

Video Analytics with External IR Illumination

Overview

This application note describes the need to use box cameras paired with external IR illuminators instead of bullet cameras with built-in LED IR for outdoor application for Honeywell Video Analytics software when there is insufficient visible lighting in the field.

Model Numbers

- All HVA software packages:
 - HAAB Honeywell Active Alert Base (single channel add-on license)
 - HAAS Honeywell Active Alert Standard (single channel add-on license)
 - HAAP Honeywell Active Alert Premium (single channel add-on license)
 - HASI Honeywell Analytics Smart Impressions (single channel add-on license)
 - HAAC Honeywell Analytics People Counting (single channel add-on license)
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Issues

It has been shown in various deployments that the use of bullet cameras with built-in IR LED's can dramatically increase the false alarm rate generated by the video analytics software, especially during hot and humid seasons. The heat from the IR light attracts spiders and insects. When a spider or insect crawls across the camera faceplate, it will often appear as white, bright globes in the camera's field of view, as shown in the example images below.



Therefore, for outdoor applications that require IR illumination at night time, it is not recommended to use any camera with built-in IR illumination. This includes all models bullet-style cameras and mini-dome cameras.

A box camera with good day/night performance (e.g. Honeywell HCD544) paired with an external IR illuminator should be used for such applications. When the IR light comes from external sources, the spiders and insects will be attracted to the IR source instead of crawling or moving directly on the camera lens.

Please consult your Honeywell sales professional for assistance with your specific application.

Implementation

1. Use a combination of box camera paired with external IR illuminator. (*Do not use any of the bullet cameras with built-in IR LED.*)
2. Please contact your Video Analytics Technical Support team for detailed camera placement and planning.
 - a. The external IR illuminator must have a beam pattern that closely matches the field of view of the camera to ensure proper illumination that covers the entire field of view.
 - b. The effective range of the IR illuminator must match or exceed the detection distance the video analytics software can reach. It is recommended to limit the distance to approximately 50% of the maximum distance specified by the IR illuminator manufacturer.
3. During installation and deployment, the IR illuminator must be properly aimed to ensure maximum illumination covering the camera's field of view.

Note: It is important to select an IR Illuminator with a field of viewing matching the field of view of the camera/lens combination.

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