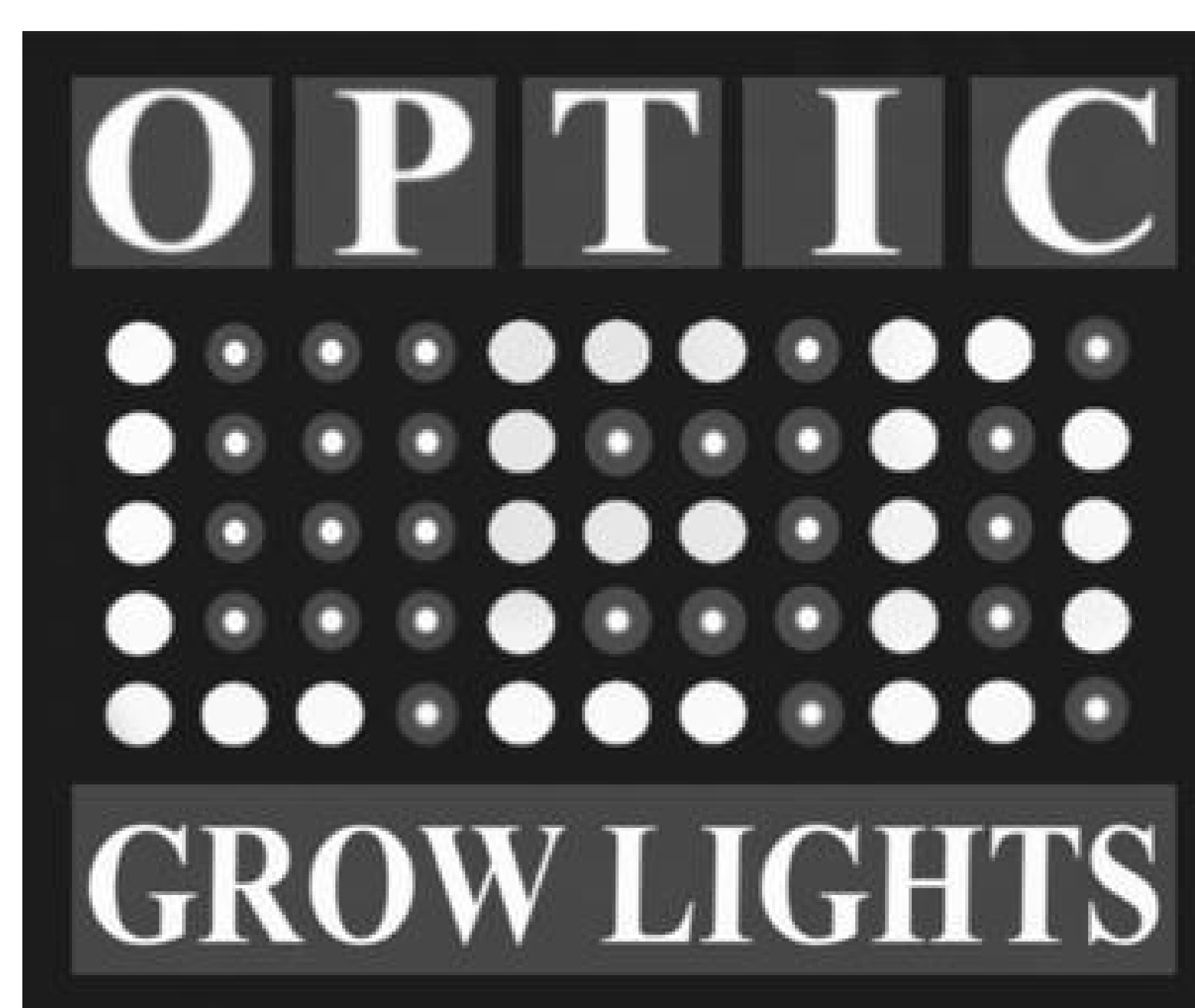


Optic LED Grow Lights

SLIM 650 S

Owner's Manual



11921 Canyon Rd
Puyallup, WA 98373
(253 881-1355)



Overview

Slim650S is engineered to give you performance far beyond what any other LED Grow Light company has in the market today including Samsungs all-new record-breaking LH351H Version 2 660nm Deep Red LED Chips at 3.75 umols/j and LH351H 450nm Royal Blue LEDs paired with the Samsung White LM301H LEDs which are above 3.0 umols/J with a 3way dimmable system running 3,096 LEDs total for next-generation efficiency and tuning capabilities. Slim 650S is by far the most advanced LED Grow Light ever manufactured. Slim 650S when combined with our touch screen master controller gives growers the power to recreate mother nature with precision control.



Slim 650S is the first-ever Bar Light Fixture to deliver 3 Way Spectrum Control with Independent Dimmers for Red, Blue, and White LEDs. Early in VEG, you can crank up the blue dimmer to give you thicker stems, tighter node spacing, and bushier plants that yield better in flower. Early in flower if your plants are stretching too much you can also turn up the blue LEDs for less stretching. Then you can unleash the Samsung Deep Red LEDs to give you amazing flowering production, Dense buds & heavyweight yields. The list of benefits goes on, Slim 650S is in a very special class of LED Grow Lights that offer true spectrum control.

Slim 650S has all the best components in the industry but is also designed to last twice as long as all other grow lights today. Dimmers come standard with Slim series lights as well as the industry's most overbuilt cooling system & top quality, long-lasting Meanwell Drivers. Optic LED was the first mainstream LED Grow Light company to begin using LM301H and now we are the first to publicly disclose our collaboration with Samsung and using their newest record-setting technology with full transparency from their Horticulture Specific Line of LEDs.

SLIM 650S

Specifications

Total LEDs: 3,096

Model of LEDs: Samsung LH351H V2 Reds, LH351H Blue, LM301H White.

PPFD @10": 1,342

ppf/w : 3.15 umols/J

ppf: 1,750 umols

Grams Per Watt: up to 2.8

Yield: Up to 1,820 grams / 65 oz / up to 4.06 lbs

HID/HPS equivalency: 1300 watts DE HPS

Kelvin: 3500K Day Light White Base + Deep Red + Royal Blue + UV + IR

IP Rating: IP65 Waterproof

Total LEDs : 3,096

LEDs Per Watt : 4.75

White LEDs - Samsung LM301H 6 LEDs Per Watt (500 Watts)

Red LEDs: Samsung LH351H .72 LEDs per Watt (100 Watts)

Blue LEDs: Samsung LH351H .64 LEDs per Watt (50 Watts)

Actual Max Power Draw: 650 watts max

Amps: 5.5 Amps at 120v (2.8 Amps @ 240v)

Voltage : Internationally Used 110 volts - 277volts (240v cord sold seperately)

Lifetime: 25 Years

Warranty: 10 Years full warranty (Industry Best)

Release Date: October 2020

Shipping: Free Shipping to 60+ countries

Light Fixture: 42" x 42" Vertical Farming Aluminum BAR Fixture - folds in half

Cables: 6 Foot attached power cord, 4 rope ratchets & 1 RJ-11 cable

Plug: USA, CANADA, EURO, Commercial, etc. (240v sold separately)

(We automatically ship the correct cord for your country)

Dimming: 3 Dimmer Knobs 0%-100%. 3-Way Spectrum Control

Spectrum Control: 3 Dimmer Knobs 0%-100%. 3-Way Spectrum Control

TouchScreen Master Controller: 2 ports, Fully Compatible. 3 Dimmer control

Fixture Dimensions: 42" x 42" x 4.5"

Fixture Weight: 40 lbs (Aluminum Fixture + Driver Case)

Shipping Weight: 50 lbs

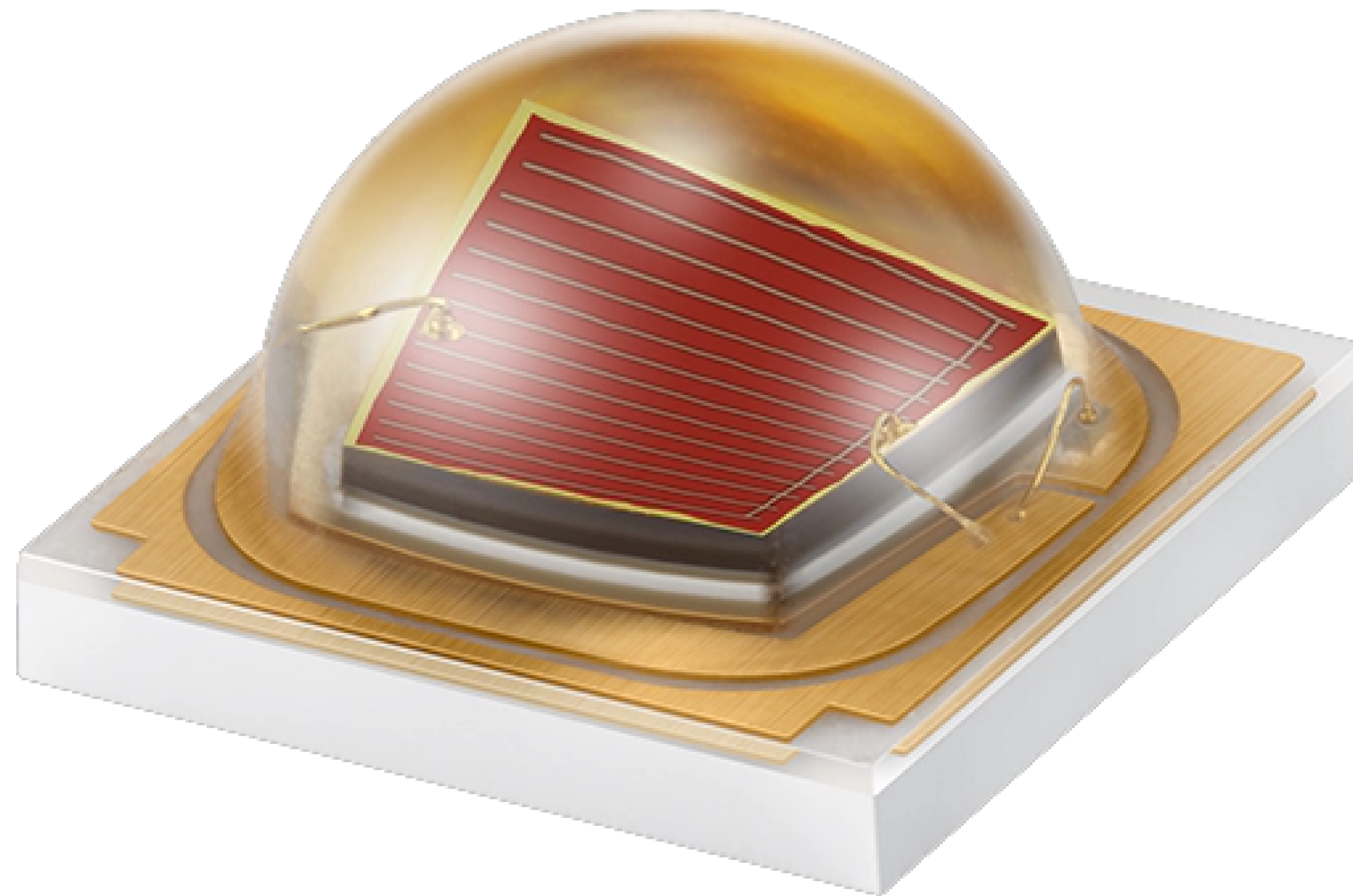
Hanger: Comes with 4 adjustable rope ratchet hangers.

Recommended for: Grow Tents, Grow Rooms, Greenhouses & Indoor Cultivations.



SLIM 650S

Samsung LH351H V2



All Optic LEDs have been officially upgraded from the new Samsung Horticulture specific LH351H V2 LEDs which are 3.75 $\mu\text{mol}/\text{j}$ from the previous generation LH351H V1 LEDs which are 3.1 $\mu\text{mol}/\text{j}$. That means the new V2 Diodes are producing 20% More Light overall with the same amount of wattage which is absolutely incredible.

Wattage (Typ)
1.5 W @ 700 mA

PPF
5.54 $\mu\text{mol}/\text{s}$

PPE
3.75 $\mu\text{mol}/\text{J}$

Condition
700 mA, 25 °C

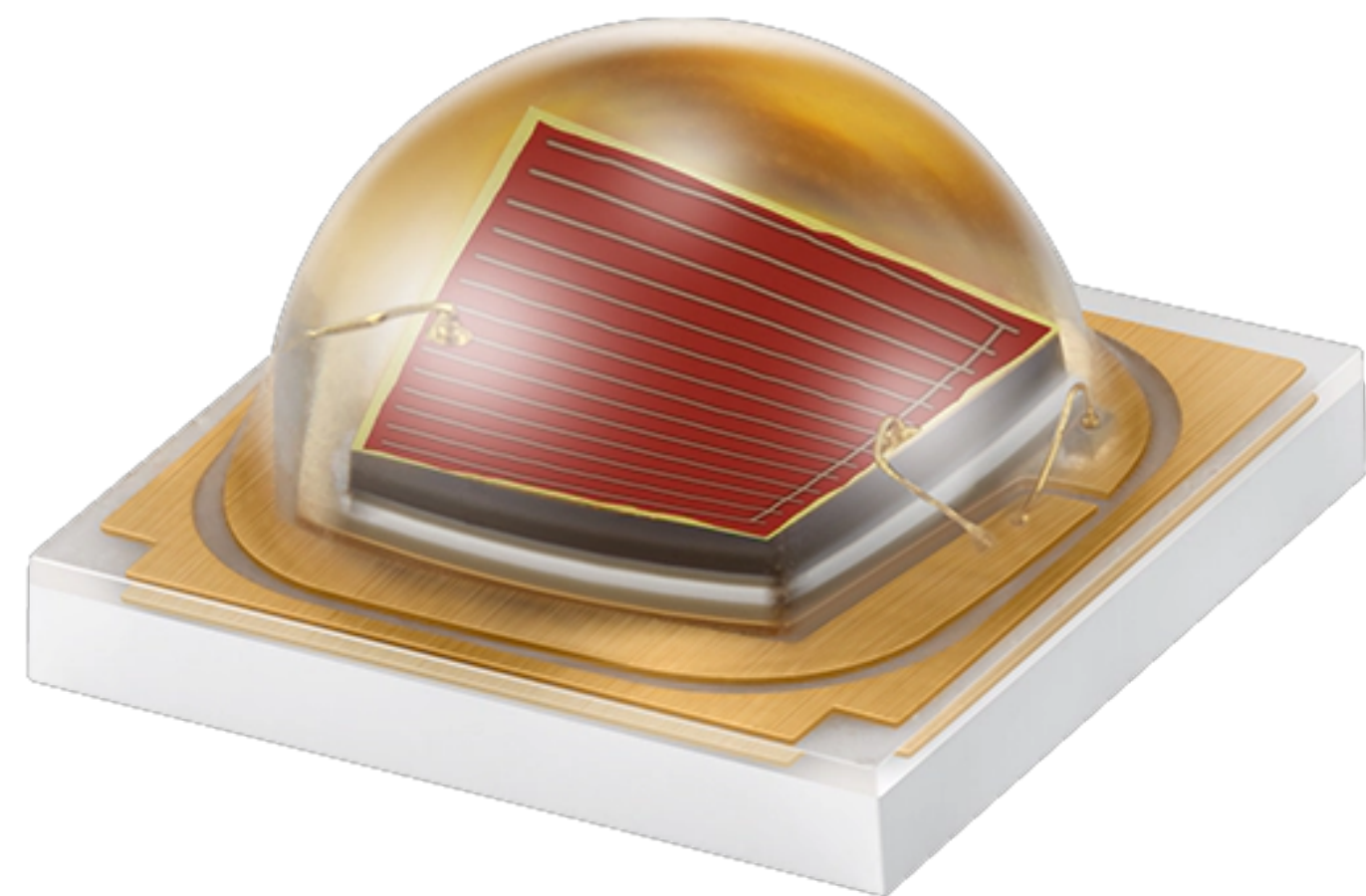


SLIM 650S

Components



LEDs: 3,096+ Total LEDs
3500k White LEDs: 2,992 pcs
Top Bin Samsung LM301H LEDs 3000k & 4000k
Mixed



Bloom Enhancers:
RED LEDs: 64 pcs



Blue LEDs: 32 pcs

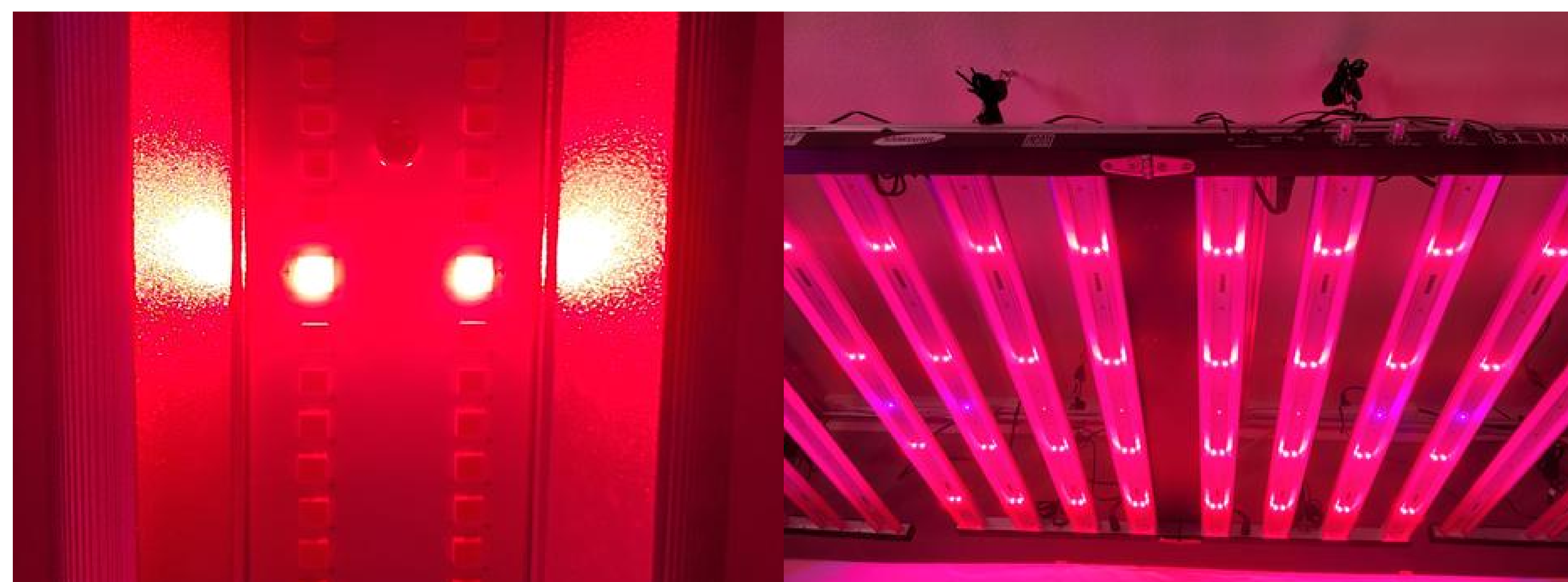


Drivers: 3 Meanwell Dimmable Drivers 0%-100% (Industry Best)

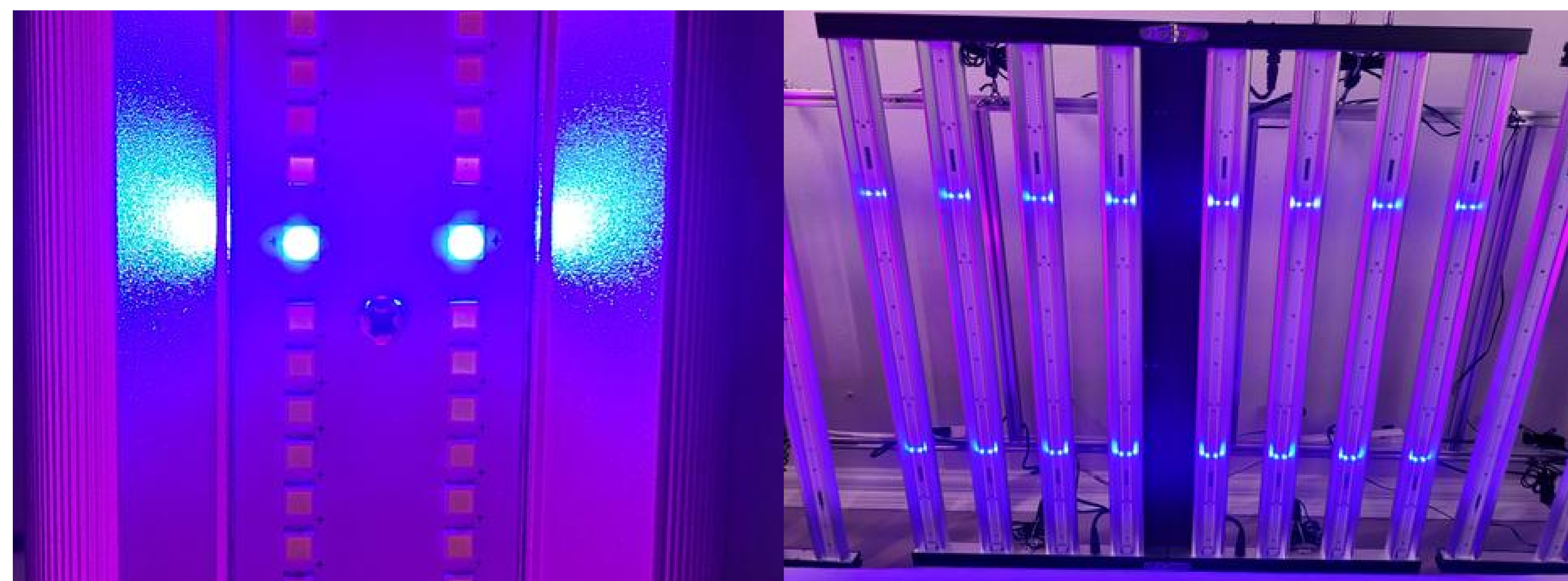
Dimmer #1 (White LEDS Channel) - 500 watts



Dimmer #2 (Red Channel + UV & IR) - 100 watts

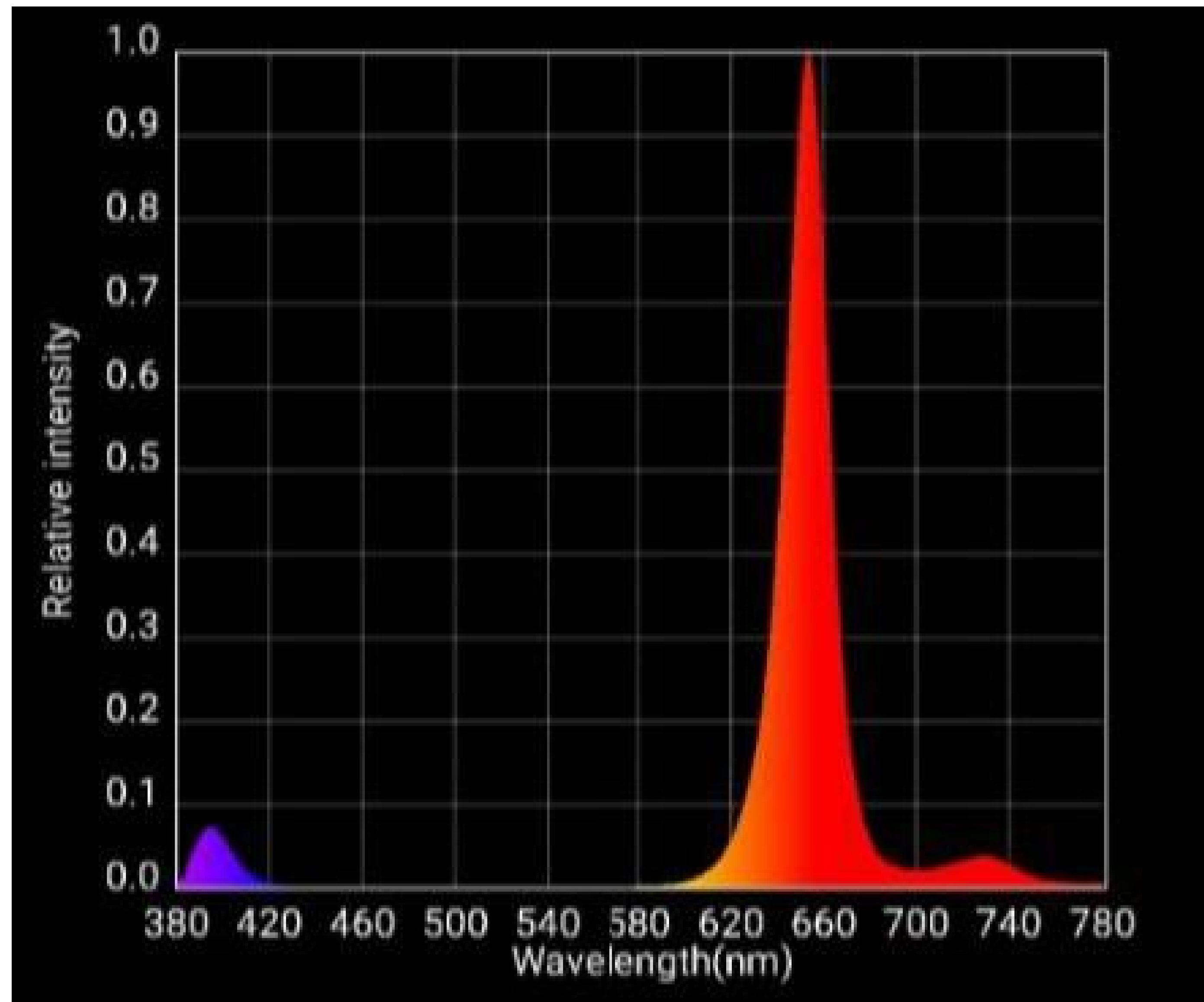


Dimmer #3 (Blue LEDS Channel) - 50 watts

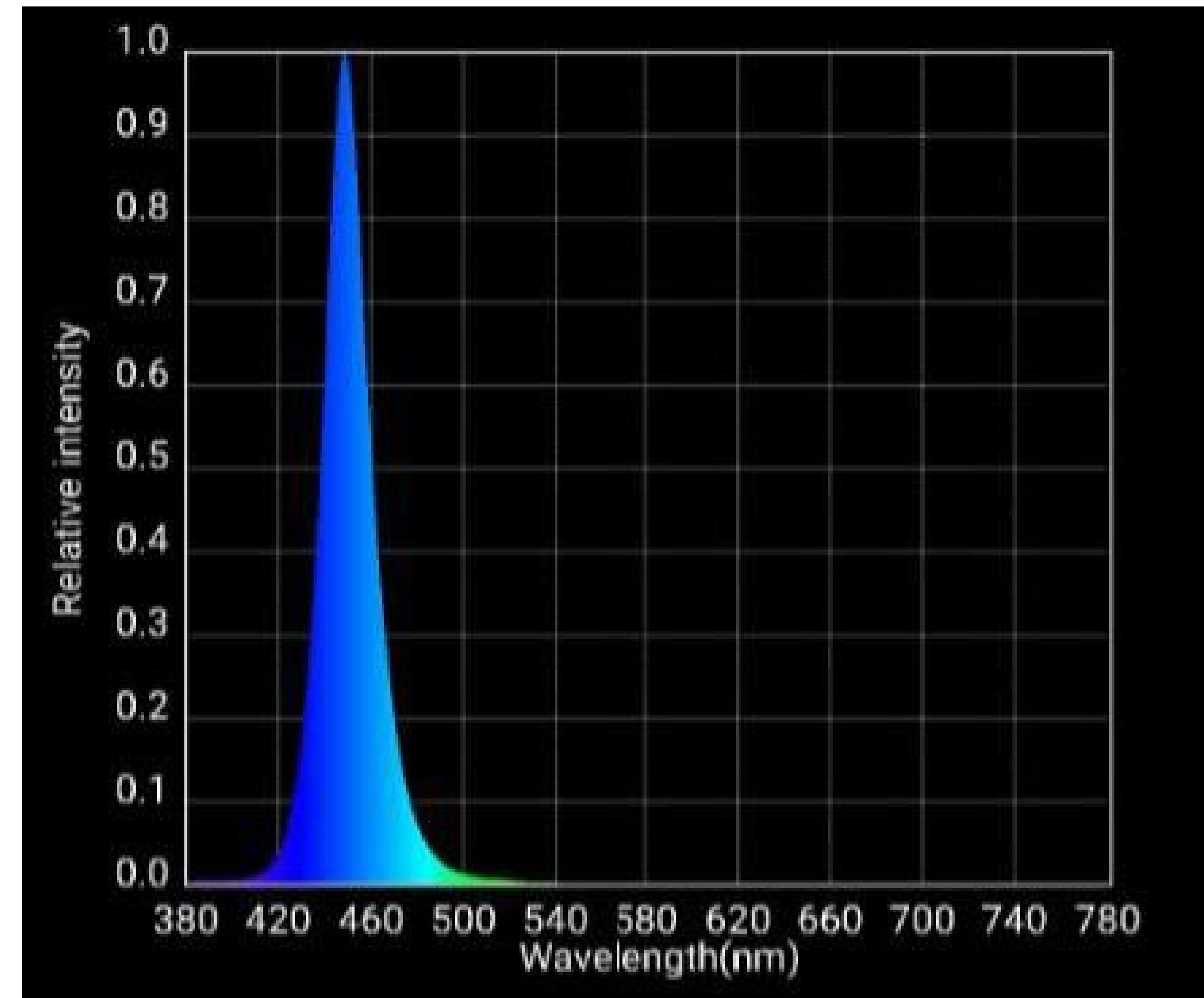


SLIM 650S

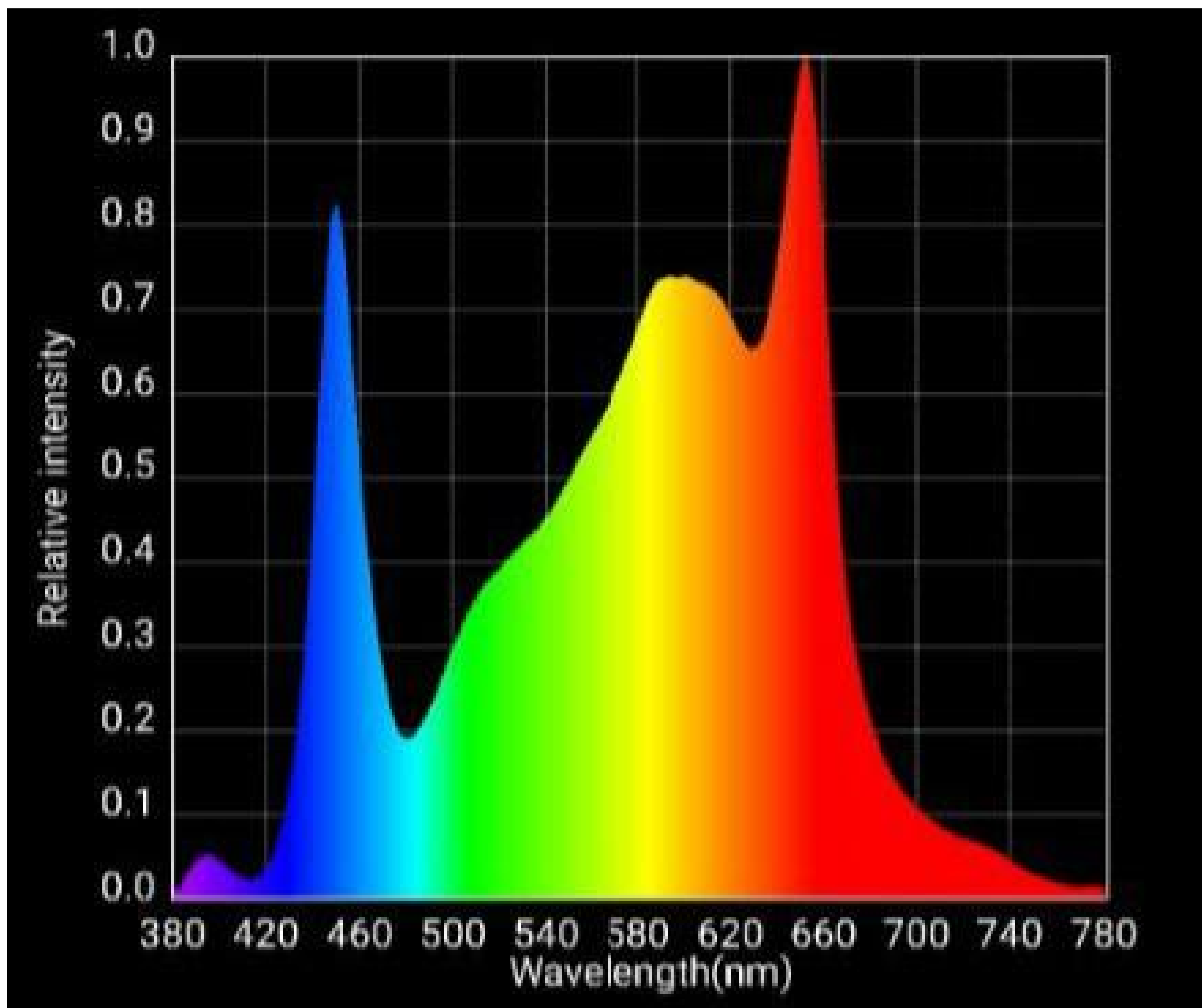
Spectrum



Dimmer #2 - +660nm Deep Red + Ultraviolet + 730nm Far Red



Dimmer #3 450nm Royal Blue



Full Spectrum White Light 3500k (Mixed White Light LEDs) (Full Power on 3 Dimmers)

660nm Deep Reds + 450nm Royal Blue + Ultraviolet + 730nm Far Red

SLIM 650S

Lighting Schedule

% VEG												
Hour	1	3	5	7	9	11	13	14	15	16	17	19
W	60	60	60	80	80	100	100	80	80	60	40	0
R	0	0	0	0	20	30	30	20	20	0	0	0
B	40	40	80	80	80	100	100	80	60	40	40	0
%Flower												
Hour	1	2	3	4	5	6	7	8	9	10	11	13
W	60	80	80	80	100	100	100	100	80	80	60	0
R	60	60	80	80	100	100	100	100	60	60	60	0
B	20	20	40	40	40	60	60	40	40	20	20	0



Coverage Foot Print



**4' x 4' area (1.2m x 1.2m) 4' x 4' area (Up to 7' x 7' area)
Max: 5' x 5' area (1.5m x 1.5m)**

Hanging Height & Dimmer Settings

Flowering:

- Wk1-3 - @24-30" / 50% Power
- Wk4-6 @18" - 24" / 75% Power
- Wk7-8 @18" - 24" / 100% Power
- Wk9-10 @12" - 18" / 100% Power

Pro Tips: It's always best to set the light up higher and let the plants grow up into the light.

- Seedling: 48"+ / 25% Power
- Vegetative: 48" + / 50% Power (or 24" @ 25% Power)



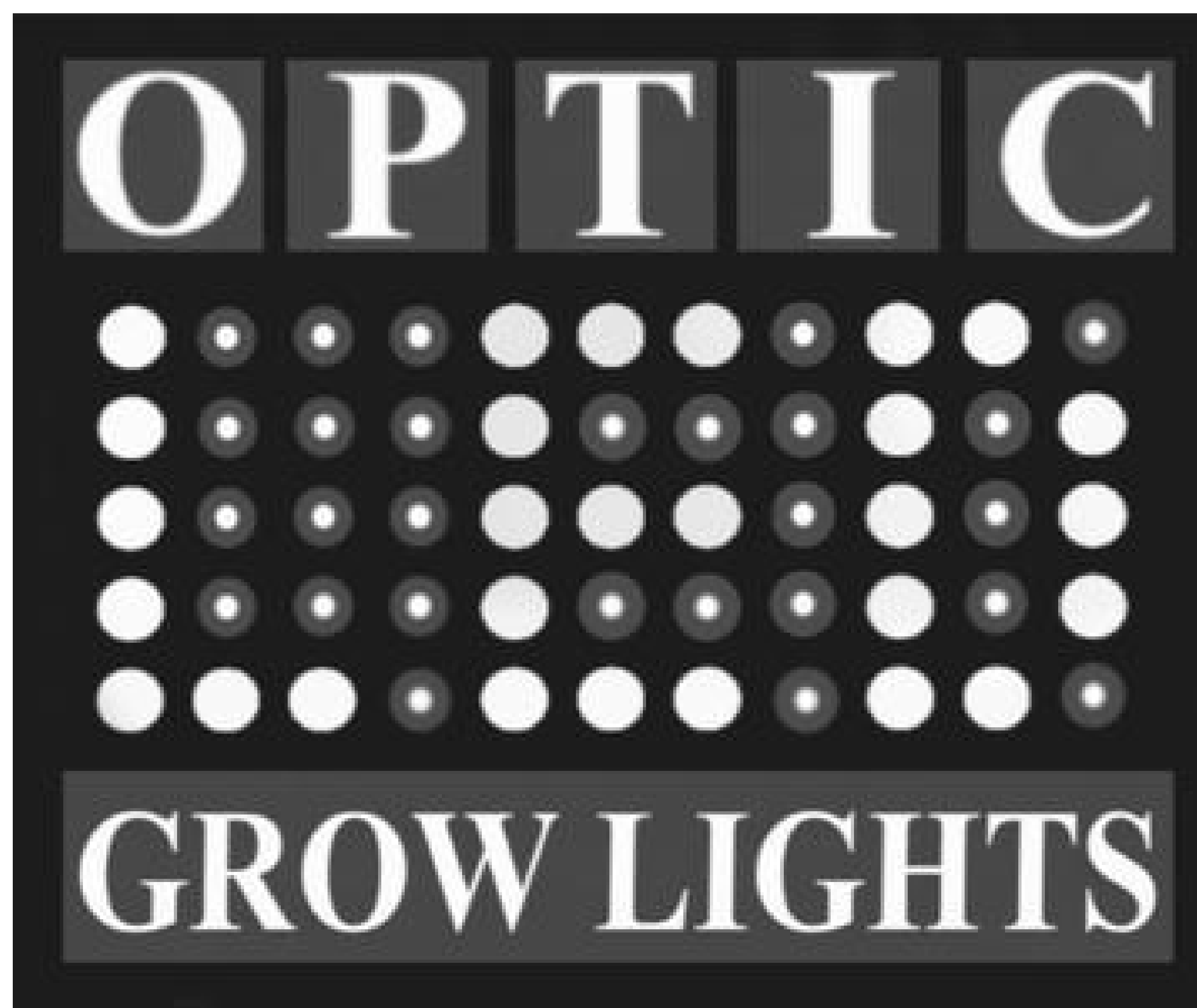
10" Hanging Height PPF: 1,342 (3.01 umols/J)

880	979	1060	1034	1047	1037	944	844
1211	1430	1458	1389	1377	1444	1344	1061
1374	1605	1660	1585	1526	1561	1483	1271
1392	1609	1678	1604	1602	1627	1557	1324
1394	1591	1665	1636	1648	1630	1522	1310
1324	1539	1568	1514	1525	1600	1455	1270
1120	1355	1406	1354	1375	1403	1350	1060
918	980	1126	1130	1147	1117	962	905

18" Hanging Height

810	873	901	894	927	940	867	813
907	1022	1073	1084	1069	1080	995	870
1009	1140	1214	1224	1224	1192	1090	953
1015	1177	1260	1286	1283	1251	1115	967
1006	1151	1250	1269	1259	1230	1121	950
902	1064	1147	1201	1163	1143	1082	908
764	947	975	1037	979	945	922	800
788	793	805	838	835	828	785	792

SLIM 650 S



OpticLEDGrowLights.com

11921 Canyon Rd
Puyallup, WA 98373
(253 881-1355)

