



Analyze, Manage and Optimize Your Cultivation Processes

SkySpark Analytics provides the insight to:

- Monitor and analyze energy, water, nutrient and resource usage
- Correlate usage with yield results
- Identify faults, trends, deviations and anomalies
- Validate assumptions and process decisions
- Convert grower knowledge into analytic rules
- Automatically calculate and generate KPI reports for management
- Understand and control your costs to maximize profitability



Profitable operations of indoor cultivation facilities require efficiency at every step. From the use of energy for lighting and control of environmental conditions, to the delivery of nutrients, water and use of labor. The common thread to all of these is data. Whether it be live data from sensors and control systems, or batch data recorded in work management tools or financial systems, it's essential to be able to collect, manage, visualize, analyze and report your operational data.

SkySpark® Analytics software provides the features you need to optimize your cultivation processes and profit by providing you with the ability to:

Collect Data from Your Systems. SkySpark provides the ability to collect data from sensors, meters, control and equipment systems via a variety of data acquisition connectors including: Bacnet IP, Modbus TCP, Obix, Haystack, SNMP, Sedona, OPC UA, MQTT, SQL, CSV import (manual batch or automated), and a REST API.

Automatically Calculate Key Performance Indicators. You need to be able to track results against KPI's relevant to your business. With SkySpark you can implement virtually any KPI that's relevant to your business. Some examples include:

- Nutrients consumed per yield (lb. or kg)
- Water consumed per yield (lb. or kg)
- Revenue per yield (lb. or kg)
- Yield (lb. or kg) per kWh of energy consumed
- Man-hours per yield (lb. or kg)
- Watts per sq. ft. or square meter

Automatically Perform Analytics to Identify Faults, Deviations, Anomalies, Trends and Correlations.

Beyond simply calculating KPI's, SkySpark's real power is its ability to automatically apply analytic rules and algorithms against your data to identify patterns that represent inefficiencies, deviations, anomalies and opportunities for improved performance. Analytic rules are fully programmable meaning that you can convert your deep domain knowledge into rules for your facility, your crop and your unique operating conditions.

The Result – Know How Your Cultivation Processes are Really Performing. SkySpark's high-performance database and infinitely flexible analytics language provides results not possible with other tools. And, SkySpark's built-in visualization Apps make it a ready-to-go solution.

Completely Customizable for Your Unique Application Needs. SkySpark can be used in a wide variety of applications with systems and crops of all types. It's not tied to any one manufacturer's sensors, controls or equipment systems. It can be easily applied to your unique facility and requirements.

Create your own Powerful Visualizations and Dashboards. SkySpark combines the efficiency of built-in ready-to-go Apps with the ability to create your own data presentations with our View Builder point and click tool and it's easy to turn those views into reports and automated emails.

Security and Privacy - SkyFoundry Never Has Your Data. SkySpark can be installed on-premise on your computer hardware inside your secure networks. SkySpark is sold as licensed software – install it on a local PC or server or host it in your own cloud. SkyFoundry never has your data – you are in control.

With **SkySpark** you know how your processes, equipment systems, and devices are really operating and where and how you can improve performance.



Site	kW Norm (kW/ft²/*daysF)	Man Hour / lb produced (h/lb)	Nutrients / Yield (lb/lb)	Revenue / Yield (\$/lb)	Watts/ft²	Yield / kWh (g/kWh)
Woody Park	0.00031	7.447 h/lb	.197 lb/lb	34.09 \$/lb	12.6 W/ft²	52.54 g/kWh
Chevy Chase	0.00015	7.627 h/lb	.209 lb/lb	143.2 \$/lb	.575 W/ft²	4.389 g/kWh
Fairhill	0.0001	8.171 h/lb	.229 lb/lb	86.89 \$/lb	3.913 W/ft²	16.7 W/ft²
Rittenhouse	0.00076	10.39 h/lb	.314 lb/lb	219.7 \$/lb	22.55 W/ft²	57.48 W/ft²

Learn more about how SkySpark can help you optimize your cultivation results. Contact us today at info@skyfoundry.com

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