Clarius® PLUS

IR **WL**

Infrared & White Light LED Illuminators

- Dual Core LED™ Technology
- Interchangeable Lens Diffuser Technology

Description

A complete range in infra-red and white light illuminators for CCTV, the visible and Invisible range feature state of the art technology and installation friendly design.

- Energy efficient, low voltage operation for quick and easy installation
- Dual Core LED™ technology with advanced electronic control circuitry deliver improved thermal management, long life and low cost of ownership.
- CleanLITE® Self Cleaning Lens Coating Technology
- Semi covert, covert and visible white light versions.
- Built in photo cell
- Easy integration with day/night cameras with relay contacts indicating if the built in photo cell has activated the illuminator
- Remote telemetry input
- Easy access to power and photo cell adjust
- Pressure equalisation vent prevents thermal expansion and pressure cycling
- Interchangeable Lens Diffuse Technology

Specification

Electronics	High efficiency surface mount high power LEDs with advanced current limited integral control circuitry
Beam Angles	10°x10°, 30°x20°, 60°x30°, 80°x40° and 120°x50°
Lens/Beam Pattern	The illuminator should be matched to the scene and the camera lens focal length
Wavelength	850nm, 940nm and visible white light
Expected Life	10 years
Consumption	Clarius IS+ / Clarius VS+ 13W Clarius IM+ / Clarius VM+ 26W Clarius IL+ / Clarius VL+ 39W Clarius IX+ / Clarius VX+ 52W
Input Voltage	12-32V DC or 24V AC +/-10%
Operating Temp	-50° to 60° (-58° to 140°F)
Environmental	IP66
Construction	Robust high quality aluminium extrusion
Front Window	Polycarbonate high transmittance protection (vandal-proof) with CleanLITE® technology
Dimensions	Clarius IS+ / Clarius VS+ 68 x 110 x 78mm Clarius IM+ / Clarius VM+ 114 x 110 x 78mm Clarius IL+ / Clarius VL+ 161 x 110 x 78mm Clarius IX+ / Clarius VX+ 213 x 110 x 78mm
Weight	Clarius IS+ / Clarius VS+ 750g (1.6lbs) Clarius IM+ / Clarius VM+ 1.05kg (2.3lbs) Clarius IL+ / Clarius VL+ 1.35kg (3lbs) Clarius IL+ / Clarius VL+ 1.75kg (3.9lbs)
Power Cable	3m (9ft). Other lengths available to order
Mount	Black power coated stainless steel wall mount. Adjustable via M6 Allen Key (included)

Installation

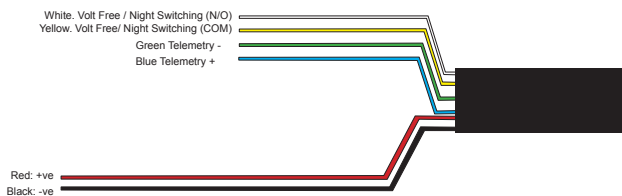**Note:** The illuminator is low voltage 12-32V DC or 24V AC +/-10%.

Optimum results are achieved by setting up at night and viewing the results on a monitor.

1. Attached the illuminator mount to pan/tilt unit, wall or camera housing.
2. Connect the lamp to a suitable low voltage supply. Ensure that the polarity is correct.
3. Commission the mains supply, camera and monitoring equipment.
4. Select the diffuser angle sheet required from the Clarius Box (if required). **To insert the required diffuser sheet simply pop out the lens cover using a flat blade screw driver. Finally firmly clip the lens cover back into place.** 30° diffuser fitted at factory.

5. Adjust the pan angle of the illuminator to match the camera field of view.
6. Adjust the vertical alignment by loosening the side bolts (one on each side of the main body) to maximise the results.
7. Tilt the lamp downwards until the rear part if the required field of view is saturated with light, as viewed on the monitor.
8. SLOWLY and GRADUALLY tilt the lamp upwards until the for part of the required field of view is illuminated correctly on the monitor.

Power and Control Cable Connections

White. Volt Free / Night Switching (N/O)
Yellow. Volt Free/ Night Switching (COM)
Green Telemetry -
Blue Telemetry +

Red: +ve
Black: -ve

Remote Switching
The Illuminator may be activated remotely by a volt-free contact latched across the telemetry wires (see Diag above).

Photocell following contact
Volt-free relay contact-normally open (day) to normally closed (night). See Diag above.

mount

Pot for photocell adjustment

Pot for power adjustment

Pressure relief valve

Power and control cable
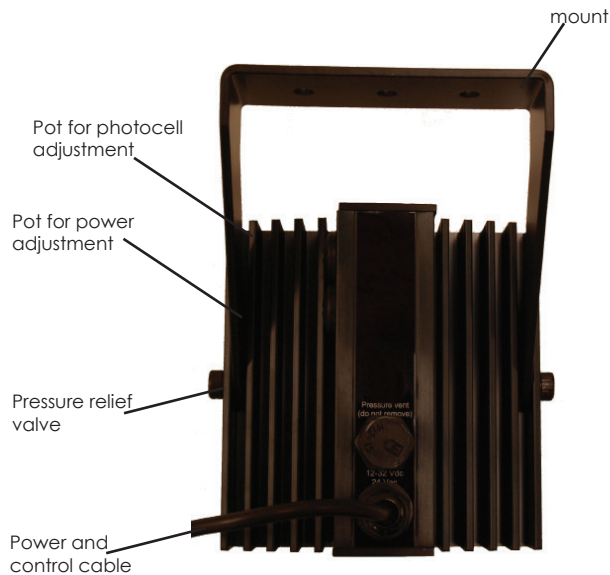
Certifications

This product complies with the European Directive 89/336/EEC Electromagnetic Compatibility and 73/23/EEC Low Voltage Directive by meeting the following standards:

Safety:	EN60598-1:2008 Electrical Safety
	EN60825-1:2007 LED/Laser Eye Safety
EMC:	EN6100-6-1:2007
	EN6100-6-3:2007
	EN6100-3-2:2006
	EN6100-3-3:1995 AMDI & AMD2
FCC:	FCC CFR Part 15. 107 and 15.109
IP:	IP66 in accordance with EN 60529:1992
	AMDI 7643. 1993 AMD2 10931, 2000
WEEE:	Waste Electrical & Electronic Equipment European directive 202/96/EC
RoHS:	Restriction of Hazardous Substances European directive 202/95/EC

This symbol on the product means that the electrical and/or electronic equipment to which it relates should be disposed of at the end of life separately from domestic household waste.

There are separate collection systems for recycling in the EU. For more information please contact the Local Authority or supplier of the product.

Power Adjust
To adjust the power, first unscrew the sealing cap then adjust the power potentiometer clockwise to increase the power and counter clockwise to turn it down. The unit is factory set to maximum output.

Photocell
The photocell is designer to automatically switch the lamps on at dusk and turn off at dawn. A high degree of hysteresis is incorporated to void on/off switching in marginal conditions. The unit is factory set at approximately 30 Lux On and 70 Lux Off, but can be adjusted.

Photocell Sensitivity
To adjust the photocell sensitivity first remove the sealing cap, then adjust the potentiometer to turn the lamp on when lighting conditions are lighter or darker. Adjust the counter clockwise to make the lamp turn on when it is lighted and clockwise when it's darker.

Disabling the photocell
To disable the photocell, adjust the sensitivity fully counter clockwise. This will make the lamp turn on at all times.

Safety
WARNING: When the lamp is running, it is hot to touch. before touching switch off the illuminator and allow to cool for a minimum of 10 minutes.
Do not stare directly into the lamp at a distance of less than 1.8m

PoE Models
The Clarius PoE/PoE+ series illuminators are powered by Power over the Ethernet (PoE) via a network cable connector to a PoE IEEE802af/IEEE802at compliant switch.

The power consumption of the illuminations comply with PoE IEEE802af and IEEE802at.

These illuminators are not supplied with a power cord. Instead, they are supplied with a 2.5m (8') long network cable. At the end of the network cable is a female RJ45 Cat5e compliant connector with an IP68 rated cover.

The mating IP68 rated over is supplied with the illuminator. Follow the instructions supplied with the cover on how to attached if to the male Cat5e network cable.

ENSURE THAT THE IP68 RATED COVER IS CORRECTLY FITTED AND ATTACHED TO THE NETWORK CABLE. IF THIS IS NOT FITTED CORRECTLY MOISTURE CAN GET INTO THE CONNECTOR AND MAY CAUSE THE UNIT TO MALFUNCTION. THIS WOULD VOID THE WARRANTY ON THE PRODUCT.

Trouble Shooting

Ensure all tests are undertaken by a qualified, trained engineer and ensure safe working practices are followed at all times.

Step 1: Basics
- Check power connection
- Ensure power is 12-32V DC / 24V AC +/-10%
- Check the photocell is working - cover photocell ,light should turn on
- Ensure power supply is suitably rated to product - check the specifications

Step 2: Lamp Test
- Check current draw of lamp corresponds to specification
- Check current of lamp - see instructions for correct current settings

To check lamp current remove +ve (red) lead from power supply and connect a multimetre (set to 10A) in line with the lamp. (One lead of multimeter in common (COM) other lead into 10A socket of multimeter; set multimeter to read Amps). Refer to PSI Specifications for correct current settings.

Step 3: Set up Camera, lens and Illumination
- Check alignment of lamp
- Check camera lens- fully open at night and set correctly
- Check model number to performance specification to ensure required distance is achievable

Step 4: Call for further assistance
If the lamp is still not delivering the required performance, please contact Technical Support for further assistance

Note down:
- Model number and serial number of illuminator
- Camera make and model
- Lens make and model