

The big deal about infrared - negative effect on control accuracy

- Silicon phototransistors sense and respond to both visible and infrared light across a spectral range, but can not differentiate between the two.
- The presence of infrared (from any source) at the phototransistor has the negative effect of causing the phototransistor to respond to more than just visible light. The resulting false light level reading causes the photocontrol to respond inaccurately.
- The higher the ratio of infrared to visible light, the greater the error in control accuracy.

How about Infrared Filters?

- Most photocontrols use an optical plastic filter behind the window to filter out infrared, but they only filter the infrared component of light coming through the sensor window.
- Optical plastic filters do not filter the potentially substantial amounts of infrared coming through the photocontrol cover, or the infrared emanating from the photocontrol's own internal electronics, or the infrared coming from the luminaire itself.
- Over time, Ultraviolet (UV) Light fades and/or deteriorates the filter causing inadequate accuracy.

Solution - Ripley's Tru-Filter® InfraRed-Filtering Photocontrol

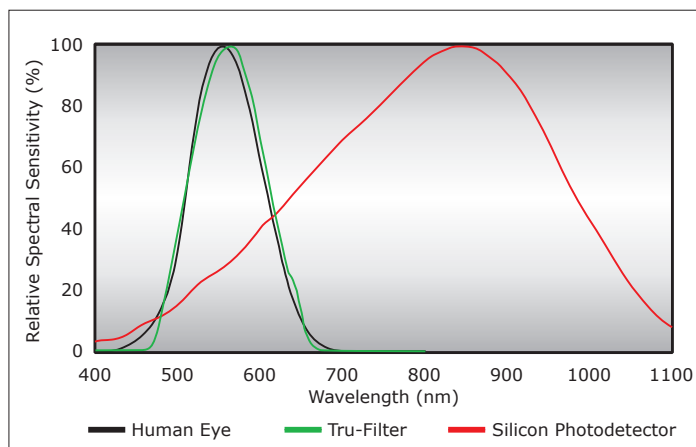
- Tru-Filter® completely eliminates the photocontrol's reaction to infrared from all internal and external sources.
- A single phototransistor precisely senses ambient light, while simultaneously filtering out all infrared from all sources (not just that which passes through the sensor window), to mirror the spectral sensitivity of the human eye.

**Tru-Filter®
InfraRed-Filtering = Accurate
Photocontrol = Stable
Consistent
Photocontrol
Operation**

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PS-6100-044
TN Tru-Filter
050610
Rev. 0



Tru-Filter® relative spectral sensitivity matches that of the Human Eye; while competitor's Silicon Photodetector is far from accurate.

A single infrared-filtering phototransistor in Tru-Filter®, filters out all sources of infrared to mirror the spectral sensitivity of the human eye, and provide highly accurate control across the entire visual light spectrum. Thus, Turn-ON / Turn-OFF events occur with much greater precision than that of competitor models utilizing silicon photodetectors and plastic infrared filters.

- Ripley's Tru-Filter® InfraRed-Filtering Photocontrol eliminates infrared influence from all internal and external sources
- Plastic optical filters only filter infrared entering through the sensor windows

Competitive Comparison	Ripley's Tru-Filter®	Competitive Filtered Infrared
Eliminates infrared entering through sensor window	✓	
Eliminates infrared entering through photocontrol cover	✓	
Eliminates infrared generated by internal components	✓	
Eliminates infrared generated by the luminaire	✓	
Only Filters infrared entering through sensor window		✓
Filter window fades over time		✓