

### STANDARD



The BUD series includes commercial-grade, premium-performance LED luminaires for horticultural settings. Provides a full spectrum of PAR (photosynthetically active radiation) for full-cycle cultivation. High-efficacy LEDs (PPE of 2.1) reduce energy costs compared to traditional, HID grow luminaires. Long-life LEDs (Q<sub>90</sub> of 38,000 hours) virtually eliminates expensive relamping. Rugged, painted steel housings withstand demanding horticultural environments. A variety of mounting options simplify height adjustments. Dimming levels are controlled by industry-standard 0-10vdc signals.

### FEATURES

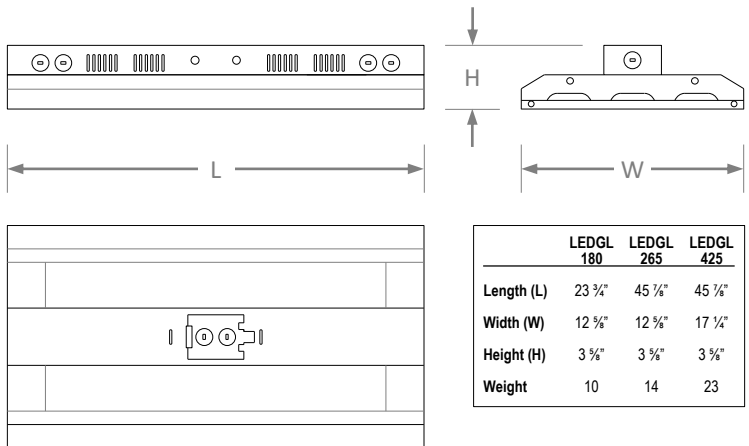
- Complete luminaire comes with the following standard equipment: Fully-functional LED luminaire, one set of V-hooks with hanging chains, and one set of ratcheting rope hangers.
  - AC cordsets (factory-installed) are optional. See options below.
  - Accessories include lenses (clear & diffused), wire guards, and cable-mounting kits.
  - Full spectrum distribution of PAR (photosynthetically active radiation) for full-cycle cultivation.\*
  - Long-life LEDs provide 38,000 hours of operation with at least 90% (Q<sub>90</sub>) of initial PPF (photosynthetic photon flux).\*\*
  - Delivers from 368 to 873 micromols (μmols) of PPF from a single luminaire to accommodate a variety of growing areas. For increased PPF levels, use multiple luminaires.\*
  - Delivers photosynthetic photon efficacy (PPE) of 2.1.
  - Universal 120-277 AC voltage (50-60Hz) is standard. Universal 347-480AC voltage (50-60Hz) is optional, and uses factory-installed step-down transformers.
  - 0-10vdc dimming drivers are standard.
  - Power factor > 0.90.
  - Total harmonic distortion < 20%.
  - Painted steel housing.
  - Standard mounting options include:
    - Chain mounting with V-hooks that attach to luminaire.
    - Adjustable, ratcheting rope (1/8" braided polypropylene) hangers (2 meters long) with easy-to-use carabiner clips are also provided.
  - Contact factory for other color spectra and PPF packages.
- \*\* L<sub>70</sub> hours are IES TM-21-11 calculated hours.



### WARRANTY & LISTINGS

- cULus listed for damp locations in ambient temperatures from -20°C to 35°C (-4°F to 95°F).
- Complies with RoHS (Restriction on Hazardous Substances) requirements
- Complies with FCC Part 15, class A.
- Complies with IEEE C.62.41-1991, input transient protection (2.5kV).
- 5-year warranty of all electronics and housing.

### DIMENSIONS



### ORDERING INFORMATION

Series	Input Power (Joules)	Color Spectrum		Input Voltage		Cordsets <sup>3</sup> (Length = 5 Meters)		Accessories (Order Separately)	
		FL	Full Spectrum <sup>1</sup>	LV	120-277V	A	120V (NEMA 5-15P)	BUD-CL-12X23 BUD-CL-12X45 BUD-CL-17x45	Clear lens – 180J Clear lens – 265J Clear lens – 425J
BUD	18=180W	FL	Full Spectrum <sup>1</sup>	HV	347-480V <sup>2</sup>	B	208-240V (NEMA 6-15P)	BUD-DL-12X23 BUD-DL-12X45 BUD-DL-17x45	Diffuse lens – 180J Diffuse lens – 265J Diffuse lens – 425J
	26=265W			C	277V (NEMA 7-15P)	BUD-GK-12X23 BUD-GK-12X45 BUD-GK-17x45	Wire-guard kit – 180J Wire-guard kit – 265J Wire-guard kit – 425J		
42=420W	Blank			No cordset	BUD-C3 BUD-C5 TH	Cable-mounting kit, 3 meters Cable-mounting kit, 5 meters Pair of ratcheting hanging tethers			

<sup>1</sup> See Spectral Power Distributions, page 3.

<sup>2</sup> 347/480V models use factory-installed step-down transformers.

<sup>3</sup> Cordsets are used only with LV (120-277V) models – contact factory for other cordset options.

### ELECTRICAL DATA

Model	Photosynthetic Photon Flux (PPF) (μmol/second)	Input Power (Joules <sup>1</sup> )	Photosynthetic Photon Efficiency (PPE)	Input Current (A) <sup>2</sup>			Power Factor	THD <sup>3</sup>	Q <sub>90</sub> <sup>4</sup>
				120V	240V	277V			
BUD-18	368	172	2.1	1.4	0.7	0.6	> 90%	< 20%	38,000
BUD-26	543	262	2.1	2.2	1.1	0.9	> 90%	< 20%	38,000
BUD-42	873	414	2.1	3.5	1.7	1.5	> 90%	< 20%	38,000

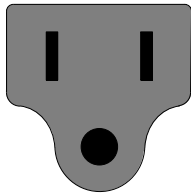
<sup>1</sup> Joules equal watts per second.

<sup>2</sup> All 50-60Hz.

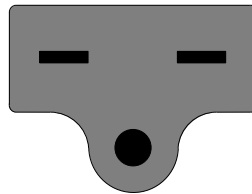
<sup>3</sup> Total harmonic distortion.

<sup>4</sup> Q<sub>90</sub> refers to the number of hours at which lumen output declines to 90% of the initial level. Q<sub>90</sub> hours are IES TM-21-11 calculated hours.

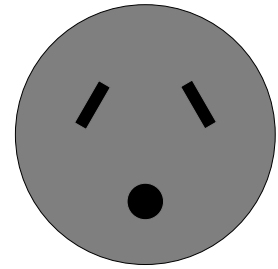
### AC PLUGS



**NEMA 5-15P  
(120V)**

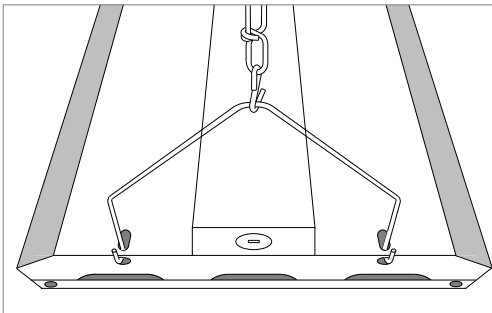


**NEMA 6-15P  
(208-240V)**



**NEMA 7-15P  
(277V)**

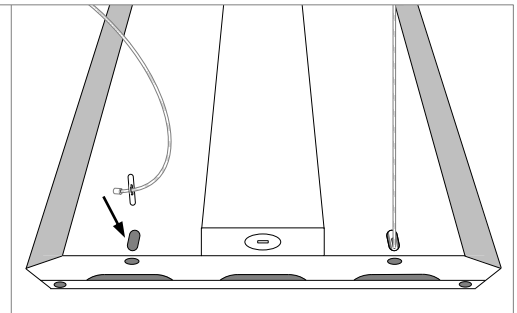
### HANGING OPTIONS



**V-Hooks & Chains  
(Standard)**



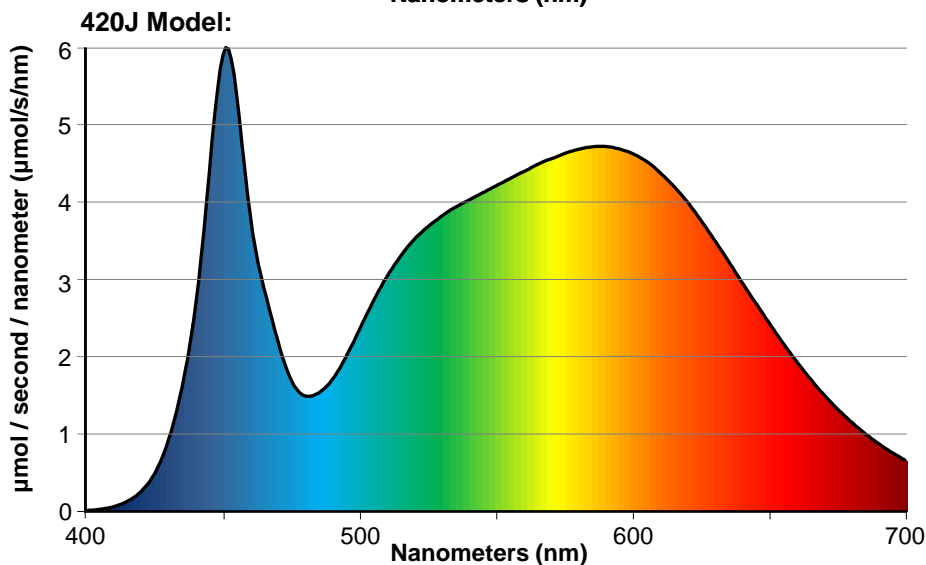
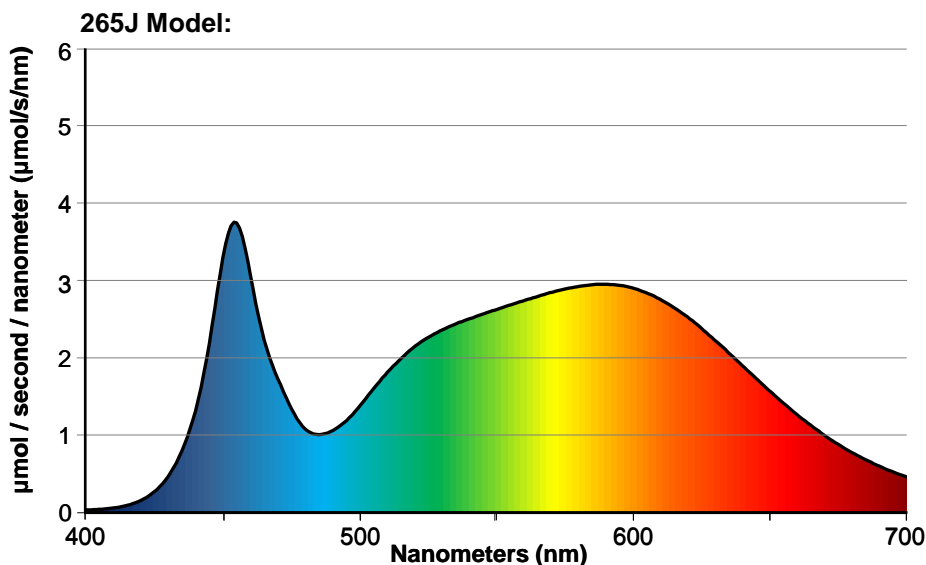
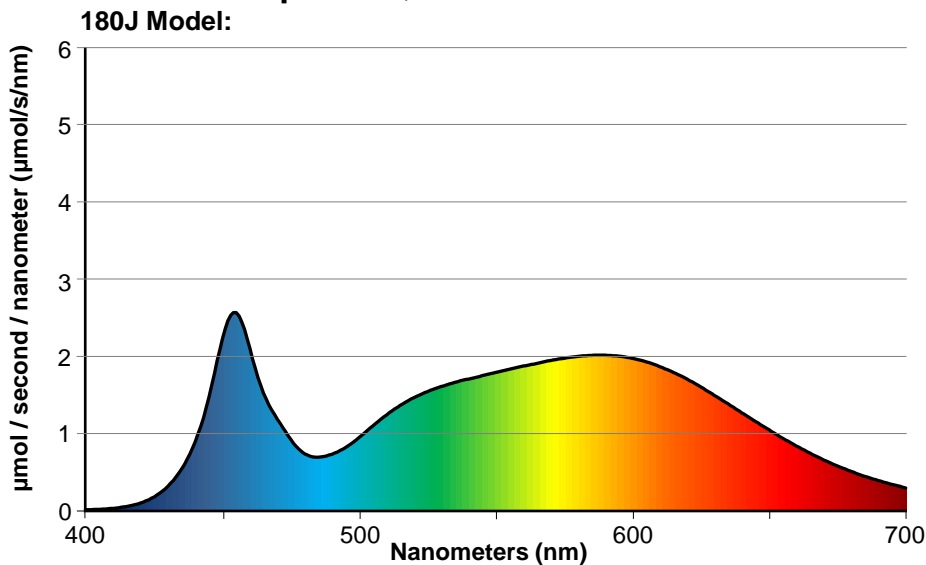
**Ratcheting Tethers  
TH  
(Standard)**



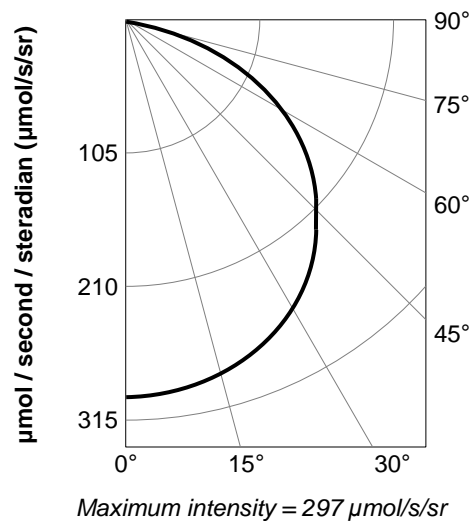
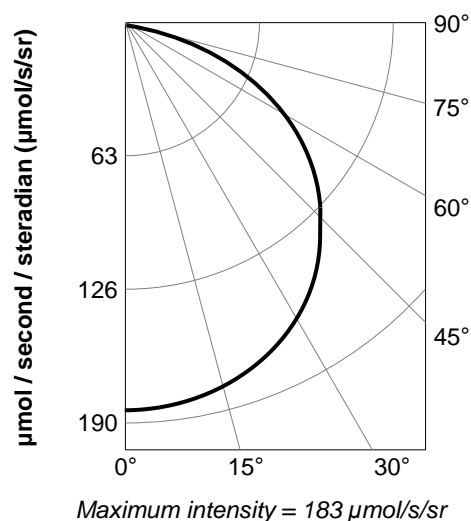
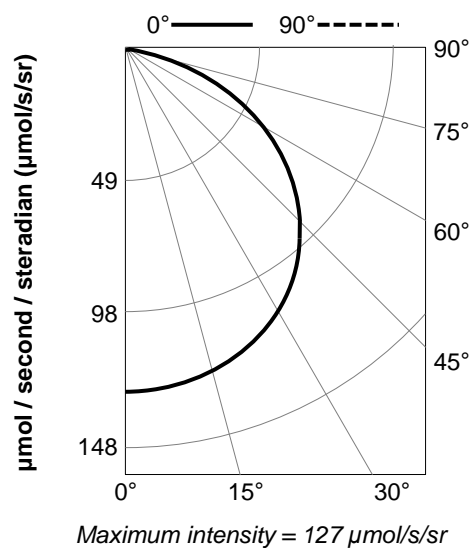
**Cable-Mounting Kits  
BUD-C3(3 meters)  
BUD-C5(5 meters)  
(Optional)**

### PHOTOMETRIC DATA

#### Spectral Quantum Distributions

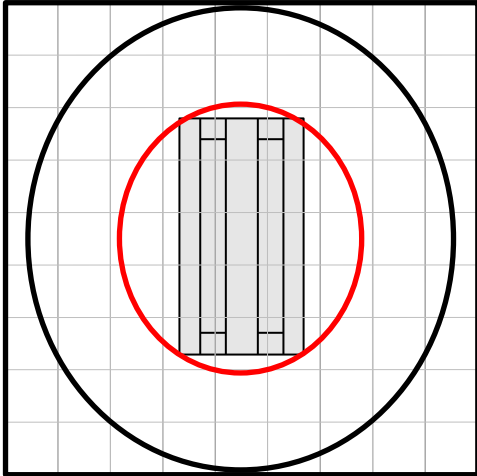


#### Photosynthetic Photon Intensity Distributions (PPIDs)



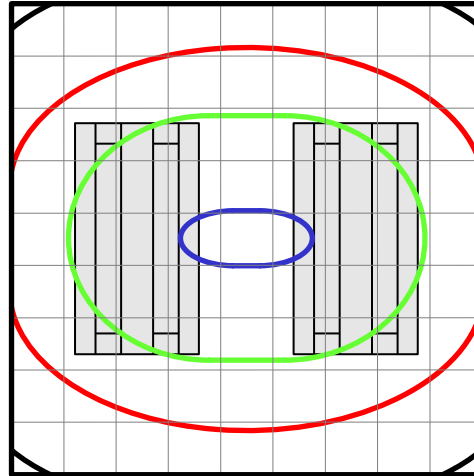
### PHOTOSYNTHETIC PHOTON FLUX DISTRIBUTION (PPFD)\*

180J Model – One Luminaire

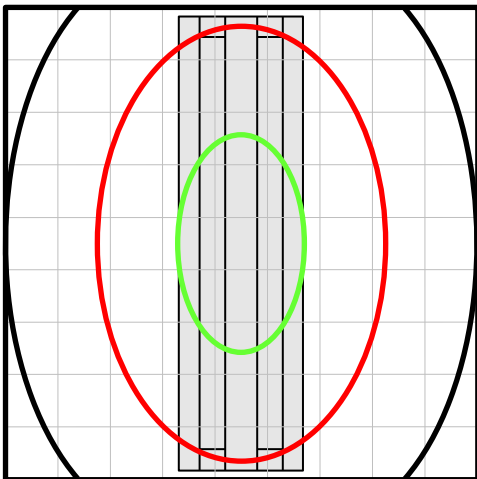


4'

180J Model – Two Luminaires

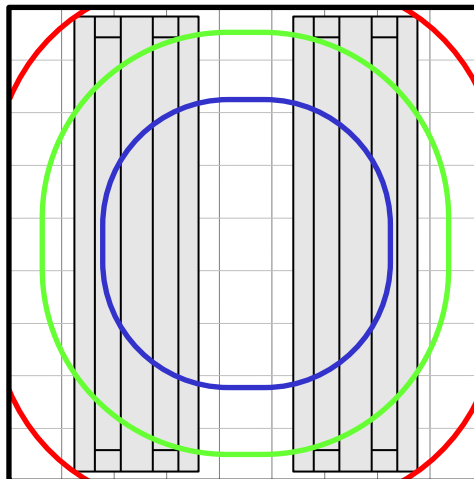


265J Model – One Luminaire

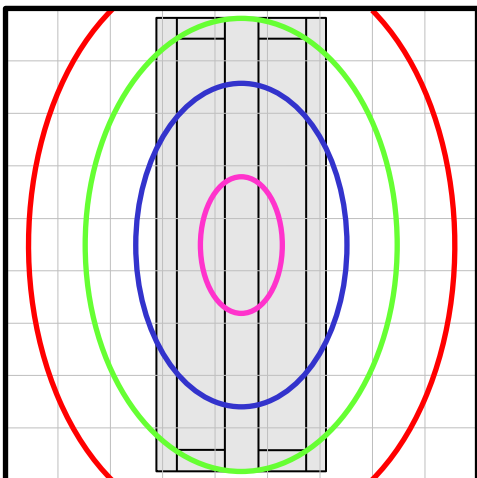


4'

265J Model – Two Luminaires

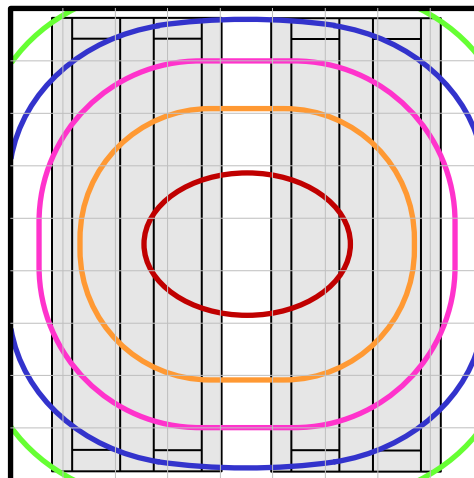


420J Model – One Luminaire



4'

420J Model – Two Luminaires



4'

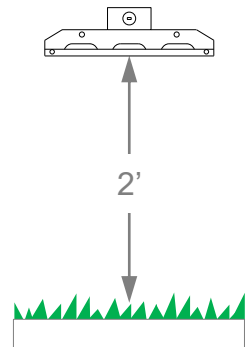
4'

### PPFD Statistics (One Luminaire, 4'x4' Grow Area)

	180J	265J	420J
Maximum	292	336	526
Minimum	38	58	98
Average	143	186	301
Max to Min	7.7	5.8	5.4
Avg to Min	3.8	3.2	3.1

### (Two Luminaires, 4'x4' Grow Area)

	180J	265J	420J
Maximum	405	497	738
Minimum	87	141	236
Average	253	342	532
Max to Min	4.7	3.5	3.1
Avg to Min	2.9	2.4	2.3



### PPFD Legend

700	—	300	—
600	—	200	—
500	—	100	—
400	—		