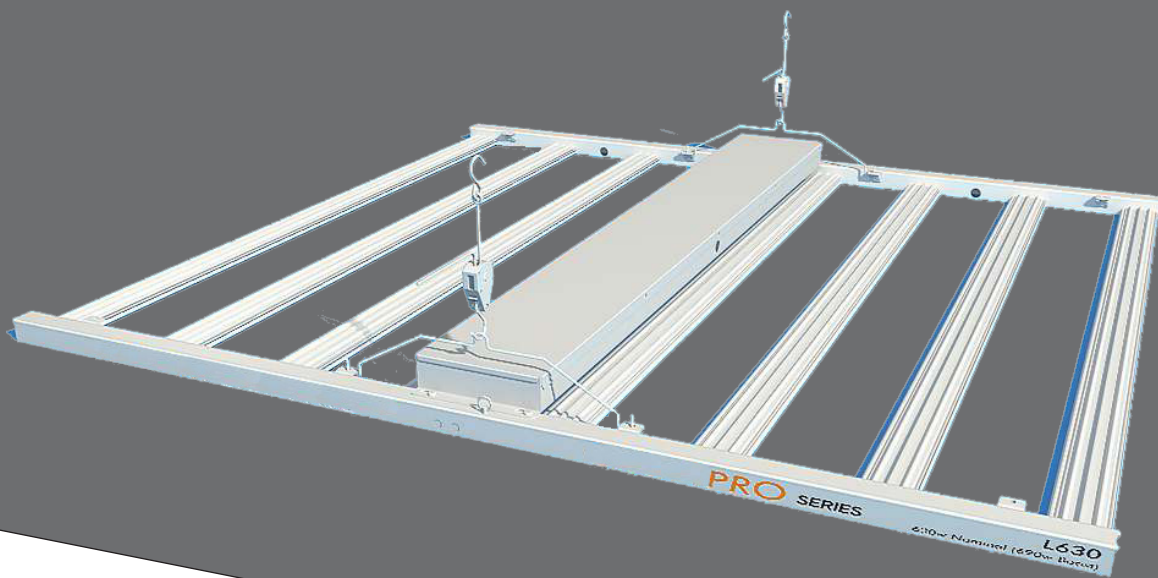


New Generation LED Grow Lighting



Wattage: 630w Nominal (693w with Boost)

Voltage: 120-277v

Lumens: 110,142 at max power

Micro Mols: 1700 at max power

Color: White

Dimming: 110% Dimmer Included

Hardware: Hangers, power cord and pulleys

Warranty: 5 years

Testing Data

Sphere-Spectroradiometer Method

Parameter	Result	
Test Voltage (V)	120.0	277.0
Voltage frequency (Hz)	60	60
Test Current (A)	5.759	2.526
Power Factor	0.9921	0.9513
Test Power (W)	685.8	666.0
THD A%	11.26	10.23
Luminous Efficacy (lm/W)	139.8	144.1
Total Luminous Flux (lm)	95883.0	95564.0
Photosynthetic Photon Flux (PPF) (μmol/s) 400-700nm	1474.3	1477.0
Photosynthetic Photon Flux (PPF) (μmol/s) 400-500nm	264.5	262.2
Photosynthetic Photon Flux (PPF) (μmol/s) 500-600nm	609.3	605.8
Photosynthetic Photon Flux (PPF) (μmol/s) 600-700nm	612.7	621.0
Photosynthetic Photon Efficacy (PPE) (μmol/J)400-700nm	2.15	2.22
Far-Red Photon Flux (PFR) (μmol/J)700-800nm	42.0	43.5
Photosynthetic Active Radiation (PAR) (W)	312.2	313.6
Color Rendering Index (CRI)	89.6	89.6
R9	47.9	47.8
Correlated Color Temperature (CCT)(K)	3809	3813
Chromaticity Chroma x	0.3834	0.3832
Chromaticity Chroma y	0.3633	0.3632
Chromaticity Chroma u	0.2326	0.2325
Chromaticity Chroma v	0.3306	0.3306
Duv	0.0075	0.0075
Chromaticity Chroma u'	0.2326	0.2325
Chromaticity Chroma v'	0.4960	0.4959

Special Color Rendering Indices of 120V	
R1	89.8
R2	94.4
R3	95.8
R4	88.9
R5	90.4
R6	90.9
R7	88.9
R8	77.9
R9	47.9
R10	86.8
R11	89.4
R12	77.3
R13	91.2
R14	98

Table 2: Test data per Sphere-Spectroradiometer Method

Goniophotometer Method

Test ambient temperature was 24.8°C.

The photometric distance is 30 m.

Luminous data was taken at 0.5°vertical intervals and 10°horizontal intervals.

Parameter	Result
Test Voltage (V)	120.0
Voltage frequency (Hz)	60
Test Current (A)	5.747
Power Factor	0.9920
Power (W)	684.2
Luminous Efficacy (lm/W)	144.0
Total Luminous Flux (lm)	95776
Beam Angle (°)	124.4 (0°-180°) / 119.7 (90°-270°)
Center Beam Candle Power (cd)	30930
Maximum Beam Candle Power (cd)	30960 (At: C=20.0, Gamma=0.5)
Spacing Criteria	1.35 (0°-180°) / 1.30 (90°-270°)
Zonal Lumens in the 0°-60°Zone	79.02%
Zonal Lumens in the 60°-90°Zone	20.87%
Zonal Lumens in the 90°-120°Zone	0.03%
Zonal Lumens in the 120°-180°Zone	0.07%

Table 3: Test data per Goniophotometer Method

TEST SUMMARY

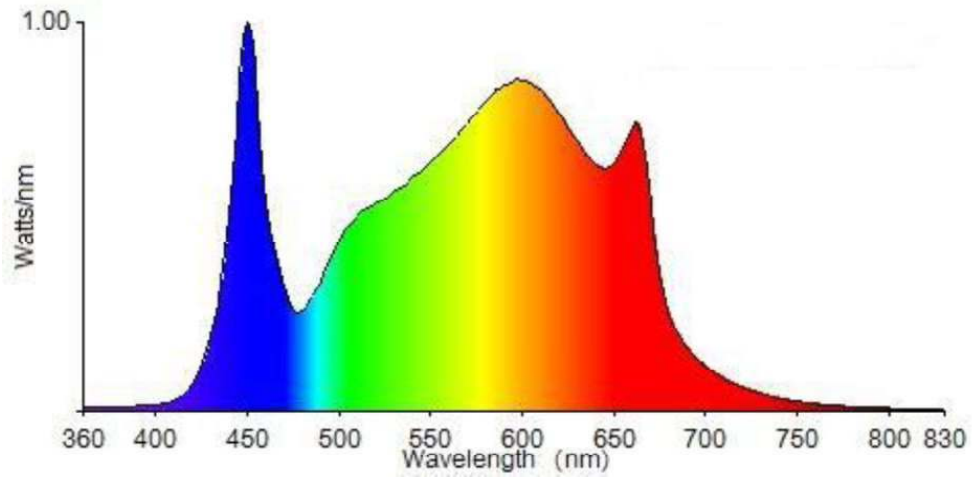
Sample Tested: Mode

Photosynthetic Photon Efficacy (PPE) ($\mu\text{mol}/\text{J}$) 400-700nm		Photosynthetic Photon Flux (PPF) ($\mu\text{mol}/\text{s}$) 400-700nm	Far-Red Photon Flux (PFFR) ($\mu\text{mol}/\text{s}$) 700-800nm	Luminous Efficacy (lm/W)	Total Luminous Flux (lm)
2.22		1477.0	43.5	144.1	95964.0
Power Factor	Power (Watts)	CCT (K)	CRI	Stabilization Time (Light & Power)	
0.9513	666.0	3813	89.6	40	

Zonal Lumen Tabulation- Goniophotometer Method

$\gamma(^{\circ})$	Lumens	% Total
0- 10	2935.563	3.07%
10- 20	8520.704	8.90%
20- 30	13235.93	13.82%
30- 40	16488.72	17.22%
40- 50	17785.49	18.57%
50- 60	16718.52	17.46%
60- 70	13028.27	13.60%
70- 80	6305.485	6.58%
80- 90	656.501	0.69%
90-100	7.27	0.01%
100-110	12.302	0.01%
110-120	13.197	0.01%
120-130	14.699	0.02%
130-140	16.5	0.02%
140-150	15.55	0.02%
150-160	11.671	0.01%
160-170	7.183	0.01%
170-180	2.493	0.00%
Total	95776.0	100%

Spectral Power Distribution - Sphere Spectroradiometer Method of 120V



Luminous Intensity Distribution Plots- Goniophotometer Method

