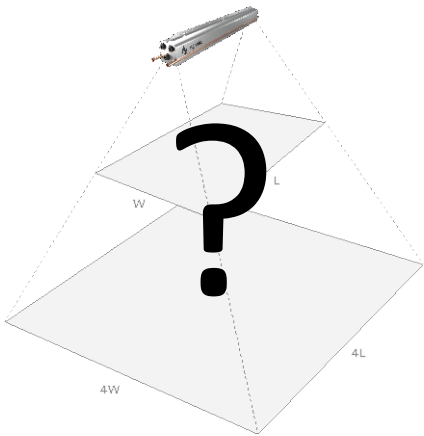


Fixture Mounting Height Recommendations

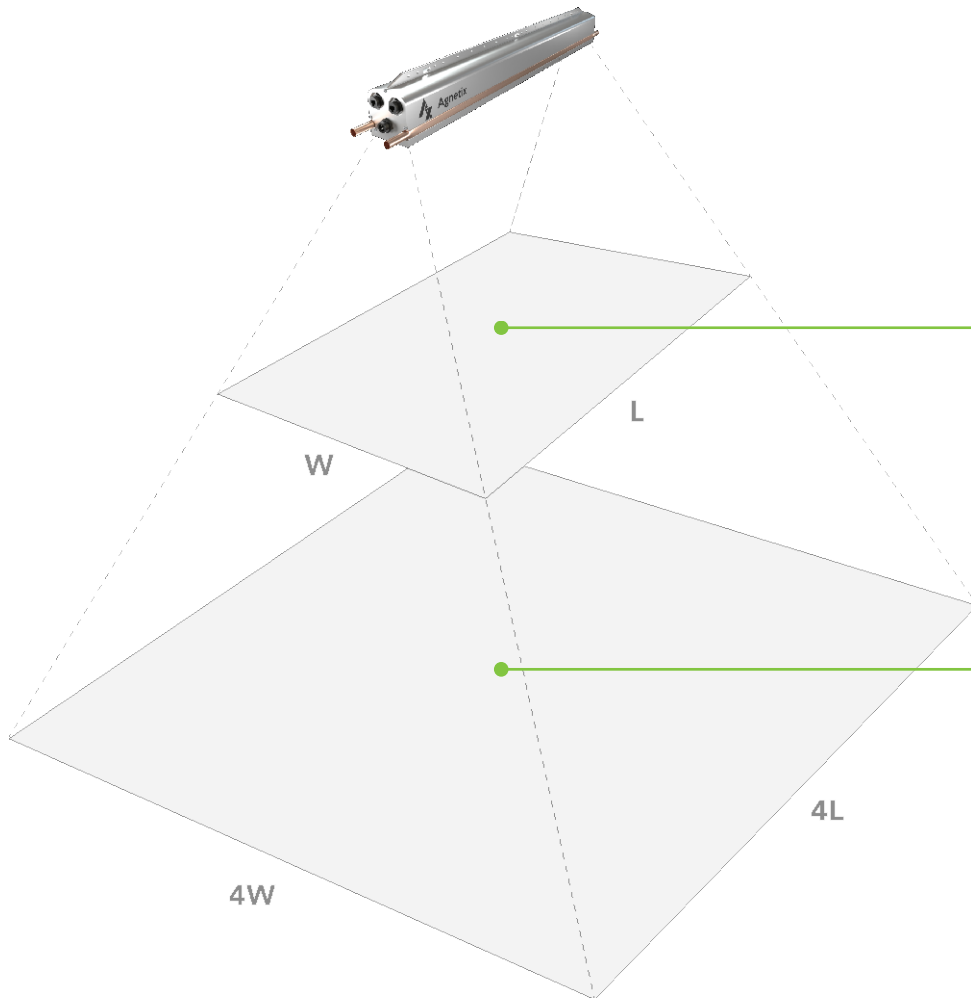
Q: How high should fixtures be mounted above the canopy?

Q: Should I raise and lower them over the grow cycle?



What effect does mounting height have?

- We examine heat maps for *arrays of fixtures* in a typical grow environment
- We provide guidance as to typical mounting heights and recommendations



1

Distance from
Fixture (m)

2650

PPFD

1.0

Canopy (m²)

2

Distance from
Fixture (m)

662

PPFD

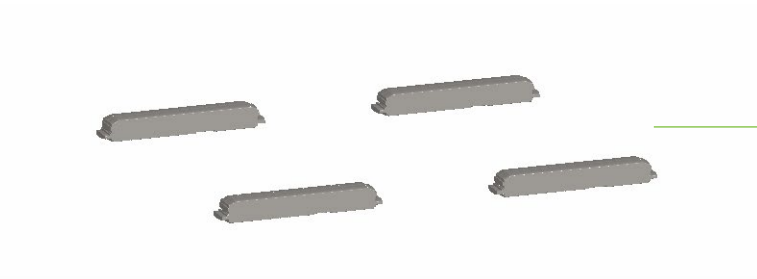
4.0

Canopy (m²)

Inverse Square Law

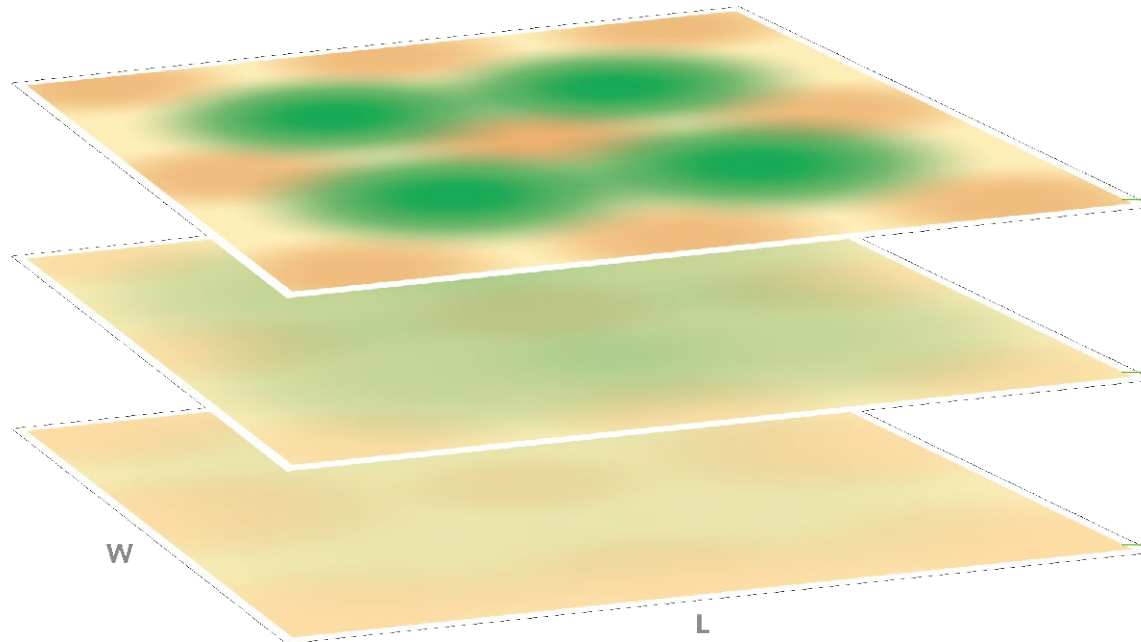
Double the distance of a single source of light to a surface and you will get 1/4 of the light intensity **but light up 4x the area.**

PHOTONS (PPF) Don't Go Away!



Agnetix A3 – 2x2 Configuration 5'x5' Spacing

- Multiple light sources will deliver **over-lapping** light
- As the lights are raised the evenness improves
- Some light is lost when bounced off the walls, but not much



PPFD @ 3.0 ft

A little splotchy

1227

MIN

1446

AVERAGE

1664

MAX

PPFD @ 4.5 ft

Pretty even already

1294

MIN

1394

AVERAGE

1494

MAX

PPFD @ 6.0 ft

Almost identical to 4.5 ft

1295

MIN

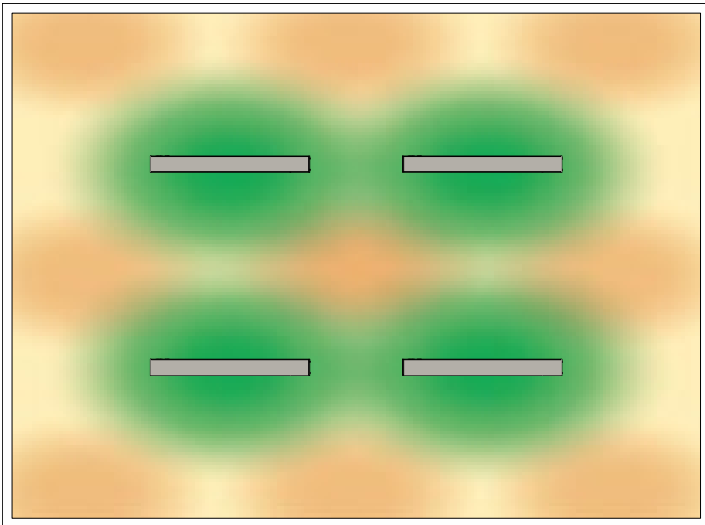
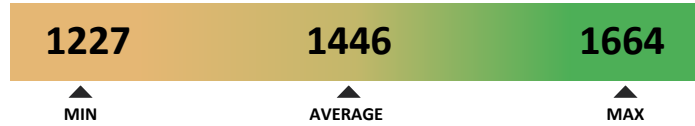
1374

AVERAGE

1453

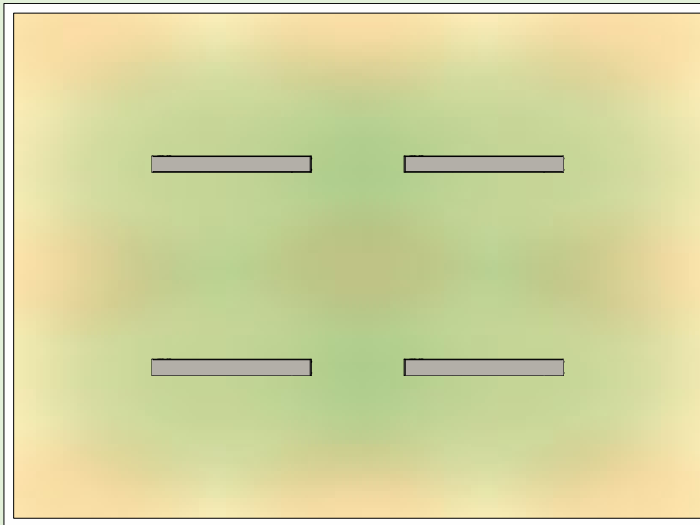
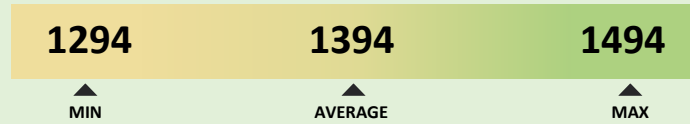
MAX

PPFD @ 3.0 ft

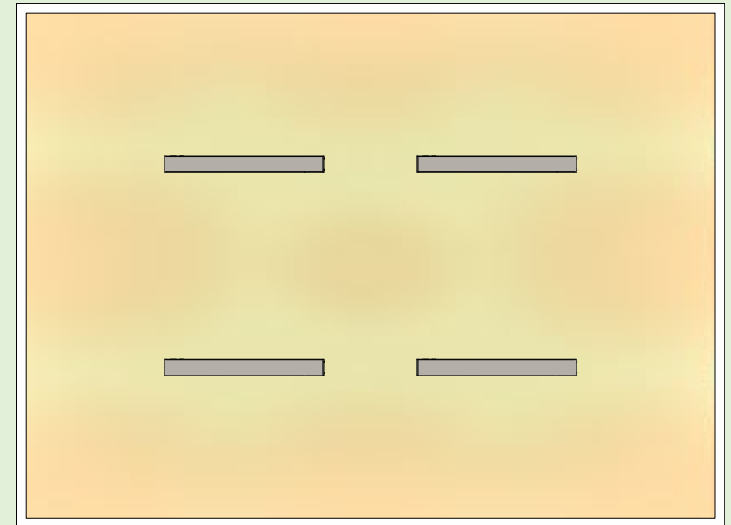
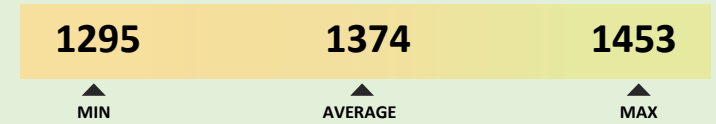


A little splotchy.

PPFD @ 4.5 ft



PPFD @ 6.0 ft



Result:

Set the fixture height ***at or above*** fixture to fixture spacing!
Average PPFd change is only -1.5% with 33% height increase.

Fixture Mounting Height Recommendations

Q: How high should fixtures be mounted above the canopy?

Q: Should I raise and lower them over the grow cycle?

For an Array of Lights:

- Intensity **does not depend** on height once evenness is achieved
- Set array **at or above** height at which evenness is acceptable (height above max plant height)
- **No need or benefit** from raising or lowering the lights