

PRO-LED™ 100W BMC LED Grow-lights



The PRO-LED™ LED Grow Lights, are a professional grow-lighting fixture with premium MeanWell HBG-100 series UL and CE approved drivers, and high quality glass lenses.

The spectrum of the lights are based on the latest scientific research and utilises the ELPL-BMC COBs, which have a 90+% match to the McCree Curve.

The PRO-LED™ LED Lights are designed for the rigors of high-humidity Greenhouse environments. They are water resistant (IP-54) and have no fan as they are a passively cooled light (convection cooling). They are made from rust resistant, powder coated aluminum.

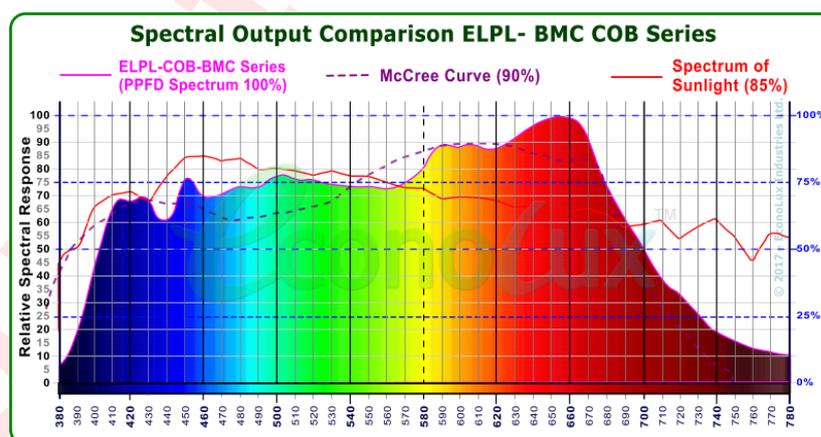
LED COB

The PRO-LED™ LED Grow Lights are quipped with the 100 Watt ELPL-BMC COB. Based on the latest scientific research, its unique in that it is the world's first LED COB to offer a 90+% match to the McCree curve.

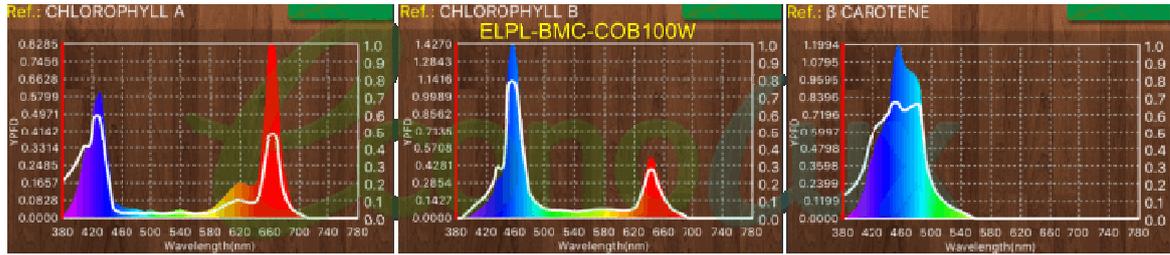
Spectrum

The McCree curve is the spectral curve that scientists have determined is the best for growing a variety of crop plants. Our PRO-LED™ light has a 90+% match with the McCree curve as follows (LED COB PPFD spectrum):

The extra UV and blue light provided in this spectrum is ideal for applications such as growing leafy green plants (lettuce, kale, arugula, etc.), herbs (parsley, rosemary, basil, etc.) and for germination and cloning of all types of plants. The plethora of red light insures that these lights are also ideal for growing flowering and fruiting plants, as well as medicinal plants.



COMPARISON GRAPHS: The graphs (next page), from our plant/grow light spectrometer, measuring in PPFD (PAR)*, shows a comparisons of the GroCube™ spectrum to various standard curves for Chlorophyll A, Chlorophyll B, and Beta Carotene - the light absorbing compounds in plants responsible for growth. The PRO-LED™ LED Grow Lights match to these curves is very close due to the ELPL-BMC COB.



ADVANCED LED AND DRIVER TECHNOLOGY



The PRO-LED™ LED lights are built with the most advanced, proprietary, LED technology to insure maximum output, a close match to the McCree curve spectrum, long service life, and maximum energy savings.

The drivers are premium quality, MeanWell brand. with universal (100~250VAC, 50/60Hz) power input, thus they can work almost anywhere. (Higher input voltage models are optionally available.)

PASSIVE COOLING AND RUGGED CONSTRUCTION

The housings of the PRO-LED™ LED lights are carefully designed with large heat-sink fins for effective passive cooling of a 125W COB. There is 25% more cooling capacity than needed - this means no noisy, high maintenance fans. With an IP-54 water and dust proof rating, they are well suited to the high humidity conditions found in greenhouses.

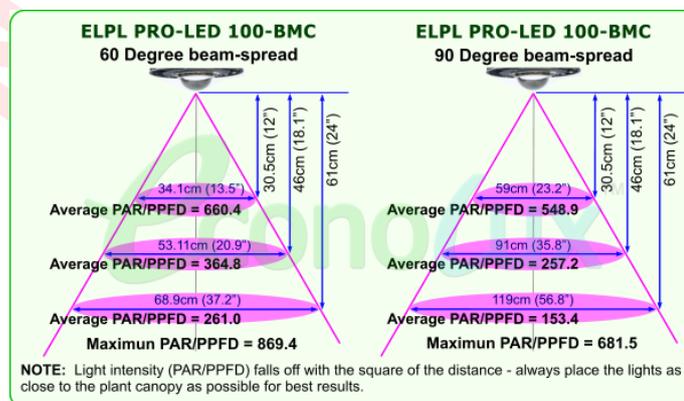
MAXIMUM ENERGY AND MAINTENANCE SAVINGS

The PRO-LED™ LED lights can save 25% to 30%, and often more, in energy costs compared to conventional metal halide or high-pressure sodium grow lights. They also save time and money on maintenance as the annual bulb changes required by typical conventional lights is not needed anymore.

These savings are available while providing a perfect spectrum with a close match to the McCree curve, with an increased crop yield due to the additional wavelengths of light that are not available from the typical LED grow-lights.

PAR/PPFD* OUTPUT

This chart shows the coverage area of the PRO-LED™ LED lights, along with the average PAR/PPFD at various distances from the light, with standard 60 and 90 degree lenses (other beam-spread lenses are optionally available).



*PPFD: Lighting for plants is different from lighting for humans. Light energy for humans is measured in lumens, with light falling onto a surface measured as illuminance with units of lux (lumens per square meter) or footcandles (lumens per square foot). Light energy for plants on the other hand, is measured as photosynthetic Active Radiation (PAR), with light falling onto a surface measured as photosynthetic photon flux density (PPFD).

Lumens are for humans - PPFD/PAR are for plants!