# CL511 Ceiling Camera (Document Camera)

**User Manual - English** 



### [Important]

To download the latest version of Quick Start Guide, multilingual user manual, software, or driver, etc., please visit Lumens <a href="https://www.MyLumens.com/support">https://www.MyLumens.com/support</a>



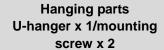
# **Table of Contents**

Chapter 1 Package Contents	
Chapter 2 Function Introduction	3
2.1 Product appearance	3
2.2 Description of LED indicator	4
Chapter 3 Instruction for installation	5
3.1 Size	5
3.2 Relative position of the presenter and document	6
3.3 Preparation before installation	7
3.4 Installation steps	7
3.5 System diagram	8
Chapter 4 Start Using	9
Chapter 5 Remote Control and Setting Menu	
5.1 Functions of remote control	10
5.2 Setting Menu	11
5.3 Setting menu	12
Chapter 6 Descriptions of Major Functions	
Chapter 7 Network Function Settings Description	
7.1 System Requirements	17
7.2 Connecting Camera to Internet	17
7.3 Using the Browser to View the Images	18
7.4 Using RTSP Player to View the Images	19
7.5 Web Page Function Description	20
Chapter 8 Switch to different output resolutions	. 25
8.1 Switch to different output resolutions	25
Chapter 9 Troubleshooting	
Chapter 10 Safety Instructions	
Supplier's Declaration of Conformity 47 CFR § 2.1077 Compliance Information	
Appendix 1  Copyright Information	
	. J I



# **Chapter 1 Package Contents**

**CL511** 



**Remote Control** 



60 00



**Power Adapter** 

**Power Connector** 

IR extension cord







**USB** cable

**VGA** cable





# **Chapter 2 Function Introduction**

# 2.1 Product appearance

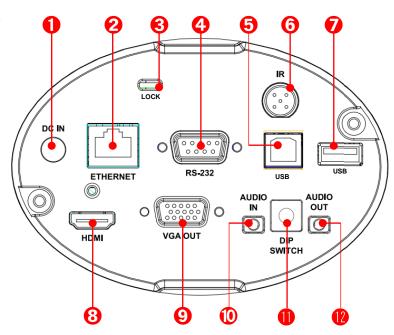
#### 2.1.1 Front View



NO.	Item	Function Descriptions
1.	Camera Lens	30x HD camera lens
2.	IR reception	IR receiver
3.	LED Indicator	Display the status of the camera, please refer to 2.2 Description of LED
٥.	LED Indicator	<u>indicator</u>
4.	Laser Marker LED	Display laser marker
_	Lock hole	Support 1/4" - 20 UNC
5.	Lock noie	Can be mounted on the ceiling with brackets or locked to a tripod
6.	Locating holes	Tripod locating holes
7	Adjustment screw	Adjust the position of the least marker
7.	for laser marker	Adjust the position of the laser marker



#### 2.1.2 Back View



NO.	Item	Function Descriptions		
1.	DC 12 V power connector	AC power supply connecting port		
2.	Notiverk connection port	Network cable connection port supports routers or hubs of PoE+		
2.	Network connection port	(IEEE 802.3at) with power supply		
3.	Kensington lock hole	Safety lock slot		
4.	RS-232 input	Support RS-232 to control the camera		
_	LICE 2.0 next /Time D)	The USB port is for connecting to the USB port of the computer and		
5.	USB 2.0 port (Type B)	providing USB signal images		
6.	IR Port	Can be used with IR extender		
7	LICD 2.0 nort /Time A)	Connect a USB to read/store files or connect a mouse to operate the		
7.	USB 2.0 port (Type A)	camera		
8.	HDMI output	Connect to a display to output HDMI screen		
9.	VGA output	Connect to a display to output VGA screen		
10.	Audio In	3.5 mm Line In		
11.	DIP SWITCH	Adjust the resolution setting. The default is 1080p 60 hz 30 fps		
12.	Audio Out	3.5 mm Line Out		

## 2.2 Description of LED indicator

Status	Indicator	
Startup in progress	Flickering blue light	
(initialization)		
In use	Blue Light	
Powering off	Flickering red light	
Power off (Standby)	Red light	



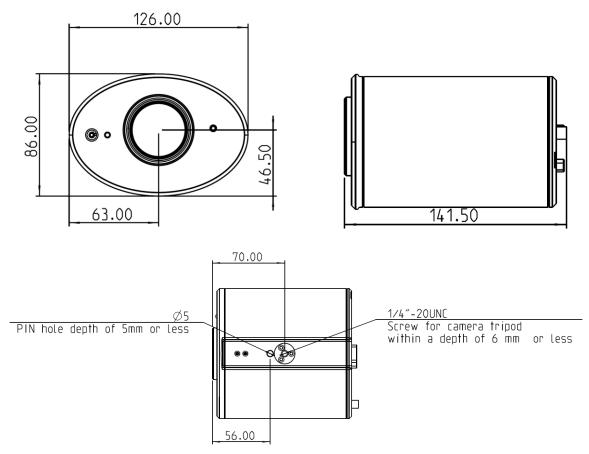
# **Chapter 3 Instruction for installation**

#### 3.1 Size

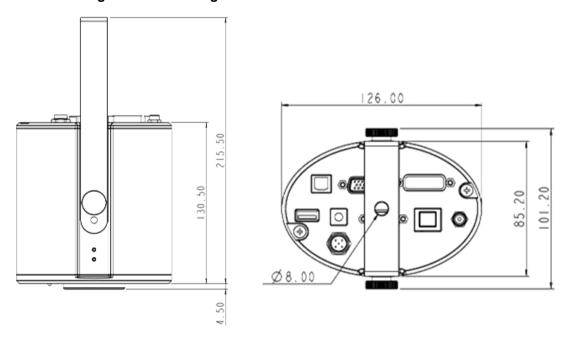
#### 3.1.1 CL511 Size

Length x Width x Height: 126 x 142 x 86 mm

Weight : 0.85 Kg (without mental plates)



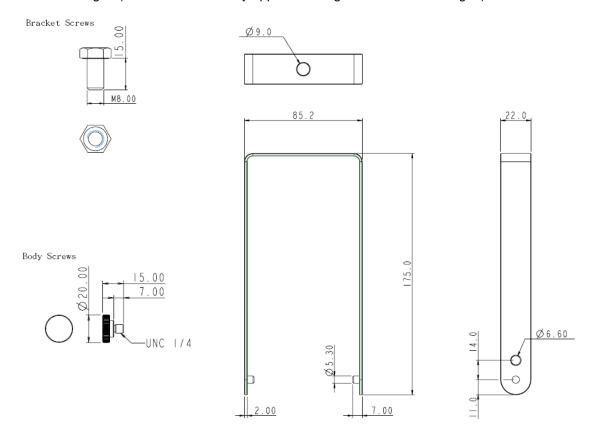
#### 3.1.1.1 Size of CL511 together with U-hanger





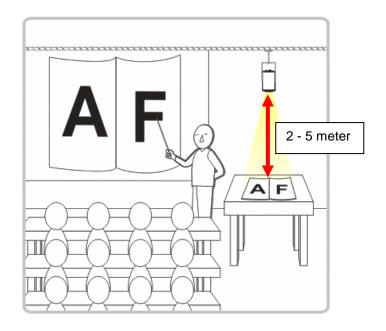
#### 3.1.1.2 Size of U-hanger

<Remark> Please prepare the screw hanger in compliance with the size of the hole used for securing the U-hanger. (Please use UL safety approved hanger for the screw hanger.)



#### 3.2 Relative position of the presenter and document

 To achieve the best effect, upon machine installation, please ensure that the lens is set at a distance of 2 - 5 meters away from the object to be captured.





#### 3.3 Preparation before installation

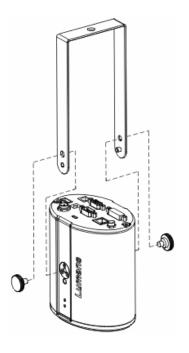
Installation and connection of CL511 Ceiling Camera requires special skills. To install by yourself, please follow necessary steps, ensure steady and tight installation of the device, and pay attention to your safety to avoid any accident.

#### 3.3.1 Preparation before installation

- Ensure the safety of the installation environment. Please do not install the device on unstable ceiling or in a place where the device is in danger of falling to avoid any accident.
- Please check whether accessories in the box are complete or not. Please contact the supplier for any shortage, and make sure to keep the accessories in the box intact.
- Please choose a proper place for installation of CL511 in advance. Please determine an installation place according to the following requirements
  - a. Confirm the position for the object to be captured.
  - b. Calculate the height required for hanging the device according to the position of the object to be captured. If it is not possible to install the device at this height, you need to change the position of the object to be captured.
- Please prepare the following tools for easy installation and shorter installation time.
  - a. Accessories of CL511 in the box
  - b. Hanging parts (ceiling mounted hanger, screw for fixing the hanger 1/4-UNC\*4 pcs)
  - c. Drilling machine, screw driver
  - d. Ladder

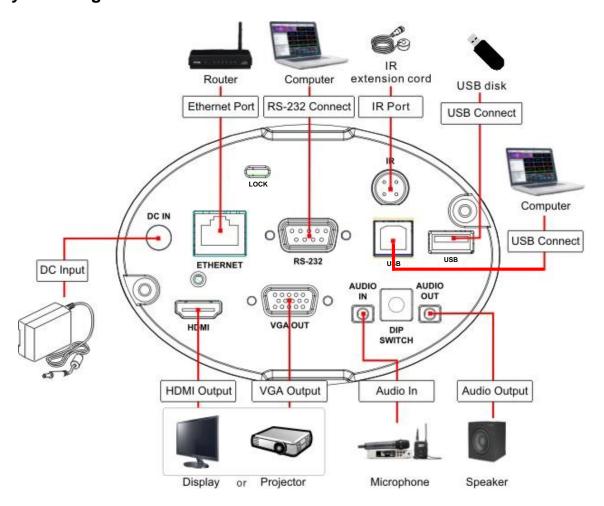
#### 3.4 Installation steps

- Adjust the output resolution settings based on the specification of the output device
  - Please refer to <u>Chapter 8 Switch to different output</u> resolutions
  - Please refer to <u>Appendix 1</u> for applicable frequency depending on different regions.
- Assemble the U-hanger and the device using screws supplied
- Please follow the instruction for the screw hanger to install it on the ceiling
- d. Screw the device onto the screw hanger and complete the installation
- e. For the first time use, please set the image center position and AF Table data
  - Please refer to <u>Chapter 4 Getting Started-5.Image</u> <u>Correction Setting</u>.





#### 3.5 System diagram



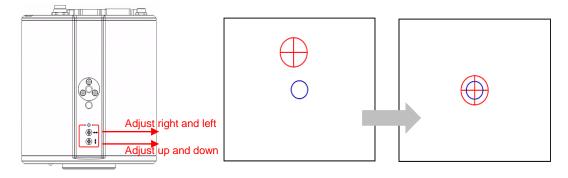


## **Chapter 4 Start Using**

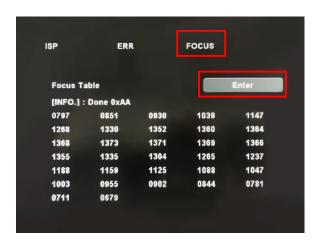
- 1. Place an object to be displayed under the camera.
- 2. Press [POWER] ( on the remote control to power on.
- 3. Press [AUTO TUNE] 😝 button on the remote control to optimize the image.
- 4. You are ready to teach/present.

# <Caution> For the first time use, please follow the steps below for image correction settings.

- 5. Image Correction Setting
  - Set the center location of the image
    - a. Enable the laser mark  $\oplus$ : Press [LASER] on the remote control
    - b. Open the central positioning marker ○: Press [FREEZE] > [DEL] > [LEFT] 
       in order on the remote control
    - c. Adjust the cross laser mark deviated on the screen to the center point of the blue positioning mark with a hex screwdriver



- Set up AF table This setting can speed up the AF operation.
  - a. Enter the Service setting menu: Press [FREEZE] > [DEL] > [ENTER] in order on the remote control
  - b. Click [FOCUS] > [ENTER] for execution
     <Remark> The execution time is about 3 5
     minutes depending on the scene





# **Chapter 5 Remote Control and Setting Menu**

#### 5.1 Functions of remote control

■ The below functions are listed alphabetically.



Item	Description			
<u></u>	Power on and off			
<b>⟨</b> , <b>&gt;</b> , <b>∀</b> , <b>∀</b>	Move up, down, left or right to select the needed function			
AF	Automatically adjust the focal length of image			
AUTO TUNE	Automatically adjust the image to have the best brightness and focusing performance			
BRT+/-	Adjust the brightness of the image			
CAPTURE	Capture images			
DEL	Delete image files			
ENTER	Activate/Enter functions			
FREEZE	Freeze the current image to remain temporarily on the screen. Press again to defreeze			
LASER	Enable/Disable the laser mark			
MASK	Activate Mask/Spotlight mode			
MENU	Activate the setting menu/exit the menu			
PAN	Enable/Disable the partial enlarged mode			
PHOTO/TEXT	Select image mode (Photo/Text/Gray)			
PIP	Image comparison (to compare live images with stored image files)			
PLAYBACK	Read saved files			
RECORD	Record motion images. Press [RECORD] to record images and press [RECORD] again to stop recording.			
ROTATE	Screen rotation 0°/90°/180°/270°/Flip/Mirror			
SLIDE SHOW	Show the photos or videos in slide mode			
ZOOM +/-	Increase or decrease the image size			



#### 5.2 Setting Menu

#### 5.2.1 Main menu

Press [MENU] on the remote control to enter the setting menu.



<b>14</b> E	Auto Tune Automatically adjust the image to have the best brightness and focusing performance	*o	Playback Preview the photos or videos stored in the USB flash drive (priority) or internal memory card.
4 ×	PAN Enable/Disable the partial enlarged mode		Manual Focus Manual Focus
	(Not supported)	2	Rotate Screen rotation 0°/90°/180°/270°/Flip/Mirror
BA	PIP Compare live images with stored images	<b>O</b>	Settings Set up various functions
	Brightness Adjust the brightness of the image		Photo/Text Select Photo/Text/Gray Mode
	Mask Activate the mask mode		Annotation Annotate or mark the image  ※ This function can be enabled when a USB mouse is connected.
<b>(</b>	Zoom Increase or decrease the image size	12. <b>4</b>	Mode Select image mode
	Spotlight Activate the spotlight mode		Exit Exit the setting menu



## 5.3 Setting menu

# 5.3.1 Setting Menu

Major Items Minor Items	ons		
	Function Descriptions		
Capture Mode  Use left and right arrow keys to select the (Single Capture/Time Lapse/Record/Off	•		
Use the left and right arrow keys to sele The setting range is 1 ~ 72 hours	Use the left and right arrow keys to select the capture time. The setting range is 1 ~ 72 hours <remark> This will be active only when capture mode is set</remark>		
Use the left and right arrow keys to sele interval. The setting range is 3 seconds	Use the left and right arrow keys to select the capture interval. The setting range is 3 seconds ~ 5 minutes <a href="Remark">Remark</a> > This will be active only when capture mode is set to time lapse		
Image Quality  Use the left and right arrow keys to se for the captured images and recorded v	•		
Date & Time Set SNTP server and manually set syst	tem time		
Select Ethernet or USB function Stream <pre></pre>			
Slide Show Show the photos or videos stored in the internal memory in slide mode	e USB disk (priority) or		
	Use the left and right arrow keys to select the delay time The range is 0.5 seconds ~ 10 seconds or use manual mode to switch		
Copy To USB Disk Copy files from internal memory to the U	Copy files from internal memory to the USB disk		
Delete All Delete all images in the USB disk (priori	ity) or internal memory		
Format Format the USB disk (priority) or internal	al memory		
Auto Exposure  Regardless of outside environment, the the brightness to the optimal condition	machine will adjust		
Auto White Balance Regardless of outside light or color, the the color to the optimal condition	,		
Audio Out Volume  Use the left and right arrow keys to adjuvolume	Use the left and right arrow keys to adjust the Audio Out volume		
Audio In Levels  Use the left and right arrow keys to adju	Use the left and right arrow keys to adjust the Audio In level		
Zoom Limit Set the Zoom magnification	Set the Zoom magnification		
Auto Power On Powers on automatically when connected	ed to power supply		
IP Address Display the IP address (If it is not connected default IP is 192.168.100.100)	ected to a router, the		
Language Support multi-language (default is Engli	ish)		
Lock Down Enable/Disable lock down. Select   password.	[Enable] to set the		
automatically be deleted when the syste	Enable/Disable Auto Erase.  When [Enable] is selected, the stored images will automatically be deleted when the system is turned off.		
Advanced Preset Load Load the stored settings			
Preset Save Store the value of the current image mo	ode		
Splash Screen Settings Launch [Splash Screen Settings] windo	•w		
Factory Reset Reset all configurations to factory defau	ult settings		
Firmware Version Show the firmware version	Show the firmware version		



#### 5.3.2 Mask Mode setting menu

Function Items	Function Descriptions		
Live	Press [ENTER] to return to live image.		
Transparency	Use the left and right arrow keys to adjust the transparency of the mask.		
Step	Use the left and right arrow keys to select the step of the mask.		
V Size	Use the left and right arrow keys to select the vertical height of the mask.		
H Size	Use the left and right arrow keys to select the horizontal length of the mask.		
Exit	Press [ENTER] to confirm your selection and exit the mask mode setting menu.		

#### 5.3.3 Spotlight Mode setting menu

Function Items	Function Descriptions		
Live	Press [ENTER] to return to live image.		
Shape	Use the left and right arrow keys to select the shape of the spotlight zone.		
Transparency	Use the left and right arrow keys to adjust the transparency of the border in the spotlight mode.		
Step	Use the left and right arrow keys to select the step of the spotlight zone.		
V Size	Use the left and right arrow keys to adjust the height of the spotlight zone.		
H Size	Use the left and right arrow keys to adjust the width of the spotlight zone.		
Exit	Press [ENTER] to confirm your selection and exit the spotlight mode setting menu.		

#### 5.3.4 Splash Screen Setting

Function Items	Function Descriptions		
Power On Image Setting	Select to default/custom power on image		
Power On Logo Show Time	Set the duration of displaying the power on logo that can be adjusted between 4 ~ 30 seconds		
Power On Image Select	Power On Image Select. <remark> Only pictures in JPEG format are supported</remark>		
Exit	Press [ENTER] to confirm your selection and exit splash screen setting window.		

#### 5.3.5 Annotation Tools

When the mouse stays at the right side of the screen, the annotation menu can be activated. **<Remark>** USB screen and mouse drawing can only select one. If you need to use the mouse drawing function, please remove the USB cable

Icon	Description	Icon	Description	Icon	Description
	Custom tool 1		Eraser	<b>\$</b>	Open setting menu of the annotation tool Can set tool/color/line width
	Custom tool 2	<b>/</b>	Clear all	X	Exit the annotation tool



# **Chapter 6 Descriptions of Major Functions**

# 6.1 Automatically adjust the image to have the best brightness and focusing performance

Press [AUTO TUNE] on the remote control to optimize the brightness and focusing performance.

#### 6.2 Make text clearer and photos more colorful

Enter the setting menu, select [Photo/Text] > [Photo/Text/Gray]

- [Photo] (default): for viewing photos or text with photos, making photos more colorful
- [Text]: for viewing text files, making the text clearer
- [Gray]: for viewing black & white photos which will make the grayscale differentiation distinct

#### 6.3 Rotate Image

Press [ROTATE] key to rotate the screen.

<Remark> The following functions are not available when the image is rotated: PAN/PIP/Recording

#### 6.4 Capture Image

Press [CAPTURE] to capture and save images.

- You cannot capture images when the capture mode is set to [Disable]. If it is set to [Continuous], you can capture images continuously by pressing [CAPTURE], or press again to exit.
- To change the quality of images, go to the setting menu [Settings] > [Capture] > [Image Quality] to do
  the setting.

#### 6.5 Record

- Connect USB flash drive to start recording images.
- You may not be able to capture or record images when [Capture Image] mode is set to [Disable].
  - 1. Press[RECORD] on the remote control to start recording images.
  - 2. Press [RECORD] again to stop recording.

#### 6.6 View captured/recorded images

- 1. Press [PLAYBACK] to show the thumbnails of all stored files.
- 2. Select the thumbnail you want to play and press [ENTER] to play.
- 3. When playing the video, press [FREEZE] to pause/play the video or press [ENTER] to stop playing.
- 4. Press [▶] or [◄] to select the next or previous audio/video file.
- 5. Press [▲] or [▼] to adjust the volume of the video.

<Remark> An external speaker must be connected to AUDIO OUT to play sound when you use VGA OUT.

#### 6.7 Delete captured/recorded images

- 1. Press [PLAYBACK] to show the thumbnails of all stored files.
- 2. After selecting the file to be deleted, press [DEL] to show the [Delete File] window.
- 3. Select [Yes], press [ENTER] to delete the selected file.

#### 6.8 Adjust the output volume

<Remark> Volume control is intended to control the external audio output equipment only.

In PLAYBACK mode, Press [▲] or [▼] to adjust the volume of the video.

#### 6.9 Automatically delete the stored images whenever it is turned off (Auto Erase)

- 1. To access the setting menu, select [Settings] > [Advanced] > [Auto Erase] > [On] •
- 2. Press [MENU] to exit.

#### 6.10 Enlarge a part of the image (PAN)

1. Press [PAN] on the remote control to enlarge a part of the image.



- 2. Press  $[\blacktriangle]$ ,  $[\blacktriangledown]$ ,  $[\blacktriangledown]$ , or  $[\blacktriangleright]$  to move and view the partial enlarged images.
- 3. Press [MENU] to exit the partial enlarged mode.

#### 6.11 I would like to use the MASK and Spotlight function

#### 6.11.1 Use the mask/spotlight mode

- 1. Go to the setting menu and enable [MASK] or [Spotlight] mode.
- 2. Press  $[\blacktriangle]$ ,  $[\blacktriangledown]$ ,  $[\blacktriangledown]$ , or  $[\blacktriangleright]$  to move the zone position.
- 3. Press [MASK] again to return to live image.

#### 6.11.2 I would like to set the size of Mask/Spotlight function

When in **Mask/Spotlight mode**, use the **remote control** to access the setting menu and select the modification item.

- Mask mode: [Transparency/Step/V Size/H Size]
- Spotlight mode: [Shape/Transparency/Step/V Size/H Size]

(For details, please refer to 5.2 Setting Menu.)

■ Press [MENU] to exit the Setting Menu and return to Mask/Spotlight mode.

#### 6.12 Play the slides (Slide Show)

- 6.12.1 Setting delay time
  - 1. Go to the setting menu, select [Settings] > [Storage] > [Delay], and select the delay time
- 6.12.2 Playing/Pausing/Stopping the slide show
  - <Remark> Upper limit: The maximum size of single photo is 7 MB.
  - 1. Go to the setting menu and select [Settings] > [Storage] > [Delay] > [ENTER] to execute.
  - 2. Press [ENTER] again to pause/play.

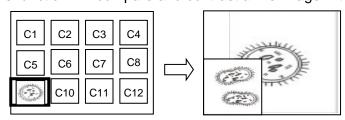
#### 6.13 Use a USB flash drive

Insert the USB flash drive and a **[Copy To USB flash drive]** dialog box will appear, and you are asked whether to copy files from CL511 to the USB flash drive. Press [▶] or [◄] to select.



#### 6.14 Image comparison (to compare live images with stored image files (PIP))

This function will compare and contrast a live image with a stored image.



Live image Stored image

- 1. Open the thumbnail screen: Go to the setting menu, select [PIP], and choose the image file you want to compare
- 2. Press  $[\blacktriangle]$ ,  $[\blacktriangledown]$ ,  $[\blacktriangledown]$ , or  $[\blacktriangleright]$  to move the live image.
- 3. Repeat Step 1 to change other image files.

#### 6.15 Change the power on image

- 1. Go to the setting menu, select [Settings] -> [Advanced] -> [Splash Screen Settings].
- 2. Select [Default/Custom].
  - 1.1 If you select [Custom], you can set the [Power On Logo Show Time] and [Select Splash Screen].



- <Remark> The power on image file must be less than 5 MB and in JPEG format.
- **<Remark>** To save the file, please follow the instruction below:
  - File path: \DCIM\100MEDIA, for example: J:\DCIM\100MEDIA
  - File name: four English letters+ four numbers, for example: LUMN0001.JPG
- 3. Press [▼] to [Exit] and press [ENTER] to exit.

#### 6.16 I would like to save preset number.

- 1. Adjust the lens to the desired angle
- 2. Go to the setting menu and select [Settings] > [Advanced] > [Preset Save].
- 3. Select to save a preset number [1 ~ 8]
- 4. Press [ENTER] to save the value.

#### 6.17 I want to use the preset number

- 1. Go to the setting menu and select [Settings] > [Advanced] > [Preset Load]
- 2. Select to load a preset number [1 ~ 8]
- 3. Press [ENTER] to read the value.



# **Chapter 7 Network Function Settings Description**

7.1 System Requirements

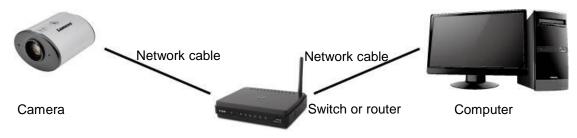
os	Version	Browser
		ΙΕ
	7	FireFox
Windows		Chrome
Windows	10	Edge
		FireFox
		Chrome
Mac	10.13 above	Safari

#### 7.2 Connecting Camera to Internet

■ Connecting to Internet

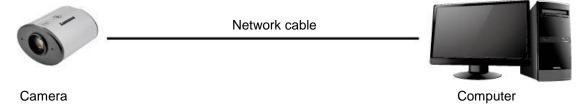
Two common connection methods are shown below

1. Connecting via switch or router

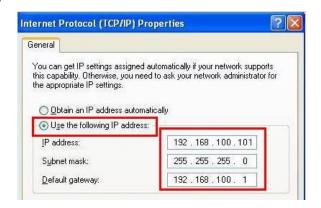


2. To connect directly through network cable, the IP address of the computer should be changed so that it is on the same network segment as the camera

E.g.: The factory default IP address of VC-TR1 is 192.168.100.100. The computer IP address must be set to the same network segment, such as 192.168.100.101, so that the computer can be connected correctly with the camera.



Change network settings





#### 7.3 Using the Browser to View the Images

Use a Cat5e cable to connect to the router to view CL511 video and control it through the web browser

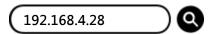
1. Confirm the IP address of the camera

DHCP is on by default. You can use the remote control to open OSD Menu > Check the IP address on the Network.

(If you connect directly with your computer, the default IP of CL511 is 192.168.100.100. Please set your computer to the same network segment.)



2. Open the browser, and enter the IP address in the address bar



3. Enter the account and password to view the images and control CL511 through the web page.





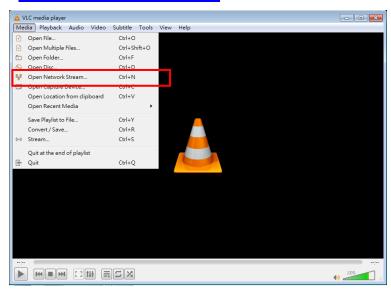
#### 7.4 Using RTSP Player to View the Images

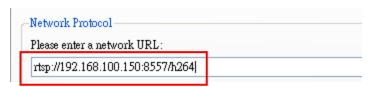
RTSP connections can be made using free software, e.g.: VLC, QuickTime, PotPlayer, etc.

- RTSP connection address formats are as follows: <a href="https://camera IP:8557/h264">rtsp://camera IP:8557/h264</a>
- Example:

Open the VLC software, select [Media] > [Open Network Streaming], and enter the URL:

#### rtsp://192.168.4.28:8557/h264

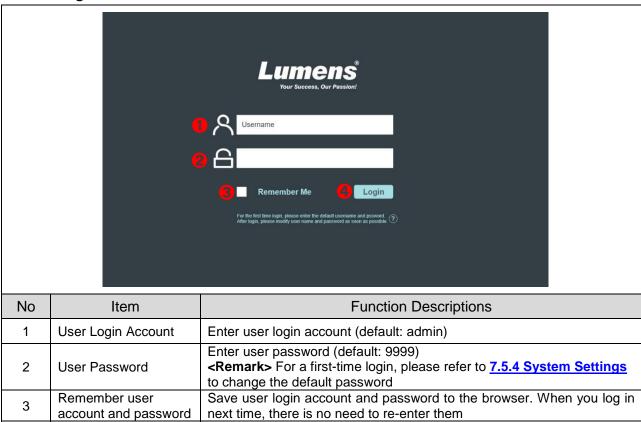






#### 7.5 Web Page Function Description

#### 7.5.1 Login Screen



Log into the administrator screen on the website

#### 7.5.2 Live View-1

Login

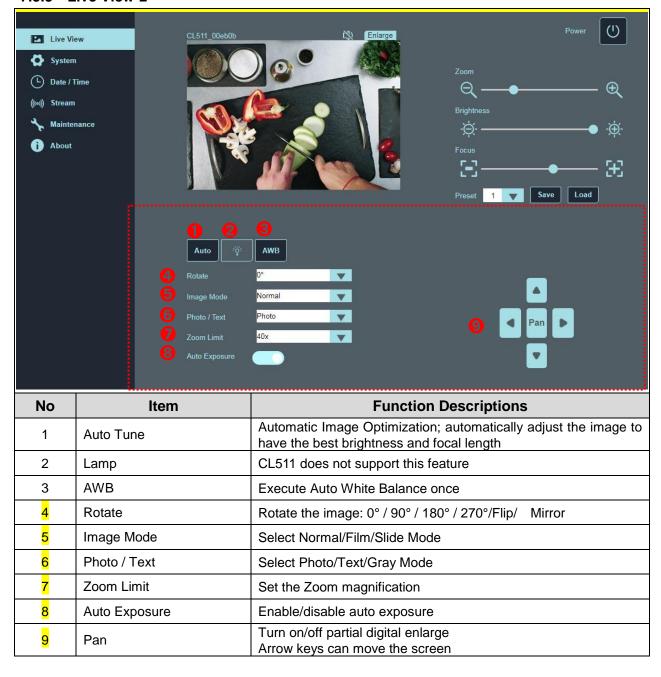
4





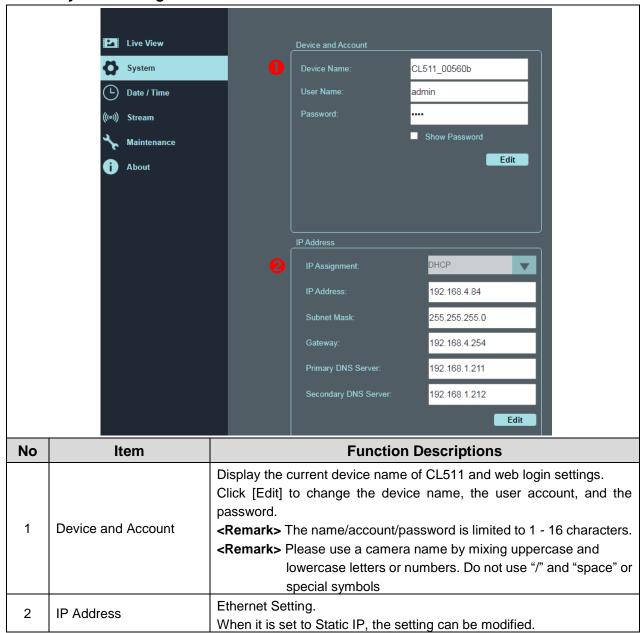
3	Enlarge	Switch the preview window to full screen				
4	Preview window	Display the screen currently captured by CL511				
5	Zoom	Zoom in/out images				
6	Brightness	Brightness				
7	Focus	Tune the focus				
		Select preset position (Support 8 groups of preset positions)				
8	<mark>Preset</mark>	Save: Save the value according to the current image mode				
		■ Load: Load the saved value				
9	Power	Enable/Disable CL511				

#### 7.5.3 Live View-2

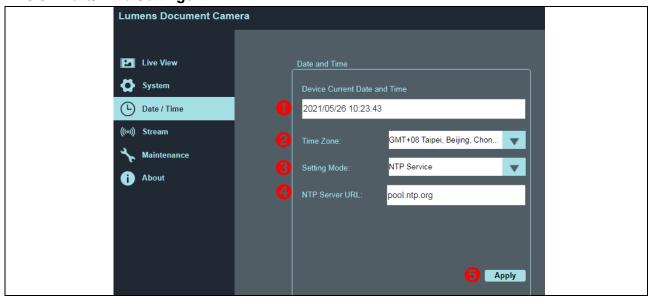




#### 7.5.4 System Settings



#### 7.5.5 Date/Time Settings





No	Item	Function Descriptions				
1	Device Current Date and Time	Display the current system time				
2	Time Zone	Set the Time Zone.				
		Select NTP Service/Manually Set				
		Turn on Manually Set and choose to synchronize with the				
		computer or set the date/time manually.				
3	Setting Mode	Setting Mode: Manually Set				
		Sync with PC				
		Set Date: 01/01/2021				
		Set Time: 08:00 AM				
4	NTP Server URL	Select NTP service to display this item				
	55.75. 5.72	Connect to a NTP server to correct time				
5	Apply	Apply your settings				

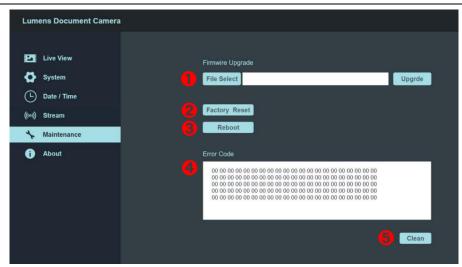
#### 7.5.6 Streaming Setting



No	Item	Function Descriptions
1	Stream	Switch Ethernet or USB function <remark> Ethernet/USB may only choose one, because they cannot be output at the same time</remark>
2	Video Resolution	Show or set the RTSP output resolution
3	Bitrate	Display or set the bit rate of RTSP
4	Enable Audio	Turn on/off RTSP audio
5	Audio In Levels	Adjust Audio In Volume
6	RTSP URL	Display current RTSP URL
7	Require Password Authentication	Enable/disable password authentication
8	Edit	Enter Edit mode

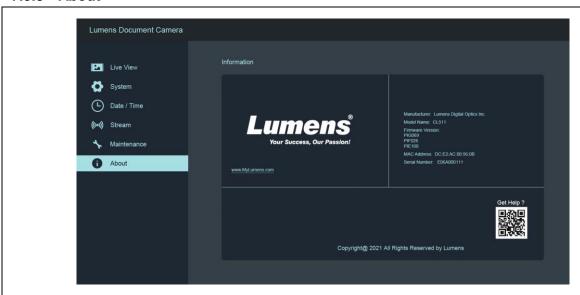


#### 7.5.7 Maintenance



No	Item	Function Descriptions
1	Firmware Upgrade	Select the firmware file, and click [Upgrade] to update the firmware. <remark> Update takes about 2 - 3 minutes.  <caution> Please do not operate or turn off the power of the device during the update to avoid firmware update failure.</caution></remark>
2	Factory Reset	Reset all configurations to factory default settings.
3	Reboot	Restart
4	Error Code	Display system Error code <remark> When an error code appears, the user may try to clear and confirm if the error will repeat itself</remark>
5	Clean	Clear Error code

#### 7.5.8 About



#### **Function Descriptions**

Display the firmware version, serial number, and other related information of the camera For technical support, please scan the QRcode at the bottom right.



# **Chapter 8 Switch to different output resolutions**

#### 8.1 Switch to different output resolutions

Unplug and reconnect the power after switching and wait for CL511 to restart before it takes effect.



DIP	Resolution	HDMI	Fps	4KIP Note 1	High-speed mode Note 2	Note
0		60 Hz	30	V		
1	1080P	50 Hz	25	V		
2	1060P	60 Hz	60		V	
3		50 Hz	50		V	
4	4K	30 Hz	30			VGA does not support
5	41	25 Hz	25			4K.
6	1080P	60 Hz	60		V	
7	1060P	50 Hz	50		V	
8		60 Hz	30	V		
9	720P	50 Hz	25	V		
Α	720P	60 Hz	60		V	
В		50 Hz	50		V	
С		60 Hz	30			
D	768P	60 Hz	25			
Е	700P	60 Hz	60		V	
F		60 Hz	50		V	

- Note 1: 4K IP mode: IP streaming can support 4K resolution
- Note 2: High-speed mode: applicable to support rapidly changing scene

# **Chapter 9 Troubleshooting**

This chapter describes problems you may encounter while using CL511. If you have questions, please refer to related chapters and follow all the suggested solutions. If the problem still occurred, please contact your distributor or the service center.

No.	Problems	Solutions
1.	Boot without power signal	<ol> <li>Make sure you have plugged in the power cord.</li> <li>When using a PoE connection, ensure that the power supply supports POE+ (IEEE802.3at) hubs</li> </ol>
2.	There is no image output from DC172	<ol> <li>Check the power</li> <li>Check the settings for the source of the projector. Please refer to the user manual of the projector.</li> <li>Check if DIP switch is properly set. Please refer to <a href="Chapter 8 Switch to different output resolutions">Chapter 8 Switch to different output resolutions</a> in this manual for related settings.</li> </ol>
3.	Unable to focus	<ol> <li>Probably the document is too close. Press [ZOOM -] on the Remote Control.         Or pull away the distance between document and lens, then press [AUTO TUNE].</li> <li>Please confirm if there is any fingerprint or stain on the lens. Try to use [AUTO TUNE] to focus after cleaning the lens</li> </ol>
4.	The images outputted from CL511 are too bright, dark or vague.	Press [AUTO TUNE] to automatically adjust to the optimal brightness and focal length.
5.	The image is incomplete	Check the Auto Image setting of your projector. Please refer to the user manual of the projector or check for the DIP switch setting.
6.	Forget the password for turning on	Please contact your distributor or the service center.
7.	CL511 fails to store images or react.	<ol> <li>Check to see if the stored data have reached the maximum size of the USB device (priority) or internal memory.</li> <li>Please make sure if the Capture function is set to Continuous mode or the time for capture is set to be long.</li> </ol>
8.	Unable to record images	<ol> <li>Check to see if the stored data have reached the maximum size of the USB disk (priority) or internal memory.</li> <li>Please confirm the rotation angle. You may not able to record when the image is rotated by 90°/270°.</li> </ol>
9.	The operating steps in the manual are not applicable to the machine	The operating steps in the manual may be not applicable to the machine due to improvement in functions. Check to see if the Firmware version of your machine is up-to-date.  For the latest firmware, please go to Lumens website > Service Support > Download Area. <a href="https://www.mylumens.com/support">https://www.mylumens.com/support</a>
10.	Unable to login to the network control page	Please confirm whether the [DHCP] is correct.  Go to the setting menu > [Advanced] > [Ethernet] > [Dynamic Host Configuration Protocol]
11.	The output image is not clear with water ripples	Please refer to Appendix I of the manual to confirm the voltage frequency, and refer to Chapter 8 Switch to different output resolutions to do the setting.



# **Chapter 10 Safety Instructions**

Always follow these safety instructions when setting up and using the CU-CAT Video Board:

#### 1 Operation

- 1.1 Please use the product in the recommended operating environment, away from water or source of heat
- 1.2 Do not place the product on a tilted or unstable trolley, stand or table.
- 1.3 Please clean the dust on the power plug prior to usage. Do not insert the product's power plug into a multiplug to prevent sparks or a fire.
- 1.4 Do not block the slots and openings in the case of the product. They provide ventilation and prevent the product from overheating.
- 1.5 Do not open or remove covers, otherwise it may expose you to dangerous voltages and other hazards. Refer all servicing to licensed service personnel.
- 1.6 Unplug the product from the wall outlet and refer servicing to licensed service personnel when the following situations happen:
  - If the power cords are damaged or frayed.
  - If liquid is spilled into the product or the product has been exposed to rain or water.

#### 2 Installation

2.1 For security considerations, please make sure the standard hanging rack you bought is in line with UL or CE safety approbations and installed by technician personnel approved by agents.

#### 3 Storage

- 3.1 Do not place the product where the cord can be stepped on as this may result in fraying or damage to the lead or the
- 3.2 Unplug this product during thunderstorms or if it is not going to be used for an extended period.
- 3.3 Do not place this product or accessories on top of vibrating equipment or heated objects.

#### 4 Cleaning

4.1 Disconnect all the cables prior to cleaning and wipe the surface with a dry cloth. Do not use alcohol or volatile solvents for cleaning.

#### 5 Batteries (for products or accessories with batteries)

- 5.1 When replacing batteries, please only use similar or the same type of batteries
- 5.2 When disposing of batteries or products, please adhere to the relevant instructions in your country or region for disposing of batteries or products

#### Precautions



This symbol indicates that this equipment may contain dangerous voltage which could cause electric shock. Do not remove the cover (or back). No user-serviceable parts inside. Refer servicing to licensed service personnel.



This symbol indicates that there are important operating and maintenance instructions in this User Manual with this unit.

#### **■ FCC Warning**

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

#### Notice:

The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment..

#### IC Warning

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the interference-causing equipment standard entitled "Digital Apparatus," ICES-003 of Industry Canada.

Cet appareil numerique respecte les limites de bruits radioelectriques applicables aux appareils numeriques de Classe B prescrites dans la norme sur le material brouilleur: "Appareils Numeriques," NMB-003 edictee par l'Industrie.

#### FDA Warning

This Devise Complies with DHHS Radiation Rules, 21CFR Chapter 1, Subchapter J.

#### ■ EN55032 CE Warning

Operation of this equipment in a residential environment could cause radio interference.

#### ■ EN60825 (Laser) Warning



Laser Radiation Do Not Stare Into Beam Class 2 Laser Product



# **Supplier's Declaration of Conformity 47 CFR § 2.1077 Compliance Information**

Manufacturer: Lumens Digital Optics Inc.

**Product Name: CL511** 

**Model Number : Document Camera** 

#### Responsible Party – U.S. Contact Information

Supplier: Lumens Integration, Inc.

4116 Clipper Court, Fremont, CA 94538, United States

e-mail: support@mylumens.com

#### **FCC Compliance Statement**

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.



# Appendix 1

Power frequency for each country in the world

Region or Country		Freq	Region o				or Country	Freq	Region o			or Country	Freq		
	Chinese English		Frequency		Chi	nese	)	English	Frequency		Chinese		English	Frequency	
阿	富 :	汗	Afghanistan	50	大			陸	China	50	關		島	Guam	60
阿	爾及利	亞	Algeria	50	哥	倫	比	亞	Colombia	60	石	榴	島	Grenada	50
安	哥	拉	Angola	50	剛			果	Congo	50	瓜	地 馬	拉	Guatemala	60
安	地	瓜	Antiqua	50	哥	斯	大雪	溶 加	Costa Rica	60	幾	內	亞	Guinea	50
阿	根	廷	Argentina	50	古			巴	Cuba	60	蓋	亞	納	Gayana	50
澳		洲	Australia	50	塞	普	路	斯	Cyprus	50	海		地	Haiti	60
澳	地	利	Austria	50	捷			克	Czechoslovakia	50	夏	威	夷	Hawaii	60
亞	述	<b>**</b>	Azores	50	達	Ž	荷	美	Dahomey	50	宏	都 拉	斯	Honduras	60
巴	哈	馬	Bahamas	60	丹			麥	Den mark	50	香		港	Hong Kong	50
巴	;	林	Bahrain	60	多	明	尼	加	Dominican	60	匈	牙	利	Hungary	50
孟	加	拉	Bangladesh	50	杜			貝	Dubai	50	冰		島	Ice land	50
巴	貝	多	Babados	50	厄	瓜	多	爾	Ecuador	60	印		度	India	50
比	利	痔	Belgium	50	埃			及	Egypt	50	印		尼	Indonesin	50
百	慕	達	Bermuda	60	薩	鰯	瓦	多	El Salvador	60	伊		朗	Iran	50
玻	利 維	亞	Bolivia	50	赤	道	幾万	勺 亞	Equatorial Guinea	50	伊	拉	克	Iraq	50
波	札	那	Botswana	50	衣	索	ŊŢ	亞	Ethiopia	50	愛	爾	蘭	Ireland	50
巴	j	西	Brazil	50 60	法	羅	群	島	Faeroe Island	50	曼		島	Isle of Man	50
保	加利	罚	Bulgaria	50	裴			濟	Fiji	50	以	色	列	Israel	50
緬		甸	Burma	50	芬			蘭	Finland	50	義	大	利	Italy	50
蒲	隆 :	地	Burundi	50	法			或	France	50	象	牙 海	岸	Ivory Coast	50
峘	:	棉	Cambodia	50	蓋	Ī	亞	那	French Guiana	50	牙	買	加	Jamaica	50
喀	麥	隆	Cameroon	50	加			彭	Gabon	50	日		本	Japan	50 60
加	拿	大	Canada	60	甘		土	亞	Gambia	50	約		旦	Jordan	50
康	那利群	島	CanaryIsland	50	德			國	Germany	50	肯		亞	Kenya	50
中:	非共和	或	Central Africa Rep.	50	迦			納	Ghana	50	韓		國	Korea	60
錫		蘭	Ceylon	50	直	布	羅	陀	Gibraltar	50	科	威	特	Kuwait	50
查	:	德	Chad	50	大	不	列	顛	Great Britain	50	黎	巴	嫩	Lebanon	50
海	峽 群	島	Channel Island	50	希			臘	Greece	50	賴	索	托	Lesotho	50
智		利	Chile	50	格		陸	蘭	Greenland	50	賴	比 瑞	亞	Liberia	60
利	比	亞	Libya	50	阿			曼	Oman	50	敘	利	亞	Syria	50
盧	森	堡	Luxembourg	50	巴	基	斯	坦	Pakistan	50	大	溪	地	Tahiti	60



Region o	r Country	Frequ	Region o	r Country	Freq	Region o	r Country	Frequ
Chinese	r Country Fedure Country English	lencv 1	Chinese	English	Frequency	Chinese	English	Frequency
澳 門	Macao 5	50	巴 拿 馬	Panama	60	中華民國	R.O.C. Taiwan	60
馬得拉群島	Madeiral 5	50	巴 拉 奎	Paraguay	50	坦 尚 尼 亞	Tanzania	50
馬約卡島	Majokca Island 5	50	秘魯	Peru	60	泰國	Thailand	50
馬 拉 加 西	Malagasy 5	50	菲 律 賓	Philippines	60	多哥共和國	Togo Rep.of	50
馬 拉 威	Malawi 5	50	波 蘭	Poland	50	東加	Tonga	50
馬 來 西 亞	Malaysia 5	50	葡 蔔 牙	Portugal	50	千 里 達	Trinidad	60
馬   利	Mali Rep. 5	50	波多黎各	Puerto Rico	60	他 巴 哥	Tobago	60
馬 爾 他	Malta 5	50	科 托	Qatar	50	突 尼 西 亞	Tunisia	50
馬丁尼克島	Martinique 5	50	羅徳西亞	Rhodesia	50	土 耳 其	Turkey	50
茅里塔尼亞	Mauritania 5	50	羅馬尼亞	Romania	50	烏 干 達	Uganda	50
模 里 西 斯	Mauritius 5	50	盧 安 達	Rwanda	50	美 國	USA.	60
墨西哥	Mexico 6	60	沙烏地	Saudi Arabia	50	蘇聯	USSR	50
坐 口 미	IVIEXICO	50	阿 拉 伯	Gaddi Alabia	60	黑本 494	OOOK	30
摩 那 哥	Monaco 5	50	蘇 格 蘭	Scotland	50	英國	United Kingdom	50
蒙特色納島	Montserrat 6	60	塞內加爾	Senegal	50	上 伏 塔	Upper Volta	50
摩 洛 哥	Morocco 5	50	獅 子 山	Sierra Leone	50	烏 拉 奎	Uruguay	50
莫 桑 鼻 克	Mozambique 5	50	新 加 坡	Singapore	50	委 內 瑞 拉	Venezuela	60
尼 泊 爾	Nepal 5	50	索 馬 利 亞	Somalia	50	越南	Viet-Nam	50
荷爾	Netherlands 5	50	南非共和國	South Africa Rep.	50	維爾京群島	Virgin Island	60
新蘇格蘭	New Caledonia 5	50	西 班 牙	Spain	50	西薩摩亞	Western Samoa	50
紐 西 蘭	New Zealand 5	50	斯 里 蘭 卡	Sri Lanka	50	葉門亞丁	Yeman(Aden)	50
尼加拉瓜	Nicaragua 6	60	蘇	Sudan	50	葉門阿拉伯	Yemen(Arab)	50
尼日	Niger 5	50	蘇 利 南	Surinam	60	南斯拉夫	Yugoslavia	50
奈 及 利 亞	Nigeria 5	50	史 瓦 濟 蘭	Swaziland	50	薩伊共和國	Zaire Rep. of	50
挪    威	Norway 5	50	瑞典	Sweden	50	尚 比 亞	Zambia	50
琉球	Okinawa 6	60	瑞士	Switzerland	50			



# **Copyright Information**

Copyrights © Lumens Digital Optics Inc. All rights reserved.

Lumens is a trademark that is currently being registered by Lumens Digital Optics Inc.

Copying, reproducing or transmitting this file is not allowed if a license is not provided by Lumens Digital Optics Inc. unless copying this file is for the purpose of backup after purchasing this product.

In order to keep improving the product, the information in this file is subject to change without prior notice.

To fully explain or describe how this product should be used, this manual may refer to names of other products or companies without any intention of infringement.

Disclaimer of warranties: Lumens Digital Optics Inc. is neither responsible for any possible technological, editorial errors or omissions, nor responsible for any incidental or related damages arising from providing this file, using, or operating this product.

