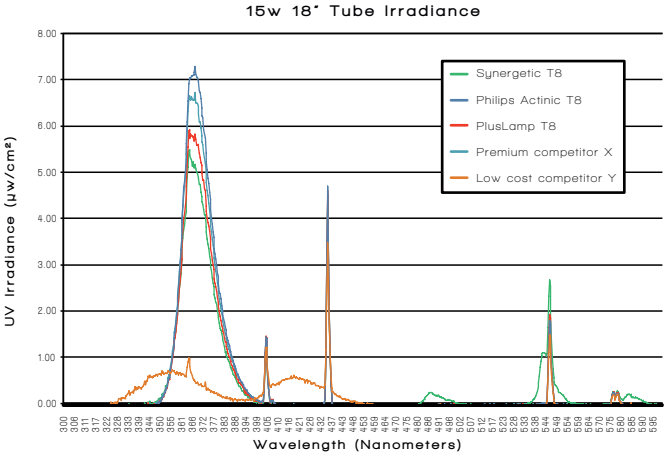
We understand that our customers work within a variety of environments and need a choice of bulbs which will offer solutions to the wide range of issues faced. We have developed a comprehensive range incorporating the leading brands and technologies to ensure that it's easy to find the right bulb every time.

HOW OFTEN SHOULD UV BULBS BE CHANGED AND WHY?

We recommend that UV bulbs are changed every 12 months to ensure maximum efficacy.

The levels of UV produced by fluorescent bulbs deteriorates rapidly throughout the life of the bulb. Whilst the bulb will continue to glow blue or green indefinitely, after approximately 8,000 hours the amount of useful UV (which humans cannot see) drops to a level where it is no longer attractive to flying insects. As a result, UV bulbs must be replaced annually to ensure they remain effective in producing useful levels of UV. This replacement cycle is typically undertaken just before the peak insect season, (March/April in North America) to ensure the flylight is producing the maximum amount of UV throughout the critical insect season.



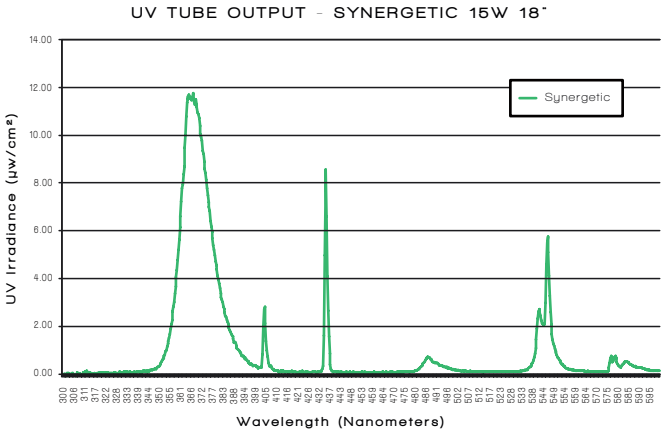
SYNERGETIC®

Easily recognized by their glowing green light, Synergetic® bulbs have been developed to attract a much wider range of flying insects than traditional blue UV bulbs.

Based upon a unique phosphor mix, patented technology ensures that a broader 'two peak' wavelength is maintained (368nm and 540nm) attracting a wide range of insects including stored product moths, whilst attracting the common housefly as effectively as traditional blue UV bulbs, giving you the best of both UV technologies.

Extensive testing has been carried out over many years by independent entomologists and test laboratories, showing the benefits of green light in combination with UV.

A wide diversity of insects were shown to be more attracted to Synergetic® light, including greenhouse whiteflies[1], silverleaf whiteflies, thrips, leafhoppers[2], Indian meal moths, Mediterranean flour moths[3], tropical warehouse moths, warehouse moths[4], plus many more!



DID YOU KNOW?

Many insect pests of public health, stored product and agricultural importance have evolved visual pigments which allow them to perceive green light.[5]

Recordings of electroretinograms in housefly eyes found peaks in both UV (340-365nm) and blue green (450-550nm)[6] with similar sensitivities found in other Diptera eg. Calliphora vicina Meig[7], Haematobia irritans L., Musca autumnalis De Geer, Stamoxys calcitrans L.[8], Glossina mortisans mortisans Westw.[9], and Fannia canicularis L.[10], as well as the mosquito Aedes aegypti (323-345nm and 523nm)[11]. Several Tabanid species were also found to have a peak activity of 400-600nm[12].

1 Coombe, P.E. 1981. Wavelength specific behavior of the *whitefly Trialeurodes vaporariorum* (Homoptera: Aleyrodidae) J. Comp. Physiol. 144:83-90 **2** Chu, C.C., Printer, P.J., Henneberry, T.J., Umeda, K., Natwick, E.T., Wei, Y., Reddy V.R & Shrepatis, M. 2000. Use of CC traps with different trap base colours for *silverleaf whiteflies* (*Homoptera: Aleyrodidae*), *thrips* (*Thysanoptera: Thripidae*) and *leafhoppers* (*Homoptera: Cicadellidae*). J. Econ. Entomol. 93:1329-1337. **3** Soderstrom, L., 1970. Effectiveness of green electroluminescent bulbs for attracting stored product insects. J. Econ. Entomol. 63: 726-731. **4** Rees, D.P., 1985. Review of the response of stored product insects to light of various wavelengths, with particular reference to the design and use of light traps for population monitoring. Trp.Sci. 25: 197-21. **5** Small, G., 2009. Review of the attraction of insects to green light. I2L Research **6** Mazokhin-Porshniakov, G.A., 1960. Colourometric study of the properties of colour vision of insects as exemplified by the *house fly*. Biofizika 5 (3):295-303 **7** Burkhardt, D., 1962. Spectural sensitivity and other response characteristics of single visual cells in the *arthropod* eye. Symp. Soc. Exp. Biol.