

Toggled Gro

Direct Wire LED Tubes

T8/T12 Replacement



- Universal voltage (120-277 VAC)
- Low operating temperature helps plants retain moisture
- Single-ended power, direct wire ballast bypass
- 50,000 hour lifetime
- Full and focused spectrum available

Toggled® Gro LED tubes are engineered to provide improved growing performance using selected LED output wavelengths.

Toggled® direct wire LED tubes connect to building line power, eliminating fluorescent ballast systems and external drivers. Standard T8 and T12 fluorescent tube fixtures can be easily rewired to accommodate Toggled tubes, providing mercury-free, energy efficient, and zero-maintenance lighting.

Outstanding Product Performance

- Up to 60% energy savings over traditional fluorescent systems
- Eliminates ballasts and maintenance costs
- Designed for direct connection to building AC power, voltage 120-277 VAC
- Tube operating temperature = -20 to 45° C

Superior Quality of Light

- Triangular tube shape delivers broader, more uniform light distribution
- Limited* 6-year warranty
- UL 1598C
- IES LM79 tested

Commercial-Grade

- Designed and engineered in U.S.A.
- Shatterproof polycarbonate construction
- Suitable for damp locations - UL rated
- No mercury
- Built-in surge protection. ANSI/IEEE C62.41.1991

*Details at toggled.com/warranty

Ordering Information

Series	Length	Power	CCT	Lens	Output	Options
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
E = Universal Voltage	4 = 4 feet	16 = 16 Watts	G1 = Focused Spectrum G2 = Full Spectrum	3 = Wide Angle	1 = Standard	0 = None



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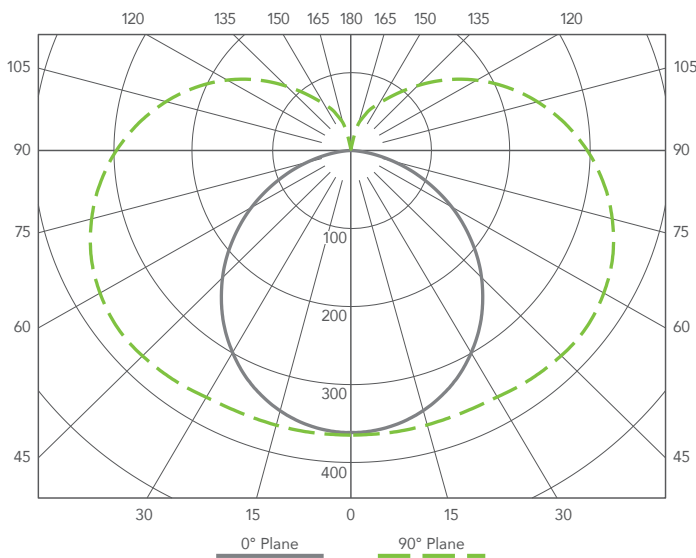
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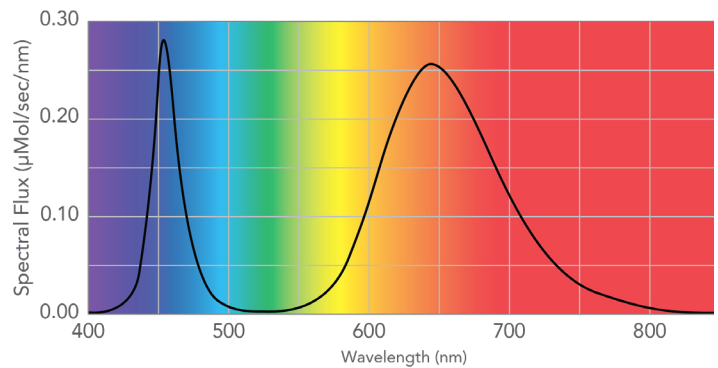
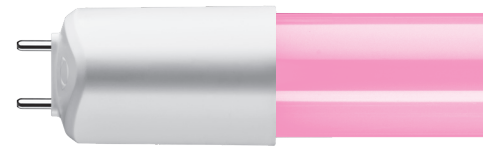
Model No.	Input Voltage	Power (Watts)	PPF (400-700nm)	PBAR (350-800nm)	PPF Efficacy (400-700nm)	PBAR Efficacy (350-800nm)
E416-G1310 - Focused Spectrum	120-277VAC	16	29.84 $\mu\text{mol}/\text{Sec.}$	34.12 $\mu\text{mol}/\text{Sec.}$	1.8 $\mu\text{mol}/\text{Sec.}/\text{W}$	2.1 $\mu\text{mol}/\text{Sec.}/\text{W}$
E416-G2310 - Full Spectrum	120-277VAC	16	31.33 $\mu\text{mol}/\text{Sec.}$	33.39 $\mu\text{mol}/\text{Sec.}$	1.9 $\mu\text{mol}/\text{Sec.}/\text{W}$	2.1 $\mu\text{mol}/\text{Sec.}/\text{W}$

Photometrics

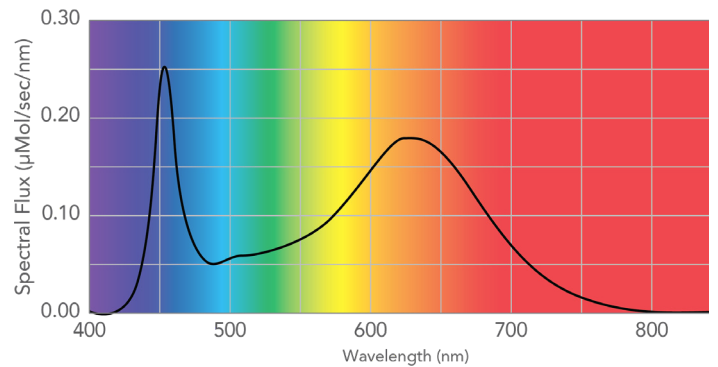
IES files available upon request



Focused spectrum tube provides focused red and blue light to help maximize these spectrums.



Full spectrum tube provides full spectrum light distribution enhanced with far red to optimize vegetation, budding and flowering.



Disclaimer: Toggled reserves the right to make changes to specific items and/or to discontinue any product at any time without notice or obligation and will not be liable for any consequences resulting from the use of this publication.