The horticultural lighting market's current boom is driven mostly by greenhouse applications, for which artificial lighting is used to compensate for natural light variations and increase production yield. For these applications, traditional light sources like fluorescent and high-pressure sodium (HPS) lamps are currently the most popular solutions. However, LED technology is catching up and recent developments have allowed the technology to enter the horticultural lighting market. LED's primary advantage is its low power consumption compared to incumbent technologies, which allows for a lower energy cost. Also, LED-based systems produce less heat, which allows for inter-lighting: LED luminaires can be placed near a lower layer of plants that are usually shaded from light by the upper layer, and increase their production consistency, or yield.

Greenhouse applications represent only the tip of the iceberg in this business, and new applications, mainly driven by urban farming, are likely to emerge within the culture surrounding high added-value plants (i.e. medicinal plants). A perfect example is the flourishing medicinal cannabis business in North America, which has sparked the emergence of innumerable companies dedicated to this culture. However, urban farming will not be limited to just high-end products - in fact, several urban/vertical farms are already being developed in different parts of the world to produce common vegetables like radishes, lettuce, and basil.

This report provides an analysis of horticultural lighting applications and technologies, and details the function of grow lights and different light source types, as well as current and emerging/new applications.
The 2016 horticultural lighting market (i.e. system level) represented a business of ~$3.1B, which should grow to ~$3.8B in 2017. The current business is mostly driven by greenhouse applications (~92% in 2017) and incumbent technologies (~79% in 2017), but a transition to LED technology and the emergence of new applications will further increase this market’s size and attractiveness, both at system and LED device levels. In this context, we expect the horticultural lighting market to reach nearly $8.6B in 2022 (at a CAGR of 17.8%) - but this is only a starting point. Indoor/vertical farms are poised to boom from 2022 - 2027, propelling the total market to more than $17B in 2027.

At the LED device level, market opportunity represents ~$100M in 2017 and should grow to ~$400M in 2022 (potentially reaching $700M in 2027).

This report analyzes the horticultural lighting market landscape, detailing 2017-2022 market forecast (in revenue and volume), split by applications, and more.
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