How to use an Android phone to measure light and sound in a room

Recently, many people have been using their Android phones to measure the light and sound in their rooms. They are trying to improve their working environment, and Android phones have been a great help in that.

Smartphones have replaced a lot of things over the years, but not all of them are recognizable. It's easy to see how they've replaced watches, calculators, MP3 players, and even standalone cameras for most of us. But beyond those, there are some more unique ways to use your Android phone.

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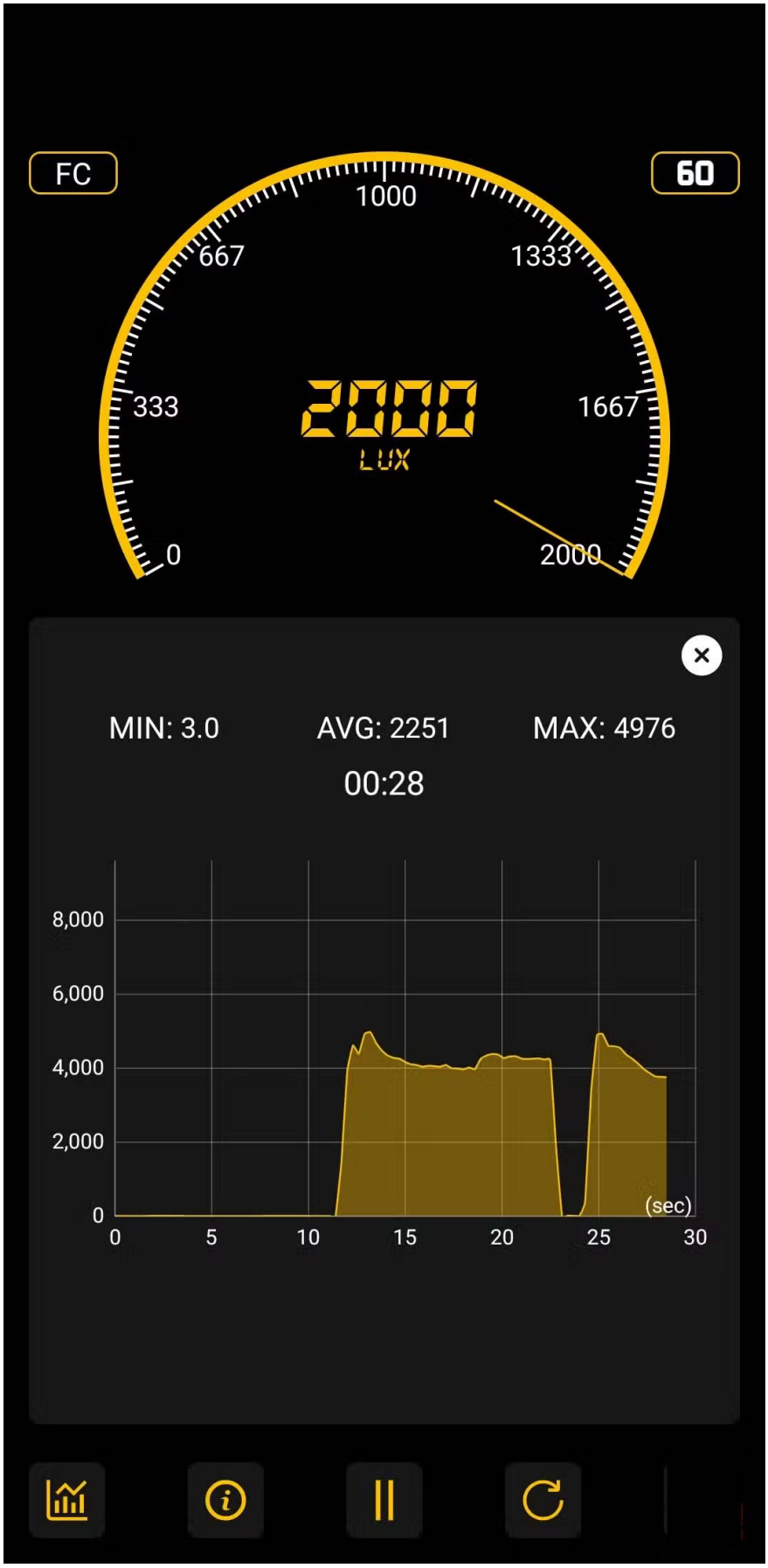
Use your phone as a pocket light meter

Adjust your desk lighting with a free app


FC
231
(LUX)


FC
60
1000
667
1333
333
1667
0
2000
2000
LUX
MIN: 3.0
AVG: 2251
MAX: 4976
00:28
8,000
6,000
4,000
2,000
0
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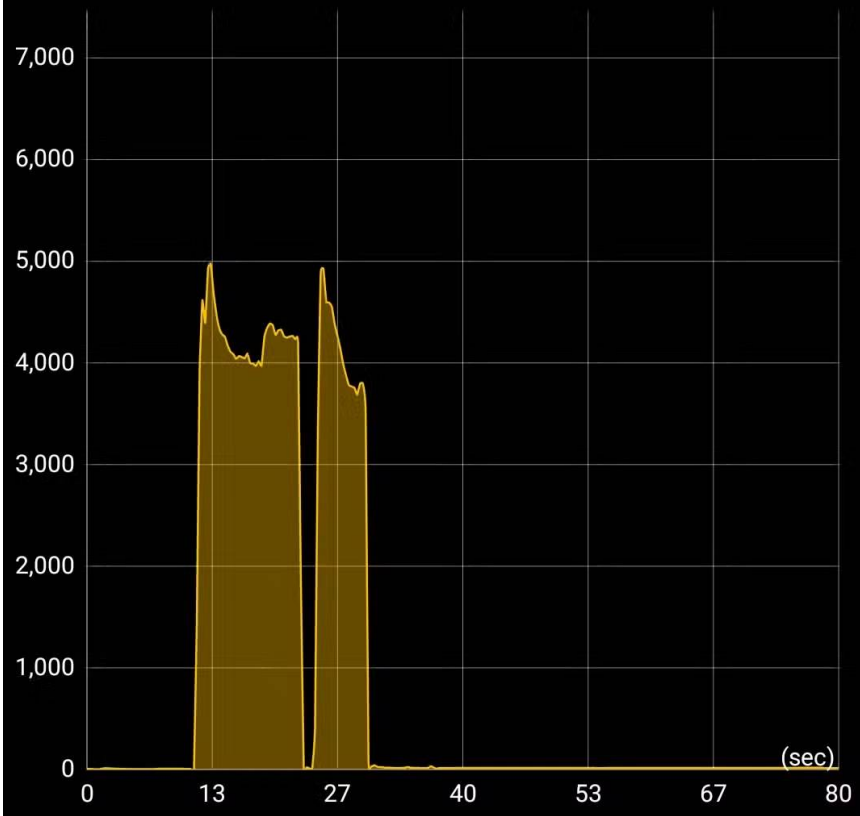
5
10
15
20
25
30
(sec)

2025-11-27 14:48:05



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Min	3.0 LUX
Max	4976 LUX
Avg	872 LUX

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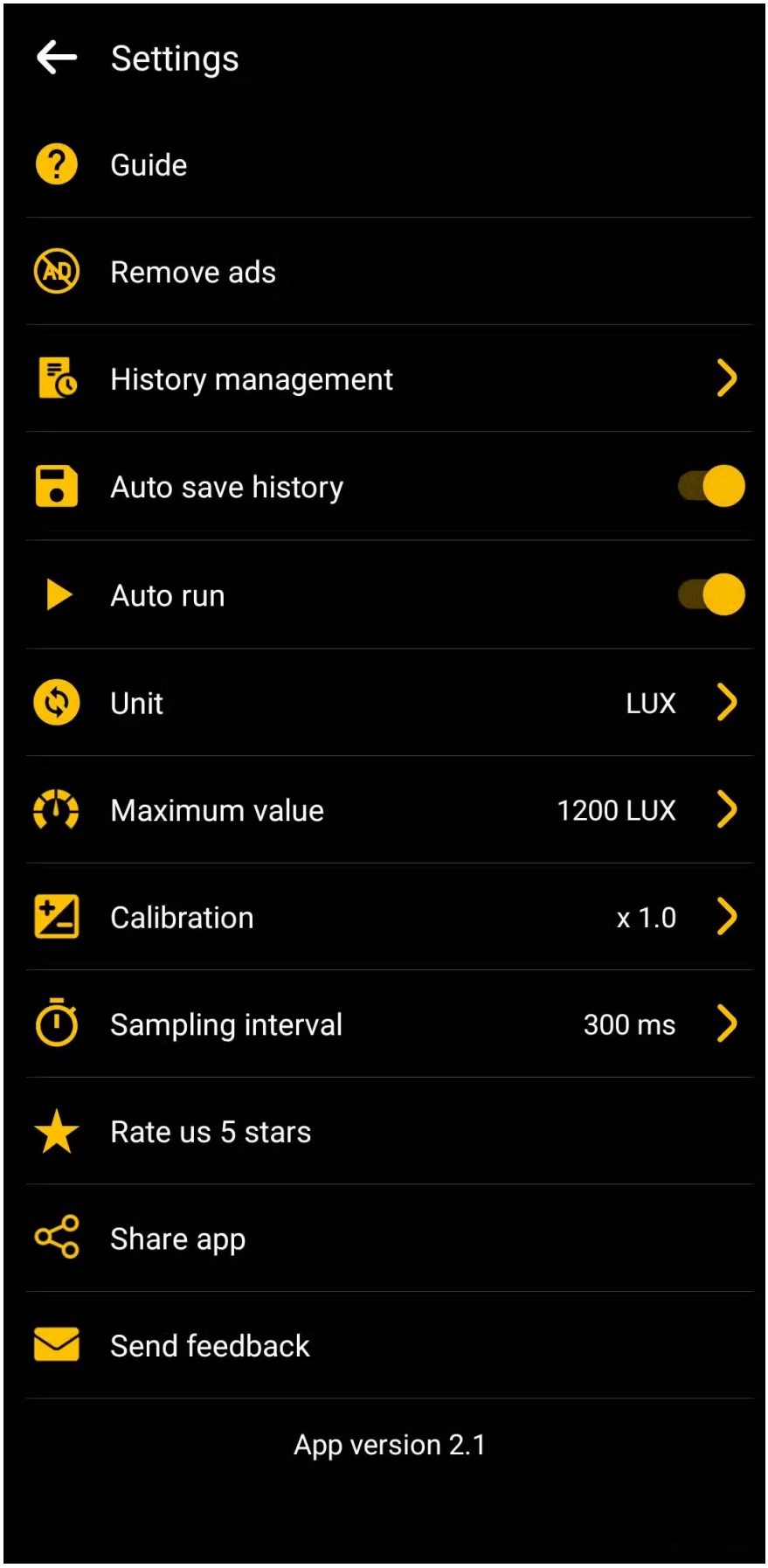
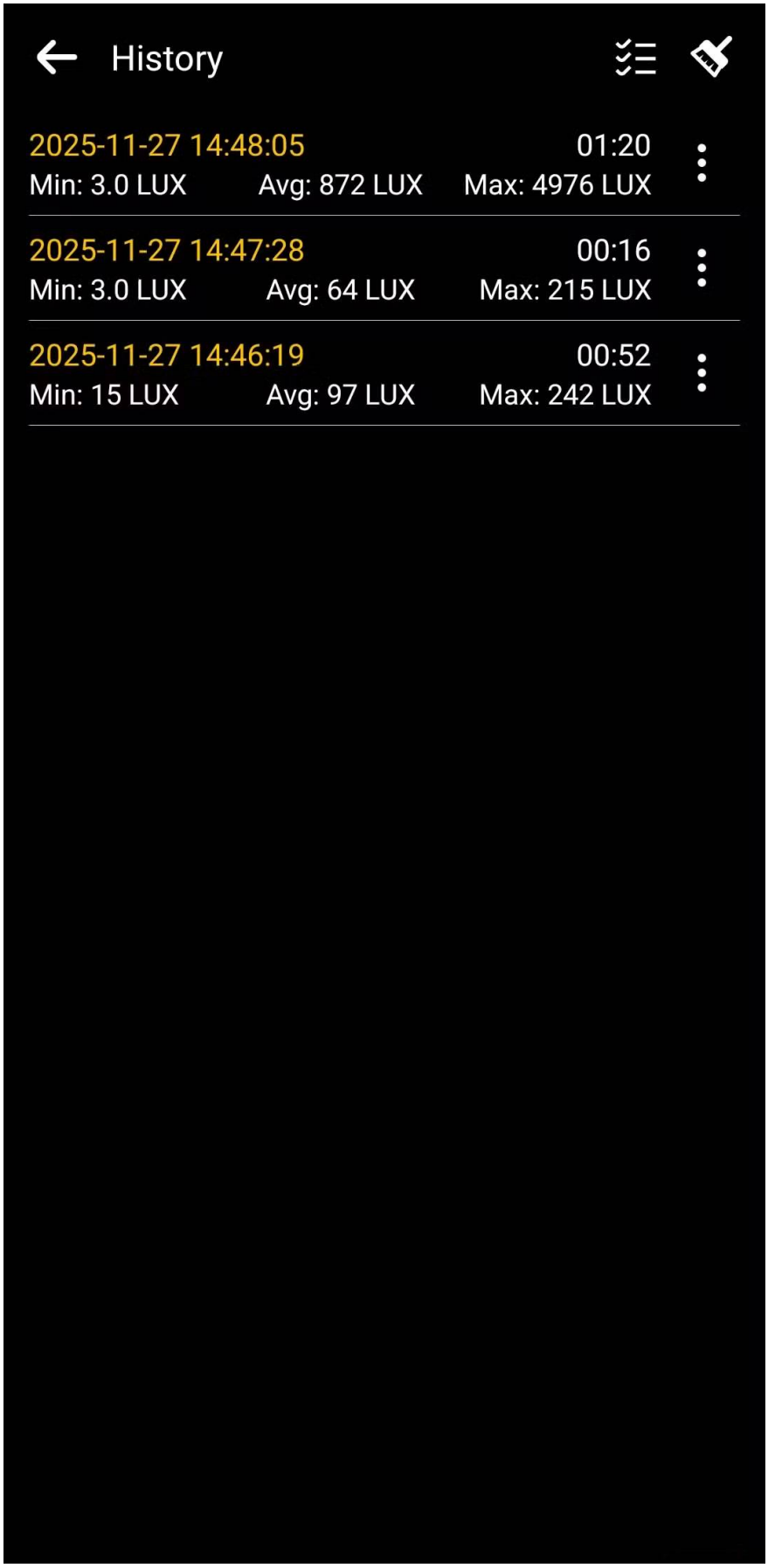

Settings
Guide
Remove ads
History management
Auto save history
Auto run
Unit
LUX
Maximum value
1200 LUX
Calibration
x 1.0
Sampling interval
300 ms
Rate us 5 stars
Share app
Send feedback
App version 2.1


History
2025-11-27 14:48:05
01:20
Min: 3.0 LUX
Avg: 872 LUX
Max: 4976 LUX
2025-11-27 14:47:28
00:16
Min: 3.0 LUX
Avg: 64 LUX
Max: 215 LUX
2025-11-27 14:46:19
00:52
Min: 15 LUX
Avg: 97 LUX
Max: 242 LUX

Many people always think that a specialized device is needed to measure light accurately. Light meters are not necessarily too expensive. But if you are not a photographer or someone who needs to use this device for professional work, then spending money on a device that is rarely used is really unreasonable.

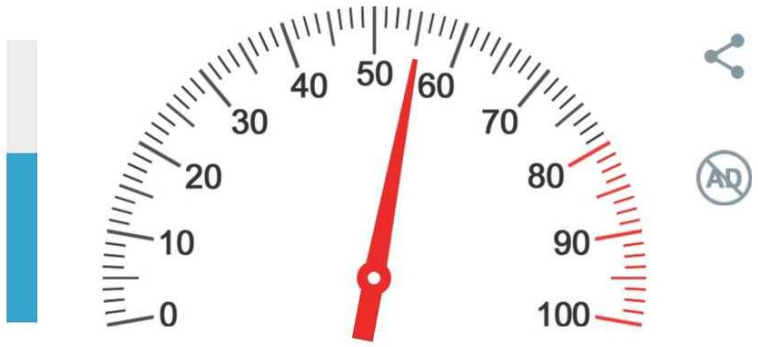
This one got a lot of people thinking. Android phones can automatically adjust their brightness based on their surroundings, so they must be reading the light somehow. And they do! All Android phones have an ambient light sensor near the front camera. Its primary function is to help with adaptive brightness, but with an app like Light Meter , you can actually see and use that data yourself.

I tried this out while testing a desk lamp I purchased for my setup. The lamp has a few different brightness levels, and I wanted to set it to the level that was appropriate for my workspace. By the way, for a general office environment, the recommended light level is between 300 and 600 lux.

All you have to do is open the Light Meter app on your phone, place it on a table, and toggle between different brightness levels. The app lets you choose between a digital and analog interface, and it saves all your readings, which is useful for comparing results. This app is perfect for people who just want to check if a room is too dark or too bright without buying another device that will just sit there.

How to measure daily noise with your phone

Explore ambient noise

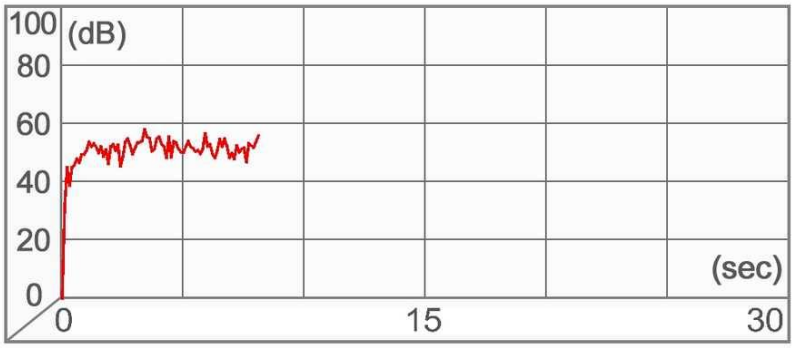


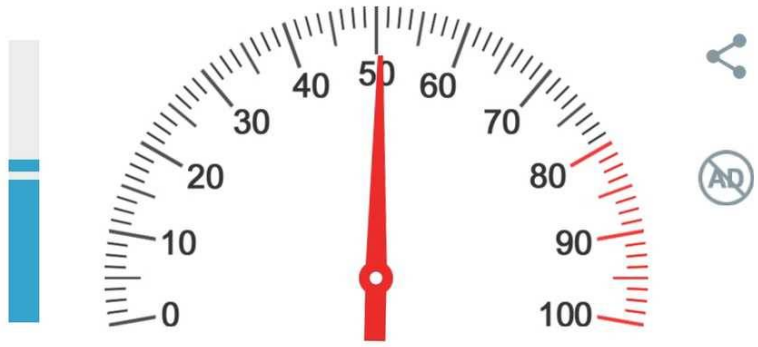
00:08

52.5 dB (SPL)

50dB: quiet office

MIN	AVG	MAX	
0.0	49.9	57.8	3x





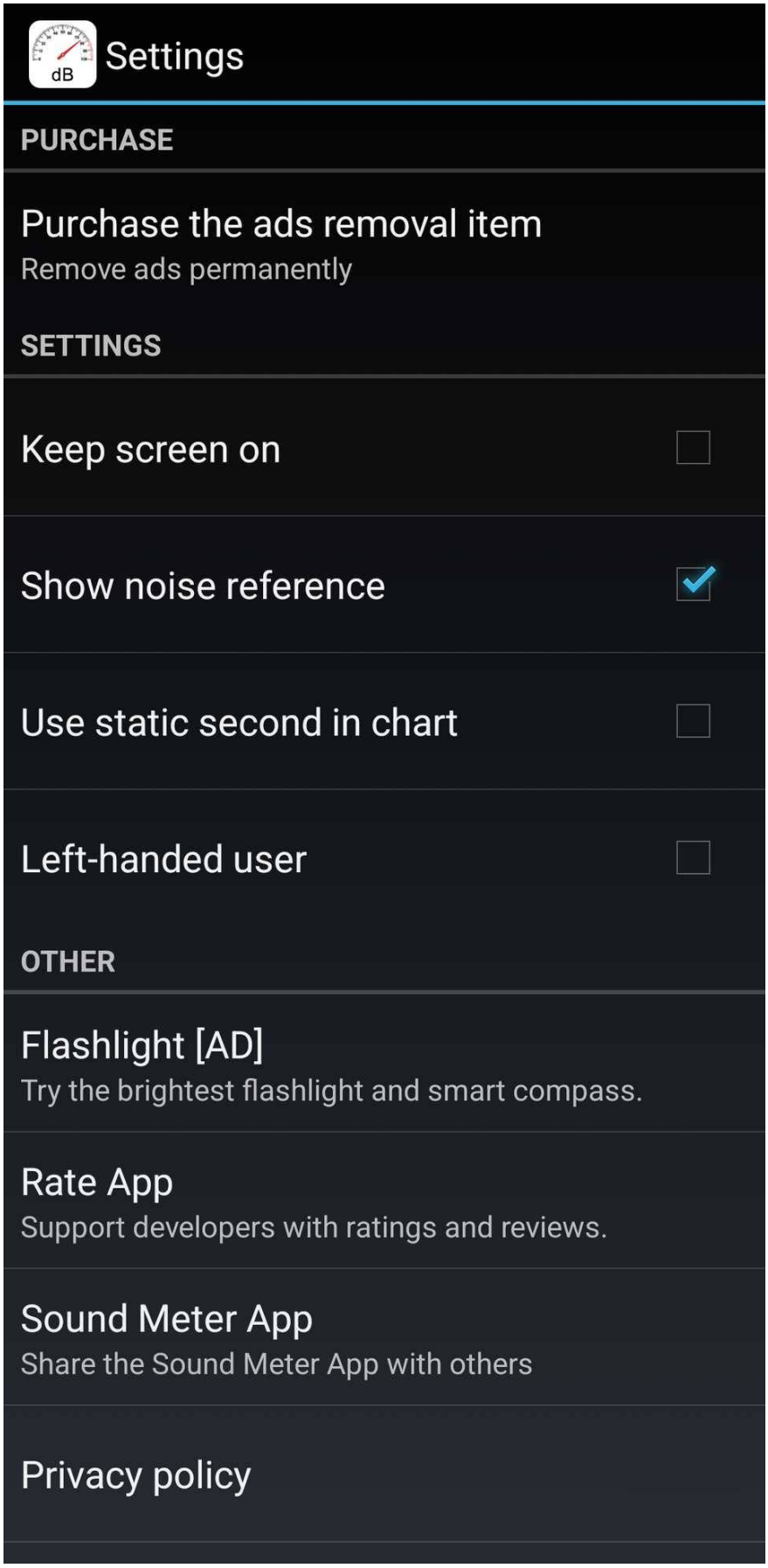
00:10

53.3 dB (SPL)

min 0.0 dB
avg 48.4 dB
max 56.9 dB

120dB: Threshold of pain, Thunder
110dB: Rock music, Car horns
100dB: Blow dryer, Motorcycle
90dB: Diesel truck, Power tools
80dB: Busy street, Alarm clocks
70dB: Busy traffic, Vacuum cleaner
60dB: Normal conversation at 3 ft.
▶ 50dB: Quiet office, Quiet street
40dB: Quiet library, Park
30dB: Whisper, Quiet room
20dB: Mosquito, Rustling leaves
10dB: Breathing, Almost quiet

3x


Settings
PURCHASE
Purchase the ads removal item
Remove ads permanently
SETTINGS
Keep screen on
Show noise reference
Use static second in chart
Left-handed user
OTHER
Flashlight [AD]
Try the brightest flashlight and smart compass.
Rate App
Support developers with ratings and reviews.
Sound Meter App
Share the Sound Meter App with others
Privacy policy

Noise is one of those things you only notice when it becomes annoying. There's a loud street, a whirring fan, or even nearby construction. Many people never really think about how loud their environment is until they start recording voiceovers for video with a dedicated microphone.

The first time they listened to the raw recording in Audacity , they were shocked by how much background noise there was. Sounds they had completely missed suddenly became hard to ignore.

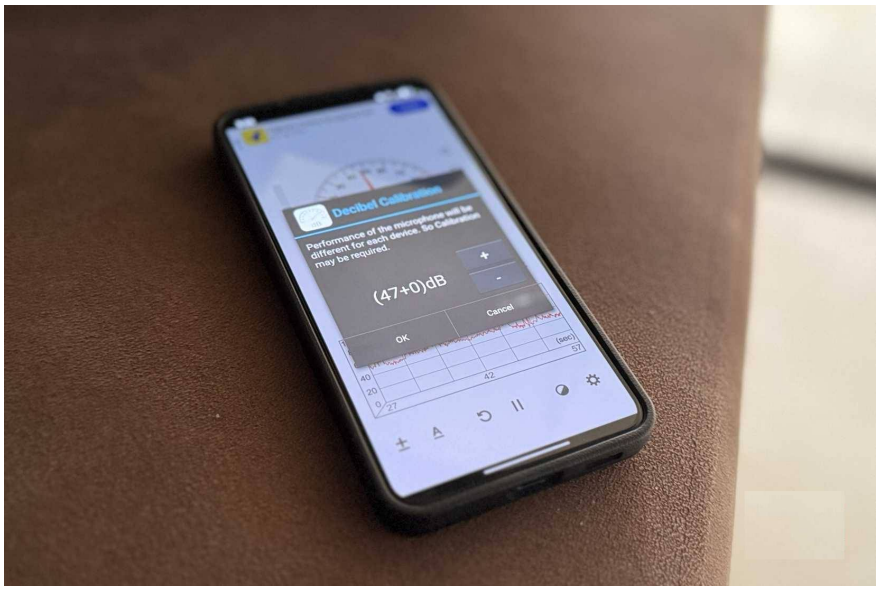
Android phones come with microphones that are incredibly capable of processing sound, and there are plenty of apps like Sound Meter that can measure sound levels in decibels. When you first open the app, a 'quiet' room will hover around 40 to 50 decibels. With the fan on, the sound jumps to 55 decibels.

Finally, you can move the recording setup to a different corner of the room, adjust the fan speed, and even add a door noise blocker to see what difference it makes. All of this has helped reduce the overall noise level to 20 decibels, which is a much more acceptable level for recording.

Using Sound Meter is as easy as Light Meter. You open the app and it starts displaying real-time noise levels. The app also labels sound ranges with examples like quiet office, busy street, or heavy traffic, helping you understand what those numbers actually mean in real life.

The real accuracy of these built-in sensors

Convenience vs. Accuracy



Using an Android phone to measure light and noise levels is convenient, but the obvious question is how accurate these results are. The short answer is that they are not lab-grade measuring devices, but they are not completely useless.

Smartphone sensors and microphones are not designed to be used as measurement tools, and the quality of these components can vary from phone to phone. However, if you have a relatively modern Android phone that is not physically damaged, these light and noise measurement apps can be quite accurate for everyday use.

You can get even more accurate results if you calibrate them. Of course, they will never replace professional tools in a studio, lab, or industrial environment.

Phones can measure a lot more too.

In addition to light and noise, you can use your Android phone to measure a lot of things. Apps like Google Fit can use your phone's sensors to track your steps, distance, and even get an approximate heart rate using the camera and flashlight.

There are also apps like AR Ruler, which turns your phone camera into a virtual tape measure. It lets you measure objects, room sizes, square footage, and even your height. If you have a Pixel 8 Pro or one of the later Pro models, you can even use the Pixel Thermometer app to check the surface temperature of objects.