

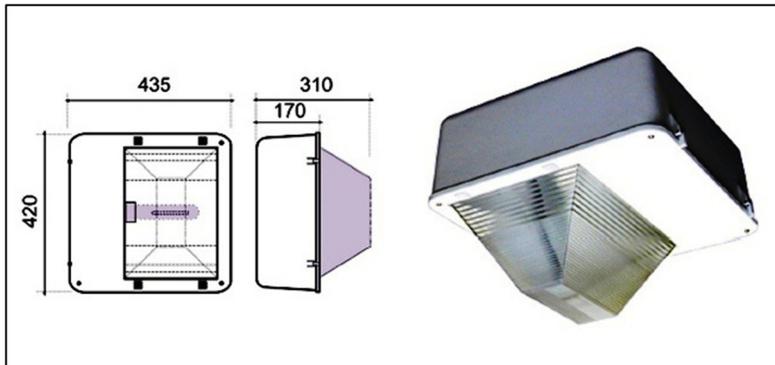


We would like to offer full plans for lighting, with carefully mapped and calculated lux levels throughout your building. In some circumstances, this is not always what is required.

We are therefore happy to offer out AgriLux units as a stand-alone light option. These are available with either 250W or 400W white sodium bulbs.

On average, we suggest a light every other bay, and you may require two, or even three across the width of the building.

The AgriLux units are IP65 rated which means they are fully sealed and resistant to corrosion. They are available with, or without the diffusers.





Lighting effects in dairy cow housing

Reference information from Wilson Agri Ltd.



Key points:

According to research, optimum photoperiod will increase milk yield by **6-10%** on average

- Eventually, cows increase feed intake to support the risen milk yield.
- No effect on protein or solids content while only a very limited decrease in fat content.
- The increase in milk yield amply compensates the effects on fat and feed intake.

Why is there an effect?

Light reception occurs in the eyes retina. Light inhibits an enzyme used in melatonin synthesis in the pineal gland. Therefore, as photoperiod increases, the duration of high levels of melatonin in the blood decreases. Melatonin concentration in the blood influences the concentration of some hormones in the blood, for example, insulin-like growth factor-1 (IGF-1). Scientists believe changes in the concentration of IGF-1 play a role in the effect of photoperiod on milk production, as IGF-1 has been shown to increase milk yield.

Why is Wilson Agriculture concerned with this?

- The use of light is cost-effective and has a very short pay-back time.
- Very simple to carry out.
- No extra labor required.
- Improved production and therefore margins on the units we work with.

Requirements for lighting:

For milking cows, calves and heifers

16 hour long day photoperiod; 150-200 lx at the eye level of the cow

8 hour of uninterrupted darkness means less than 5 lx* at the eye level of the cow

Dry period

16 hours long at less than 5 lx*.

8 hours of 150-200 lx

[this will reset the long-day photoperiod and improve the immunity system]

*5lx means that you can still see a printed text.

Red night lights may be used to facilitate cow movement and observation during darkness

The intensity of red light has no (or only minor) effects on the cows' perception of darkness, and thus melatonin secretion.

There should be no brighter lights in any part of the barn and cows need 2-4 weeks on average to adjust.

FURTHER INFORMATION AVAILABLE AT: www.wilsonagri.co.uk/research