

Description:

The PHG-18 is a plant growth light using LEDs in four fixed light wavelengths. The lamp has a PAR38 form factor with an Edison screw (E26) base. Since the luminaire is cooled by convection, it has no moving parts and operates silently. The PHG-18 operates over a wide range of mains supply voltages, and features tight optical beam control with high radiant light output, low power consumption, low heat generation and high electrical-to-optical conversion efficiency.

Environmental Specifications:

Environmental Protection:	IP55 Note: Installed IP rating depends on lampholder type.
Storage Temperature Range:	-20°C ~ 70°C
Operating Temperature Range:	-20°C ~ 45°C
Heatsink Temperature Rise:	31°C (typ) above ambient

Electrical Specifications:

Mains Voltage Range:	100Vac ~ 277Vac, 50/60Hz
Power Consumption:	18 watts (typ.), 19 watts (max)
Power factor:	Greater than 0.90
Maximum lamps per circuit: (to avoid circuit-breaker tripping At turn-on)	80 lamps (230V, 10A circuit); 120 lamps (230V, 15A circuit); 160 lamps (230V, 20A circuit)

Radiant Output Specifications:

Radiation Pattern:	40° conical (approx) See figure 1.
Radiant Spectrum:	Four LED wavelengths (two blue, two red) See figure 2.
PAR Power:	4.2 watts (Photosynthetically Active Radiation power)
PPF-PAR:	21 μmols/sec
Red-Blue Ratio:	4.0-to-1 (power ratio); 5.7-to-1 (PPF-PAR ratio)

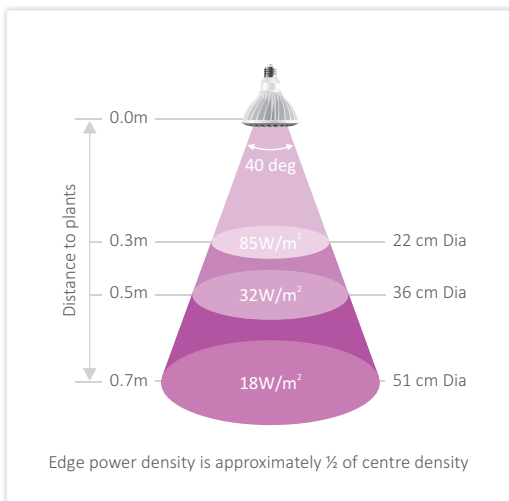


Figure 1. PHG-18 Beam Spread Characteristics

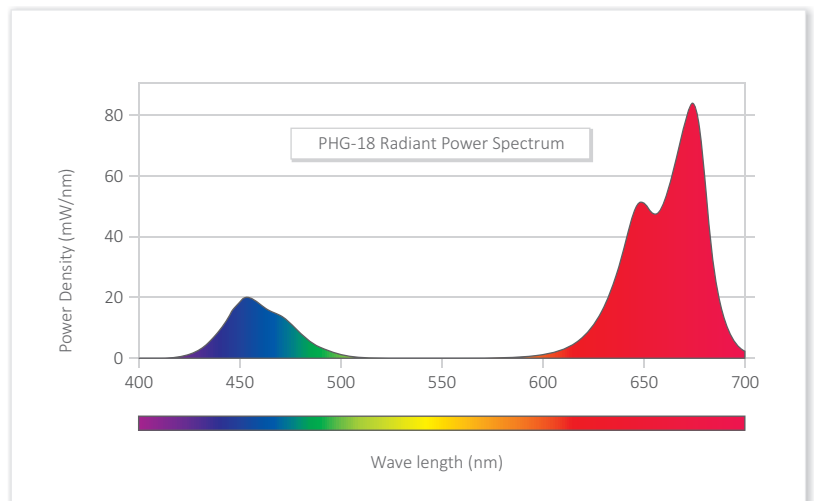
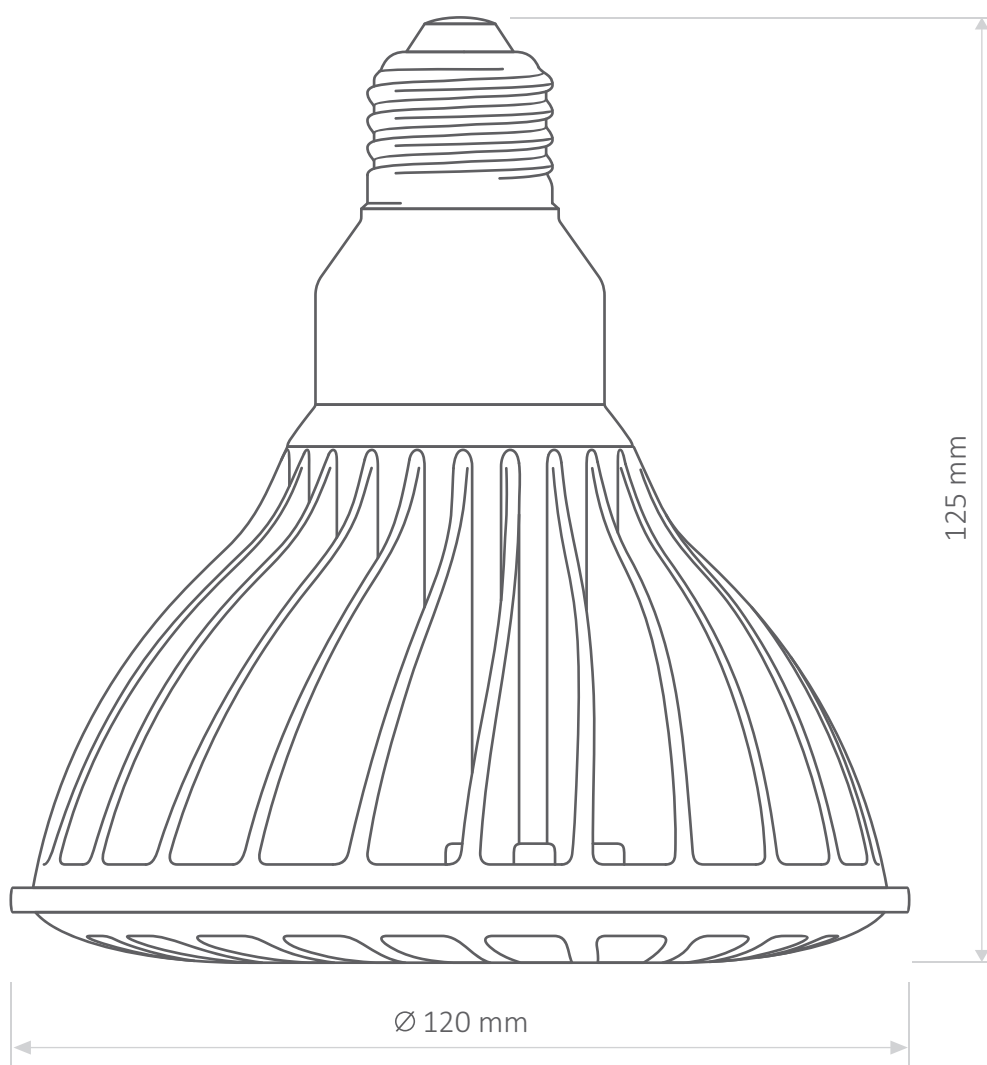


Figure 2. PHG-18 Spectrum



Physical Dimensions and Appearance



Physical Specifications:

Height (total):	125mm
Diameter:	120mm
Weight (hanging):	0.50kg (18oz)
Weight (shipping):	0.72kg (25oz)
Shipping Carton size:	130mm x 130mm x 150mm (5" x 5" x 6")