





## DERP FARMS KINGMAN, AZ

DeRP Farms is a medical marijuana cultivation operation based out of Kingman, Arizona. Using their main indoor flower grow room, DeRP Farms tested four different lighting products over four separate 6' x 20' tables for a complete 45-day flower cycle. This side-by-side comparison included **Growlite's** VARIUS LED Series Light Bars, two other competing LED systems, as well as their current source of lighting, **Growlite's** OG 600W HPS lighting system.

All tests were performed on their Wedding Cake strain. All plants used in the testing were previously run through the veg cycle using the same parameters, lighting, and feedings. As the 45-day flower cycle concluded, a sample of each table was sent to a third-party laboratory for THC and Cannabinoid content analysis.

The VARIUS by Growlite led in all categories.

Layout and	VARIUS LED	GENERAL LED	LEADING LED	OG/600W HPS
Test Results*	SERIES	FIXTURES	FIXTURES	LAMPS
TABLE SIZE	6' X 20'	6' X 20'	6' X 20'	6' X 20'
LIGHT FIXTURES	90W VARIUS LED SERIES LIGHT BARS	650W GENERAL LED FIXTURE	630W LEADING LED FIXTURE	600W HPS OG VERTICAL REFLECTOR
TOTAL FIXTURE QUANTITIES	27 LED LIGHT BARS	Four (4) (3' X 3' LED LIGHTS)	Four (4) (24 LED LIGHT BARS)	10
TOTAL WATTAGE	2,430W	2,600W	2,520W	6,000W
TOTAL THC	23.72%	17.89%	20.31%	20.31%
	237.17mg/g	178.89mg/g	203.06mg/g	203.10mg/g
TOTAL CANNABINOID	28.10%	21.30%	24.30%	24.20%
	281mg/g	213mg/g	243mg/g	242mg/g
TOTAL THC-A	26.44%	19.90%	22.65%	22.71%
	264.4mg/g	199mg/g	226.5mg/g	227.1mg/g
TOTAL DELTA 9 THC	0.52%	0.39%	0.41%	0.41%
	5.2 mg/g	3.9mg/g	4.1mg/g	4.1mg/g

















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DeRP Farms, a medical marijuana cultivation based in Kingman, Arizona, became interested in replacing their current High Pressure Sodium grow light system with an energy-efficient LED alternative. The goal was to decrease their energy costs while maintaining or exceeding harvest quality. DeRP Farms ran and tested four different lighting products, including **Growlite's** VARIUS LED Series light bars, through a 45-day flower cycle to evaluate total THC content, yield, energy efficiency, and operating costs.

At the conclusion of the 45-day flower cycle, DeRP Farms provided a final harvest sample from each table to a third-party laboratory for THC and Cannabinoid content analysis.

Growlite's VARIUS LED light bars averaged 6%\*\* higher THC content than the competing LED products as well as their current 600W HID fixtures. Total average yields were very similar, with only a few grams of difference. Based on the exceptional results from Growlite's VARIUS LED Series light bars, DeRP Farms has decided to retrofit the entire grow room, with plans to eventually complete their entire facility.

HID to LED	VARIUS LED	HID 600W LAMP
Transition Comparison	SERIES	HPS FIXTURES
	90W LED	

LIGHT FIXTURES	90W LED LIGHT BARS	HID 600W HPS
TOTAL FIXTURE QUANTITIES	450	140
TOTAL WATTAGE	40,500W	84,000W
COVERAGE AREA	14 - 6' X 20' TABLES	14 - 6' X 20' TABLES
COST TO RUN 12HRS/DAY @ LOCAL 9.3 ¢ KWH RATE	\$45.20	\$93.74
COST TO RUN ONE (1) FLOWER CYCLE (45-DAYS/12HRS PER DAY) @ LOCAL 9.3¢ KWH RATE	\$2,034	\$4,218.30
COST TO RUN APPROXIMATELY SIX (6) FLOWER CYCLES (45-DAYS/12HRS PER DAY) @ LOCAL 9.3¢ KWH PER YEAR	\$12,204	\$25,309.80
OPTIMAL LAMP REPLACEMENT (3X/YEAR) COST PER YEAR TOTAL	N/A	\$12,600
LOCAL UTILITY PROGRAM REBATE TOTAL	\$14,094	N/A

These things are awesome. The magnetic mount allows for custom lighting set up. With both flower and veg spectrum bars you can mix them or just run one spectrum and watch your plants thrive. The results speak for themselves and we are stoked with how these LED bars perform. For the best in Horticulture lighting, Grow right with @growlite

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