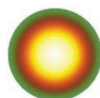


Brilliance of the light...

“Boulderlamp’s ceramic discharge lamp is one of the best horti-lights available today.”

-High Times, September 2015



About CDL+LED grow light



Philips 315W CDL agro bulb is engineered to provide maximum amount of blue and red spectrums as well as certain amount of all other spectrums for optimum growth for all types of plants. Unlike LED grow lights, the same 315W CDL grow light may be used to grow lettuce, tomato, and 600 strains of cannabis plants.

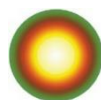
To further increase production efficiency, BLI's patent pending CDL+LED grow light integrates certain red LEDs into the CDL light fixture. Our first generation of CDL+LED grow lights increase yield at least by 15% while using the same amount of electricity. A slimline CDL+Blue LED grow light (2.5”H x 22”L x 17”W) is also introduced for improving plant growth efficiency during vegetative stage.



Vertical CDL+LED light tower

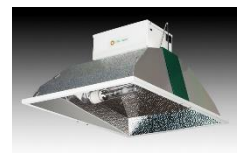
- *Suitable for indoor vertical farming - Cannabis plants as well as vegetables.
- *Unrestricted tower height
- *Maximum yield
- *Low operating costs





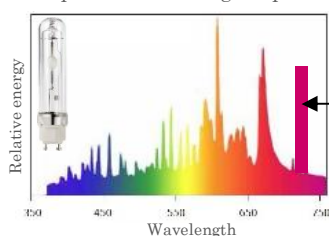
Production and Energy Consumption 315W CDL and 315W CDL+LED

Philips 315W CDL agro bulb is engineered to provide maximum amount of blue and red spectrums as well as certain amount of all other spectrums for optimum growth for all types of plants. Boulderlamp, Inc (BLI) integrates the Philips 315W agro lamp with electronic gear, light fixture, and optics into each product providing the most efficient and reliable grow light.

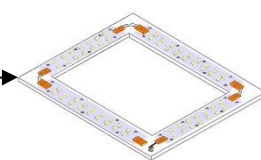


To further increase production efficiency, BLI's patent pending CDL+LED grow light integrates certain red LEDs into the CDL light fixture. Our first generation of CDL+LED grow lights increase yield at least by 15% while using approximately the same amount of electricity.

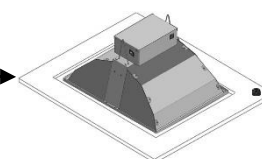
Philips 315W CDL Agro Spectrum



Example of augmenting with 730 nm red



730 nm LED module



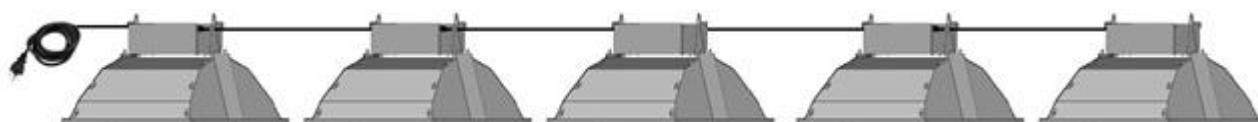
315W CDL+LED Agro

Summary

- *5 x 315W CDL are replaced by 4 x 315W CDL+LED agro. Approximately 4% less power consumption.
- *Yield increased by 15%, approximately 0.6 pound per 4 feet x 8 feet table.
- *Cost differential (first generation CDL+LED) per 4 feet x 8 feet table is approximately \$500.
- *Payback is less than one grow cycle.

315W CDL Agro: Energy Consumption and Production Data

A 4 feet x 8 feet grow bed is typically lit by 5 x 315W CDL agro. Total power consumption including ballast loss is $5 \times 340W = 1,700W$. Average yield = 4 pounds.



315W CDL+LED Agro: Energy Consumption and Production Data

The same 4 feet x 8 feet grow bed are lit by 4 x 315W CDL+LED agro. Total power consumption is $4 \times (340W \text{ CDL } 315W \text{ with ballast loss} + 68W \text{ LEDs with driver loss}) = 1632W$. Average yield = 4.6 pounds.

