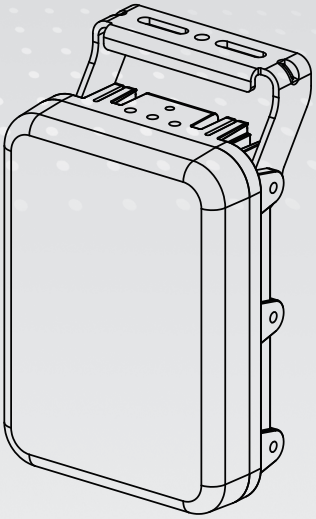
CA80 Series

Vari-Angle IR Illuminator

Installation Guide



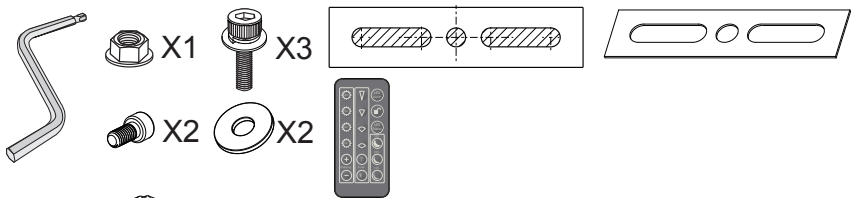
Rev. 1.0

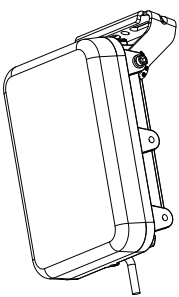
QIG Part no.: L625000100G

Revision History:

* Rev. 1.0: Initial Release

Package Contents





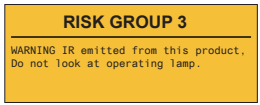
The 1/4" screws and washers are used to secure the illuminator to an external camera housing.

NOTE:

- The wall-mount (CMA-B04), corner-mount (AM-412), pole-mount adaptor (AM-311/312), and other brackets are separately purchased.
- The screws and anchors for securing the illuminator to wall are user-supplied. Apply M6 anchors or screws.

WARNING:

- Please avoid eye exposure or apply appropriate protection, such as wearing a pair of Infrared protection glasses, when working with the product. Always use camera live view to oberve IR lighting effects.
- The luminaire should be positioned so that prolonged staring into the luminaire at a distance closer than 2.5 m is not expected.
- The external flexible cable or cord of this luminaire cannot be replaced; if the cord is damaged, the luminaire shall be destroyed.
- The light source of this luminaire is not replaceable; when the light source reaches its end of life the whole luminaire shall be replaced.
- Please make sure Reinforce/Double insulation shall be maintained between LV supply and control circuits after installation.
- This flood light shall be used with a IEC/EN 61347-2-13 approved LED driver with SELV output equal to rated voltage of the luminaire, and output power of LED drivers shall be at least equal to rated power of the luminaire.
- Terminal block is not included. Installation may require advice from a qualified personnel.



IR illuminators RISK GRORP 3 / WARNING IR emitted from this product. / Avoid eye exposure. Use appropriate shielding or eye protection. Do not look at operating lamp.

Class III luminaires

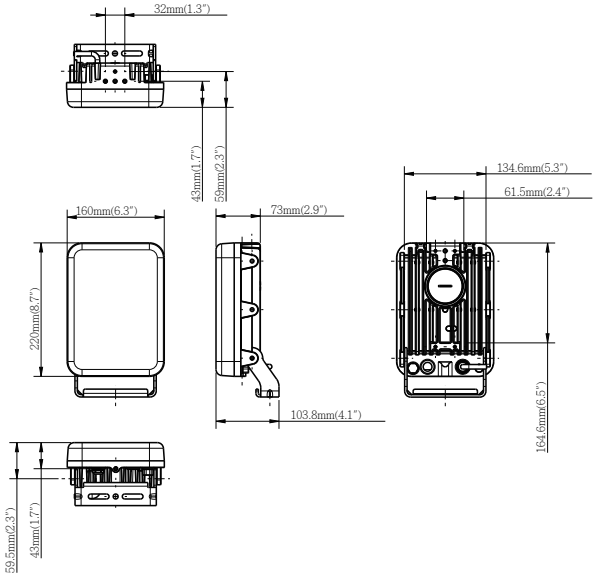
Do not stare at the operating light source.

This marking indicates that this product should not be disposed with other household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmental safe recycling.

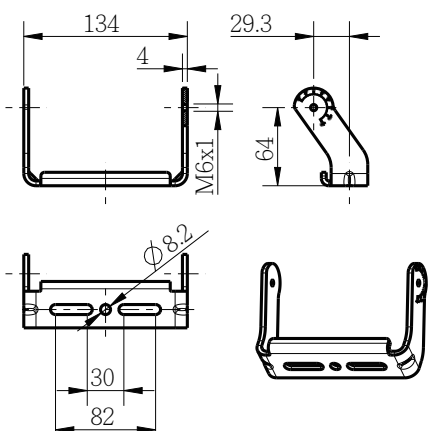
IMPORTANT:

- Do not install the product with unstable brackets, or installed on fragile mount surfces.
- This product shall be used in compliance with local laws and regulation.
- Please avoid using chemical or aerosol cleaning fluids to clean the product. Use a clean cloth slightly moistened with water.
- This product contains no parts repairable by the users. Contact CaMate for services.
- Power off the Illuminator as soon as smoke or unusual odors are detected.
- Do not place the Illuminator on unsteady surfaces.
- Replacing or failing to properly install the waterproof components, e.g., cables or cable glands, will void our IP67 warranty.
- Refer to your datasheet for the operating temperature.
- Do not touch the Illuminator during a lightning storm.

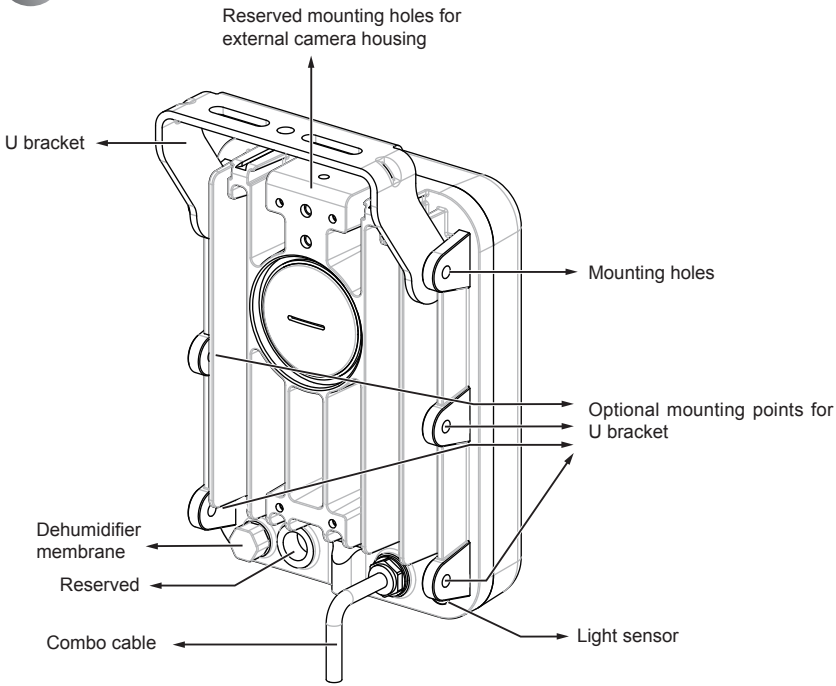
Mechanical Drawings



Standard Small U bracket

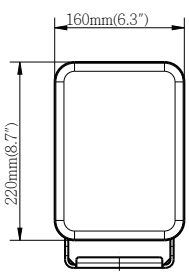


1 Hardware Overview



Unit Weight: 2.1KG.

Max. Project Area: 34684.7mm^2.



Using the Remote Controller

Beam angle selectors

These buttons provide quadruple proportions of adjustable angles from the narrowest, 33%, 66%, to the widest. These angles vary with different models. When a beam angle is selected, you can use the fine-tune buttons below to tune for a desired effect.

LED dimming
These are four pre-defined lighting strength levels.

LED on/off

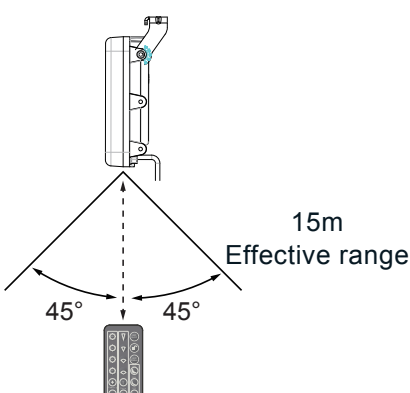
Unlock
Remote control is disabled by default.
Unlock the remote control by pressing this button for 2 seconds. The control is automatically locked after being idle for 5 mins.

LED status
The button toggles the LED indicators on or off.
The LEDs are only visible on the non-IR illuminators, such as w5.

LED dimming fine-tune
These buttons can be used to change the lighting strength levels from 100% to 20%.

Light sensor sensitivity
These buttons provide direct access to the pre-defined light sensor thresholds that turn the LEDs on.

Angle fine-tune
After a preset beam angle is selected, use these buttons to fine-tune. T stands for tele, W for wide.



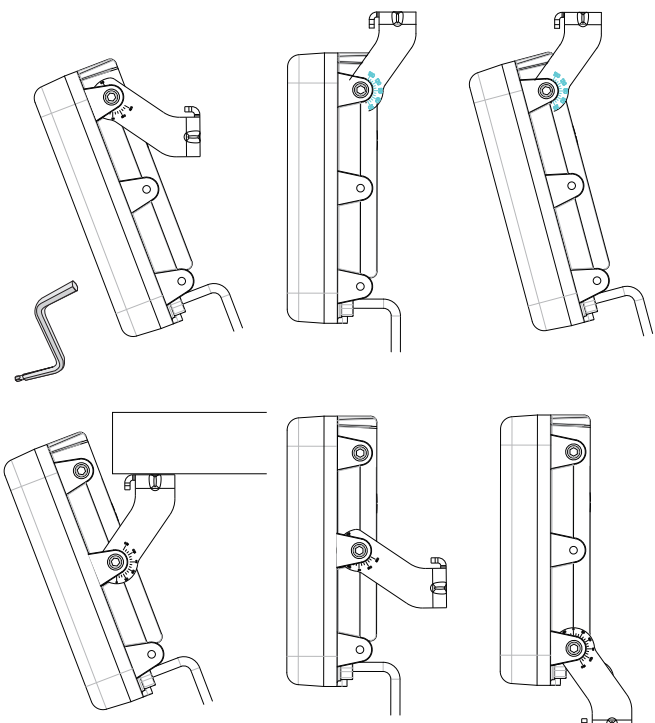
II Installation

⚠ IMPORTANT:

It is highly recommended that the illuminator should be installed at a position higher than **3 meters** from the ground.

U Bracket Positions & Orientation

Use the included allen wrench to attach and adjust the U bracket to your needs at the installation site.

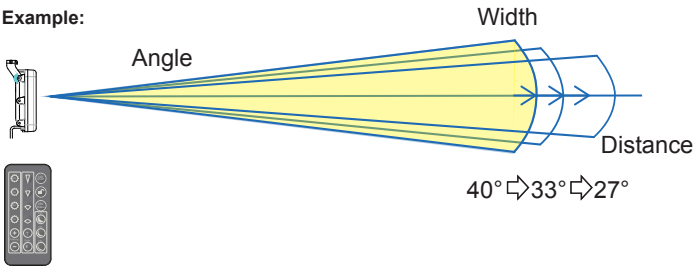


You must first survey the installation site and determine the illumination distance.
Use the remote controller to adjust the beam angle.

The factory default for the beam angle selector is always at the **Widest** angle.

Refer to the tables below for the configurable IR light **beam angles** and the definitions of the remote controller buttons. Each button changes to a preset beam angle.

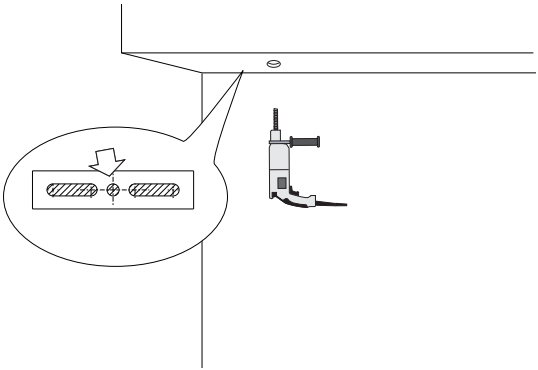
Example:



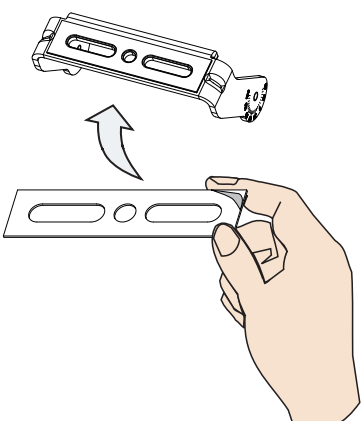
CA8018-1040							
Button	Beam angle	Single mount		Double mount		Triple mount	
		Distance(m)	Width(m)	Distance(m)	Width(m)	Distance(m)	Width(m)
	40°	140	101.9	198.0	144.1	242.5	176.5
	30°	178	95.4	251.7	134.9	308.3	165.2
	20°	250	88.1	353.5	124.7	433.0	152.6
	10°	350	61.2	495.0	86.6	606.2	106.1

CA8018-2040							
Button	Beam angle	Single mount		Double mount		Triple mount	
		Distance(m)	Width(m)	Distance(m)	Width(m)	Distance(m)	Width(m)
	40°	170	123.7	240.4	175.0	294.4	214.3
	33°	190	112.6	268.7	159.2	329.1	195.0
	27°	221	106.1	312.5	150.1	382.8	183.8
	20°	280	98.7	396.0	139.6	485.0	171.0

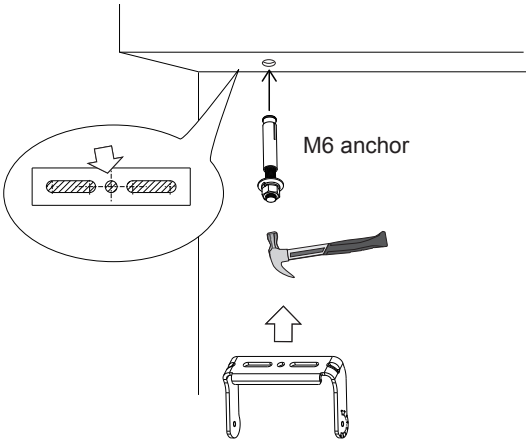
Select a position at the installation site. e.g., under a hanging roof. You can use the alignment sticker and start drilling a hole on the roof.



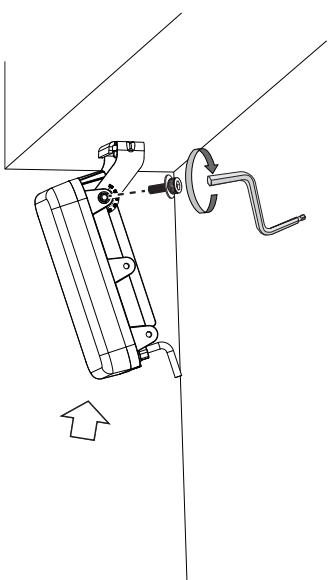
Apply the included grip sticker to the U bracket.



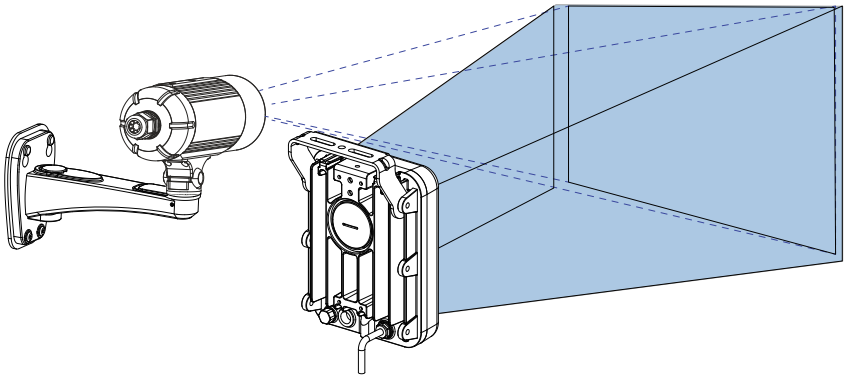
Hammer the anchor in (user supplied, M6 anchors are recommended). Secure the U bracket to it, such as securing it using the bolt on a threaded pole.



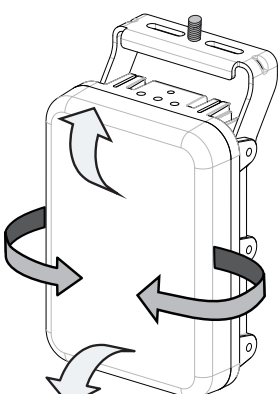
Secure the illuminator to bracket using the hex socket screws.



You will need to turn on both the partner camera and illuminator to precisely match the illuminated area with the camera's field of view. If necessary, adjust the beam angle again.



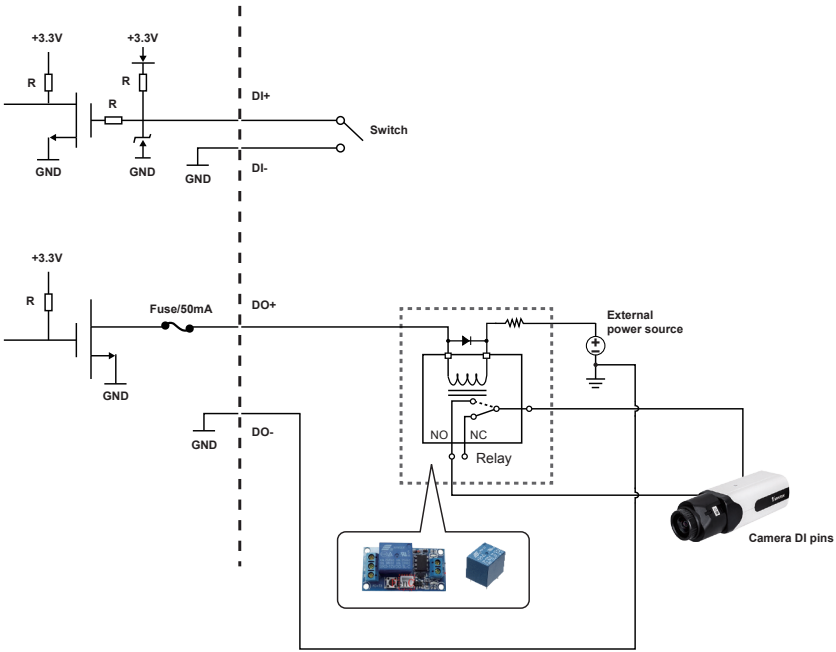
Turn the illuminator toward the FOV of the partner camera, shift the tilt angle, and then tighten the screw and the rear cover to secure the illuminator.



Cable Pinouts

Name	Color	Gauge	Description
V+	Red	(20AWG)	Power input (AC/DC 24V ±10% current controlled)
V-	Black	(20AWG)	
DI+	Green	(26AWG)	LED ON/OFF control * Dry contact Logic level 1(Open) = LED off Logic level 0(Close to GND) = LED on * Wet contact Logic level 1: 4V~40 V = LED off Logic level 0: 0.8V MAX = LED on
DI-	Yellow	(26AWG)	Ground
DO+	Purple	(26AWG)	Light sensor status output 1. Open = Day 2. Short = Night (300 lux for IR ON)
DO-	Blue	(26AWG)	Ground
RS485+	Orange	(26AWG)	RS485 interface control
RS485-	Brown	(26AWG)	

Coordination with Cameras via the DI and DO Pins



IR LED ON/OFF control (Green & Yellow wires)

This mode means that CaMate illuminator On/Off control is triggered by camera or other alarm system. Users can decide using the appropriate dry/wet contacts depending on wiring condition.

DI+: Green = TTL + voltage
DI-: Yellow = TTL – voltage (GND)

* Dry contact

Logic level 1 (Open) = LED off
Logic level 0 (Close to GND) = LED on

* Wet contact

Logic level 1: 4V~40 V = LED off
Logic level 0: 0.8V MAX = LED on

Light sensor status output (Purple & Blue wires)

This mode means that camera Day/Night mode switching is coordinated with and is triggered by the illuminator's light sensor via the DO(Digital output) connection (connected to the camera's DI pins). Users can configure the camera configuration to control the corresponding illuminator On/Off status.

DO+: Purple= Open drain output, 45V Max. (current must be under 100mA)

DO-: Bule = GND

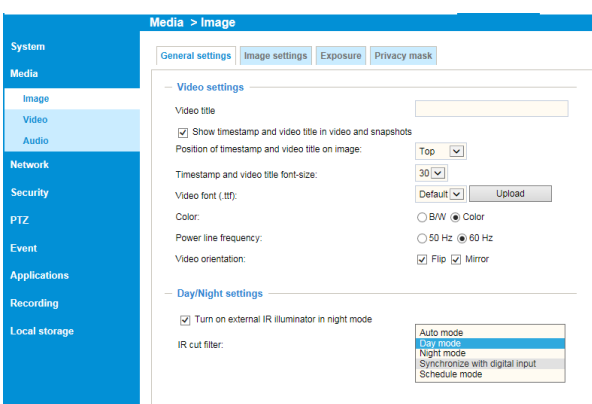
Light sensor status output

1. Open = Day
2. Short = Night (lower than 300 lux for IR to turn ON)

Stand-alone illuminator mode

This mode means that the illuminator's On/Off control is triggered by its light sensor, in the case, the default wiring is connecting the green wire with purple wire.

Some cameras have related settings that need the inter-connection with the illuminator. For example, some cameras come with an IR cut filter that need to be turned off when entering night mode; or, automatically turn on the adjacent illuminator when entering night mode.



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