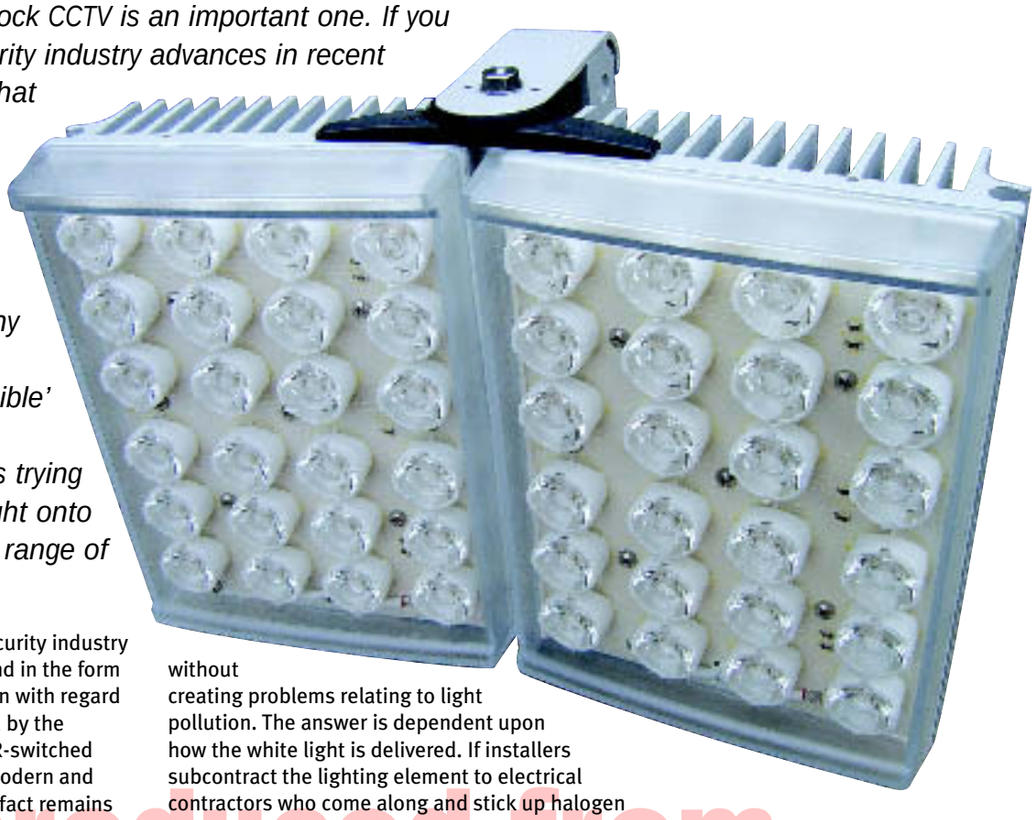
# AN ILLUMINATING IDEA

*The issue of around-the-clock CCTV is an important one. If you consider many of the security industry advances in recent years, it could be argued that none have been so important as those that allow end users to enjoy the protection offered by their CCTV systems 24 hours a day. However, many of the developments have been concerned with 'invisible' light such as infrared illumination. Now Raytec is trying to push intelligent white light onto the agenda with its Raylux range of illuminators.*



In the not too distant past, the security industry received something of a reprimand in the form of a less than honourable mention with regard to light pollution. It could be argued by the professional security sector that PIR-switched floodlights are nothing to do with modern and effective security solutions, but the fact remains that as an industry, we were all tarred with the same brush by those who – quite rightly – decided to stamp down on light pollution.

The CCTV sector responded in a very definite way; immediately all talk of white light became taboo, and infrared illumination was the only way to go. Of course, with hindsight, we now realise that wasn't the best solution at all.

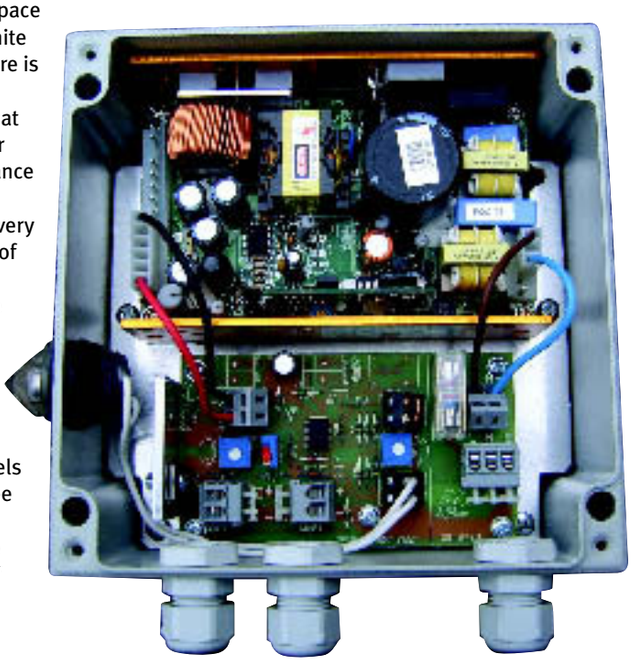
The team at PSI are great fans of white light, for one very simple reason. White light allows you to capture colour images. We are not alone in our opinion. End users like white light too. Some don't realise that they like it, but tell them they can have colour images around the clock, and they suddenly remember just how much they like it. Many installers also think along the same lines as us. The reality is, in any surveillance situation, you would always rather capture colour images than black and white ones.

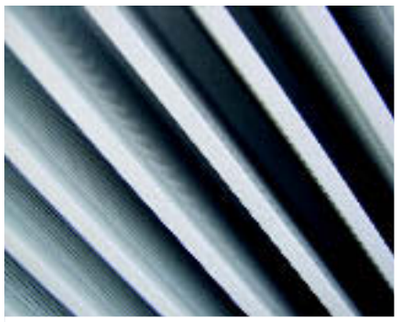
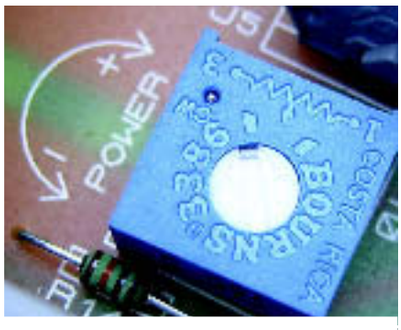
With a colour image, we can see that a red car is parked at a gate. That's useful information, and provides something that at least prepares a security guard or the police. With a monochrome image and IR lighting, we can see a grey car parked at a gate. Is it really grey? Maybe it's blue, or green, or brown, or silver, or even red. One of the most natural identifiers in visual information, an identifier that is instinctive and immediate, has been removed.

Before considering any product, we must question whether we can actually use white light without creating problems relating to light pollution. The answer is dependent upon how the white light is delivered. If installers subcontract the lighting element to electrical contractors who come along and stick up halogen lights willy-nilly, then the answer is that we can't create an environment that is both effectively lit and friendly to the local environment. Interestingly, installers can't make money from installing the lighting either.

However, if the installer designs a switched low level lighting solution that provides enough light for colour cameras to work, without simply flooding the space with bright white light, then there is no reason whatsoever that 24 hour colour CCTV surveillance cannot be achieved in a very large number of applications.

It has to be remembered that many high quality colour cameras only need light levels of around three of four lux to deliver usable images, and if the lighting is




correctly designed, this can be achieved without causing high levels of light pollution.

With that in mind, it worth taking a closer look at the Raylux unit from Raytec.

## Product design

The Raylux is available in a number of different variants. Our test unit was the Raylux RL200. The white light unit features Raytec's Adaptive Illumination concept; a system whereby the two sides of the illuminator can be adjusted to create a varied angle of lighting. Another headline feature is what Raytec call Cool Running, which is a thermal management system that handles the LED operation and is claimed to give a lifespan of up to 10 years. Obviously, no one has tested whether that figure is accurate as yet! The final major feature is colour corrected white light. This ensures that none of problems associated with certain white light technologies occur, ensuring a consistency of colour.

Whilst these features are the ones that grab the headlines, for installers the fact that the lamp is supplied with a PSU that includes a telemetry input, an integral photocell and a power level control option will also be of interest. Power is controlled via a potentiometer, and can be set at any level between 10 per cent and 100 per cent. Given that some lighting manufacturers will charge extra for a standard PSU, this is something to remember when creating a shortlist of products.

The lamp itself is a big unit, measuring 280 x 190 x 70mm and weighing in at close to 4kg. It includes a hefty mounting bracket, which is required given its bulk. There is nothing about the unit that gives any concern regarding build quality, and you get the impression that if this illuminator was to fall from a great height, there would be more damage to the floor than to the Raylux itself!

One final point is that the manual is good enough to install the unit, but its just a few printed A4 sheets stapled together. Raytec produce a pretty useful lighting guide, and we were surprised not to see something like that included.

## Performance

Once installed, the Raylux 200 works. What else can you say about light? Well, of course, there is much more to say. One of the big issues with traditional white light is that it has pretty slow switch-on times. To avoid flooding an area with white light, the preferred approach is to switch the lighting and cameras simultaneously. With some lighting, by the time is has switched on, whatever triggered the event has moved on. This is why many lights had to be permanently on in the past. The Raylux has a fast switch on time, being LED powered. This makes site management an easier task.

The light is clean and crisp without being too bright, and even when subdued it is even and stable. Running a variety of colour cameras with the unit, we saw clean and faithful colour reproduction, and a side-by-side comparison with a basic halogen head saw more colour fidelity from the Raylux units.

## In summary

The Raylux 200 is a tool that delivers something simple, yet that simplicity could change the way many installers and end users perceive around-the-clock CCTV. Intelligent white light puts value back into the CCTV market, and the Raylux is as close to intelligent white light as installers can currently get.

Infrared light might be the obvious solution, but if you are quoting against someone delivering around-the-clock colour surveillance, you might want to think again about illumination.



## SPECIFICATION

**Supplier:** Raytec
**Model:** Raylux 200
**Type:** White Light Illuminator
**LEDs:** 48
**Range:** Up to 60 metres
**Environment:** IP66
**Consumption:** 80W Max
**Power Output:** Adjustable, 10–100 per cent
**Photocell:** Integral
**PSU:** Included
**Power:** 240V AC

**Tel:** 01670 528446
www.raytecctv.com

## PSI RATINGS

| | | | |
|---|---|---|---|
| Product Design | 8 | Instructions | 7 |
| Build Quality | 8 | Installer Friendliness | 8 |
| Ruggedness | 8 | Features/Functions | 7 |
| Ease of Installation | 8 | Light Quality | 8 |
| Ease of Set-up | 8 | Overall Performance | 8 |