



## KEY FEATURES – Uniflood and Miniflood

Derwent developed the Uniflood and Miniflood systems of night time illumination for CCTV to achieve **better performance** at **lower cost of ownership**, compared to traditional illuminators.

The ranges comprise:

Uniflood 500	-	High power
Uniflood 300	-	Long life
Uniflood LED	-	Ultra long life
Miniflood 100	-	Short/Medium Range, long-life
Miniflood LED	-	Short range, ultra long-life

4 key areas were addressed:

### 1. Even illumination

#### Uniflood 500 and Uniflood 300

Improved picture quality by providing grey scale pictures of large area scenes. Even illumination was achieved through the development of the Cossec lens so that the returned radiated energy to the camera is the same from wherever the subject is in the scene. This characteristic permits the camera to work within its dynamic range and avoids white out on the screen. The performance of motion detection systems is enhanced for the same reason. The results of Uniflood 500 performance is demonstrated on the Derwent video tape.

### 2. Long bulb life

#### Uniflood 500, Uniflood 300 and Miniflood

Extended running life of the IR source was achieved through specification of a rugged quartz halogen bulb incorporating a robust filament with controlled under-running. Traditional IR lamps use mains (240V) bulbs which incorporate a filament which is necessarily very long and thin. The filament temperature is around 3,100 degree K (almost molten tungsten) and with rigours of wind and vibration the filament is vulnerable to breaking. The average life of these units is claimed to be around 2,000 hours.

The Derwent bulb has a relatively much shorter and thicker filament and is operated at around 2900 degree K. This filament is less vulnerable to shock and vibration. Soft start is built into the system. For the Uniflood 500 Derwent claim 3,000 hours average bulb life and statistics from the field in terms of failures and replacements support the view that this life will be exceeded. For the Uniflood 300 Derwent claim an average life in excess of 1 year normal operation (assume 4,400 hours of operation per year).

### Miniflood 100

Miniflood 100 has an average bulb life of 8,000 hours – approaching 2 years of normal operation.

Uniflood LED and Miniflood LED incorporates ultra long life, high reliability, solid state diodes with life in excess of 50,000 hours.

## **3. Lower power consumption**

### Uniflood 500

Consumes less than 220W but radiates on scene a similar level of power to a traditional 500W unit; a saving of 60% in electricity costs. This was achieved through the careful design of the optical system to transmit a larger proportion of the radiation to the scene and the gold reflector transmits approximately 15% more IR than ordinary silvered reflectors.

Uniflood 300 consumes less than 180W.

Miniflood 100 consumes less than 70W.

Uniflood LED is inherently a low power device with a maximum consumption of < 50 watts.

Miniflood LED is inherently a low power device with a maximum consumption of < 50 watts.

## **4. Lower Cost of Ownership**

Lower power consumption (60% saving in electricity costs for Uniflood 500) and longer bulb life (Average 1 year life for Uniflood 300, avg 8,000 hours Miniflood) means significantly lower running and maintenance costs.

Uniflood LED and Miniflood LED both offer low running costs and exceptionally long service life.

Miniflood100 offers the longest industry average bulb-life for a quartz halogen product.

The design aims of Uniflood have been validated by their inclusion in many high spec and prestigious CCTV schemes. In addition, the product has successfully undergone long term testing by a Government sponsored scientific agency which undertook a variety of photometric, radiometric and polar distribution evaluation and which independently supports the claims made for the product.