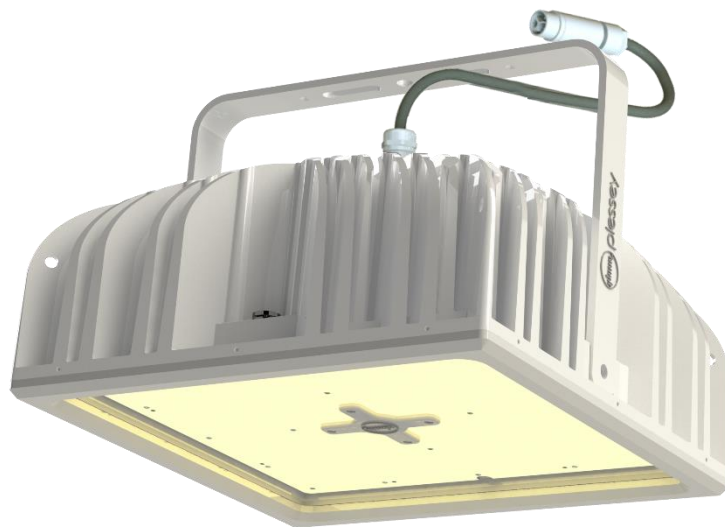


Hyperion Broad Spectrum Indoor Horticultural LED Grow Light

Advanced Datasheet



Key Features

- 710 micromoles/s fixture light output. Equivalent to 600w sodium grow lights
- 418W. 37% energy saving versus 600W sodium (plus 60W ballast)
- 1.7 $\mu\text{mol}/\text{joule}$ efficiency
- IP66 rated (power wash)
- Proven broad spectrum (380nm - 780nm)
- 230v or 120v driver
- 120° beam angle
- Up to 3 year warranty

Key Benefits

- Durable, die-cast alloy design
- Proven spectrum for indoor crops
- Competitive pricing and crop yield vs leading HPS systems
- IP66 waterproofing
- Remote driver system with 4m cable and driver protection box.
- Small footprint
- UK engineering and design

NOTE: A hanging bracket version of this light with hooks for trellis/unistrut and 415v driver is available. See main Hyperion data sheet

Product Labelling

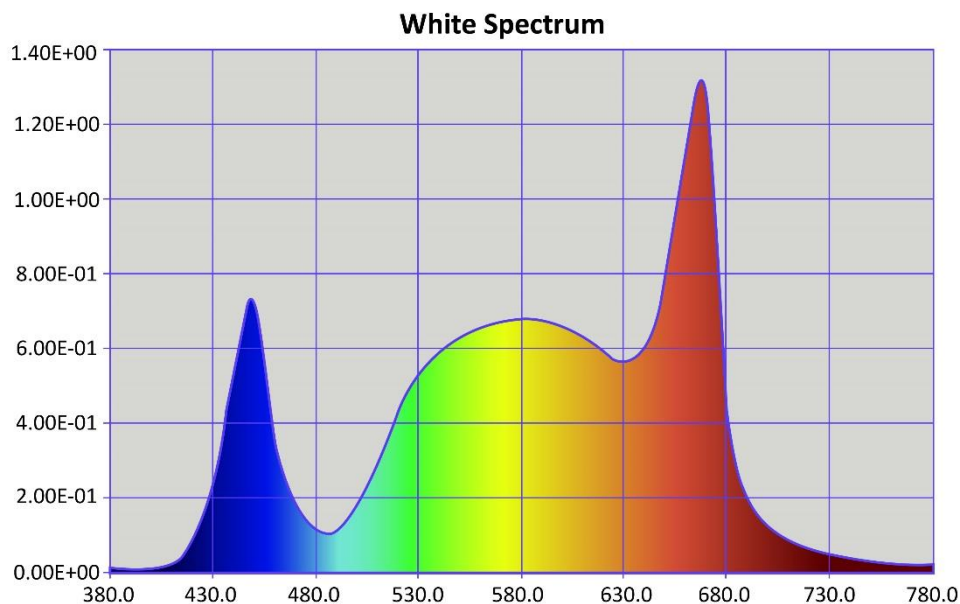
CE, UL (Pending), RoHS, IP66

Summary Description

Plessey's Broad Spectrum Hyperion LED Horticultural Grow light fixture is designed to provide indoor grown plants with Photosynthetically Active Radiation (PAR) from the highest quality LEDs. This is achieved by replacing natural daylight with a broad light spectrum proven to enhance plant growth rates and yields. The Product is suitable for commercial and hobby installations.

The fixture is constructed from die cast aluminium with a corrosion proof white powder coating. The light engine is made up of state of the art LEDs arranged to maximize output and uniformity.

Spectrum



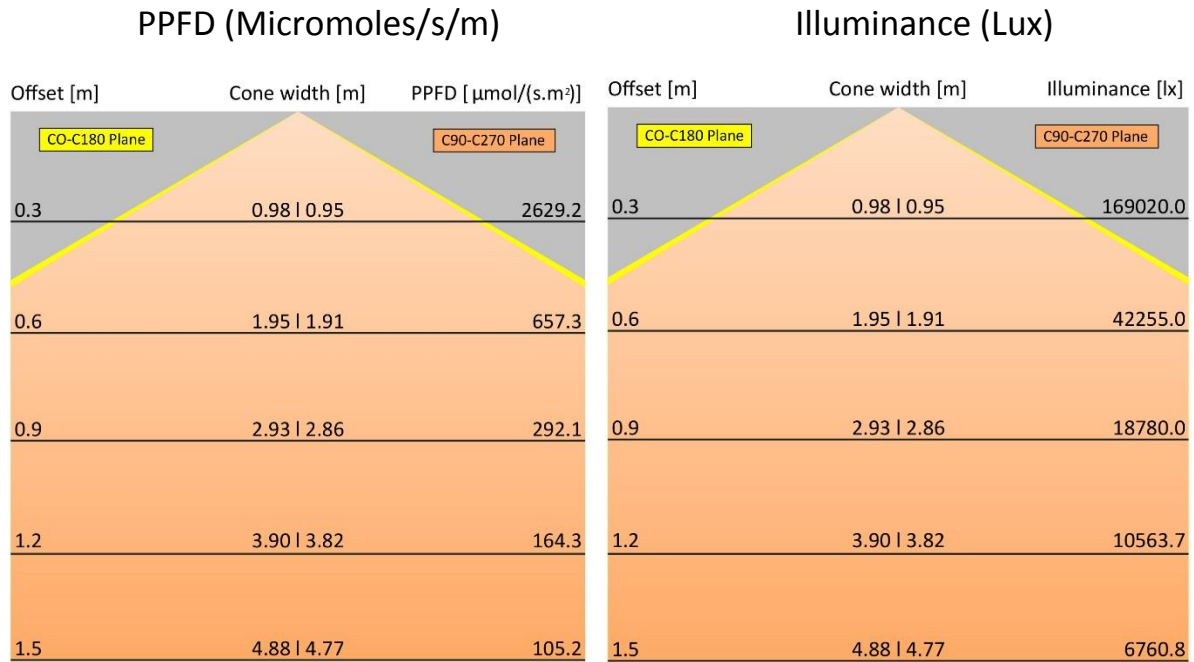
Blue spectrum light (460nm) particularly affects vegetative growth during early growth stages to produce compact plants with strong stem and leaves.

Yellow and green spectrum light (480-600nm) is more efficiently transmitted through the plant to tissues not directly exposed to light and enhances biomass.

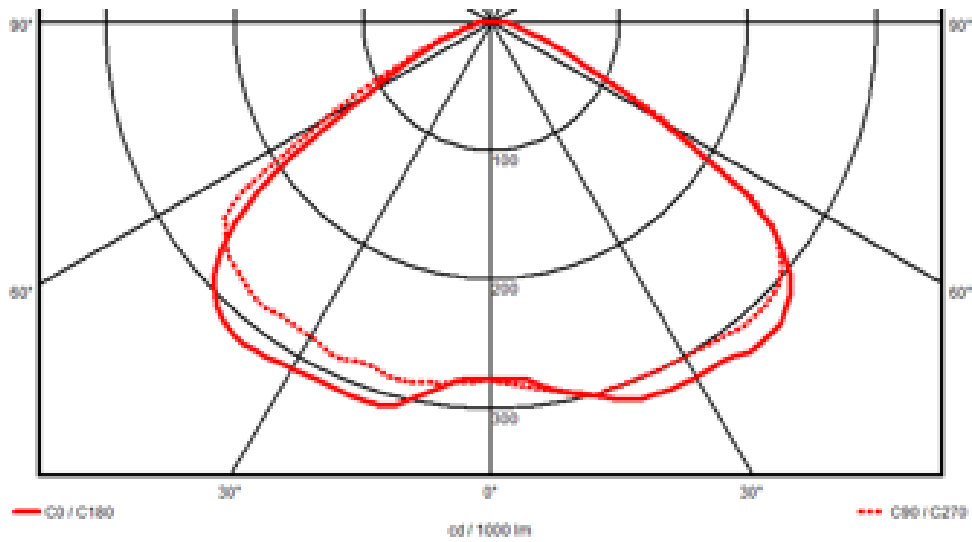
Red spectrum light (630-660nm) particularly affects the flowering / fruiting stages and can promote the number of buds to increase yield.

Far red spectrum light (730nm) is important in helping plants orient leaves to optimise plant growth.

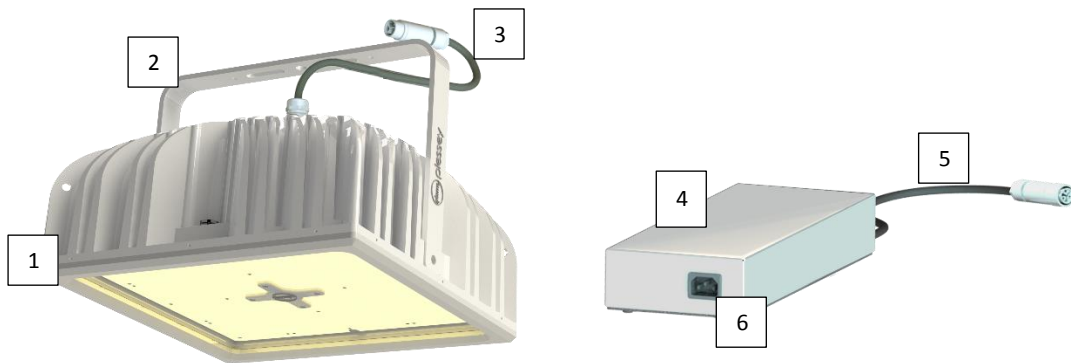
Light intensity at different heights – single fixture



Radiation Plot



System Components



1. Fixture
2. Bracket
3. Cable with connector to driver
4. Driver box
5. 4m cable with connector to fixture
6. IEC-C13 power cable socket

Packaging

Both the components above are packaged together in a box measuring 390 x 390 x 310 (mm). IEC-C13 power cable not supplied (country dependent).

Dimensions

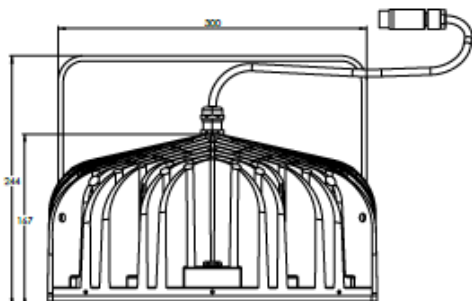


Fig 1. Front view
Units in mm

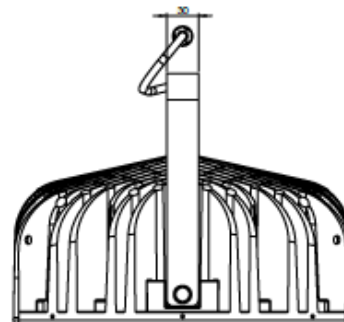


Fig 2. Side view
Units in mm

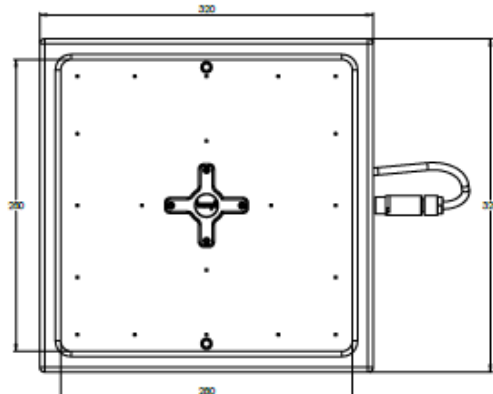


Fig 3. Bottom view.
Units in mm

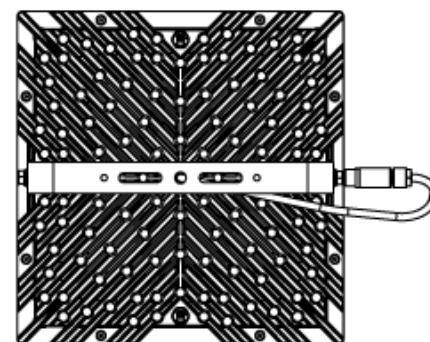


Fig 4. Top view

Full Specification

Lamp model	Hyperion White Spectrum
Lamp type	LED
Spectrum name	White light full PAR spectrum
Power consumption low	410W
Power consumption high	418W
Light beam angle	120 degrees
Power input	230V
Weight	14.6Kg plus 1.6Kg Driver
Product length	32cm
Product width	32cm
Product height	28cm
Operating frequency (Hz)	50/60
Certifications	CE. UL (pending)
Recommended distance for plants (low)	50cm
Recommended distance for plants (high)	150cm
Thermal management	Passive heat sink
Ambient operating temperature Low (°C)	-20
Ambient operating temperature High (°C)	35
Ingress protect rate (IP)	IP66
ROHS compliant	Yes
Illuminance low (lx)	7000 @ 150cm
Illuminance high (lx)	57000 @ 50cm
PPF (PAR)	690 µmol/s
PPF (PAR + NIR)	710 µmol/s
Light decay (%)	>90% after 10000hrs
Efficacy PAR (µmol/ W)	1.65 (400nm – 700nm)
Efficacy full spectrum (µmol/ W)	1.7 (380nm – 780nm)
CCT (K)	3500 – 3800
CRI (K)	85
THD (%)	<15%
Power Factor	>0.95
Warranty	Up to 36 months

Mechanical Installation

The Hyperion fixture is suitable for installing in grow tents, grow rooms and other indoor growing environments, secured by bolts or other fixings using the holes in the top of the bracket. Check that the integrity of the structure can withstand the overall and point load brought to bear by the installation of this fixture.

Care must be taken when assembling, fitting or handling to prevent personal injury or damage to the product. This light fitting must be installed by a competent person in accordance with the local Building and Electrical Regulations

Plessey cannot accept any liability for loss, damage or premature failure resulting from inappropriate use. Plessey can advise on installation requirements including how to achieve the desired amount of light and uniformity.

Electrical Installation

The Hyperion grow light is supplied with an external driver which should be located separately to the fixture. The fixture cable needs to be connected to the driver cable. See fig. 1 & 2 on page 4. The driver requires an IEC-C13 connection to a single phase, 230V or 120v mains power supply.

Order Codes

Order Item	Spectrum	Description	Order Code
Hyperion fixture 230v	White	Fixture with goalpost bracket plus 230v driver with 4m cable	PHH52R1400A
Hyperion fixture 120v	White	Fixture goalpost bracket plus 120v driver with 4m cable	PHH56R1400A
Driver (if additional driver required)	White	230v driver with 4m cable	HYPDRIVER230IEC
Driver (if additional driver required)	White	120v driver with 4m cable	HYPDRIVER120IEC

Cleaning / Maintenance

Depending on environment dust can collect in the metal heatsinks over a period of time. This should be removed periodically by a low pressure air / water jet, appropriate PPE should be worn.

It is recommended that the lenses be cleaned every 3 months. Lenses can be wiped clean with a damp cloth or hosed down. The unit should not be submerged.

This fixture has no consumable / replaceable parts other than the driver. If you experience a failure or problem with your product please contact Plessey Customer Service for Assistance

Safety

The Hyperion fixture does not radiate harmful wavelengths of light but like many high power artificial lights users should not look directly at the fixture whilst it is on.

Disposal

When the light fitting comes to the end of its life please do not dispose of it within the general waste, please recycle where facilities exist. When you need to dispose of this fitting, check with your distributor or local authority for suitable options. New regulations require the recycling of Waste from Electrical and Electronic Equipment (European “WEEE Directive” effective August 2005—UK WEEE Regulations effective 2nd January 2007). Environment Agency Registered Producer: WEE/GA0248QZ

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Products are intended for normal commercial applications. For applications requiring unusual environmental requirements, extended temperature range, or high reliability capability (e.g. military or medical applications), special processing/testing/conditions of sale may be available on application to Plessey.

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