installations

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#1 GLOBAL LED SUPPLIER TO CANNABIS

The commercial cannabis industry continues to experience extraordinary growth. At the same time, the industry is facing enormous pressure to increase production to address customer demand and increase efficiencies to stay ahead of price compression.

Fortunately, Fluence understands these challenges and is dedicated to developing cannabis grow lights designed to:

INCREASE YIELDS

IMPROVE QUALITY

INCREASE EFFICIENCY

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FEEDING THE WORLD

Commercial agriculture has been largely unchanged for most of human history. Traditional agriculture has helped feed the world, but recent population growth puts society on a trajectory to exhaust natural resources and require new ways to cultivate food.

Fortunately, Fluence understands these challenges and is dedicated to developing horticulture lights designed to further production in controlled environment agriculture and:

INCREASE PRODUCTION

REDUCE LAND

INCREASE BENCH TURNS

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CORE COMPETENCIES

The sale is just the beginning. We have invested in people and resources to provide support to our partners throughout the lifecycle of their business.

LIGHTING DESIGNS

CULTIVATION SUPPORT

PHOTOBIOLOGY LAB

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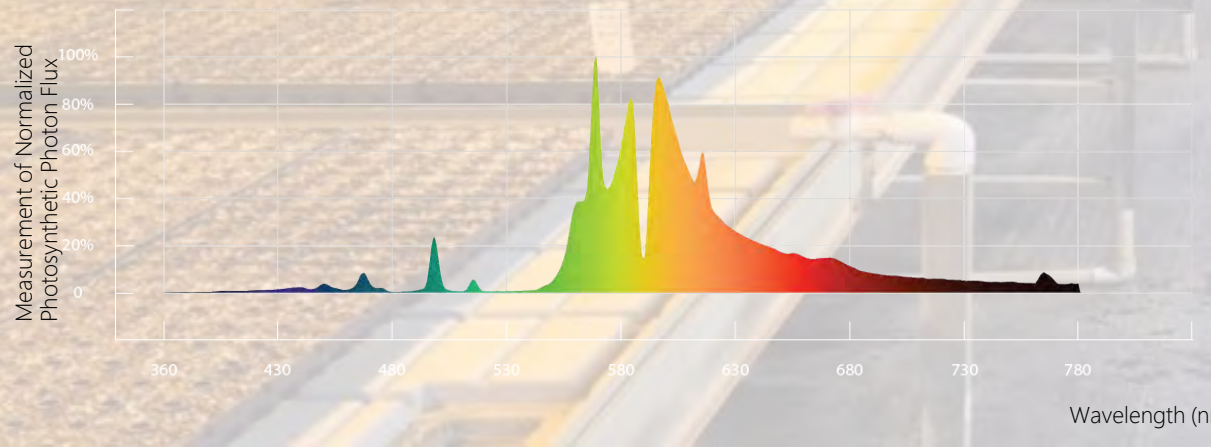
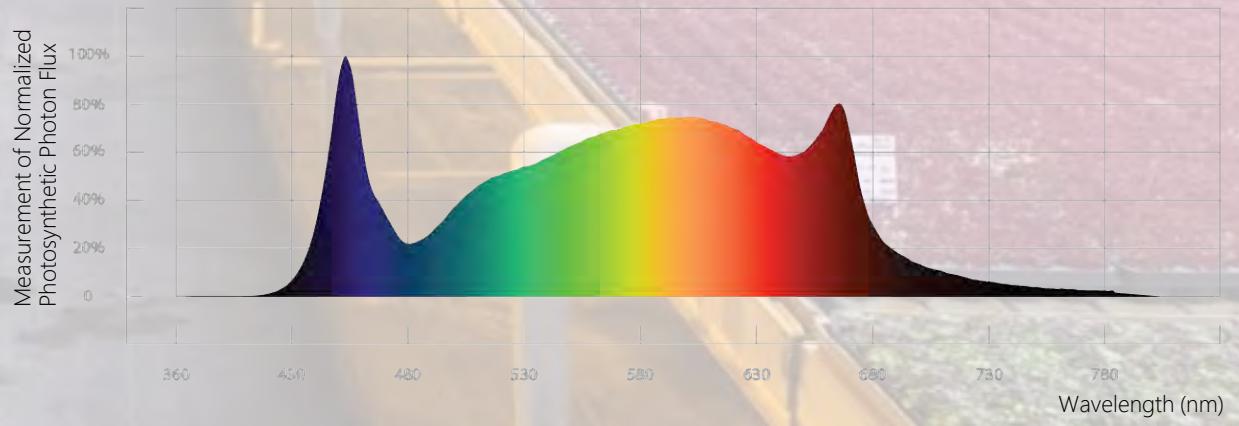
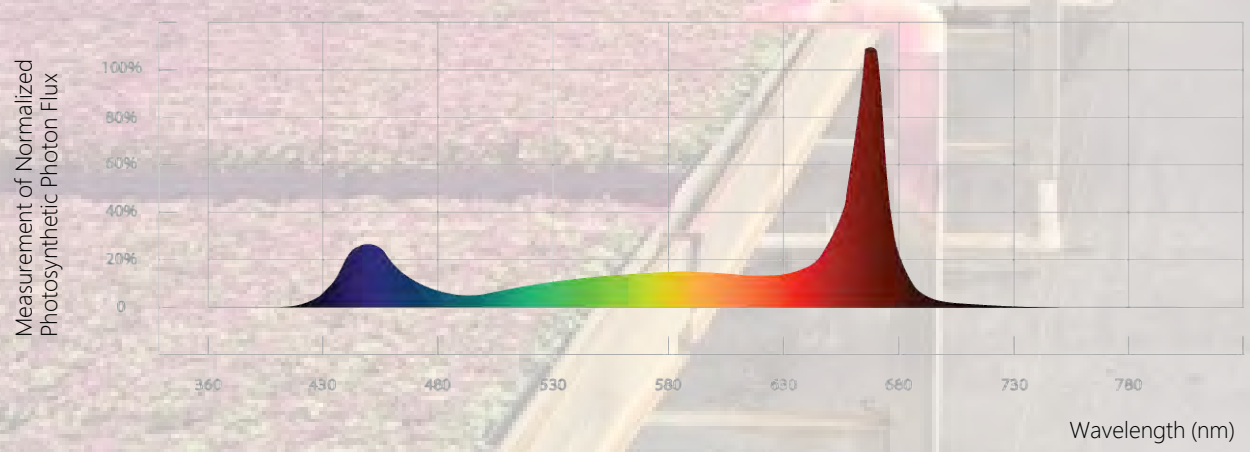
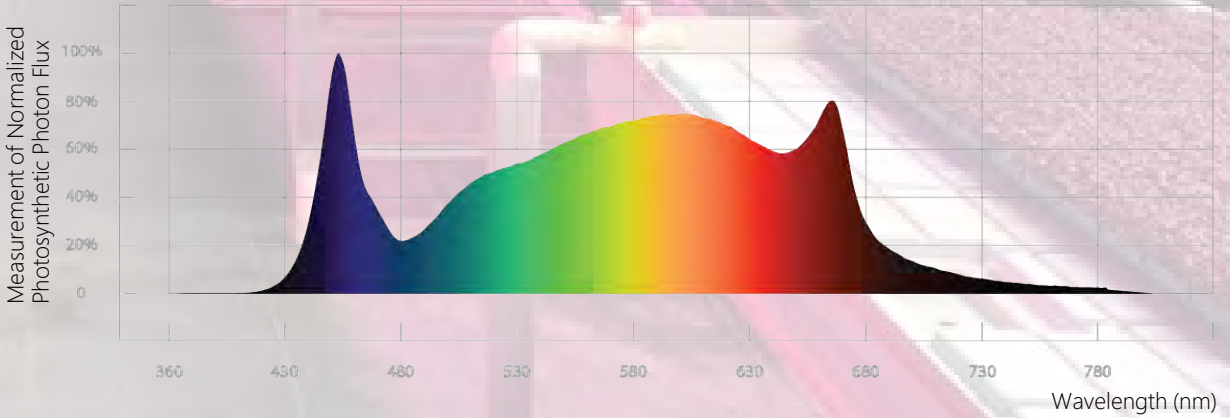
HPS vs. Fluence LED





Purple LED vs. Fluence LED





From Our Partners

“Fluence has enabled us to achieve higher yields and potency, driving up our top line metrics, while simultaneously driving down the costs associated with producing them.”

- Cyrus Farudi
President of Franklin BioScience

“Fluence has empowered us with the technology and support to explore new territories in crop production with a true collaboration geared toward helping us achieve our organizational goals.”

- Allison Justice, Ph.D.,
Vice President of Cultivation at Outco

“The result of using LED has been that we have products with the quality that have exceeded everything we have seen before.”

- Björn Isacsson
Owner of Hällnäs Handelsträdgård

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CANNABIS YIELDS

Outdoor, Indoor & Greenhouse

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FLUENCE BIOENGINEERING is changing the way the world cultivates food and medicine, evolving the world's collective understanding of photobiology.

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BASICS

OUTDOOR | One BIG Harvest

INDOOR | 5-10 Harvests

GREENHOUSE | 5-8 Harvests

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OUTDOOR PROS

"free" lighting and HVAC

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OUTDOOR CONS

myths | pests | disasters

Myth #1: Organic Farms Don't Use Pesticides

"...over 20 chemicals commonly used... [and] ...approved by the US Organic Standards."

https://blogs.scientificamerican.com/science-sushi/httpblogsscientificamericancomscience-sushi20110718mythbusting-101-organic-farming-conventional-agriculture/

INDOOR PROS

full environmental control

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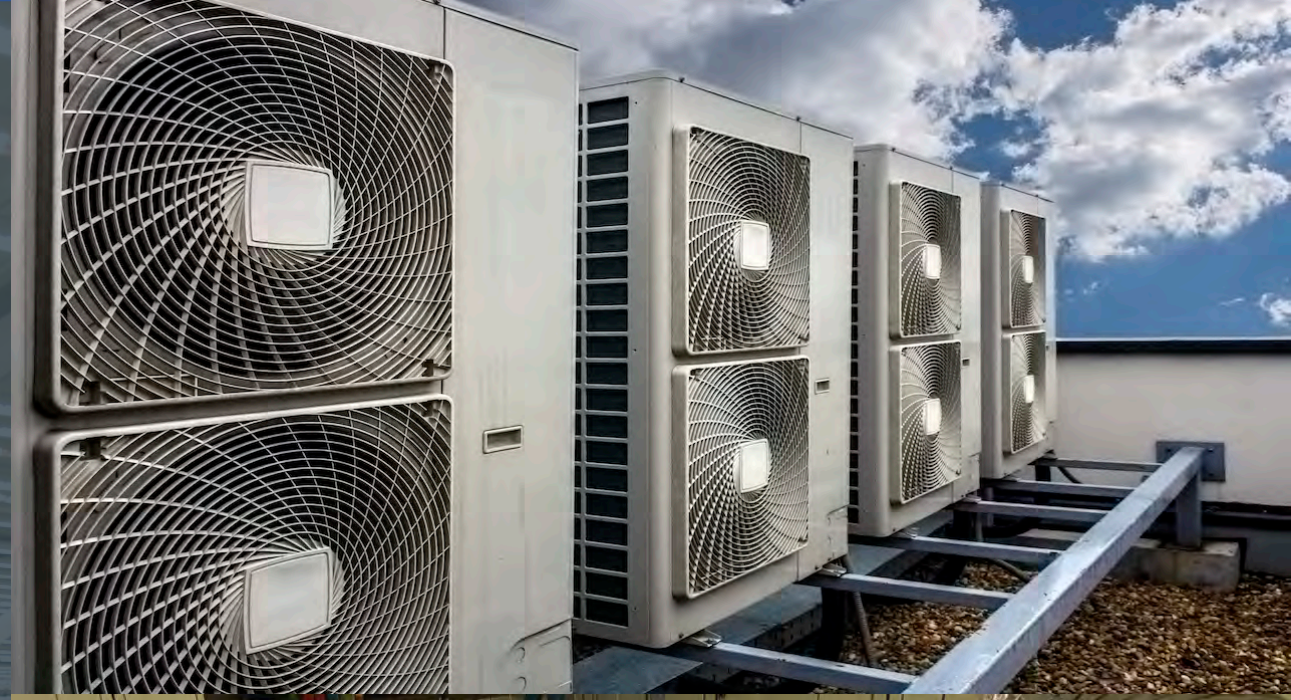
INDOOR CONS

highest electricity costs for managing lighting and HVAC

cost of real estate



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GREENHOUSE PROS

best of both worlds

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GREENHOUSE CONS

growing concern of light pollution
(Picture source NPR)

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Q&A

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