

Light is OSRAM

Light Recipe for Vegetative Growth Lettuce and Leafy Greens

With our proven light recipes, we want to provide you a starting point for your own research. We tested the recipe with PHYTOFY® RL in OSRAM's Smart Farming laboratory, a fully controllable climate chamber. Out of different light recipes tested in a controlled environment with one of the most common red lettuce varieties, we picked this as the best outcome for fast biomass production in your vertical farm.

Red Leaf Lettuce



For vegetative growth it has turned out that a full spectrum with an adequate amount of far red accelerates biomass production.

Growth Recipe

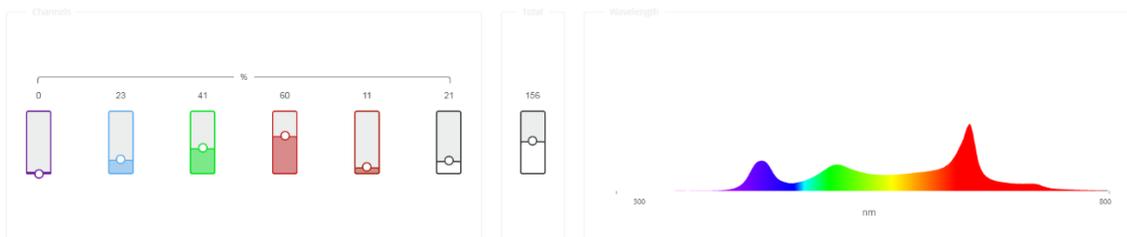
| | |
|------------------------|---|
| Crop | <i>Lactuca sativa</i> 'Diablotin' |
| Light intensity | ~240 $\mu\text{mol m}^{-2} \text{s}^{-1}$ * |
| Photoperiod | 16 day / 8 night |
| Temperature | 20 °C day / 18 °C night |
| Humidity | 60 - 70 % |
| Growth Cycle | 28 days |

*At a distance from cultivation surface to fixture of 406 mm (16')

Spectrum

| | |
|-------------------|----|
| UV | 0 |
| Blue | 23 |
| Green | 41 |
| Hyper Red | 60 |
| Far Red | 11 |
| Warm White | 21 |

Values are in %



For further details please find our research paper at <http://www.osram/phytofy>

Please note:

This information is based on our evaluations and can only be regarded as general guidance. While we have made every attempt to ensure that the information has been obtained right, please make sure that you check for your application if the data and information provided fits to your use case and provides the intended results.

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Smart Farming

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