Illuminati Wireless Light and Color Meter
Model IM100

User Manual – Android, v1.41

About the IM100

The Illuminati IM100 is the world's first Bluetooth-enabled wireless light and color meter. Use it with your smartphone to get light and color readings for your digital still and/or video camera. The meter measures the correct exposure and color from continuous light sources including LEDs, HMI, the sun, and tungsten, along with strobe. Meter readings are then transmitted to your smartphone via Bluetooth and displayed in the Illuminati App – available for both iPhone and Android.

Then, simply enter the meter readings into your camera to obtain the correct exposure and white balance settings for your scene. Metering your scene will help you maintain accurate, consistent exposure and color balance – the key to a more productive image-making experience both during setup and during post-production.

What's in the Box
- IM100, Illuminati Light and Color Meter
- Offset-T Finger Magnetic Accessory
- Alligator Clip Magnetic Accessory
- Hardshell Case
- Two (2) AAA Batteries

Quick Start

The IM100 QuickStart guide is show below for your reference. Detailed instructions can be found further in this document.

IM100 Mechanical Features

The IM100 has many thoughtfully-designed physical features to help you with your image-making tasks.

Meter Design

On the meter itself are several important features including the power button, features that help you mount or hold the meter, useful dome position settings, and a jack for synching strobes. The illustration below shows these.

Magnetic Accessories

The powerful rare-earth magnet on the back of the meter can be used to mount the meter to a ferrous metal surface or another magnet.

In addition, the Illuminati Meter comes with two magnetic mounting accessories to help you hold and mount your meter in a variety of situations. The Finger-T magnetic accessory can be used to hold the meter in your hand or it can be used to place your meter on a flat surface, such as a fabric or paper background. The Alligator Clip accessory can be used to attach the meter to fabric.

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Getting Started

Install the Batteries

Open the case. The case is held closed by two rare-earth magnets. Insert your fingernails into the detents on either side of ¼-20 threaded tripod mounting hole on one edge of the meter and pull to separate the lid from the body of the meter.

Insert two (2) AAA batteries as shown. Be sure to observe the polarity, shown below, and which is marked in the case under each battery.

Close the case. The correct orientation of the lid is easy to determine – simply line up the two sets of magnets: one set in the lid and one set in the body of the meter. Position the lid's hook first, then let the lid close. You will feel a click when the magnets engage.

Download the App

The Illuminati App is available to download to your smartphone for free from the Google Play store.

Search for "Illuminati Meter". The app will appear in the search list. Install it on your phone.

Connect Your IM100

Power the Meter On
Turn on the IM100 using the power button on the corner of the meter. The meter's LEDs will blink blue when the meter is looking for a connection, but not connected to your phone.

Start the App
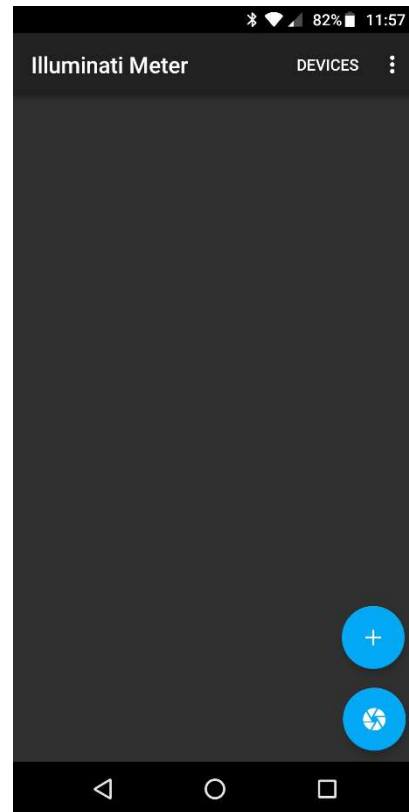Start the Illuminati App on your smartphone.

When prompted, "Allow Illuminati Meter to access this device's location?", please click ALLOW. The meter and phone will not connect unless ALLOW is selected.
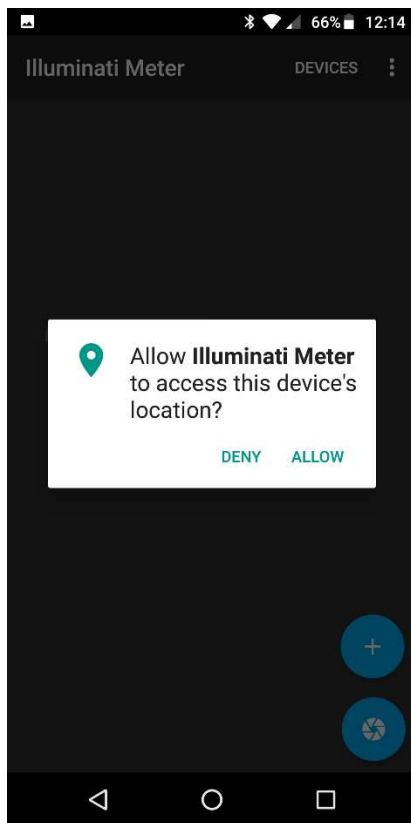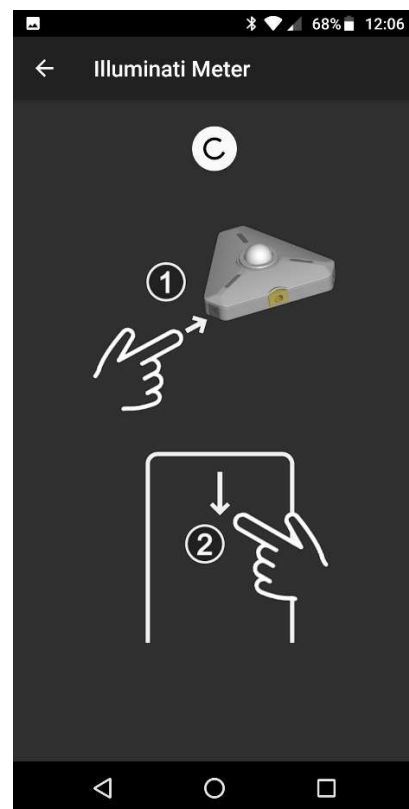

Allow location access

After allowing device location access, tap DEVICES in the upper-right corner of the screen and you will see the connect screen.
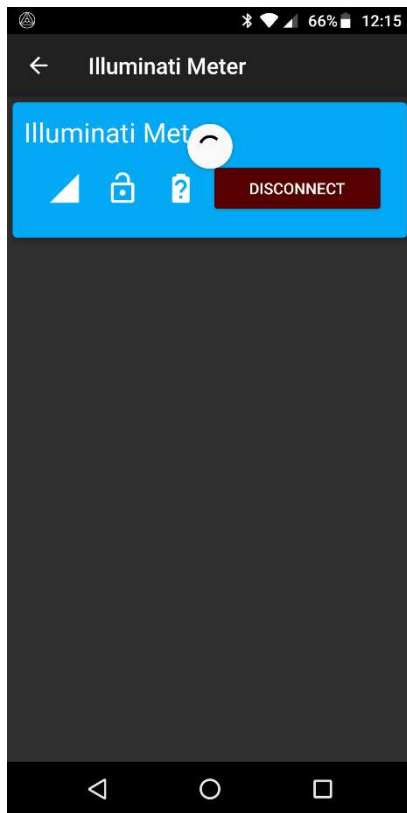

Devices Screen

Connect Screen

Connect
The app finds the meter and connects
automatically. You will know this has happened
when you see the LEDs briefly flash bright green
and then turn off.

If the spinning circle in the connect screen stops
spinning, swipe your finger down the screen to
make it search again.

When the meter and the phone connect, the
app will display a blue band with the device's
name on it, as in the illustration below.

If you are having problems getting connected,
please see the Troubleshooting Guide on page
XX.

*Example of a connection to more
than one Illuminati Meter.*

*Devices screen showing connection
to one meter.*

If you connect more than one Illuminati meter,
the app will find them and connect. Simply
power on the Illuminati meters and use the
Devices screen to connect.

Tiles for Meter Readings

Default, or "Combo", Tile

A new tile with a purple background will be created for you automatically using the meter's current default settings. This tile has the most-used information for still photography.
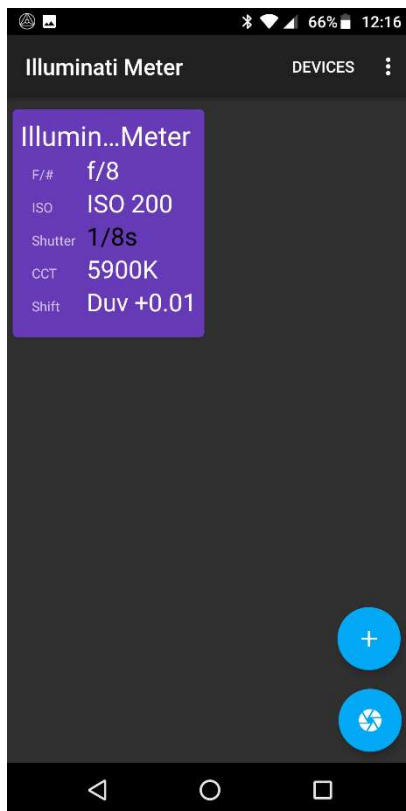
For video exposure, press the purple tile to view the STILL Exposure tab, then tap the VIDEO Exposure tab. Then return to the Tiles view. The Tile will show you exposure using video terms.

Tiles View

Monitor Ambient
If your readings are not updating, or you want to change the exposure parameters, tap on the tile to see the exposure screen. At the bottom of the screen you will see a checkbox for "Monitor ambient". When selected, the meter's LEDs will blink yellow-green every time the meter returns a reading. New readings appear

at a regular interval that is set in the Device Settings screen.

The Tiles view can be customized to suit your needs, reporting the information you select.

Managing Tiles

Creating Tiles
Tap the "+" icon in the bottom right of the screen to see the options.
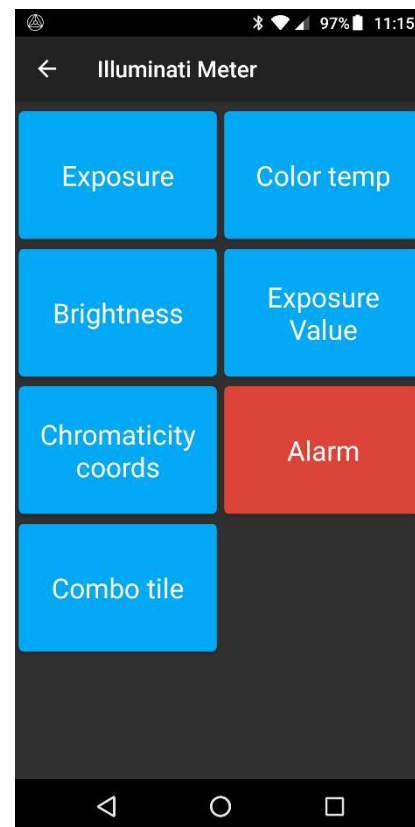
Tiles Options

If more than one meter is connected, you will be asked to select the meter whose readings will be used to display on the tile.

Below is a display of all the tile types that can be created.

Tile Options

Deleting Tiles
To delete a tile, use your finger to tap and hold the tile to be deleted, then slide the tile to the "+" icon lower-right. The "+" icon will turn into a trash icon and the tile turn gray. When this happens, simply let go and the tile will be erased.

Adding More Tiles
You can have multiple tiles for your meter and multiple meters showing up on your tile screen.

It is also possible to have two exposure tiles with different exposure settings. One tile could be set to ISO 100, for example, and the other to ISO 1600 – each showing the correct exposure values for that particular condition.

Tile Names
The name of your meter (see later section on renaming your meter) will be displayed automatically at the top of the tile.

Settings
In the upper-right of the Tiles screen, is a three-dot icon that controls some meter settings.
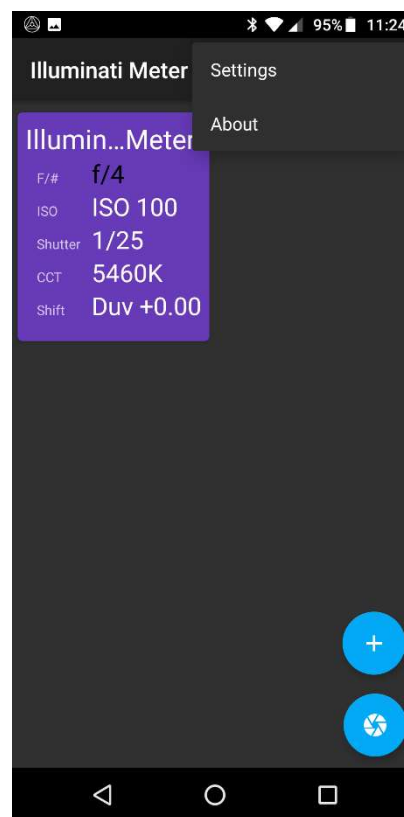
Location of Settings

From here you can set the default units for the following parameters:

Parameter	Values
Light level units	lux or foot-candles
Duv or green/ magenta shift	filter gel units or Duv
Exposure compensation step	1/3 or 1/10 stop increments)
Monitor ambient ON after startup	ON or OFF after initial startup

Parameters and values for the Settings Options

Settings (cont'd)
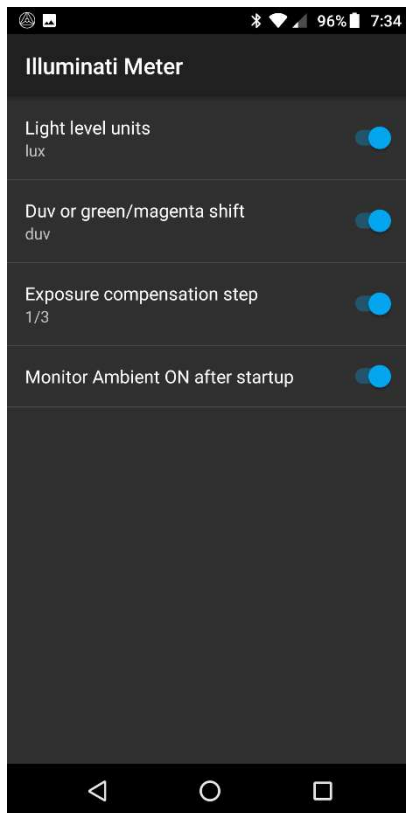
Settings screen

Alarms

Alarms are controlled and viewed via alarm tiles. To set up an alarm condition, go to the Tiles Screen and click

and then select

as the type of tile on the next screen.
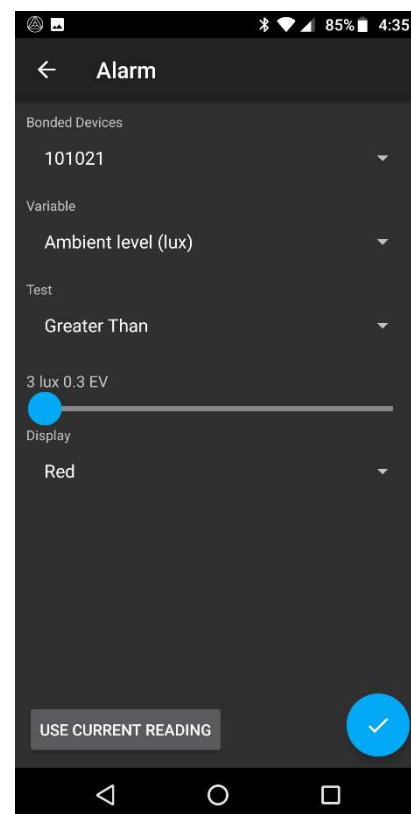
The Alarm Setting Screen

Alarms are supported for ambient light intensity (lux) and ambient color temperature.
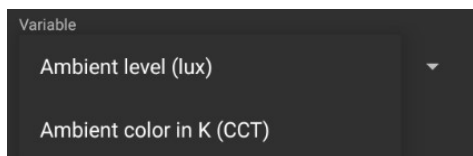
Types of Alarms

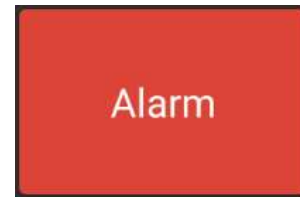You can also set up the type of test you want to perform such as "Greater Than" or "Between", etc…
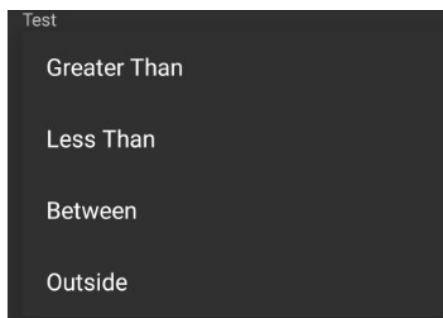
Alarm Test Conditions

For convenience, you can tap the USE CURRENT READING button in the lower-left to get the current reading directly from the meter.

The final selection is the LED flashing color/ pattern for the meter to display when the alarm condition is met.
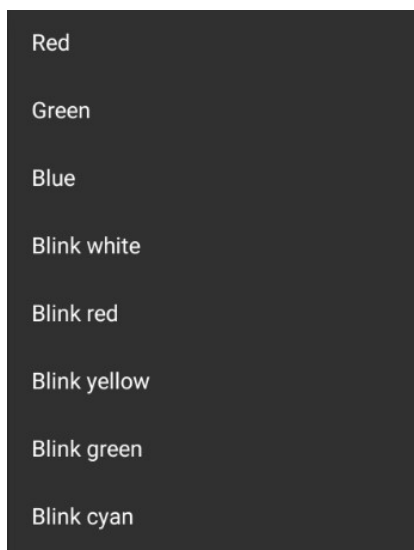
LED Patterns for Alarms

The new alarm tile is light blue.

New Alarm Tile is Blue

When the alarm condition is met, the tile turns red, and the LEDs flash red (or whatever color you chose in "Display").
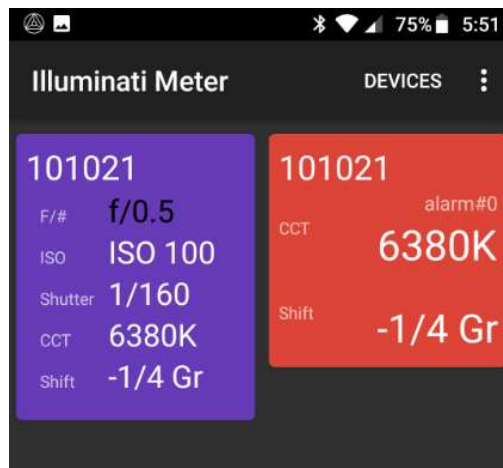
Alarm Tile Showing Alarm Condition

Meter Placement

Place the Illuminati Meter as close as possible to the subject of the image, in your most critical exposure area.

It is generally best to get exposure and color temperature directly in front of your subject. The meter's dome points toward the camera.

With highly directional light, point the meter at the light source (in this case strobe) to get the correct exposure on the model's cheek.

If you and your subject are both illuminated with the same source, you can simply attach the meter to yourself, like this photographer did.

Read the color temperature for your practicals up close to reduce any color contamination from other light sources. This will help you better determine what filter might be necessary for any correction.


Lighting a green screen to get even illumination. TIP: When working with large green screens, place multiple meters in strategic spots and monitor them all with the app while you change the lighting. No need to make a change and then run back to take another meter reading. The meter readings are updated automatically on your app. The number of meters you can connect is not limited by the app.

Mount the meter to a light stand using the meter's ¼-20 threaded socket and place the meter in your scene.
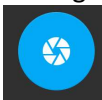
Measuring Exposure

Still Exposure

To set up the conditions for your reading, tap the purple tile – or any exposure tile - and the Still Exposure tab will open.

Monitor Ambient
At the bottom of this screen is the Monitor Ambient checkbox. If you turn Monitor Ambient on, the meter will continuously update the meter readings at an interval you set in the Device Settings screen. This is convenient if you want to monitor exposure and color temperature continuously.

Manual Readings
If you leave Monitor Ambient off, you can trigger a manual meter reading in two ways:

1. Tap the shutter icon [icon] in the lower right corner of the exposure screen.
2. Press the meter's power button once.

In either case, the LEDs on the meter will flash once and your meter reading will be refreshed. The reading will not change until you take another manual reading, or, you invoke the Monitor Ambient setting. This "sample and hold" feature can be useful in some situations.

Settings Dials
For still imaging, you will see settings for ISO, Aperture, Shutter Speed and a few more controls. Verify that Monitor Ambient (lower left of this screen) is on. The meter will continuously update the exposure readings.
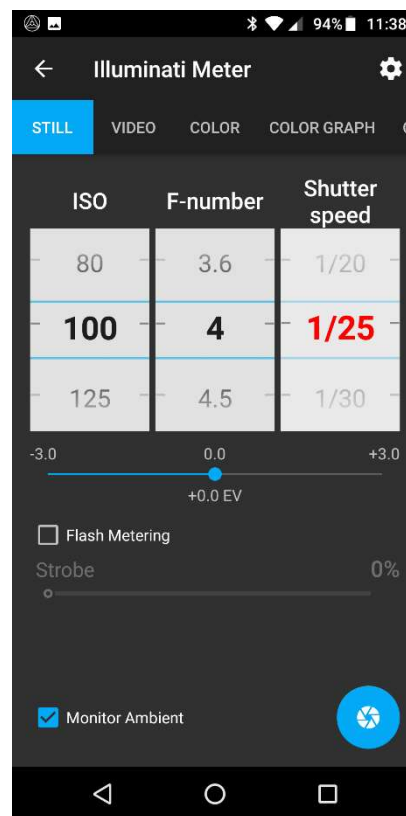
Still Exposure Reading Set to Range on Shutter Speed (red)

The meter will solve for the missing value of the exposure triangle using settings you provide. In the example, we want to use ISO 100 and an aperture of F4. Just press the Shutter speed wheel until it turns red. Then rotate the ISO wheel to 100 and the aperture to F4. The app will automatically give you the shutter speed.

The meter will also range on ISO or Aperture if you press and hold one of them until they turn red. Try a few different settings to get familiar with the interface.

Here is what the displays look like when you set the aperture and ISO exposure parameters to range:

Range on Aperture (in red)

Range on ISO (in red)

Flash Exposure

The IM100 and App support flash exposure metering either in cord or cordless mode. In cordless mode, a special sensor and circuit in the meter sense when the flash begins to fire and tracks the flash power. It also will read the ambient exposure and color temperature, directly after the flash.

In corded mode, you will plug a cord into your meter, and the meter will fire the flash and meter your scene.

Cordless Flash Metering
To turn flash metering on, navigate to the STILL TAB and locate the "Flash Metering" control. Tap the checkbox to enable Flash Metering Mode.

Flash Metering mode on, waiting for flash. The aperture will be updated automatically after flash.

While the meter trigger circuit is armed, the meter's LEDs will glow in a repeating pattern of blue-purple-cyan. Flash Metering mode ends automatically after 5 minutes of inactivity. The default timeout value and can be changed in the Device Settings screen.

Setting ISO and Shutter Speed
Set the ISO and shutter speed to desired values. In this case, we used ISO 100 and a shutter speed suitable for flash sync.

When the strobe is fired, the meter will automatically detect the light from the flash, meter the exposure, and report the proper aperture for the exposure.

Strobe Percentage
The meter will measure the entire exposure for your scene – including any ambient light – and report the percentage of the exposure that is due to the strobe.

Minimum Light Power for Reading
The minimum power required for a flash reading is equivalent to an exposure of F1.8 at ISO 100 and a typical flash sync speed – like 1/160 or 1/200 sec.
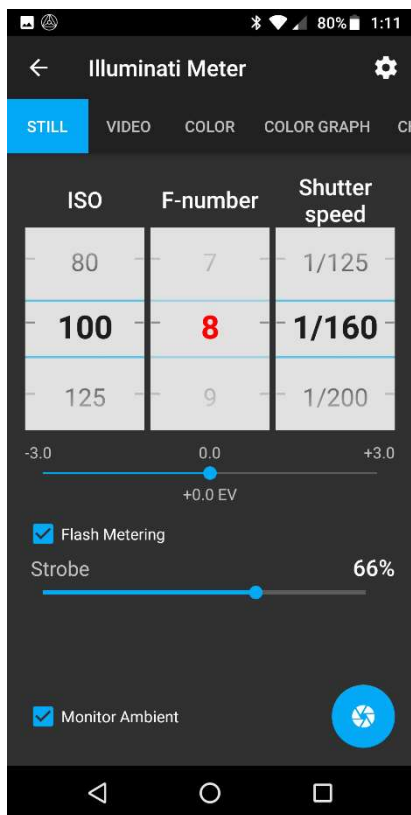
Auto ISO
You can also set the desired aperture and shutter speed in the app and have the meter range on ISO. This is helpful in situations where you have a specific aperture that must be attained, and the ISO can be determined from the total amount of flash power.

Corded Flash Metering

The Illuminati Meter will accept a cord with a plug like that shown in the image below.

Cable tip for flash metering

The receptacle on the meter is for a 3.5 mm mono miniphone sync male plug. A 3.5mm audio cable is not suitable, even though it physically will fit into the 3.5mm receptacle.

Flash cable plugged into meter

With the cable, it is possible to trigger the flash two ways:
1. Press the meter's power button to fire the flash and trigger a reading.
2. Tap the shutter icon in the app on the lower-right of the Still Exposure screen.

The flash will fire, and the reading will be recorded by the app.

IM100 User Manual – Android, v1.41   Illuminati Instrument Corp.

Video/Cine Exposure

The meter will also provide exposure readings in terms familiar to makers of moving images. Shutter angle is included, along with settings for Frame rate and ND filter. Note that the settings for ND filter are multiplicative to your exposure. Selecting 1 is like selecting a 1x ND filter which means no change to your exposure. Selecting 2 is like selecting a 2x ND (or 1 stop), and so on.

The meter will solve for the missing value of the exposure triangle using settings you provide. In the example, we want to use ISO 200 and an aperture of 5.6. Just press the Shutter angle wheel until it turns red. Then rotate the ISO wheel to 850 and the aperture to 5.6. The app will automatically give you the shutter angle.
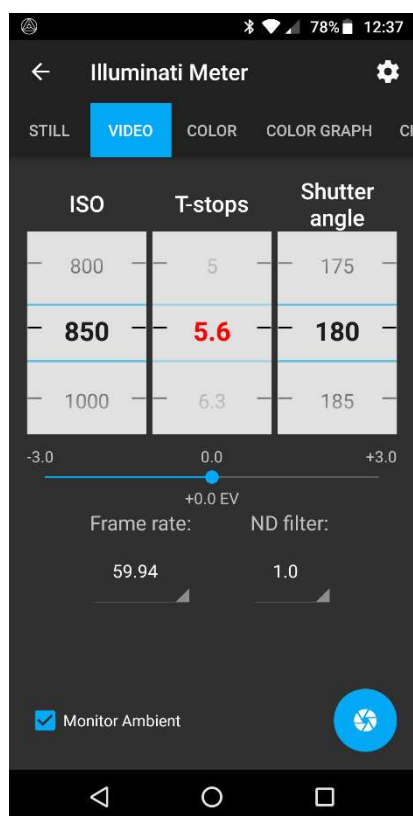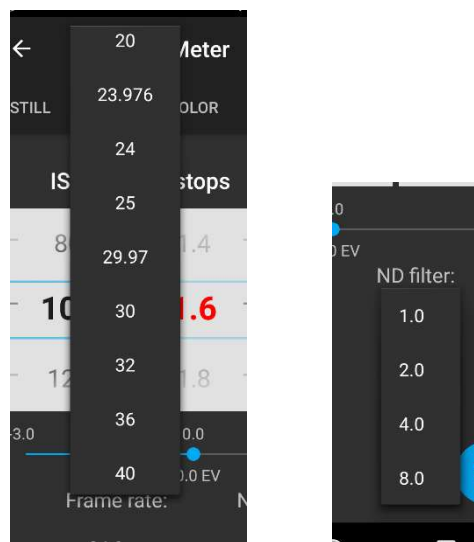

The VIDEO tab: controls and settings for video and cinema exposure

The meter will also range on ISO or Aperture if you press and hold one of them until they turn

red. Try a few different settings to get familiar with the interface.

You can also set your frame rate using the frame rate selector. Values range from 1 to 1000 frames per second.

Partial list of frame rate settings (l).
List of ND filter settings (r).

If you are using an ND filter, set its value in the ND filter selector. The values are calculated as multiples of the exposure. Valid values are 1, 2, 4, and 8. For those who use other scales, here is a table with comparable values.

Meter Setting	Density	Stops
1.0 (1X)	0.0	0
2.0 (2X)	0.3	1
4.0 (4X)	0.6	2
8.0 (8X)	0.9	3

Density Values

We will likely add a feature to the app in the near future for choosing how you want ND to be displayed (in terms of neutral density, number of stops, or multiplicative factor).

Color Temperature

The Illuminati meter can capture color temperature readings for ambient, strobe, and both simultaneously.

The Android app will display this information in two different tabs, each with a specific purpose. The COLOR tab gives you a quick glance of the color temperature in large type. The COLOR GRAPH tab provides more detailed information, including an interface for seeing how applying different color gel filters to a light will affect the color of that source.

Ambient Color Temperature

To check the color temperature of your light source, select the COLOR tab at the top of the screen above. The app displays the color temperature and Duv shift (green-magenta shift) of your light source.

The COLOR tab: the color temperature of your light source in an easy-to-read form

In this example, the light source has a color temperature of 5760K with a green shift of +1/4 Gr, as measured in values commonly found on filter gels. You also have the option of displaying the green shift in Duv, a scale used in scientific work.

Here is the same light source displayed in the COLOR GRAPH tab.
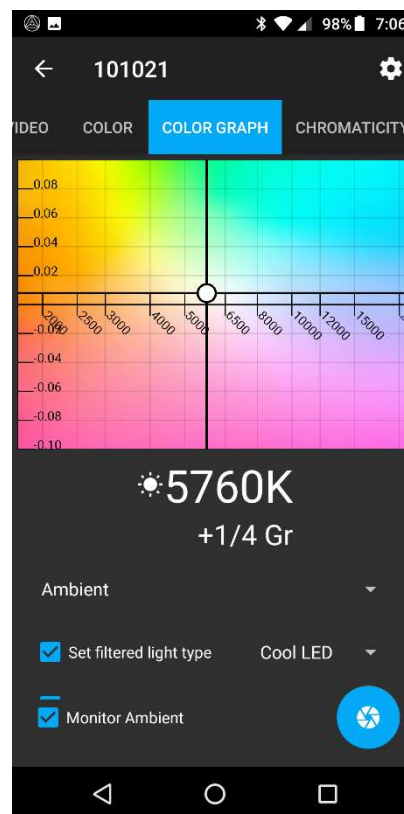
The COLOR GRAPH tab: in-depth information for color correcting lights

The COLOR GRAPH tab is not only an excellent analytical tool for helping you correct the temperature of a light source, it is also a valuable tool for learning about different types of light and what their characteristics are. The COLOR GRAPH tab will show you:

1. The color appearance of your light source.
2. The effect of adding color correcting filter gels to your light source.

3. The color temperature of other Illuminati Meters connected to your phone – also quite valuable in matching light sources.

The x-axis displays the color temperature (the yellow-blueness of the light), and the y-axis displays the magenta-green shift of the light source. Knowing both of these light source characteristics is vital when balancing lights.

Gel Filter Library
You can also see the effect of adding various color gel filters to your light source(s). This is helpful when you want to find the right gel fast, without trial-and-error.

In the example below, you can see the effect of a Roscosun 3410 filter on a light source with a color temperature of 5760K (white dot). Also plotted is a Rosco 3314 Minusgreen filter to correct the excess green. The two filters together would make the light source about 5000K and 0 Gr.
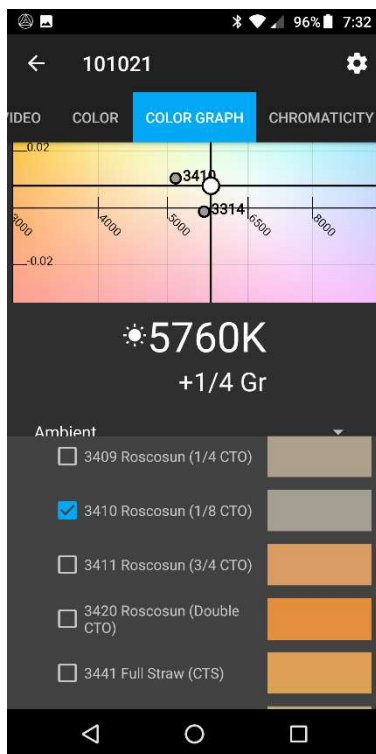
COLOR GRAPH tab showing the effect of color correction filters on a light source

There are over 400 filters from the libraries of Lee, Rosco, and Profoto.

Set Filtered Light Type
In order to accurately display the position of the filtered light in the graph, the app recalculates the effect of the filter based on the type of light you are using. Click the "Set filtered light type" box and select the Filtered Light Type from the menu.
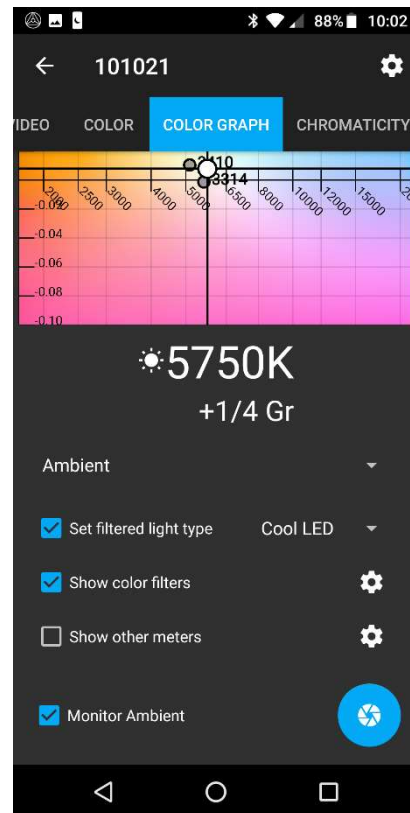
COLOR GRAPH screen showing option to "Set filtered light type" for filter calculations

Some specific light source options are shown below.

*Some of the light source options
for "Set filtered light type"
in the COLOR GRAPH tab*

Show Other Meters
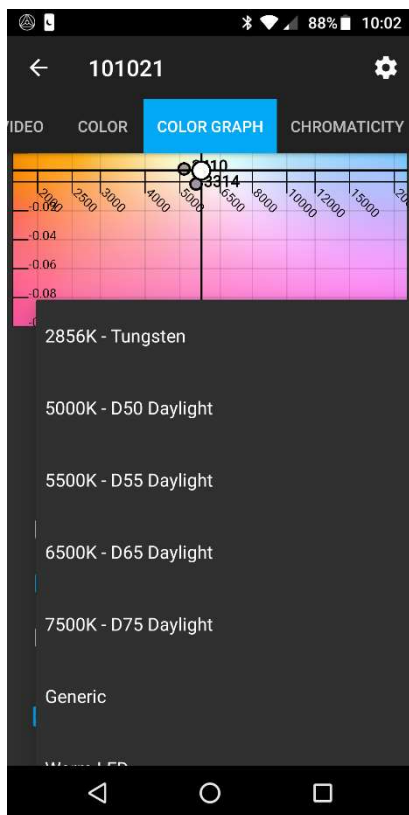If more than one Illuminati Meter is connected to your phone, you can see the color temperatures of both displayed on your screen. Simply select "Show other meters" to turn this option on, tap the "gear" icon and select the Physical devices checkbox and select the meter you wish to display. There is no upper limit on the number of meters you can connect to your phone.

Other meters are displayed with various colored dots. The meter name is shown next to the point.

This view is particularly useful in more complicated lighting setups. You can correct one light source to match another and continue to monitor the color temperature of the corrected source.
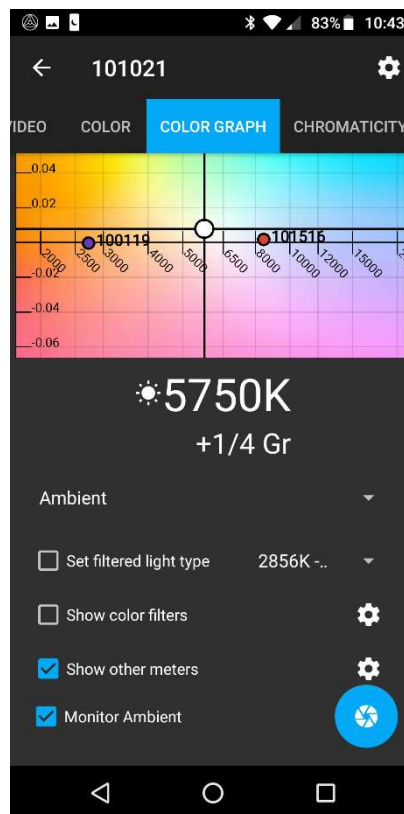
Show other meters shows you the color coordinates of other Illuminati Meters connected to your smartphone. In this example there are three meters connected, 100119 (around 2500K), 101021 (center, white dot, around 5700K with a significant green shift), and 1001516 (around 8300K).

Flash Color Temperature

To read flash color temperature, turn on Flash Metering in the Still Exposure tab. The meter's LEDs will gradually cycle from purple to blue to cyan, indicating flash metering is enabled. Return to the Color tab.

Place the meter in an appropriate place in your scene and fire the strobe. The meter will record the strobe reading. It will also provide a new reading for the ambient light, if Monitor Ambient is checked.

COLOR tab showing color temperature and green/magenta shift measurements for ambient and strobe lighting

Here is the same information shown the COLOR GRAPH tab:
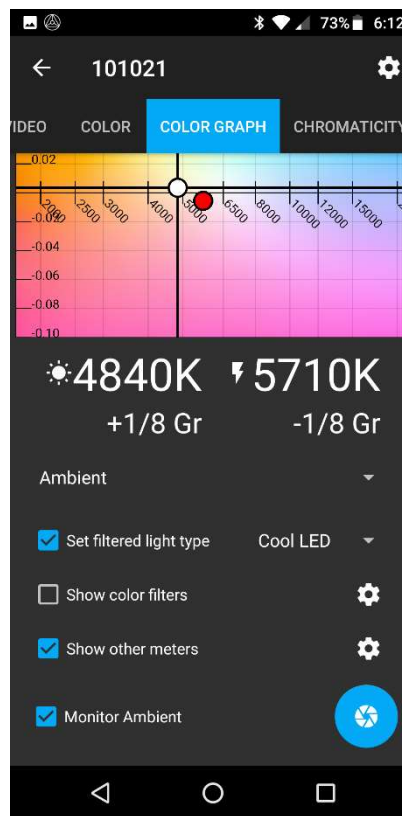
COLOR GRAPH tab with readings for ambient (white dot) and strobe (red dot).

If you need to color correct the ambient light to match the strobe, or vice versa, the meter makes finding a color correction easy.

In this example, the two light sources are mismatched by 900K and also have different magenta/green shifts (common among LED light sources and strobes - which these are).

But knowing which filter to apply to which light source can raise questions. The Illuminati app will show you the effect of using gels to correct one of the lights to match the other. Just below the display of the two color temperatures is setting with two options, Ambient and Strobe.

If you select Ambient, the graph will show you the effect of the filters you have chosen to apply to the ambient light to make it match the strobe. In this case we selected a Rosco 3208 to make the ambient more blue, and a 3318 to make the ambient more magenta. Putting both filters together will get you close to the strobe.
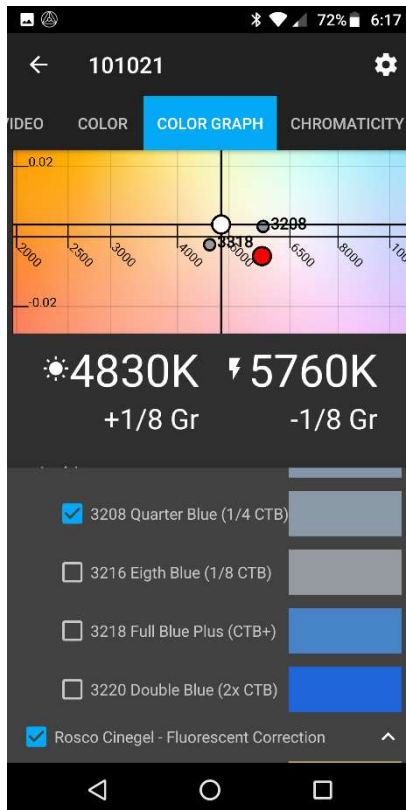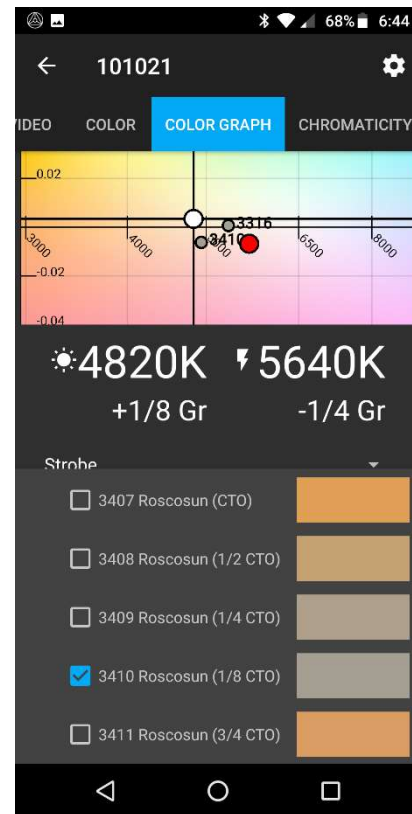

Filter gels applied to the ambient

In the next example, we did the opposite, applying the filters to the strobe on the graph. In this case we selected a Rosco 3410 to make the strobe more yellow and a 3316 to make it more green. Putting both filters together will get you closer to the ambient source. If your ambient source is the sun, this can most often be your preferred way to correct the light sources to make them match. The sun a bit large to be using filter gels on (but not in every case!).

Filter gels applied to the strobe

To summarize the steps in making the strobe and ambient lights match:

1. Make your ambient + strobe meter reading
2. Decide which light source you want to correct
3. In the COLOR GRAPH tab, choose that light source
4. Set the filtered light type
5. Select the "Show color filters" checkbox and select the color filters to find one or two that will make your light sources match each other

Scientific Mode

The Illuminati Meter app will also display useful color information and light intensity, and will also plot the light source being measured in

CHROMATICITY Tab

In the CHROMATICITY tab you will see a traditional CIE x,y chromaticity diagram with the light source plotted in x,y space. The CIE x,y coordinates are given to 3 decimal places.
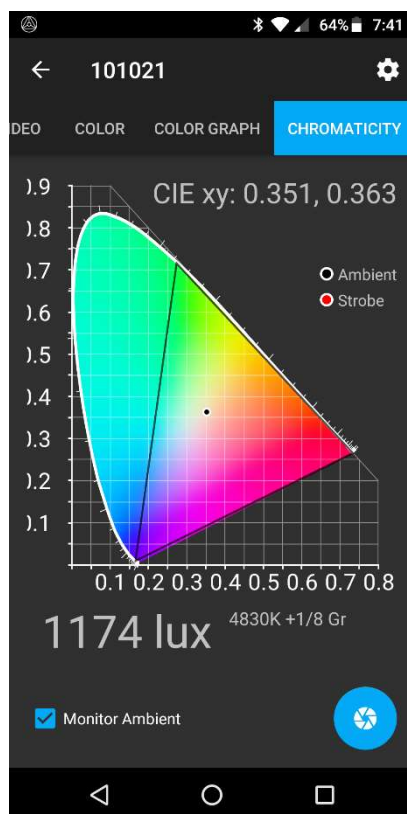
At the bottom of the screen is the illuminance in lux (you can also choose to display footcandles), and the color temperature and green/magenta shift of the light source.

Device Settings

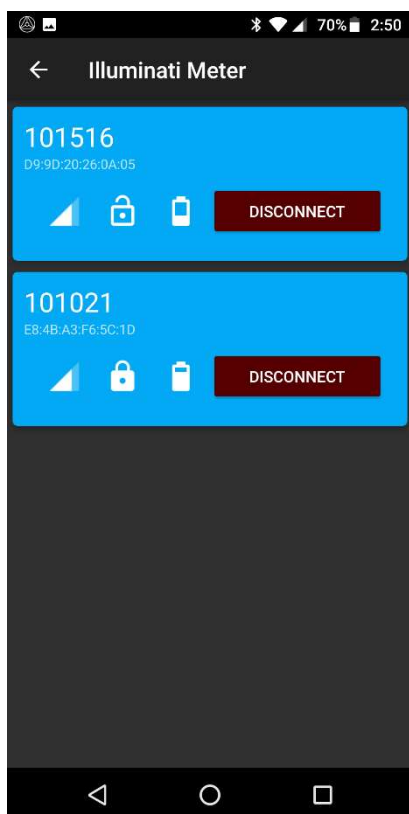The Device Settings menu will upgrade firmware and set several characteristics of your meter. To access Device Settings, simply tap the gear icon, , in the upper right of any of the tabs (STILL, VIDEO, COLOR, COLOR GRAPH, CHROMATICITY). You can also access the Device Settings from the Devices screen by the tapping on the meter you want to address:

The Devices screen

Meter Information
At the top of the Device Settings screen you will find basic information about the meter.

Device Settings Appearance
The Device Settings screen shows you the meter's bonding state and firmware version.

This screen can change its appearance depending on the firmware version installed on the meter and what options are available for that firmware version. When you update the meter's firmware, you may see new options.
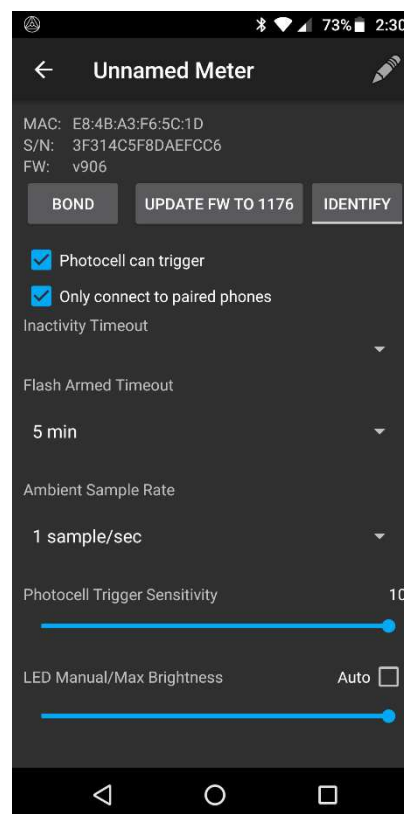
The Device Settings screen for firmware v906

Device Information
At the top of the screen is the meter's name, and a pencil icon that is used to change the meter's name. You must be bonded to your meter in order to change the name.

Next are the meter's MAC address, the serial number, and the firmware version number.

BOND, FIRMWARE, IDENTIFY

And then come the buttons which will BOND your meter and phone, UPDATE firmware, and IDENTIFY your meter by flashing the LEDs in a pattern.

Why Bond?
While not necessary, bonding is needed if:

a. you want to rename your meter
b. you want to update the meter's firmware
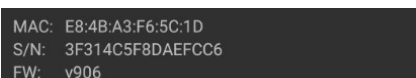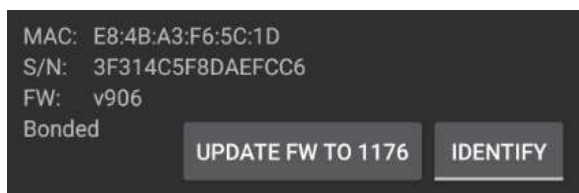c. there are other IM100 meters in the vicinity and you want to ensure connectivity and control between your own smartphone and your illuminati meter.

To Bond
Tap the BOND button. The button will disappear and the LEDs on your meter will flash indicating the meter is bonded. The display also changes to this:

A Note on Bonding
If you have bonded to your phone earlier and get a new phone, your meter may not connect to your new phone. Versions of firmware and the app earlier than this release did not allow a bonded meter to connect to different phones. This behavior has been changed in this version so that you can connect a phone to a meter previously bonded to another phone.

Erasing the Bonding Info
To erase the bonding info in your meter, press and hold the meter's power button for 6 - 8 seconds – until you see the LEDs flash magenta.

It is also good practice to also erase the bonding information in your phone. Open the Android Settings app and look for connected devices. Find Illuminati Meter in the list. Click on the "gear" icon and select "FORGET".
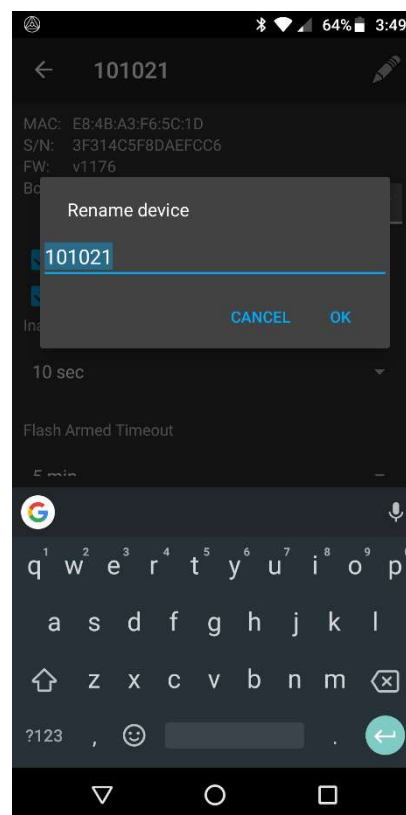
Renaming Your Meter
Once the phone and meter are bonded (paired), the meter's name can be changed.

Click on the pencil icon in the upper right.

Fill in the name you want and tap "OK".
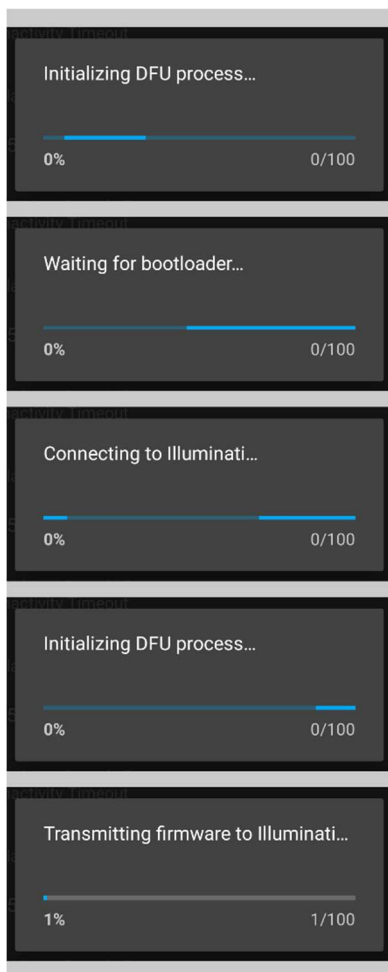

Renaming your meter

Firmware Update
When new firmware is available, the app will download it from the cloud to your meter. There is no need to download a new app version. Note that your meter and phone must be bonded in order to continue.

Tap the FIRMWARE update button.

UPDATE FW TO 1176

The meter and phone will go through several steps to complete the firmware update.

Initializing DFU process…
0%   0/100

Waiting for bootloader…
0%   0/100

Connecting to Illuminati…
0%   0/100

Initializing DFU process…
0%   0/100

Transmitting firmware to Illuminati…
1%   1/100

Firmware update messages from app

The update process lasts a total of 2.5 minutes. When the firmware update is complete, the meter will power down. Restart the meter and it will reconnect to your phone.

Troubleshooting the Firmware Update
If you see this message:

Device disconnected unexpectedly
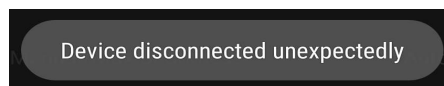
This is normal. The meter will disconnect and reconnect during the firmware update process.

If the firmware update process seems to complete, but after you restart the meter you see the old firmware version number, you phone likely went to sleep before the firmware was fully updated due to inactivity on the phone. If you restart the firmware update, it will pick up right where it left off and continue to upload the new firmware to your meter. If you touch the screen gently while the update is ongoing, the phone will not go to sleep.
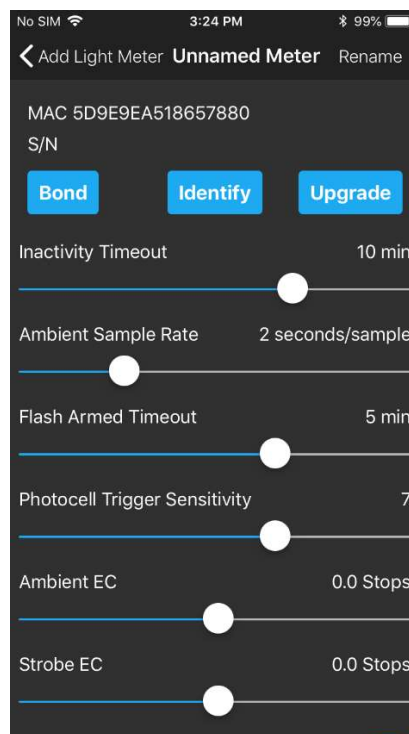
The phone will respond with a Bluetooth pairing request. Select the "Pair" option. The phone and meter will be bonded.

Identify

The other button, IDENTIFY, is useful in situations where multiple meters are used, and you want to know which meter is which – at a distance.
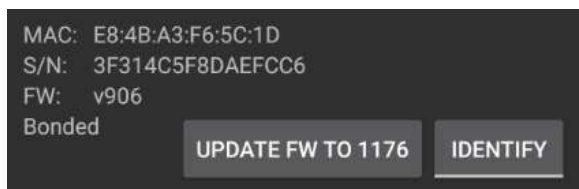
Simply press the "Identify" button, and the LEDs will blink magenta. "Click "Stop Identifying" to end the identify mode.

Settings for Your Device

In addition to bonding, identifying, and renaming, there are several settings for your meter. The screen below will display after you have updated your firmware to version 1176 or higher.
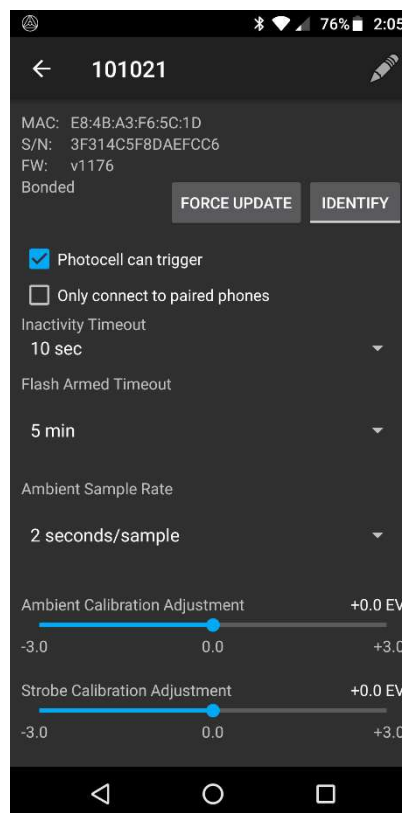
Device Settings for firmware v1176 and higher

Photocell can Trigger
When this box is NOT checked, the meter will only respond to a flash in corded mode. This is useful if you are in a place where strobes that are not yours are also firing.

Only connect to paired phones
If you want this meter to only connect to paired (or bonded) phones, click in this checkbox. For most users, it is recommended to leave this unchecked.

Inactivity Timeout
If the meter is inactive for a period of time, it will automatically power down. The time can be

set in the Inactivity Timeout slider. Values can range from 10 sec. to 30 mins.

Flash Armed Timeout
The flash trigger can be armed and waiting for a trigger event. This setting controls the amount of time until the meter exits "Flash Armed" mode. Values can range from 5 secs. To 30 minutes.

Ambient Sample Rate
The meter can be set to sample the ambient lighting at a set internal. Values can range from 5 samples/sec (1 sample every 0.2 secs.) to 60 seconds per sample (1 sample per minute). A value of 2 seconds per sample is a good start.

Ambient Calibration Adjustment
For ambient readings, you can apply an adjustment to the meter's calibration by using this slider. This adjustment is cancelled if you do a factory reset of the meter. This setting is not available for earlier versions of the firmware.

Strobe Calibration Adjustment
For strobe readings, you can apply an adjustment to the meter's calibration by using this slider. This adjustment is cancelled if you do a factory reset of the meter. This setting is not available for earlier versions of the firmware.
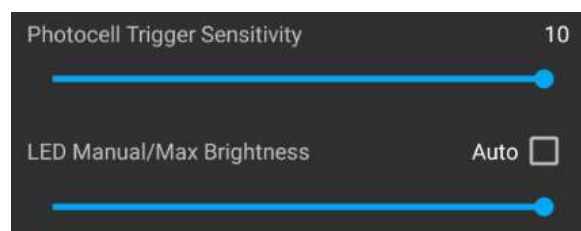
Scroll down a bit to see these settings

Photocell Trigger Sensitivity
This control sets the sensitivity of the flash trigger. Values range from 1 to 10. Set it to a high value if there are few, if any, other light sources in the area. If there are several other light sources in the vicinity that could trigger the cell, a low value will ensure the flash will trigger properly.

LED Manual/Max Brightness
Adjust the brightness of the LEDs using this setting. A brightness setting of "0" will turn the LEDs off completely.

Return to Metering Function

Press the left arrow in the upper right corner to return to the metering function.

LED Colors and Meanings

LED Color	Duration	Meaning
Blue	Blinking, continuous	Power is on. Waiting to connect to your smartphone. Can also mean that you have just lost connection to your smartphone.
Blue Green	Rotating blinking pattern between blue and green	Power is on. Waiting to connect to the smartphone the meter is paired with. Can also mean that you have just lost connection to your smartphone.
Green	Blinking, brief, then stops	The meter just connected to your smartphone.
Yellow-Green	Blinking, continuous	Connected to your smartphone and sending a new reading every time the LEDs flash. You see this when "Monitor Ambient" mode is selected.
Rainbow	Blinking, continuous	You have clicked the Identify button in the App's Device Settings. The meter with the LEDs blinking in a rainbow pattern is connected to the app. Useful to identify meters if you have more than one.
Magenta	Blinking	The power button on the meter has been pressed and held for 8-10 seconds to erase the bonding between your meter and your smartphone. or You are performing a firmware update.
Red	Blinks continuously when light source changes	The meter is in an alarm condition. Check the tiles screen. Red is the default pattern.
Red	Blinks 3 times. Continues to blink red 3 times, at short time intervals	Battery power is low. Change the batteries.
White	Fades out	Power is turning off. You can turn the power off by pressing the power button for about 1.5 seconds.

Troubleshooting Guide

Symptom	Possible Reason and Remedy
LEDs flash red three (3) times in succession after power on.	This is the low battery warning. Check/replace batteries.
LEDs flash red three times and then flash blue continuously in a rotating pattern.	The app has stopped, or the meter has disconnected from the app. The meter is now looking for a connection. 1. Turn the meter off by pressing and holding the power button for 1.5 seconds. The LEDs will flash red then turn white and fade. 2. Stop the app. 3. Restart both the app and the meter.

Meter will not connect.	1. Turn on Location Services (LS). On Android phones this is required. If LS are off, the app won't find the meter. If LS was off, try connecting again. If LS was on and there is still no connection, proceed to step 2.
	2. Clear the bonding states in your phone and your meter:
	  a. Press and hold the meter's power button for 10 seconds – until you see the LEDs start to blink magenta. Then let go of the button. Turn off the meter.
	  b. Go to your smartphone Settings, Connected Devices, Bluetooth. Find the Illuminati Meter entry and Forget it.
	3. From the settings -> Bluetooth section, turn off Bluetooth. The reason for doing this is to reset the Bluetooth "stack". Give it 10 or 15 seconds and turn Bluetooth back on.
	4. Turn on the meter.
	5. Start the App.
	6. For iOS, you will need to select "Scan" to find the meter. For Android, pull down from the

Specifications

Supported Smartphone Operating Systems	Apple iOS 8.1+ Android 4.3+
Connectivity	Bluetooth 4.0 (BLE)
Exposure Measuring Range	1.0 to 1,000,000 lux (-1 to 18 EV)
Color Temperature Range	1,600 K to 20,000 K
Setting Ranges	ISO: 3 to 409,600 in 1/3 stop incr. Shutter Speed: 1/64,000 to 30 sec. in 1/3 stop incr. Shutter Angle: 1 to 358 Aperture: f/0.5 to f/144 Frame Rate: 1 to 1000, plus Custom Exposure Compensation: +/- 3 stops in 1/3 or 1/10 stop incr.
Metering Modes	Ambient - manual or continuous monitoring Flash with sync cord Cordless flash with pre-flash rejection
Flash Sync Connector	3.5 mm (1/8") jack
Operating Range	Up to 80 ft (24 m). Actual range will vary
Battery Type	Two AAA (UM4) batteries
Dimensions	3.0" W x 2.8" D x 0.9" H (78 x 70 x 22 mm) Dome protrudes an additional 0.3" (8 mm) H
Weight	1.75 oz (49 g) without batteries 2.5 oz (73 g) with batteries

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Regulatory Agency Statements

FCC COMPLIANCE STATEMENT

CAUTION: Changes or modifications not expressly approved could void your authority to use this equipment

This device complies with Part 15 of the FCC Rules. Operation 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

INDUSTRY CANADA STATEMENT

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Other Notifications

This product is Bluetooth registered.