

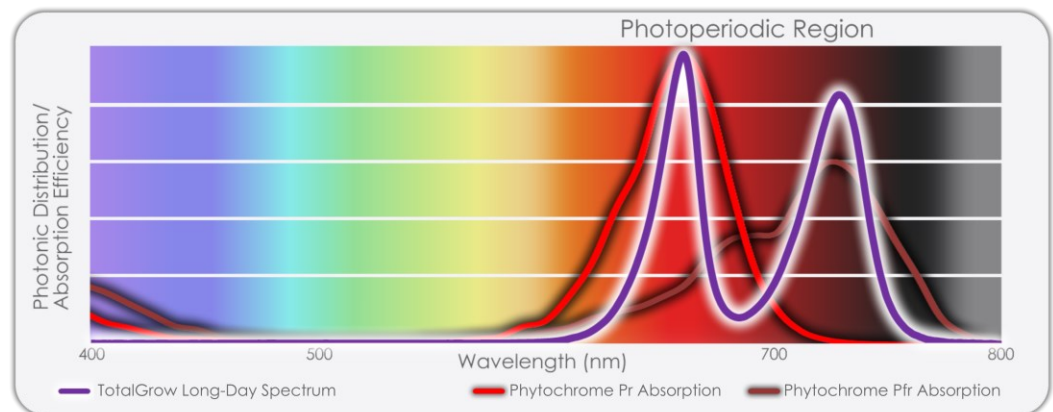
## TotalGrow Long-Day Field Light



Trigger long-day responses over large areas to control flowering efficiently, effectively, ruggedly.

- Perfect spectrum to ensure long-day responses with night interruption/day length extension
- Precision optics and high-powered design for light spacing up to 80 ft (25m)
- Does not attract insects
- Outdoor durability

### The Science of Photoperiodic Lighting



- Long or short day perception often triggers or prevents key behaviors, especially flowering vs. vegetative growth.
- Long days require the appropriate lighting spectrum extending the day before sunrise/after sunset or interrupting the night, e.g. 10pm – 2am, to keep dark periods less than 10 hours.
- The spectrum must properly activate the photoreceptor phytochrome with red (esp. 620-690nm) and far-red (esp. 690-750nm) light as shown above. A ratio of approx. 1:1 for red : far-red light is the only universally effective ratio for photoperiodic lighting.<sup>1</sup>
- While usually still effective, higher far-red proportions than this induce stretching and lower quality crops.<sup>2</sup>

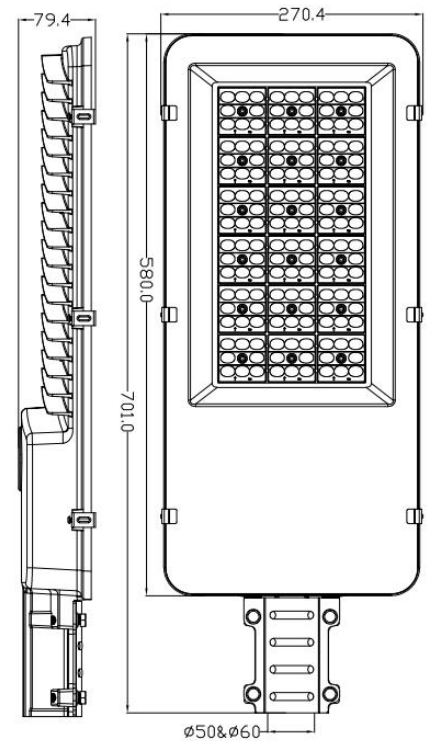
contact: [info@totalgrowlight.com](mailto:info@totalgrowlight.com)

<sup>1</sup> Craig, D. S., & Runkle, E. S. (2013). A Moderate to High Red to Far-red Light Ratio from Light-emitting Diodes Controls Flowering of Short-day Plants. *JASHS*, 138(3), 167-172.

<sup>2</sup> Cerdán, P. D., & Chory, J. (2003). Regulation of flowering time by light quality. *Nature*, 423(6942), 881-885.

## Specifications:

Product Number	TG18B-M0-1104
Power Consumption (W)	180
Output (µmol/s)	400
Efficacy (µmol/J)	2.2
Typical Max Coverage Per Light	40 x 40 ft (12.5 x 12.5m)
Typical Max Coverage per 4-Light Pole	80 x 80 ft (25 x 25m)
Typical Height Over Canopy	16 ft (5 m)
Length x Width x Height	28 x 11 x 3 in. (70 x 27 x 8 cm)
Weight (lbs.)	12 lbs. (5.5 kg)
Input Voltage	100-305 VAC
Input Frequency	50-60 Hz
Power Factor	≥ 0.9
THD	≤ 20%
Dimming	0-10V input (10-100% light output)
Operating Temperature	-40°F to 140°F / -40°C to 60°C
Projected Service Life / Warranty	50,000 hours/ 3 year
Waterproof	IP65



The TotalGrow Long-Day Field Light triggers long-day responses where previously impractical or impossible. Fields of short day crops like cannabis can be kept vegetative, or long day crops like many ornamentals can be triggered to flower with the simple infrastructure of overhead power poles spanning up to 80 feet (25m) for larger plants like cannabis and 100 feet (30m) for smaller crops with 4 lights per pole.