

## 1. Username & Password Set Up

When using the system for the first time, or if a factory reset has been made, the following settings are used:

**Product IP number:** 192.168.0.10

**Subnet mask:** 255.255.255.0

**Default router:** 192.168.0.1

The user must open their web browser and type the illuminator's IP address 192.168.0.10 into the address bar, then press enter to load the user's interface page as shown below:

The screenshot shows the 'IP illuminator' web interface. At the top, there is a green header bar with the 'Clarius LED illuminators' logo on the right. Below the header, the page title 'IP illuminator' is on the left. The main content area has a green bar with the word 'Password' on the left. Below this, the heading 'Set new username and password' is displayed. There are two input fields: 'Username:' and 'Password:'. Below the 'Password:' field is a green 'Save' button. Further down, the heading 'Password policy' is shown. Below it, the text states: 'The password must have at least 8 characters.' and 'The password must have at least 3 character types of the following groups:'. A list of character types follows: 'Small letters', 'Capital letters', 'Numbers', and 'Special characters'.

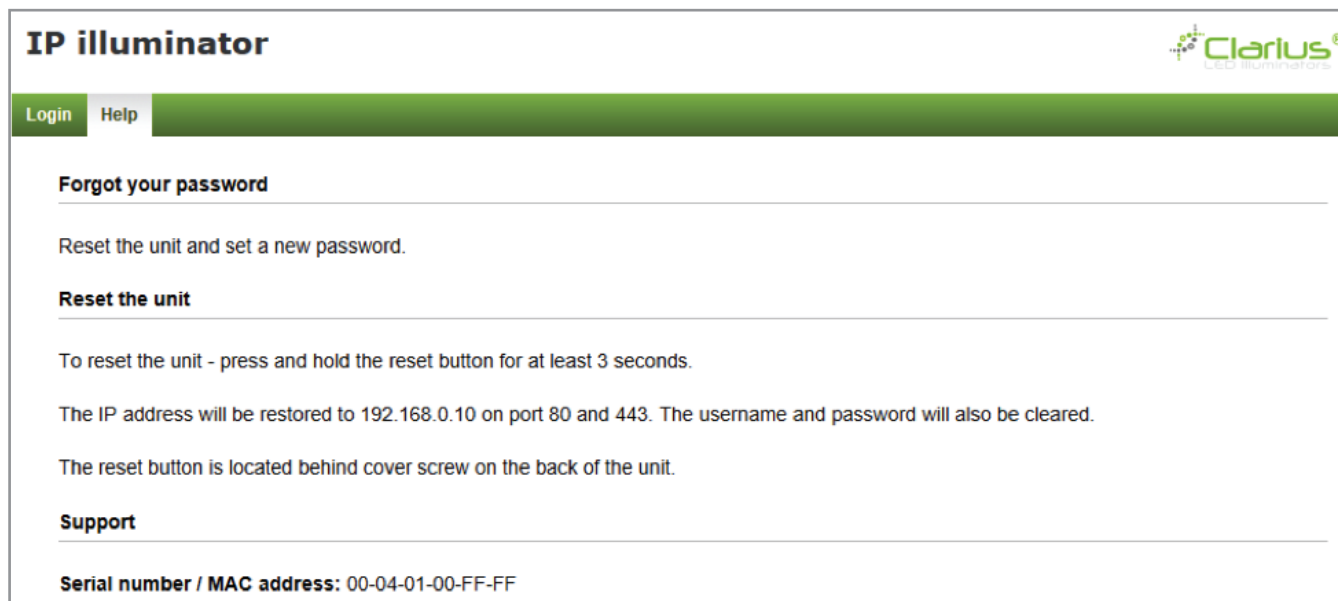
The user will then be prompted to create a username and password based on the password policy.

## 2. Login

The next time the user wants to login into the illuminator they must open their web browser and type the illuminator's IP address into the address bar, then press to load the user's interface page as shown below. The user must then enter their username and password that they previously created:

The screenshot shows the 'IP illuminator' web interface. At the top, there is a green header bar with the 'Clarius LED illuminators' logo on the right. Below the header, the page title 'IP illuminator' is on the left. The main content area has a green bar with the words 'Login' and 'Help' on the left. Below this, there are two input fields: 'Username:' and 'Password:'. Below the 'Password:' field is a green 'Login' button.

Should the user require help with logging into the illuminator they can select the help tab as shown below and follow the guidance as listed:



The screenshot shows the 'IP illuminator' web interface. At the top right is the 'Clarius' logo with 'LED illuminators' underneath. Below the logo is a green navigation bar with 'Login' and 'Help' tabs. The 'Help' tab is active. The main content area has three sections: 'Forgot your password' with instructions to reset the unit and set a new password; 'Reset the unit' with instructions to press and hold the reset button for at least 3 seconds, and notes that the IP address will be restored to 192.168.0.10 on port 80 and 443, and the username and password will be cleared. It also states the reset button is located behind a cover screw on the back of the unit. The third section is 'Support' with the serial number / MAC address: 00-04-01-00-FF-FF.

**IP illuminator**

Clarius<sup>®</sup>  
LED illuminators

Login Help

**Forgot your password**

Reset the unit and set a new password.

**Reset the unit**

To reset the unit - press and hold the reset button for at least 3 seconds.

The IP address will be restored to 192.168.0.10 on port 80 and 443. The username and password will also be cleared.

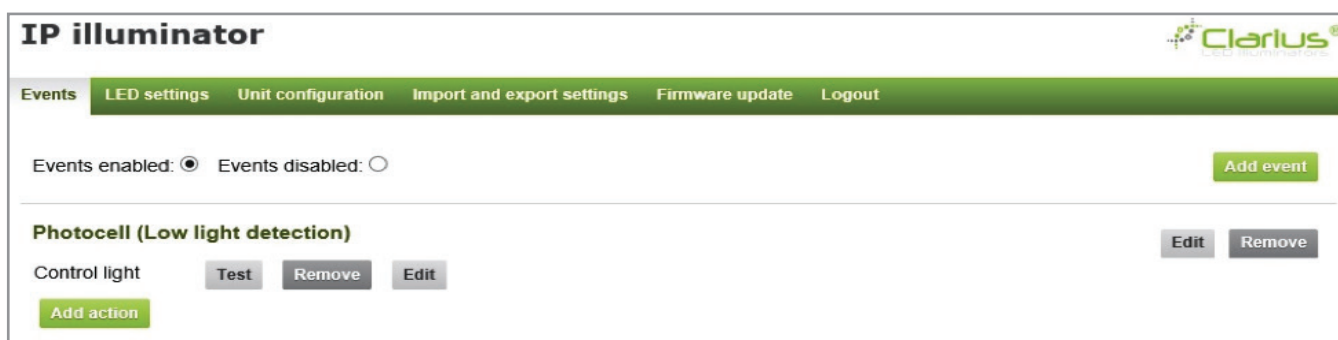
The reset button is located behind cover screw on the back of the unit.

**Support**

Serial number / MAC address: 00-04-01-00-FF-FF

### 3. Events

Once logged in the user will be taken to the Events tab as shown below. Events are enabled as default; however, the user can disable events.



The screenshot shows the 'IP illuminator' web interface with the 'Events' tab selected. The navigation bar includes 'Events', 'LED settings', 'Unit configuration', 'Import and export settings', 'Firmware update', and 'Logout'. The main content area shows 'Events enabled: ☒ Events disabled: ☐'. There is an 'Add event' button. Below this is a section for 'Photocell (Low light detection)' with 'Control light' and buttons for 'Test', 'Remove', and 'Edit'. There is also an 'Add action' button.

**IP illuminator**

Clarius<sup>®</sup>  
LED illuminators

Events LED settings Unit configuration Import and export settings Firmware update Logout

Events enabled: ☒ Events disabled: ☐ Add event

**Photocell (Low light detection)** Edit Remove

Control light Test Remove Edit

Add action

The Photocell (Low light detection) event as shown above is pre-programmed into the illuminator, however, this too can be removed by the user if desired by clicking remove on the right-hand side of the screen.

The purpose of Photocell (Low light detection) function is simple, when darkness occurs the illuminator will automatically turn itself on based on its photocell sensor reading and when brightness occurs again the illuminator will turn itself off.

The Photocell (Low light detection) event can be edited by clicking edit on the right-hand side of the screen and the following pop-up screen will appear:

### Edit event

Name:

Photocell

Input:

Low light detection

Delay (s):

2

Timeout (s):

5

Lux level (lux):

15

Cancel

Save event

The delay is set to 2 seconds, timeout is set to 5 seconds and lux level to 15 Lux as default. The user can alter these values to suit and then click save event.

The Photocell (Low light detection) action can be edited by clicking edit on the left-hand side of the screen and the following pop-up screen will appear:

### Edit action

Action type:

Control light

Start action:

Standard on

Stop action:

Standard off

Cancel

Save action

## 4. LED Settings

To set the illuminator's LED power settings the user must select the LED settings tab inside their web browser:

The screenshot shows the 'IP illuminator' web interface with the 'LED settings' tab selected. The interface includes a navigation bar with tabs: Events, LED settings, Unit configuration, Import and export settings, Firmware update, and Logout. The 'LED settings' section contains sliders for Standard power (set to 80), Energy saving power (set to 50), and Boost power (set to 100). It also has input fields for Boost timeout (5) and Strobe timeout (5), and a dropdown for Strobe type (Type 1). A 'Factory default' button is present. On the right, the 'Sensor status' section displays: LED status: 0%, Ambient light: >100 lux, Tampering: Detection armed, Temperature: 20 °C, and Digital Input: Open circuit. Below this, the 'Manual control' section has a 'Standard' mode with ON/OFF buttons and a light icon. The 'Energy save' section also has ON/OFF buttons and a light icon. The 'Boost' section has Start/Stop buttons and a light icon. The 'Strobe' section has Start/Stop buttons and a light icon. The 'Digital Output' section has Open/Close buttons and a red indicator light.

The user can simply reset the illuminator's LED settings by clicking the factory default button as shown above.

### Manual Control Standard Function:

The manual control standard function enables the user to be able to turn on/off the illuminator at the given set power value on the slider bar. For example 80% light output as shown below:

This close-up shows the 'Standard power' slider set to 80. To the right, the 'Standard' manual control section features 'ON' and 'OFF' buttons and a light icon.

### Manual Control Energy Save Function:

The manual control energy save function enables the user to be able to turn on/off the illuminator at the given set energy saving power value on the slider bar. For example 50% light output as shown below:

This close-up shows the 'Energy saving power' slider set to 50. To the right, the 'Energy save' manual control section features 'ON' and 'OFF' buttons and a light icon.

### Manual Control Boost Function:

The manual control boost function enables the user to be able to start/stop the illuminator at the given set boost power value on the slider bar. For example 100% light output as shown below for 5 seconds:

Boost power

100

Boost timeout

5

Boost

Start

Stop

### Manual Control Strobe Function:

The manual control strobe function enables the user to be able to start/stop the flashing of the LEDs at the given set boost power value on the slider bar. For example 100% light output as shown below for 5 seconds:

Boost power

100

Strobe timeout

5

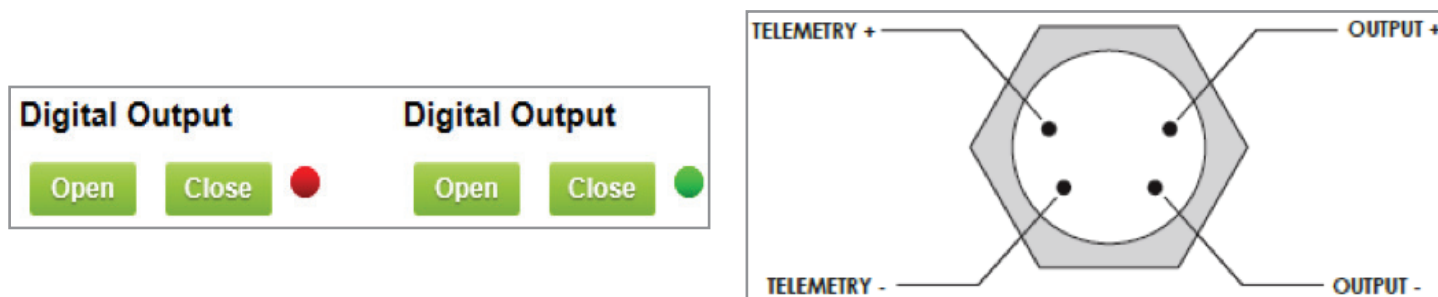
Strobe

Start

Stop

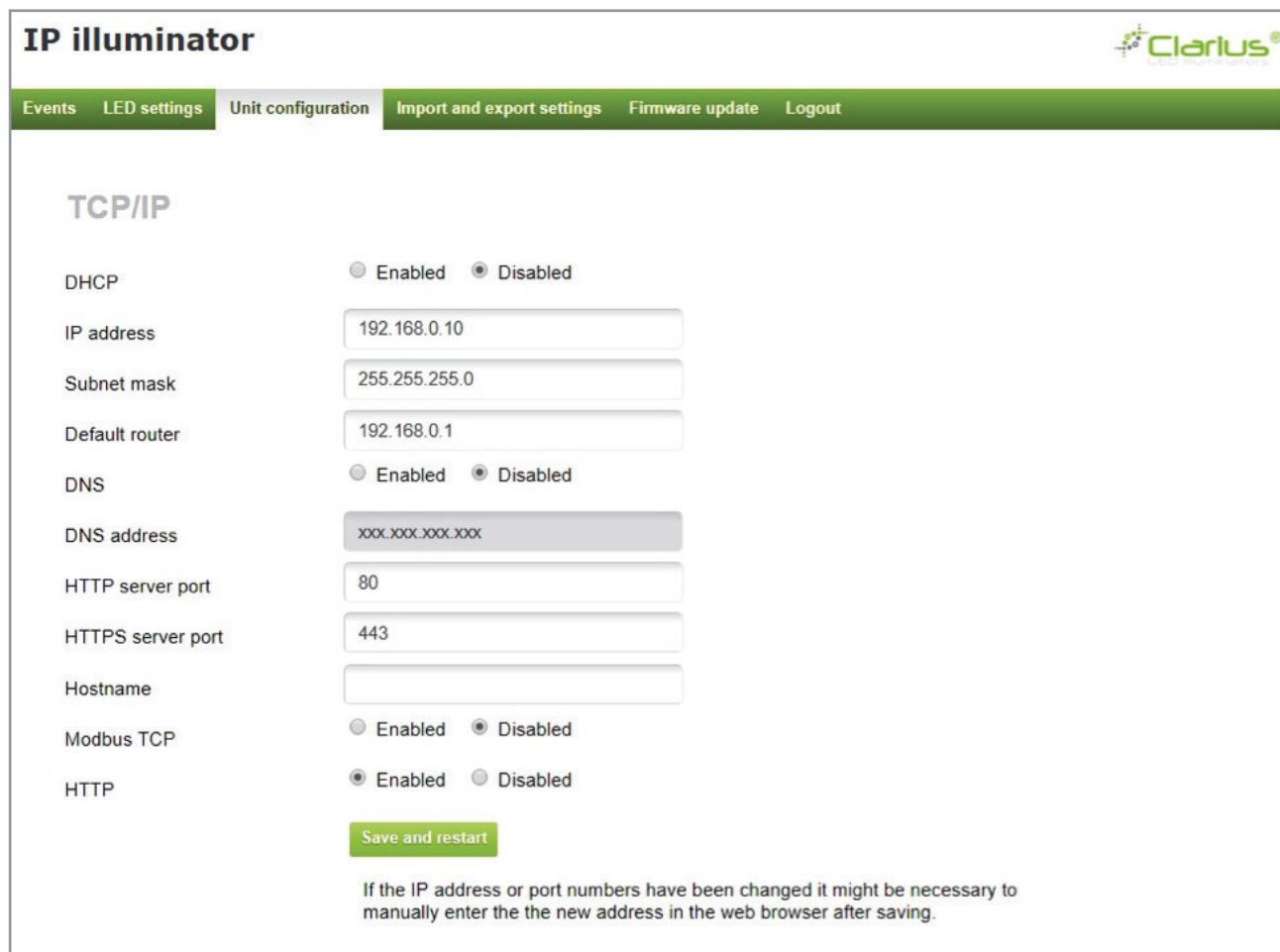
### Manual Control Digital Output Function:

The manual control digital output function enables the user to close the output relay pins together as shown in the pin diagram below. A green circle will appear on the screen to indicate this state. To open the relay again, the user simply clicks open on the screen and the red circuit will appear. Initially the illuminator's output is set to open as default.



## 5. Unit Configuration

To set the illuminator's unit configuration settings the user must select the Unit configuration tab inside their web browser:



The screenshot displays the 'IP illuminator' web interface. At the top, there is a navigation bar with tabs: 'Events', 'LED settings', 'Unit configuration' (which is selected), 'Import and export settings', 'Firmware update', and 'Logout'. The 'Clarius' logo is in the top right corner. Below the navigation bar, the 'TCP/IP' section is visible. It contains several configuration options: 'DHCP' with radio buttons for 'Enabled' and 'Disabled' (selected); 'IP address' with a text box containing '192.168.0.10'; 'Subnet mask' with a text box containing '255.255.255.0'; 'Default router' with a text box containing '192.168.0.1'; 'DNS' with radio buttons for 'Enabled' and 'Disabled' (selected); 'DNS address' with a text box containing 'xxx.xxx.xxx.xxx'; 'HTTP server port' with a text box containing '80'; 'HTTPS server port' with a text box containing '443'; 'Hostname' with an empty text box; 'Modbus TCP' with radio buttons for 'Enabled' and 'Disabled' (selected); and 'HTTP' with radio buttons for 'Enabled' and 'Disabled' (selected). At the bottom of this section is a green 'Save and restart' button. Below the button, a note states: 'If the IP address or port numbers have been changed it might be necessary to manually enter the the new address in the web browser after saving.'

The Dynamic Host Configuration Protocol (**DHCP**) is set to disabled as default. The user may enable the **DHCP** to assign a dynamic IP address to the illuminator on the network.

The user can manually set the **IP, Subnet Mask & Router** addresses as desired.

The Domain Name System (**DNS**) protocol is set to disabled as default. The user may enable the **DNS** to convert an alphabetic name into a numerical IP address.

The Hypertext Transfer Protocol (**HTTP**) server port is set to 80 as default.

The Hypertext Transfer Protocol Secure (**HTTPS**) server port is set to 443 as default. **HTTPS** allows information between the browser and the illuminator to be sent encrypted.

The Modbus Transmission Control Protocol (**TCP**) is set to disabled as default. The user may enable the **Modbus TCP** to transmit information over serial lines.

The Hypertext Transfer Protocol (**HTTP**) is set to enabled as default.

The user should click **save and restart** for any changes to be implemented.

The user can upload a Transport Layer Security (TLS) certificate and private key in the HTTPS certificates section:

### HTTPS certificates

TLS Certificate

Select fileUpload

Private key

Select fileUpload

Load default certificate

Restart

HTTPS not running. Upload a new certificate and private key.

The user can change their password in the login section but not username. To change a username the illuminator must be manually reset using the reset button on the spine of the illuminator.

### Login

Username

test

Password

Confirm password

Save

## 6. Import and Export Settings

To import and export a given LED illuminator settings the user must select the import and export settings tab inside their web browser:

IP illuminator

Events

LED settings

Unit configuration

Import and export settings

Firmware update

Logout

Export settings

Download settings

Import settings

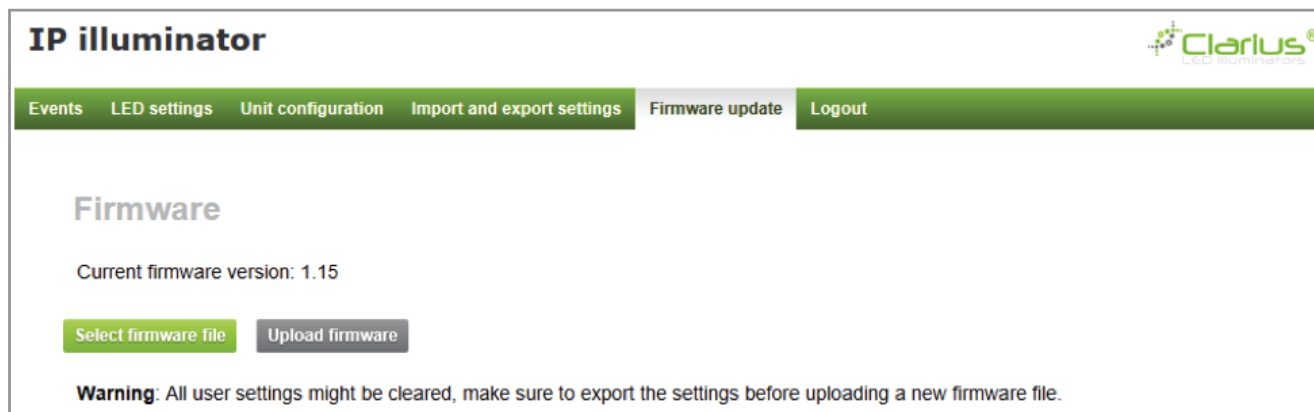
Browse...

Upload settings

The user can export settings from a given illuminator by clicking on the download settings button as shown above and saving the settings as a CFG file. The user can then import this file into another illuminator by selecting browse next to the import settings section as shown above and then simply click Upload settings.

## 7. Firmware Update

To check the illuminator's current firmware version the user must select the Firmware update tab inside their web browser:



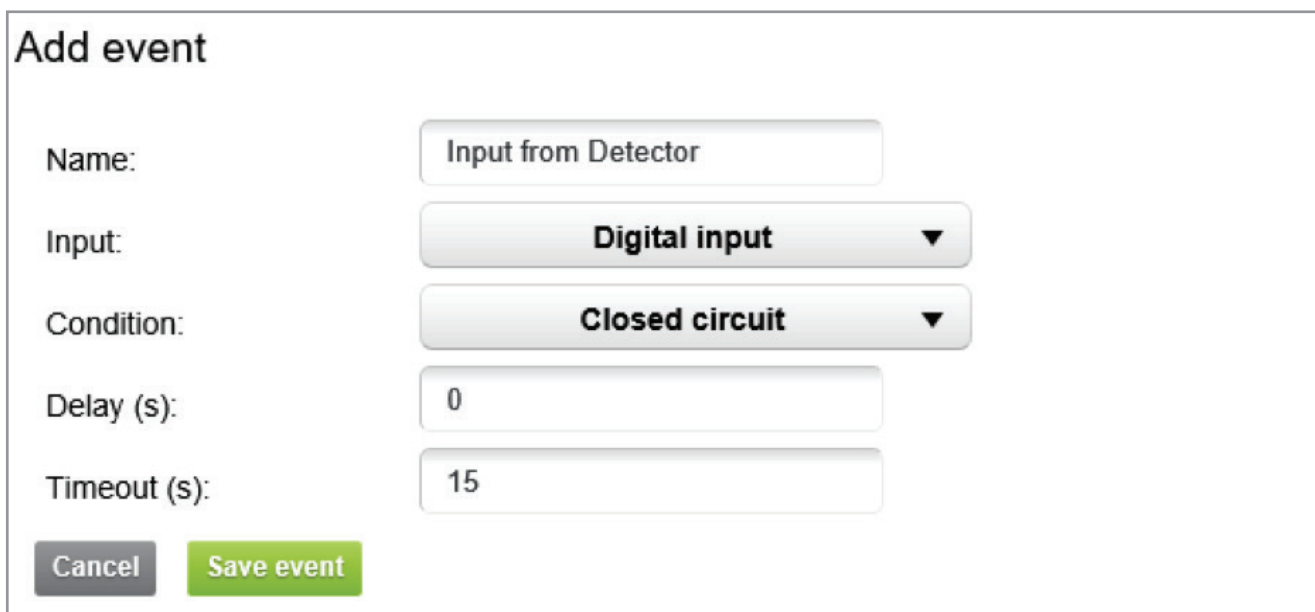
The screenshot shows the 'IP illuminator' web interface. At the top right is the 'Clarius' logo. A green navigation bar contains the following tabs: 'Events', 'LED settings', 'Unit configuration', 'Import and export settings', 'Firmware update' (which is highlighted), and 'Logout'. Below the navigation bar, the page title is 'Firmware'. It displays 'Current firmware version: 1.15'. There are two buttons: 'Select firmware file' (green) and 'Upload firmware' (grey). A warning message at the bottom states: 'Warning: All user settings might be cleared, make sure to export the settings before uploading a new firmware file.'

If a new firmware version has been issued by GJD the user will need to click on Select firmware file to select the new firmware file and then click on Upload firmware as shown above.

## 8. Event - Example 1 – Input from Detector

If an external detector is connected to the telemetry input of the illuminator the user can then setup an event to be triggered from that input signal. To do this the user must click Add event on the screen and complete the fields as appropriately.

The example below calls the event Input from Detector, the input signal is defined as a Digital input, the condition is Closed circuit which means when the telemetry pins are shorted together the event will be triggered. The delay is set to 0 seconds and the time out is 15 seconds, basically this means the illuminator will be turned on immediately when the digital input signal is received and will remain on for 15 seconds.

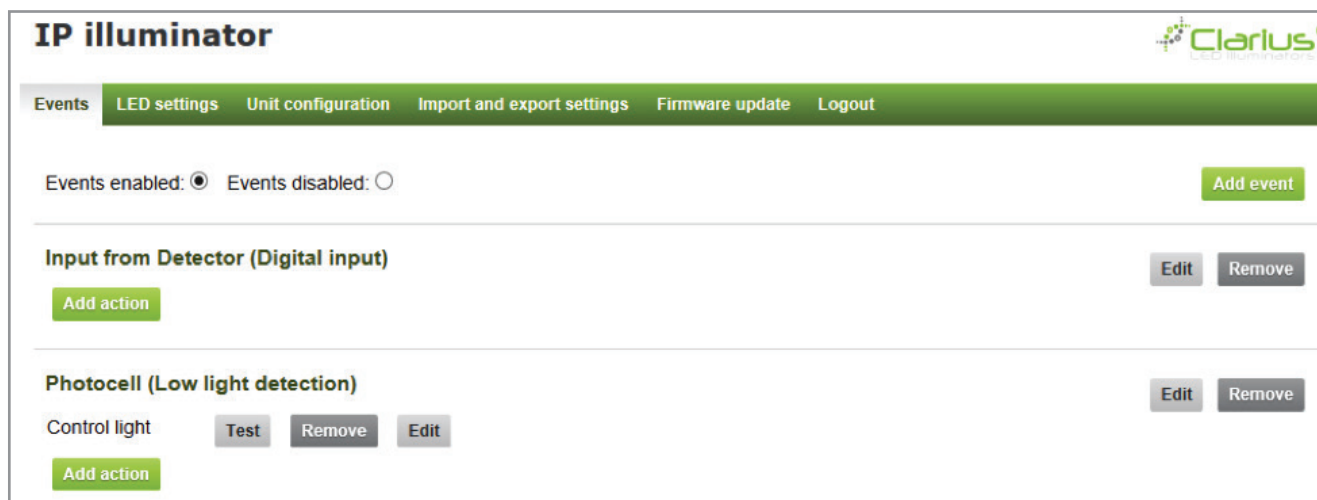


The 'Add event' form contains the following fields and controls:

- Name:** A text input field containing 'Input from Detector'.
- Input:** A dropdown menu with 'Digital input' selected.
- Condition:** A dropdown menu with 'Closed circuit' selected.
- Delay (s):** A text input field containing '0'.
- Timeout (s):** A text input field containing '15'.
- Buttons:** 'Cancel' (grey) and 'Save event' (green).

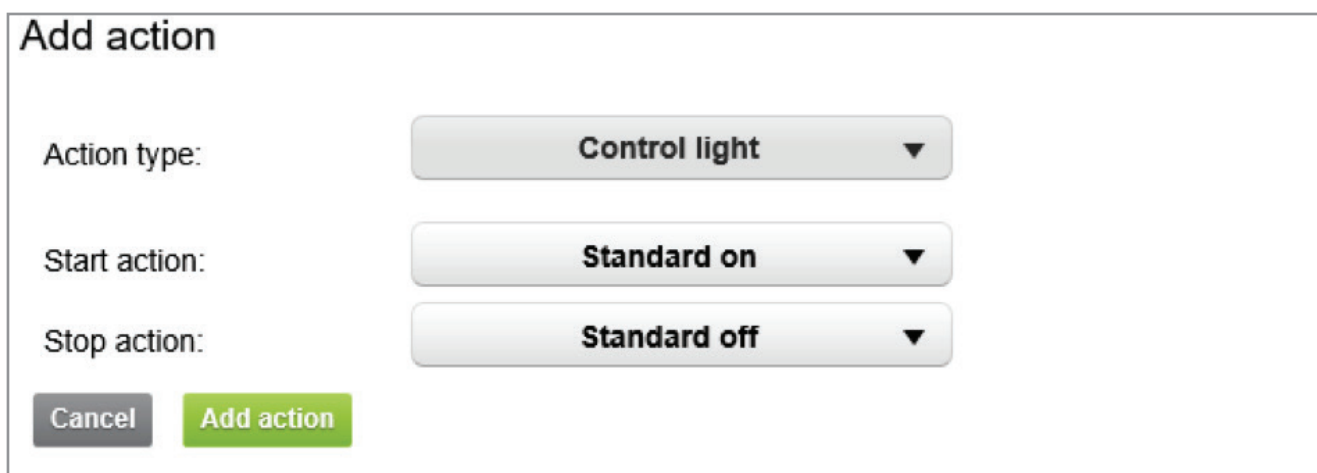


Once the event is saved it will appear as shown below:



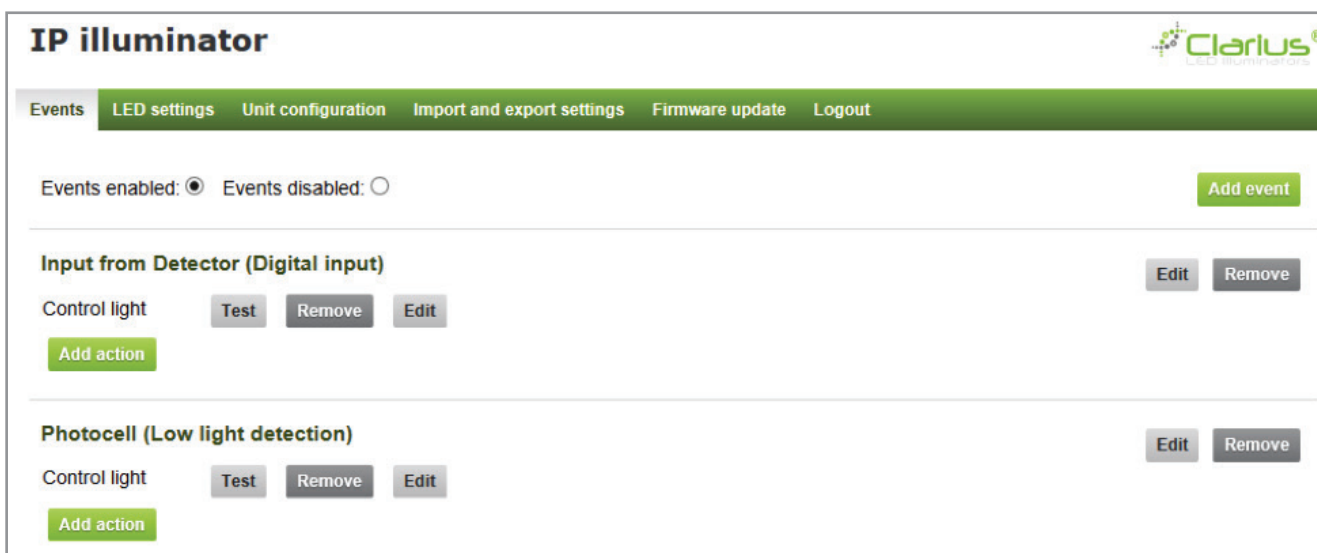
The screenshot shows the 'IP illuminator' web interface. At the top, there's a navigation bar with 'Events' selected, followed by 'LED settings', 'Unit configuration', 'Import and export settings', 'Firmware update', and 'Logout'. Below the navigation bar, there's a section for 'Events enabled' with a radio button selected and 'Events disabled' with an unselected radio button. To the right of this section is a green 'Add event' button. Below this, there are two main sections: 'Input from Detector (Digital input)' and 'Photocell (Low light detection)'. Each section has an 'Add action' button, an 'Edit' button, and a 'Remove' button. The 'Photocell' section also has a 'Control light' button, a 'Test' button, and a 'Remove' button.

The user must then click Add action underneath the input from Detector section. The add action pop-up screen will appear and the user should select Control light for the action type. The start and stop actions should be as shown below:



The 'Add action' pop-up screen shows three dropdown menus. The first dropdown is labeled 'Action type:' and has 'Control light' selected. The second dropdown is labeled 'Start action:' and has 'Standard on' selected. The third dropdown is labeled 'Stop action:' and has 'Standard off' selected. At the bottom of the screen, there are two buttons: a grey 'Cancel' button and a green 'Add action' button.

Once Add action is clicked the following screen will appeared to confirm the setup:



This screenshot is identical to the one above, showing the 'IP illuminator' web interface. The 'Events' section is still active, and the 'Add action' button is still visible under the 'Input from Detector' section. The 'Photocell' section also shows the 'Add action' button. The 'Control light' button is now visible under the 'Photocell' section, indicating that the action has been successfully added.

## Event - Example 2 – Output from D-TECT IP Detector

In order to connect a D-TECT IP detector to a Clarius Plus IP via an ethernet connection the user needs to log into the D-TECT IP via your browser. Once logged in the user can add the following event:

### Add event

Name:	Clarius
Input:	PIR detection ▼
Delay (s):	0
Timeout (s):	5
Event activation:	Always ▼
Light limit (lux):	5
<div>Cancel Add event</div>	

Once the user has added the event it should appear as shown below:

### D-TECT IP

Events Sensor settings Unit configuration Import and export settings Firmware update Logout

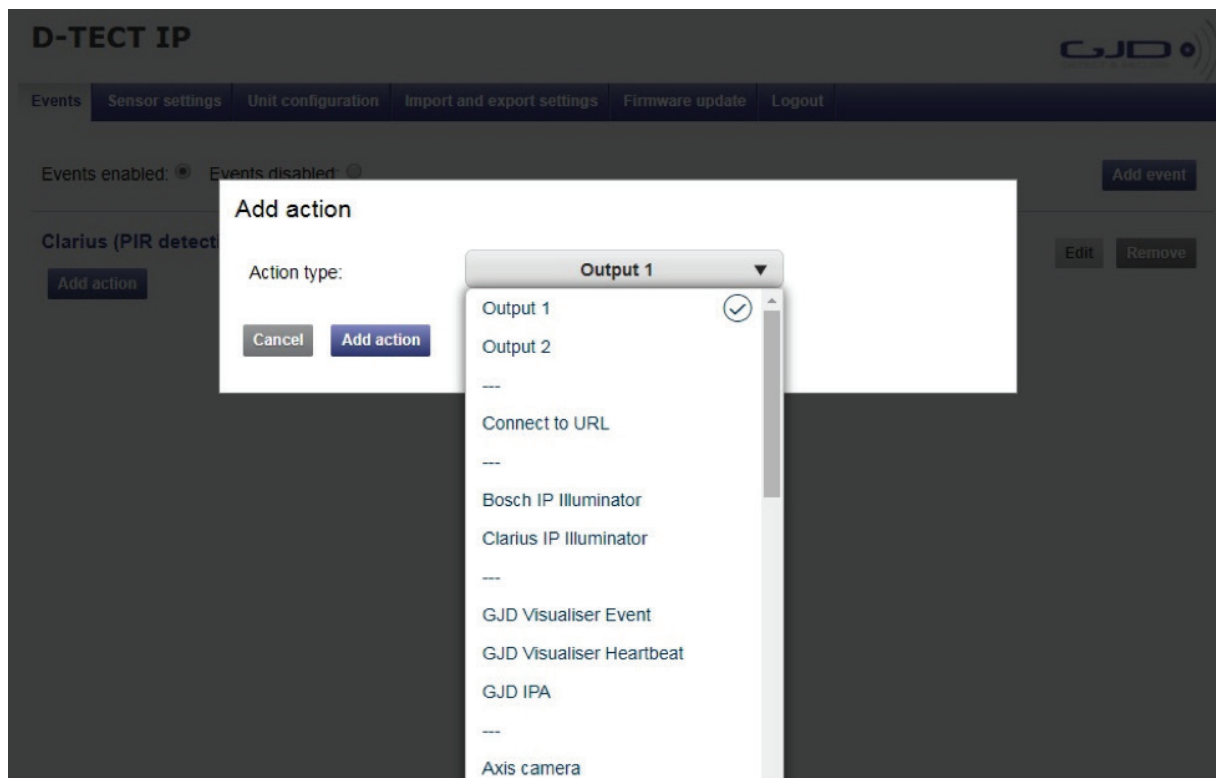
Events enabled: ☒ Events disabled: ☐

Add event

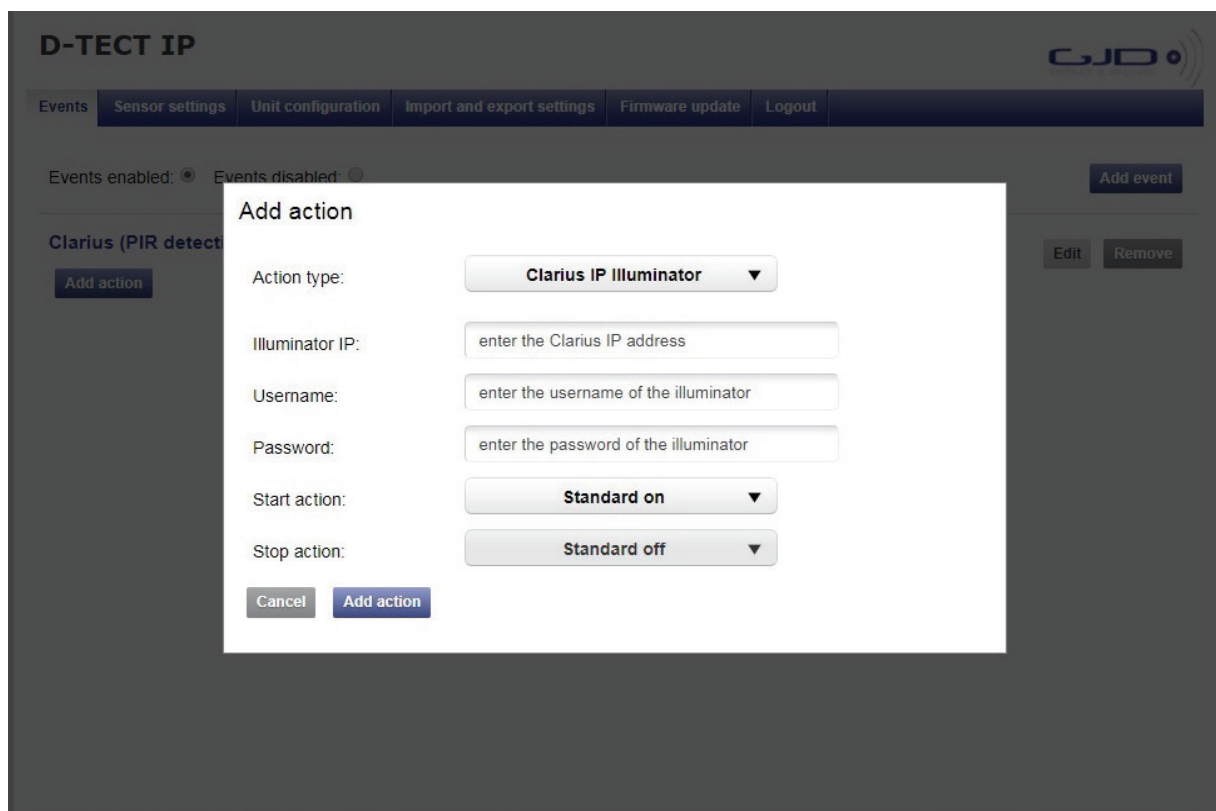
Clarius (PIR detection)

Add action Edit Remove

The user should then select Add action, then select Clarius IP Illuminator from the drop down menu:

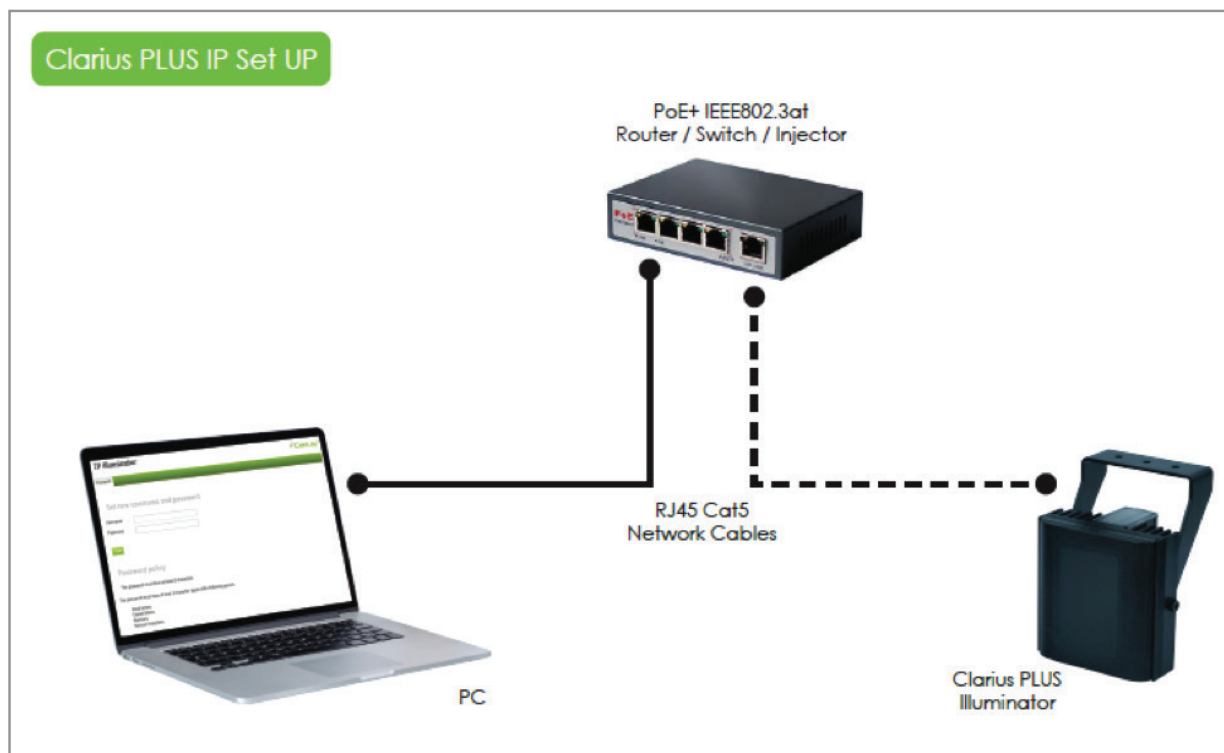


The user should then enter the IP address for the Clarius Plus IP unit, along with its username and password, then press Add action:

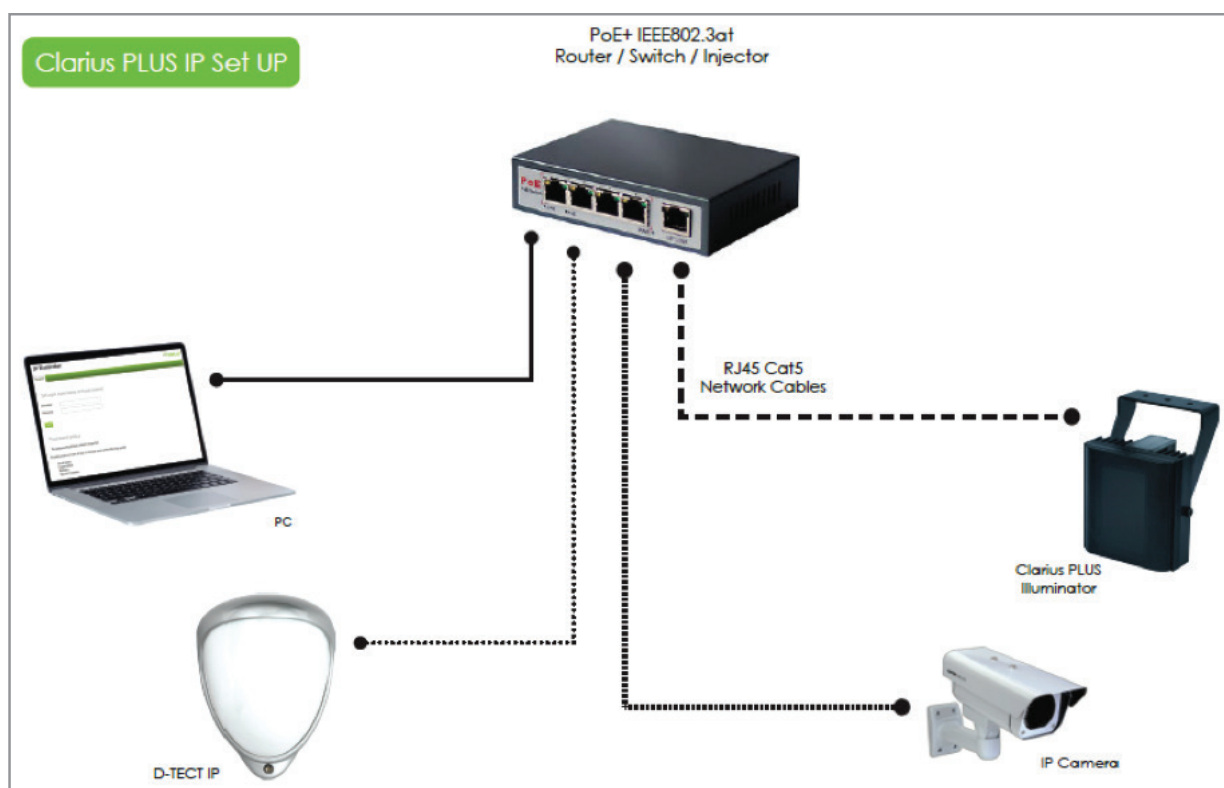


## 9. Typical Installations

The depiction below illustrates a typical setup for the Clarius Plus IP unit:



The depiction below illustrates a typical setup for the Clarius Plus IP unit, D-TECT IP detector and an IP camera:



## 10. Trouble Shooting

If you are struggling to connect to your illuminator through your browser, try typing in the first two parts of your own IP address XXX.XXX followed by .0.10:

**Product IP number:** XXX.XXX.0.10