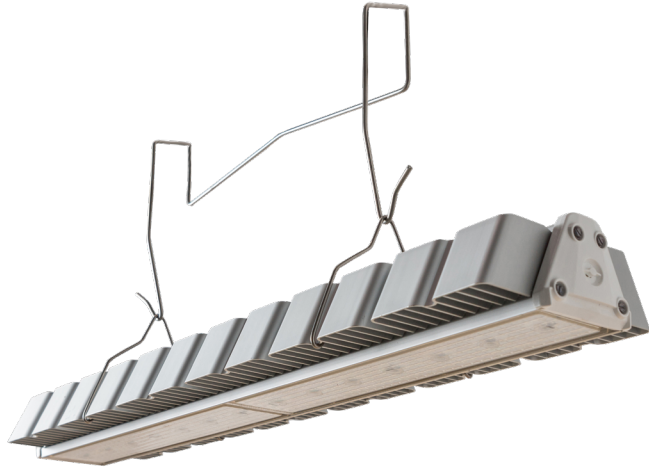


# Arize Element® L1000

Enabling efficient growth at an industrial scale



## Features

- The Arize Element is a family of super-efficient, robust, and reliable LED professional horticultural lighting fixtures for greenhouses and indoor farms.
- Available in a wide range of power and spectral options, the Element offers scalable solutions for maximum productivity and efficiency across a wide range of horticultural applications.
- Ultra-efficacious – up to 3.6  $\mu\text{mol}/\text{j}$
- Various spectral options for crop-specific applications
- Engineered optics for superior uniformity
- Easy to install brackets
- 6kV Surge Protection
- May be used as a top light in indoor (both stacked and non-stacked) and greenhouse applications as both sole source or supplemental lighting

PRODUCT SPECIFICATIONS	
Light source	LED
Equivalent	Up to 1000W DE HPS
Wattage	See chart on page 3
Input voltage	120 - 480V
Spectrum	Various - see chart
Photosynthetic Photon Flux PPF (High Output)	1,750-2,200 $\mu\text{mol}/\text{s}$
Efficacy	2.6 to 3.6 $\mu\text{mol}/\text{j}$
Dimming	0-10V (dim to off)**
Dim Off Voltage	0.35-0.65 V (typ. 0.5 V)
Dim On Voltage	0.55-0.85 V (typ. 0.7 V)
Distribution	XW Optic, W Optic
Maximum remote distance	18 ft
Power Factor	>0.99***
THD	<10%
L90	>50,000 hours****
Operating temperature	0°C to 40°C (32°F to 104°F)
Thermal Mgt	Passive
Listing	cULus E492907, CE, UKCA, DLC, IP66
Lens	Polycarbonate
Mounting	Unistrut bracket or aircraft cable
Limited Warranty	Five-year warranty

\* Average rated life based on industry standard measurements.  
 \*\* Refer to installation guide for dimming functionality details.  
 \*\*\* Tested at minimum input voltage.  
 \*\*\*\* Test at 40° C per TM-21.

**Warranty:** 5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: [www.acuitybrands.com/support/warranty/terms-and-conditions](http://www.acuitybrands.com/support/warranty/terms-and-conditions)

DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at [www.designlights.org/QPL](http://www.designlights.org/QPL) to confirm which versions are qualified.

**Note:** Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. The product images shown are for illustration purposes only and may not be an exact representation of the product.

Certain airborne contaminants can diminish the integrity of acrylic and/or polycarbonate. [Click here for Acrylic-Polycarbonate Compatibility table](#) for suitable uses. Certain airborne contaminants may adversely affect the functioning of LEDs and other electronic components, depending on various factors such as concentrations of the contaminants, ventilation, and temperature at the end-user location. [Click here for a list of substances](#) that may not be suitable for interaction with LEDs and other electronic components.

Lead times will vary depending on options selected. Consult with your sales representative.

**EXAMPLE:** VAE1 PKR SAFY XVOLT GZ10 XWD MTBU1625 JP30

Series	Spectrum	Performance Package	Voltage	Driver
<b>VAE1</b> Arize Element L1000	<b>BRH</b> White High Blue	<b>HEFY</b> High Efficacy	<b>120</b> 120V	<b>L/DVR</b> Less Driver <b>GZ10</b> 0-10V dimming driver
	<b>BRI</b> White Medium Blue	<b>HO</b> High Output	<b>208</b> 208V	
	<b>PKB</b> Pink Medium Blue	<b>SEFY</b> Standard Efficacy	<b>240</b> 240V	
	<b>PKF</b> Pink Far Red		<b>277</b> 277V	
	<b>PKT</b> Pink Extremely Low Blue		<b>277X</b> 277V utilizing XVOLT driver	
	<b>PUB</b> Purple Medium Blue		<b>347X</b> 347V utilizing XVOLT driver	
	<b>PUR</b> Purple Low Blue Spectrum		<b>480X</b> 480V utilizing XVOLT driver	
	<b>PKR</b> Pink Low Blue		<b>MVOLT</b> 120-277V <b>XVOLT</b> 277-480V	

Distribution	Cordsets ‡
<b>WD</b> Wide Distribution	<b>(blank)</b> No power supply
<b>XWD</b> Extra wide distribution	<b>CNPQDWL4FT</b> Cord with quick disconnect, no plug, 3-conductors, black, wet location, 4FT
	<b>CNPQDWL</b> Cord with quick disconnect, no plug, 3-conductor, black, wet location, 6FT
	<b>CNPQDWL10FT</b> Cord with quick disconnect, no plug, 3-conductor, black, wet location, 10FT
	<b>CNPQDWL12FT</b> Cord with quick disconnect, no plug, 3-conductor, black, wet location, 12FT
	<b>CNPQDWL15FT</b> Cord with quick disconnect, no plug, 3-conductor, black, wet location, 15FT
	<b>CNPQDWL20FT</b> Cord with quick disconnect, no plug, 3-conductor, black, wet location, 20FT
	<b>CPQDTL4FT</b> Cord with quick disconnect, NEMA twist-lock 15A plug, 3-conductor, white, damp location, 4FT
	<b>CPQDSB4FT</b> Cord with quick disconnect, NEMA straight blade 15A plug, 3-conductor, white, damp location, 4FT
	<b>CPQDSB</b> Cord with quick disconnect, NEMA straight blade 15A plug, 3-conductor, white, damp location, 6FT
	<b>CPQDSB10FT</b> Cord with quick disconnect, NEMA straight blade 15A plug, 3-conductor, white, damp location, 10FT
	<b>CPQDSB12FT</b> Cord with quick disconnect, NEMA straight blade 15A plug, 3-conductor, white, damp location, 12FT
	<b>CPQDSB15FT</b> Cord with quick disconnect, NEMA straight blade 15A plug, 3-conductor, white, damp location, 15FT
	<b>CPQDSB20FT</b> Cord with quick disconnect, NEMA straight blade 15A plug, 3-conductor, white, damp location, 20FT
	<b>CPQDTL</b> Cord with quick disconnect, NEMA twist-lock 15A plug, 3-conductor, white, damp location, 6FT
	<b>CPQDTL10FT</b> Cord with quick disconnect, NEMA twist-lock 15A plug, 3-conductor, white, damp location, 10FT
	<b>CPQDTL12FT</b> Cord with quick disconnect, NEMA twist-lock 15A plug, 3-conductor, white, damp location, 12FT
	<b>CPQDTL15FT</b> Cord with quick disconnect, NEMA twist-lock 15A plug, 3-conductor, white, damp location, 15FT
	<b>CPQDTL20FT</b> Cord with quick disconnect, NEMA twist-lock 15A plug, 3-conductor, white, damp location, 20FT
	<b>CPQDTL20A4FT</b> Cord with quick disconnect, NEMA twist-lock 20A plug, 3-conductor, white, damp location, 4FT
	<b>CPQDTL20A</b> Cord with quick disconnect, NEMA twist-lock 20A plug, 3-conductor, white, damp location, 6FT
	<b>CPQDTL20A10FT</b> Cord with quick disconnect, NEMA twist-lock 20A plug, 3-conductor, white, damp location, 10FT
	<b>CPQDTL20A12FT</b> Cord with quick disconnect, NEMA twist-lock 20A plug, 3-conductor, white, damp location, 12FT
<b>CPQDTL20A15FT</b> Cord with quick disconnect, NEMA twist-lock 20A plug, 3-conductor, white, damp location, 15FT	
<b>CPQDTL20A20FT</b> Cord with quick disconnect, NEMA twist-lock 20A plug, 3-conductor, white, damp location, 20FT	

Mounting	Packaging
<b>(blank)</b> No mounting option	<b>(blank)</b> Unit
<b>MTBS275</b> Square mounting bracket, 2.75IN/70mm	<b>JP30</b> Job package 30
<b>MTBU1625</b> Unistrut mounting bracket, 1.625IN/40mm	
<b>MTBUO1625</b> Unistrut mounting bracket, offset, 1.625IN	
<b>VAAC18</b> Arize aircraft cable, 18IN	

‡ indicates option chosen has ordering restrictions. Please reference ordering restrictions chart. Options are sorted alphanumerically

Accessories	
<b>CNPQD4FT</b>	AC Leader Cable, 4'/1219mm, UL
<b>CPQDSB4FT 5-15P</b>	AC Leader Cable, 4' NEMA 5-15, UL
<b>CPQDTL4FT L7-15P</b>	AC Leader Cable, 4' NEMA L7-15, UL
<b>CPQDTL4FT L8-20P</b>	AC Leader Cable, 4' NEMA L8-20, UL
<b>VADCEX3FT</b>	DC Interconnection Cable, 3'/914mm,UL/CE
<b>VADCEX</b>	DC Interconnection Cable, 6'/914mm,UL/CE
<b>VACNPQDLV3FT</b>	dimming Cable, 3 ft/ 914mm, UL/CE
<b>VA1MTBU1625</b>	1.625 in / 40 mm Unistrut mount
<b>VA1MTBUO1625</b>	1.625 in / 40 mm Unistrut offset mount
<b>VA1MTBU275</b>	2.75 in / 70 mm Unistrut square mount
<b>VAAC18</b>	18 in / 457 mm Universal Cable Mount
<b>VAAC24</b>	24 in / 609 mm Universal Cable Mount
<b>VAAC36</b>	36 in / 914 mm Universal Cable Mount
<b>VAAC60</b>	60 in / 1524 mm Universal Cable Mount
<b>VA1MTP90</b>	90° Perpendicular Mounting Kit

‡ Option Value Ordering Restrictions	
Option value	Restriction
Cordsets	CPQDTL20A options required with 347 and 480V. CPQDSB and CPQDTL options not available with MVOLT or HVOLT.
JP30	Available with GZ10 only.

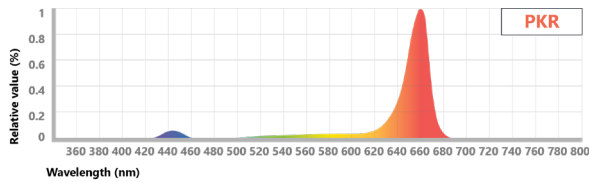
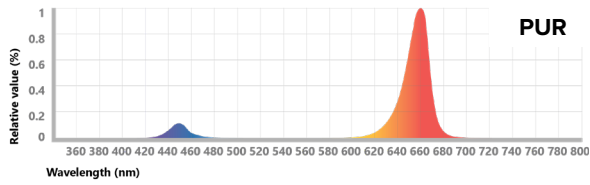
Spectrum Table				
Family	Spectrum	Typical photon flux <sup>1</sup> (μmol/s)	Power <sup>1</sup> (W)	Efficacy <sup>1</sup> (μmol/J)
L1000 (SEFY)	PUR - Purple LB	1,900	584	3.3
	PUB - Purple MB	1,900	622	3.1
	PKT - Pink ELB	1,900	610	3.1
	PKR - Pink LB	1,900	627	3.0
	PKB - Pink MB	1,900	642	3.0
	PKF - Pink FR	1,900	644	3.0
	BRI - White MB	1,750	658	2.7
	BRH - White HB	1,750	683	2.6
L1000 High Efficacy (HEFY)	PUR - Purple LB	1,900	534	3.6
	PUB - Purple MB	1,900	566	3.4
	PKT - Pink ELB	1,900	542	3.5
	PKR - Pink LB	1,850	572	3.2
	PKB - Pink MB	1,850	593	3.1
	PKF - Pink FR	1,800	571	3.2
L1000 High Output (High Output)	PKT - Pink ELB	2,200	690	3.2
	PKR - Pink LB	2,050	690	3.0

<sup>1</sup> Tested at maximum input voltage. Typical performance +/-10%

## Photometric Data

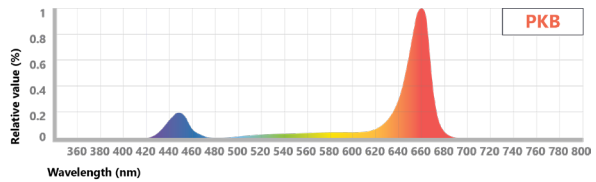
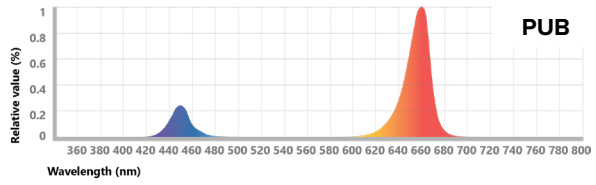
### Type R

High red light to optimize plant growth and photosynthesis



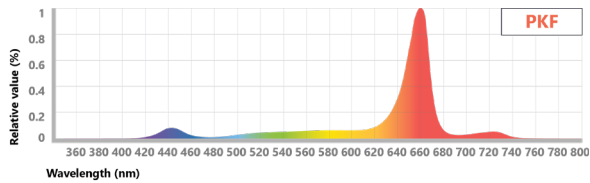
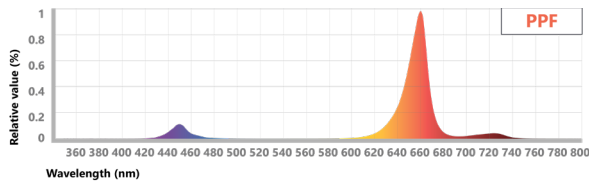
### Type B

Light that supports biomass and secondary metabolite production



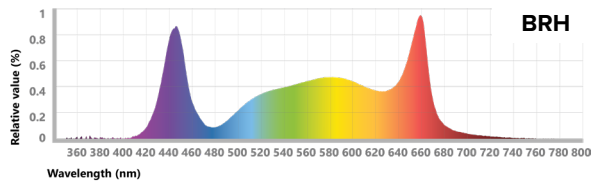
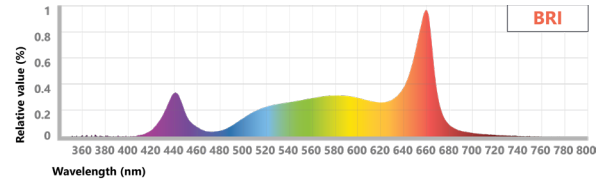
### Type F

Encourages a stretching and expansion response for more robust growth



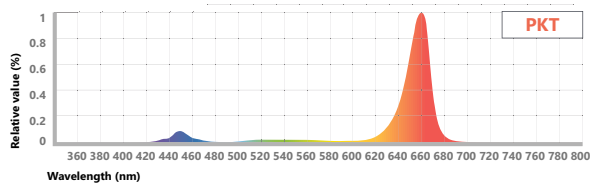
### Type BR

Increased blue ratio boosts secondary metabolite production to promote crop quality and phytochemical profile

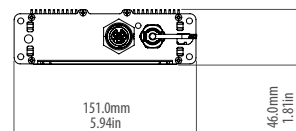
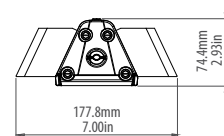
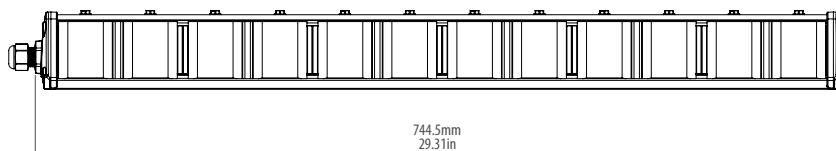


### Type T

Increased blue and green ratios boost secondary metabolite production to promote crop quality and phytochemical profile



Dimensions and Weight				
	LENGTH	WIDTH	HEIGHT	WEIGHT
L1000 Fixture	29.31" 745 mm	7.00" 178 mm	2.93" 75 mm	9.0 lbs 4.1 kg
Power Supply	13.12" 333 mm	1.81" 46 mm	5.94" 151 mm	7.0 lbs 3.2 kg



## Why Element?

### 1. Purpose-Built

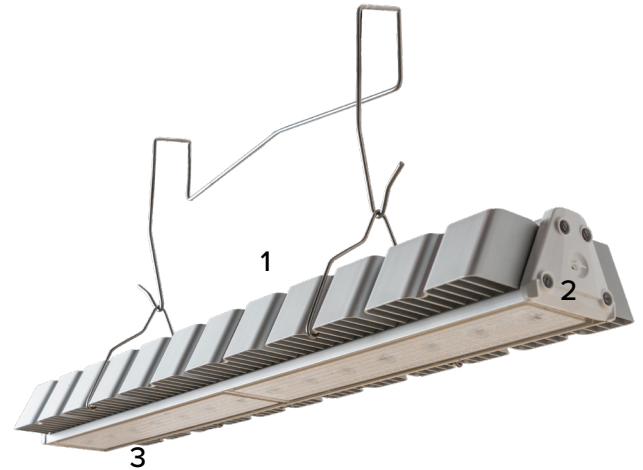
A heat sink that doesn't accumulate debris and LEDs protected by a lens are just two of the ways we designed reliability into the L1000. We've also designed all-new mounting brackets, further simplifying installation

### 2. Maximum Capability

We've simplified our language: broad white, broad pink and dual-band purple, all with high- and low-blue variants maximize year-round production for both sole-source and supplemental applications

### 3. Less Input. More Output

LED is more accessible than ever: Our XW optic reduces the number of fixtures required (more on that below), while efficacy levels surpassing 3.6  $\mu\text{mol}/\text{J}$  enable direct replacement of 1000W HPS fixtures, reducing energy costs by over 40%. Did we mention no relamping?



## Enabling efficient growth at an industrial scale

### Sustainable

Efficacy levels surpassing 3.6  $\mu\text{mol}/\text{J}$  make the Element one of the most efficient grow lights in its class, lowering operating expenses

### Precise

Our XW Optic efficiently spreads light, reducing the number of fixtures by an average of 10 to 15% without sacrificing uniformity or crop quality

### Complete

Four application-specific models and eight spectrums ranging from dual-band purple to broad white ensure there is an Element for every farm

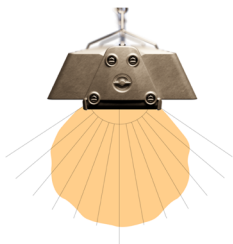
### Assembled in the USA

Tried and true manufacturing, a standard five-year warranty and a >50,000 hour lifetime ensure consistent, predictable yields for years to come

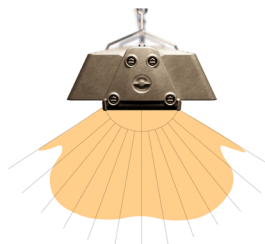
## XW Optic

Compared to the previous generation's Lambertian distribution, our new XW Optic precisely controls light dispersion, resulting in wider coverage in low headspace applications. It further reduces the number of fixtures by 10 to 15%, without sacrificing uniformity or crop quality, lowering capital investment.

### Lambertian Distribution



### XW Optic



### Spectral Distribution

Spectrum	Blue PF	Green PF	Red PF	Far Red PF
PUR	10.0%	0.0%	90.0%	0.0%
PUB	20.0%	0.0%	80.0%	0.0%
PKR	8.0%	15.0%	77.0%	0.0%
PKB	16.0%	15.0%	69.0%	0.0%
PKF	8.0%	15.0%	72.0%	5.0%
PKT	6.0%	6.0%	88.0%	0.0%
BRI	15.0%	38.0%	47.0%	0.0%
BRH	25.0%	38.0%	37.0%	0.0%