

# Phoenix 680W

SKPHX-680-000-F1-XX-XXX-XXXX-XXXX

Spec Sheet Rev 1.1

## Product Description

Spectrum King Phoenix 680W is the new LED standard for 1:1 1000W DE HPS replacements, using 36% less power while delivering the highest reliability in the industry.

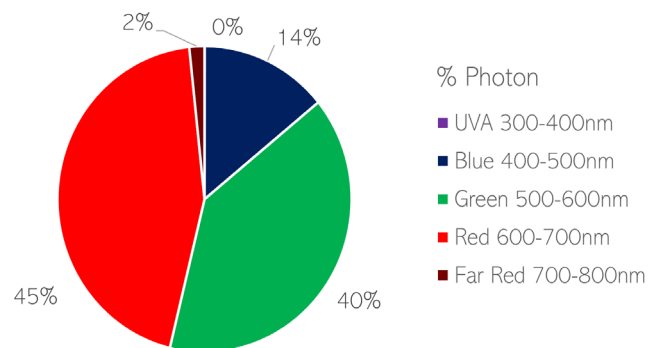
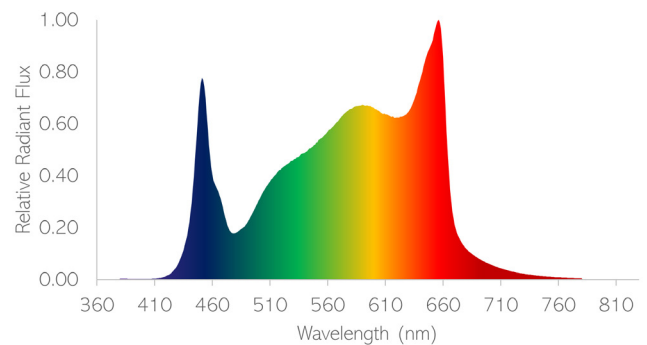
SK Cryo-Therm technology enables an ultra slim form factor allowing for maximum airflow and minimizing micro-climates. Optimized for single or multi-tier cultivation in proximity to the canopy.

DLC 2.1 listed and qualified for additional local rebates.



## Performance Summary

PPF (400-700nm) <sup>1</sup>	1870 umol/s
PPE (400-700nm)	2.75 umol/J
Input VAC (50/60 Hz)	120-277V 200-480V
Input Power @ 277VAC	680W
Cooling BTU @ 277VAC	2320
Operating Temp	-4 to 113°F (-20 to 45°C)
IP Rating	65, Wet Location
LED Lifetime	Q90 = 62,000hrs
Warranty <sup>2</sup>	5yrs
Weight (Frame + Driver)	20lbs (9.1kg)
Min Height	6" (152mm)
Coverage Area	4x4'
Dimmable <sup>3</sup>	Dim to Off, 10-100% Resistive
Beam Angle	120°
Fixture Dimensions	47x43x4.3" 1195x1095x109mm
Dual Surge Immunity	10kV Driver 1.5kW per Board
Certifications	DLC, ETL, CE



Depicted spectrum is a visual representation of the F1 spectrum. Results will vary.



<sup>1</sup> 7% Tolerance

<sup>2</sup> Warranty can be found at: [spectrumkingled.com/warranty](http://spectrumkingled.com/warranty)

<sup>3</sup> Requires compatible 0-10V Controller or Manual Dimmer Knob (sold separately)

## Photometrics

Lumen <sup>1</sup>	116,000 lm
Efficacy	170 lm/W
CCT	3500K
CRI	90

1 7% Tolerance

## AC Input Table (120-277VAC)

VAC	120	208	220	240	277
AC Current	5.9	3.3	3.1	2.9	2.5
AC Wattage	700	687	682	680	680
PF	0.99	0.99	0.99	0.98	0.97
Input Freq	50/60	50/60	50/60	50/60	50/60
BTU	2387	2343	2326	2319	2319
THD	<10%	<10%	<10%	<10%	<10%

## AC Input Table (200-480VAC)

AC	220	240	277	308	480
AC Current	3.2	2.9	2.5	2.3	1.5
AC Power	700	687	682	680	680
PF	0.99	0.99	0.99	0.98	0.97
Input Freq	50/60	50/60	50/60	50/60	50/60
BTU	2387	2343	2326	2319	2319
THD	<10%	<10%	<10%	<10%	<10%

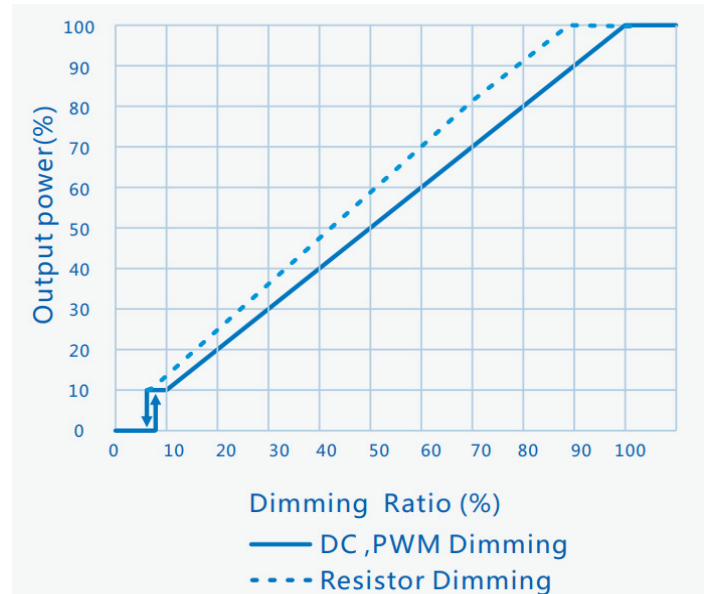
## Fixture Dimensions

Description	Dimensions in (mm)	Weight lbs (kg)
Engine	47.2x43.1x2.0" 1199x1096x52 mm	12 lbs 5.4 kg
Fixture	47.2x43.1x4.3" 1199x1096x111 mm	20 lbs 9.1 kg
120-277V Driver	20.6x3.7x2.3" 522x93x59 mm	7.7 lbs 3.5 kg
200-480V Driver	17.8x3.7x2.8" 453x93x72 mm	6.2 lbs 2.8 kg
Box	45.2x25.5x3.5" 1150x650x90 mm	24 lbs 11 kg

## Part Number

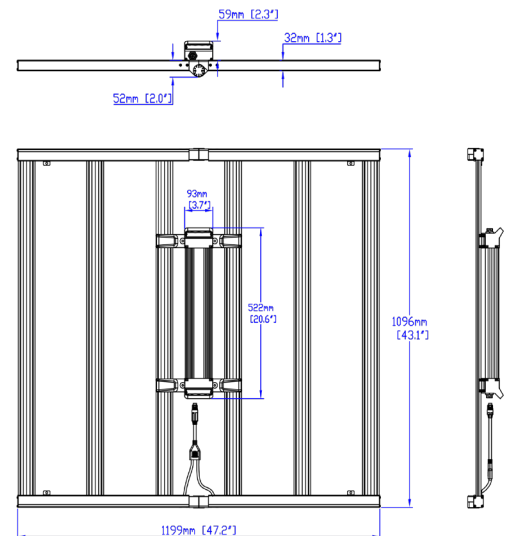
Family		Watts		Model		Spectrum		Input Voltage		AC Power Cord		AC Plug		DC Ext Cord		Mounting Hardware		Packaging		Internal	
Code	Name	Code	Name	Code	Name	Code	Name	Code	Name	Code	Name	Code	Name	Code	Name	Code	Name	Code	Name	Code	
SKPHX	Phoenix	680	680	000	Standard	F1	F1	01	120-277	0	10 ft	0	NEMA 5-15p	0	None	CT	Cable Ties/Pulley	00	Single	0000	
								02	277-480			1	NEMA 6-15P	6	6ft	RM	Driver Hangers				
												2	NEMA L7-15P								
												3	NEMA L7-20P								

## Dimming Curve



## Dimming @ 277VAC, 60 Hz (120-277VAC)

Dimming	100%	90%	80%	40%	10%
Wattage	680	606	536	265	71
PF	0.97	0.97	0.96	0.91	0.53
PPF	1870	1700	1518	777	213
PPE	2.75	2.81	2.83	2.94	2.98
BTU	2319	2066	1826	903	243

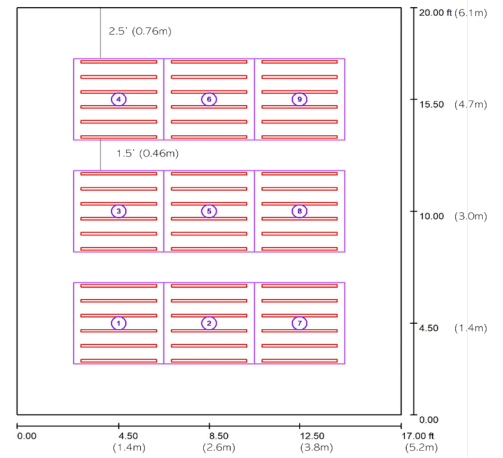


## PPFD Maps

The Phoenix 680W is designed for cross-illumination for maximum uniformity. PPFD maps below show the center 4x4 canopy (#5) and edge 4x4 canopy (#1). To better represent a grow room, the center plot is simulated without wall reflectivity. The edge plot has wall reflectivity enabled (70%). Each plot was simulated using 81 measurement points.

### Room Dimension

Room	20x17x12' (6.1x5.2x3.7m)
Wall to Canopy	2.5' (0.76m)
Aisle between Canopy	1.5' (0.46m)

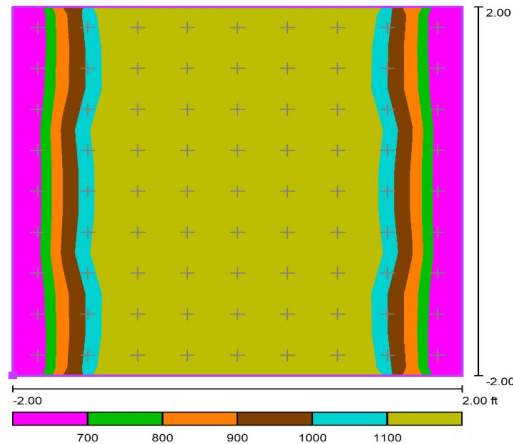


### 6" (150mm) from Canopy

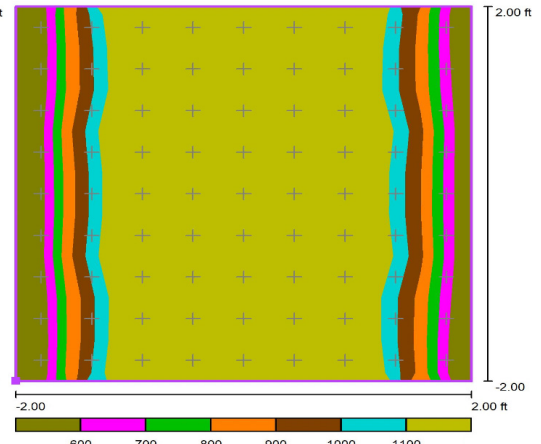
Center	
PPFD Avg	1113
Min/Avg	0.54
Min/Max	0.42

Edge	
Avg	1109
Min/Avg	0.47
Min/Max	0.35

### Center (#5)



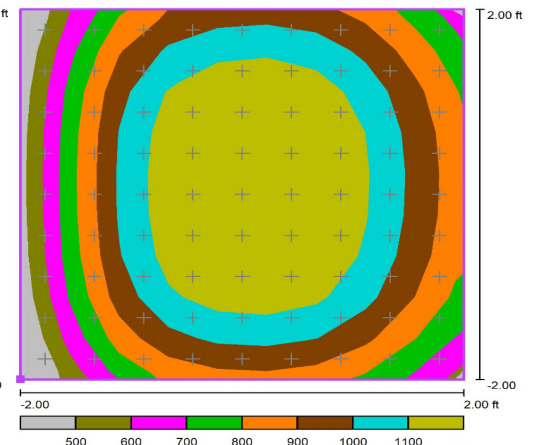
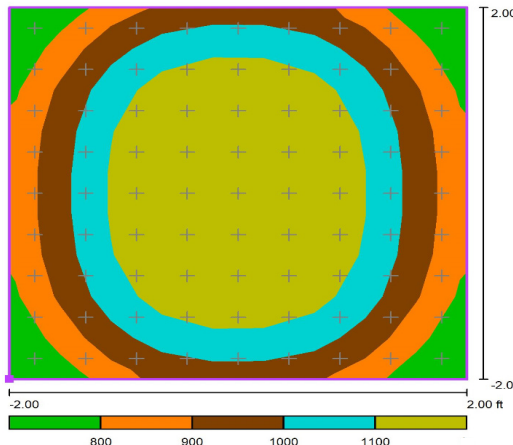
### Edge (#1)



### 12" (305mm) from Canopy

Center	
PPFD Avg	1031
Min/Avg	0.70
Min/Max	0.58

Edge	
PPFD Avg	974
Min/Avg	0.48
Min/Max	0.38



### 24" (610mm) from Canopy

Center	
PPFD Avg	936
Min/Avg	0.87
Min/Max	0.78

Edge	
PPFD Avg	786
Min/Avg	0.53
Min/Max	0.43

