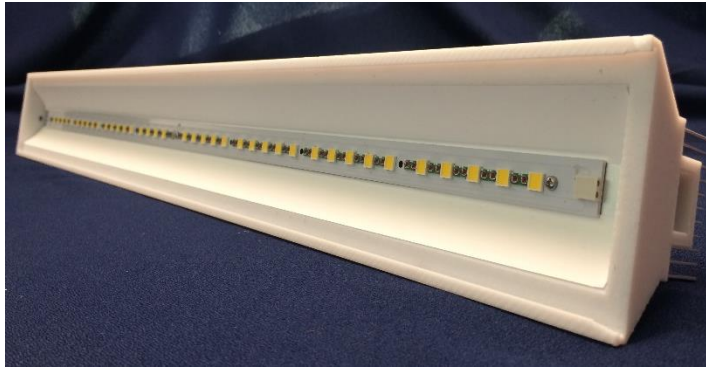




CREE  TM

VERTICAL FARMING FULL SPECTRUM (W+R) LINEAR REFERENCE DESIGN

Horticulture Reference Design: (W+R) Full Spectrum Linear

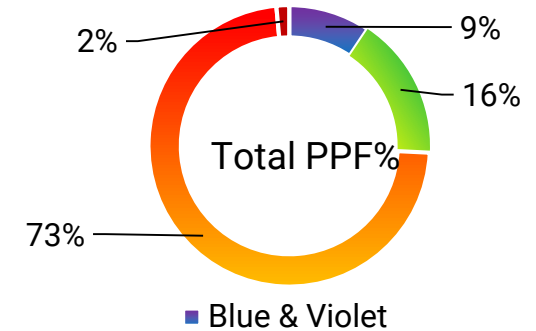
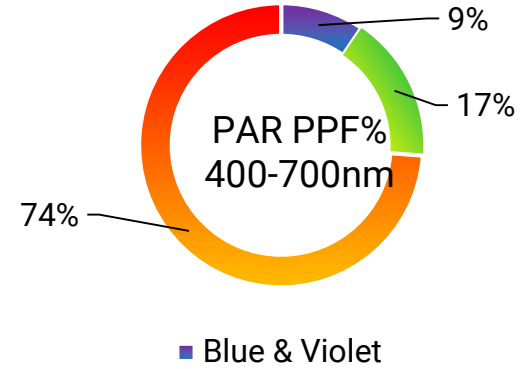
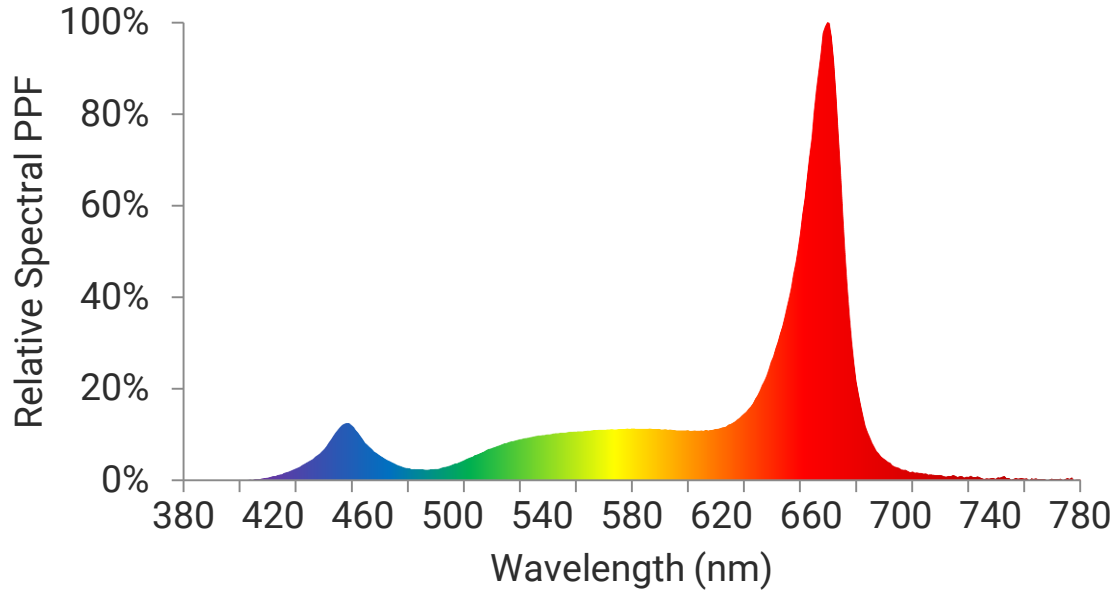


- Best full spectrum performance: up to 3.06 PPF/W
- Passively cooled design
- Thin profile, Lightweight

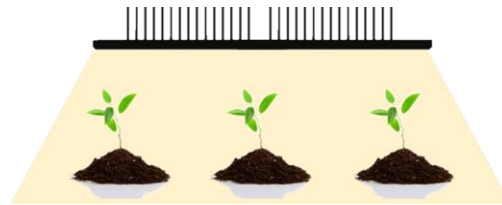
LEDs (Count)	(80) XLamp XP-E2 Photo Red (40) XLamp MHB-B White		
Output Mode	Low	Medium	High
PPF ($\mu\text{mol} / \text{s}$)	166.7	226.7	340.3
PPF/W ($\mu\text{mol} / \text{J}$) *	3.06	2.89	2.64
Power	54.5	78.4	128.9
Tsp	45°C	65°C	85°C
White LED Current	87.5mA	125mA	200mA
Red LED Current	175mA	250mA	400mA
Dimensions (LWH)	24" x 2.5" x 3" / 60.9 x 6.4 x 7.6 cm		
Weight	2 lbs / 0.91 kg		
Lifetime	R90(12k) > 72k hrs		

* Note: PPF/W excludes driver losses

Full Spectrum Linear: Spectral Content

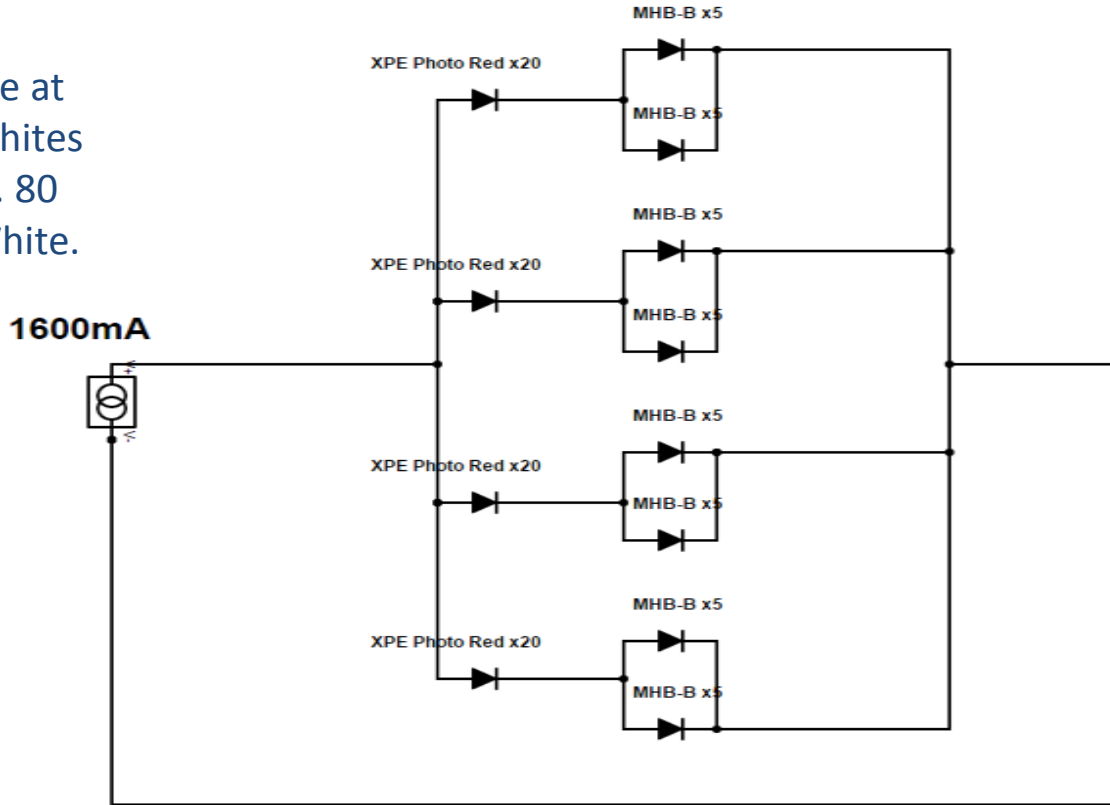


Visual Color 



Schematic

87V 1600mA
input. Reds are at
400mA and whites
are at 200mA. 80
Red and 40 White.



Parts List

Part	Description	P/N	Qty
LED	Cree XP-E2 Photo Red 660nm	XPEBPR-L1-0000-00D01	80
LED	Cree MHB-B 4000K, 70CRI	MHBBWT-0000-000COBE240E	40
Optic	Brightview Smoothing Film	Custom	1
PCB	Galaxy Circuits Inc. MCPCB	Available Gerber files from Cree	1
Heatsink	Aavid	Custom	1
TIM	Graftech .25 Foil	GMTOEG0015 HT1210	1
Driver	ERP	TLM160W-1.8-85	1

