

**RADIX** SERIES

**MODULARIZED VERTICAL HYDROPONIC SYSTEM  
BROCHURE**

**SANANBIO**

Vertical Farming | Horticultural Lighting



SANANBIO is a diverse group of growers, engineers, scientists, designers, and business professionals working to build a sustainable and resilient global food system. We are empowering growers globally with cutting-edge indoor vertical farming and horticultural lighting technologies that allow them to meet local and global market demand for essential agricultural products. Our team of controlled environment agriculture (CEA) experts in conjunction with our industry leading technology, creates unmatched value. We are creating the STANDARD in indoor vertical farming and horticultural lighting. We solve complex problems to build you simple solutions.

Check out [sananbio.com](https://sananbio.com) for more information.

# RADIX SERIES

## Modularized Vertical Hydroponic System

Easy Assembly & Disassembly | Configurable Spacing  
Adjustable Water Level



reddot award 2019  
winner

Check out [sananbio.com](https://www.sananbio.com) for more information.



Commercial



Demonstration



Research

Check out [sananbio.com](http://sananbio.com) for more information.



Restaurant



Education



Home

Check out [sanabio.com](https://sanabio.com) for more information.

Configurable spacing. Integrated lighting system with 80+ spectra. Adjustable water level. Assembly as easy as building a toy castle.

# RADIX Crops



## Fruiting Crops

Cucumber  
Vegetative stage: 90 days  
Yield: 330 - 441 lbs/set/year  
(The yield is calculated based on an 1-layer Radix)



## Micro Green

Radish sprouts  
Vegetative stage: 15 days  
Yield: 772 lbs/set/year  
(The yield is calculated based on a 6-layer Radix)

## Leafy Greens

Frillice lettuce  
Vegetative stage: 20 days  
Yield: 882 lbs/set/year  
(The yield is calculated based on a 6-layer Radix)



Check out [sanabio.com](https://sanabio.com) for more information.

# RADIX Crops



## Pasture

Ryegrass  
Vegetative stage: 10 days  
Yield: 551 - 992 lbs/set/year  
(The yield is calculated based on a 6-layer Radix)

## Herbs

Basil  
Vegetative stage: 40 days  
Yield: 220 - 441 lbs/set/year  
(The yield is calculated based on a 6-layer Radix)



## Medicinal Plants

Jewel Orchid  
Vegetative stage: at least 240 days  
Yield (wet weight): 40 lbs/set/year  
(The yield is calculated based on a 6-layer Radix)



## Edible Flowers

Pansy  
Vegetative stage: 120 days  
Yield: 140,000 flowers/set/year  
(The yield is calculated based on a 5-layer Radix)



Check out [senabio.com](https://www.senabio.com) for more information.

# Configurable Spacing

4 light-to-bed heights ready to be used for a variety of crops.  
It takes 30 minutes and 2 people to assemble/disassemble a RADIX with no special skills or tools needed.



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# Configurable Spacing

4 light-to-bed heights ready to be used for a variety of crops.  
It takes 30 minutes and 2 people to assemble/disassemble a RADIX with no special skills or tools needed.



**2870**  
Overall Height(mm)

**6**  
Layer(s)

**280**  
Light-to-Bed Height(mm)



**2710**  
Overall Height(mm)

**7**  
Layer(s)

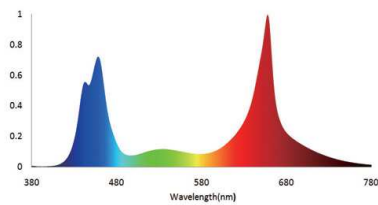
**200**  
Light-to-Bed Height(mm)



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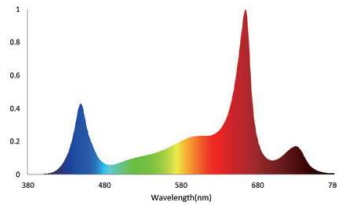
# Independent Lighting System

SANAN Optoelectronic proprietary chips and 80+ spectra optimizing plant growth of 160+ cultivars throughout their life stages. Spectrum and light model interchangeable.



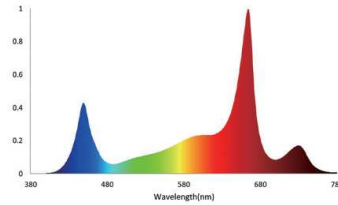
**Skylark-GE Spectrum**  
For Leafy Green

Power: 11.5 W  
PPF: 26  $\mu\text{mol/s}$   
Number of lights per layer: 8 pcs  
Light-to-bed distance: 20 cm  
Avg. PPFD: 248  $\mu\text{mol/s/m}^2$



**Skylark-VE Spectrum**  
For Leafy Green

Power: 13.5 W  
PPF: 38  $\mu\text{mol/s}$   
Number of lights per layer: 8 pcs  
Light-to-bed distance: 28 cm  
Avg. PPFD: 295  $\mu\text{mol/s/m}^2$



**Skylark-VE Spectrum**  
For Leafy Green

Power: 30 W  
PPF: 69  $\mu\text{mol/s}$   
Number of lights per layer: 8 pcs  
Light-to-bed distance: 50 cm  
Avg. PPFD: 540  $\mu\text{mol/s/m}^2$

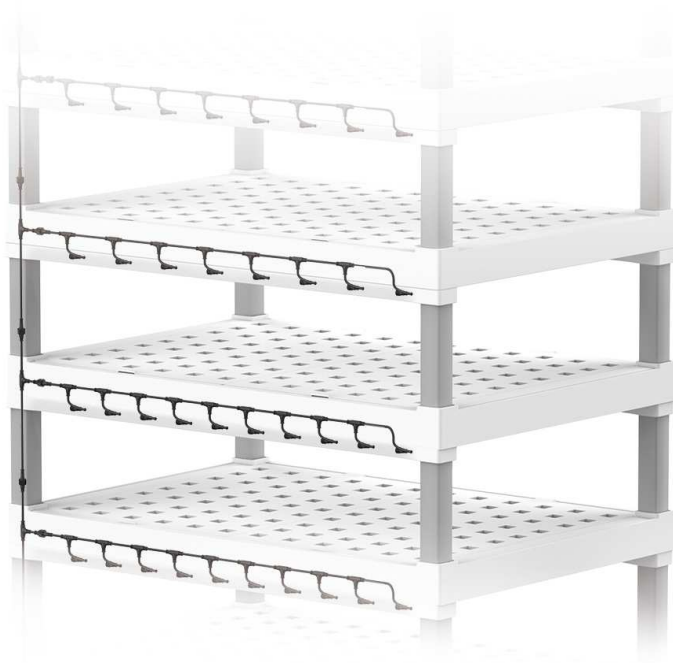


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SANANBIO Skylark Series: RADIX Buddy

# Concealed Wiring and Tubing

Made from insulants, Radix eliminates electrical hazards by concealing wiring and tubing in spacers and grow beds.



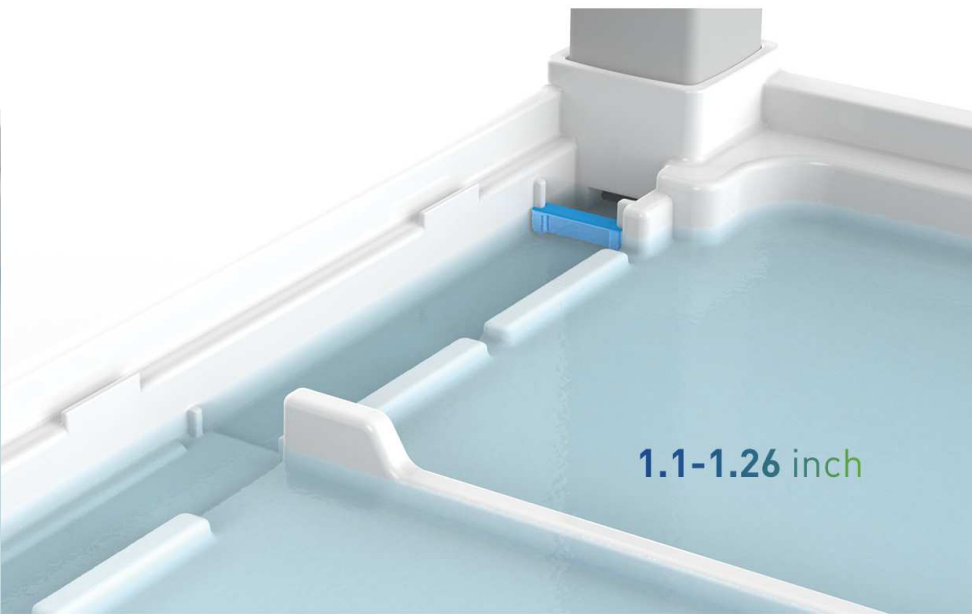
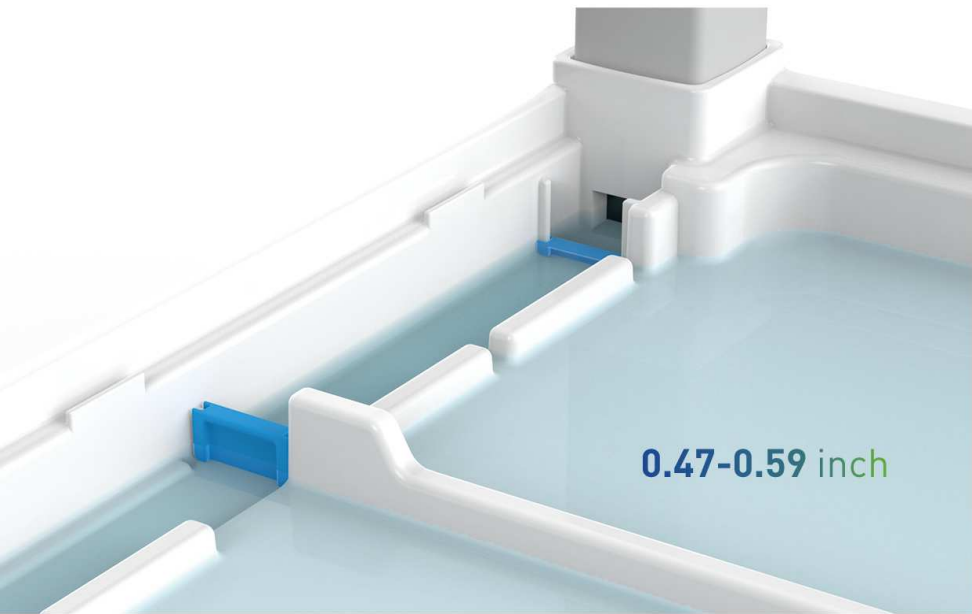
Wiring



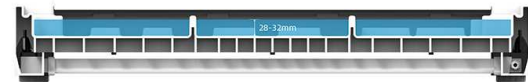
Irrigation

# Adjustable Water Level

Retaining dams and flow regulators allow Radix to have a hybrid system of NFT & DWC with integrated gravity-driven water circulation that is convertible between shallow flow and deep flow.



Shallow flow

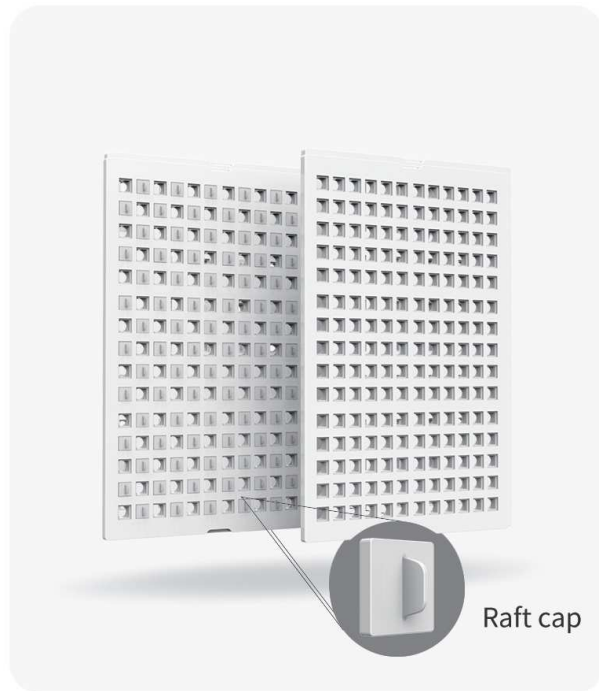


Deep flow

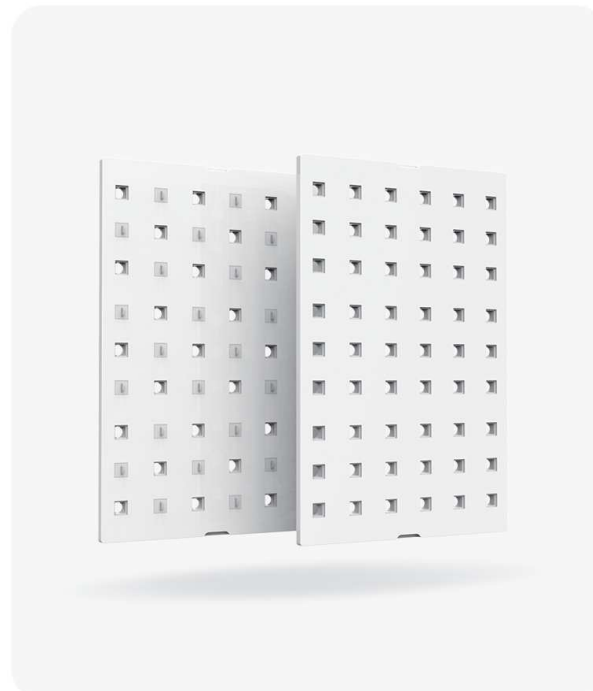
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# Accessories

Growers can choose 180-hole, 54-hole or 18-hole rafts per their needs and change up plant density by capping off unused holes so that the indoor space can be utilized optimally throughout plants' life stages.



180-hole raft for seedling growth. Cap off unused holes to adjust plant density and prevent algae growth



54-hole raft for the vegetative stage. Cap off unused holes to adjust plant density and prevent algae growth.



18-hole raft for the vegetative stage. Cap off unused holes to adjust plant density and prevent algae growth.

# Accessories

Radix use with different accessories for seedling, nursery, and microgreens growing etc.



Germination Trays (sowing/seedling stage)



Automatic Water Filling Germination Tray  
(sowing/seedling stage)



Microgreen Tray (cultivation stage)

Check out [sananbio.com](https://sananbio.com) for more information.

# Healthy and Strong Roots

Driven by gravity, the nutrients are circulated with a high dissolved oxygen level, ensuring roots' healthy development.



Note: The red roots are of swiss chard



# Specifications

Product Name	RADIX
Dimension (L*W*H)	1346*942*(2200-2870) mm
Growing Surface	6.48 m <sup>2</sup>
Light to Bed Height	200-1890 mm
Plant Sites/Raft	180 holes/54 holes/18 holes
Number of Lights	48 pieces ( 8 pieces/layer)
Avg. PPFD	250-550 μmol/s/m <sup>2</sup>
Voltage	CN&EU 220-240 V~ 50/60 Hz UL 100-277 V~ 50/60 Hz
Power	552 W/648 W
Grow Light Lifetime	50,000 hrs
IP Rating	IP 65
Net Weight	< 366 lbs
Material	PP



## Packing List

1.Radix 2.User Manual 3.Certification



# GLOBAL PHOTOBIOTECH SUPPLIER



FUJIAN SANANBIO TECHNOLOGY CO.,LTD.

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