



# Unlock productivity by upgrading to the new HP EliteBook 840 G9

If you're one of the many professionals who sometimes works remotely, you want to be able to use web-based collaboration applications efficiently and enjoy a seamless videoconferencing experience. As your existing laptop gets older, you may experience slowdowns that can negatively impact your productivity, at which point you might consider upgrading your device.

To understand the benefits you might enjoy by upgrading your device, we tested two similarly configured HP laptops: a previous-generation EliteBook 840 G8 featuring an 11<sup>th</sup> Gen Intel® Core™ i5-1145G7 processor and a new EliteBook 840 G9 featuring a 12<sup>th</sup> Gen Intel Core i5-1245U processor. We compared the performance of the two laptops in a series of benchmark tests.

We found that the latest-generation HP EliteBook 840 G9 featuring a 12<sup>th</sup> Gen Intel Core i5 processor outperformed the previous-generation device in all our tests. If you value performance, the results of our hands-on testing suggest you might consider upgrading your older device.



**20.5% higher**  
SYSmark 25  
overall rating



**17.2% higher**  
CrossMark  
overall rating



**25.0% higher**  
WebXPRT 4  
overall score

Compared to EliteBook 840 G8 featuring an 11<sup>th</sup> Gen Intel Core i5-1145G7 processor



## How we tested

To understand the benefits of upgrading to the new HP EliteBook 840 featuring the latest-generation Intel Core i5 processor, we conducted hands-on testing of two similarly configured devices:

- **An HP EliteBook 840 G8**  
*featuring an Intel Core i5-1145G7 processor*
- **An HP EliteBook 840 G9**  
*featuring an Intel Core i5-1245U processor*

Both devices contained 16 GB of RAM and 512 GB of storage.

To measure the performance of the two devices, we used a series of benchmark tests:

- SYSmark® 25
- CrossMark™
- WebXPRT 4
- Procyon® Office Productivity
- Procyon Photo Editing using Adobe® Photoshop®
- Procyon Photo Editing using Adobe Lightroom® Classic
- Procyon Video Editing using Adobe Premiere® Pro

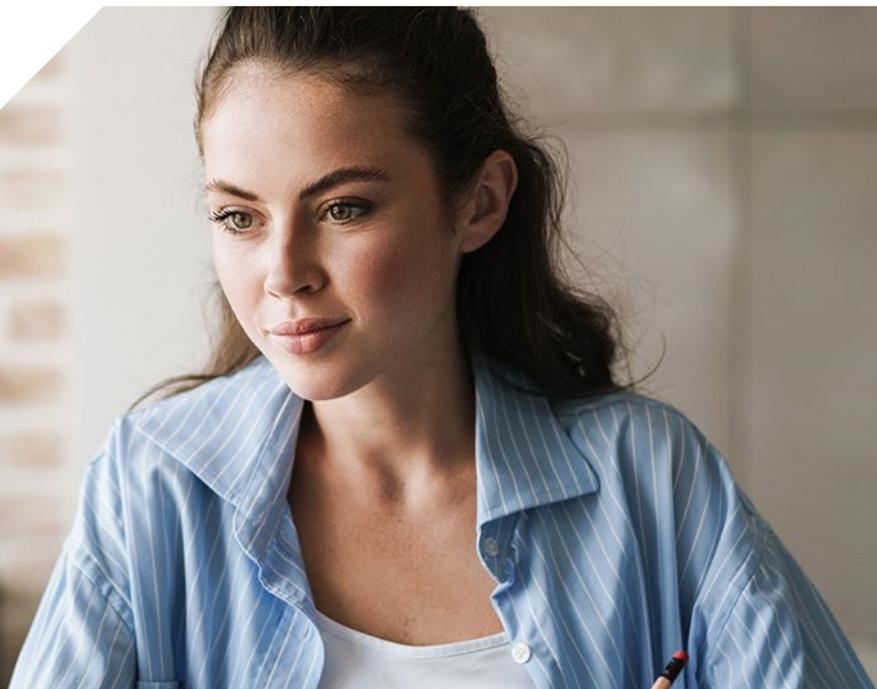
For more information about our workloads and configurations, read the [science behind the report](#).

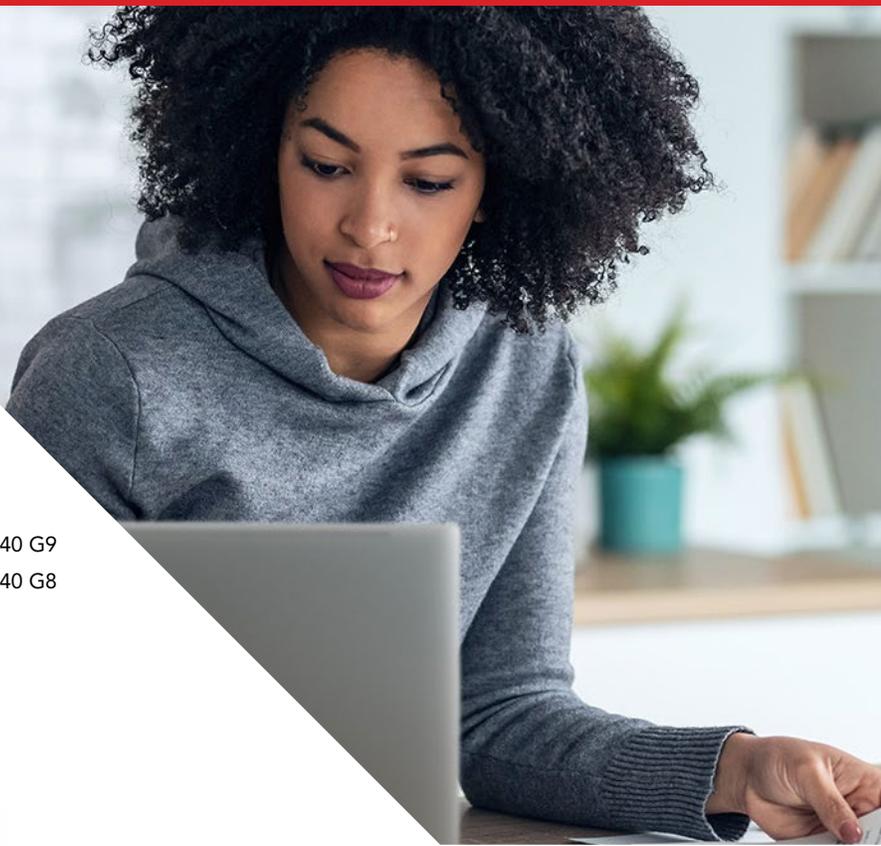


### About the HP EliteBook 800 series

HP EliteBook 800 series devices are Windows 11 Enterprise business laptops that feature 12<sup>th</sup> Gen Intel Core processors and Intel Iris® Xe Graphics as well as support Wi-Fi 6E and Bluetooth 5.2 connectivity. According to HP, the 800 series offers “easily managed conferencing, productivity, and security features” such as a 5MP camera with HP Auto Frame, HP AI Noise Reduction 2.0, and HP Wolf Security.<sup>1</sup>

For more information about HP EliteBook 800 series laptops, visit: <https://www.hp.com/us-en/laptops/business/elitebooks.html>.





## SYSmark 25

Overall rating | Higher is better

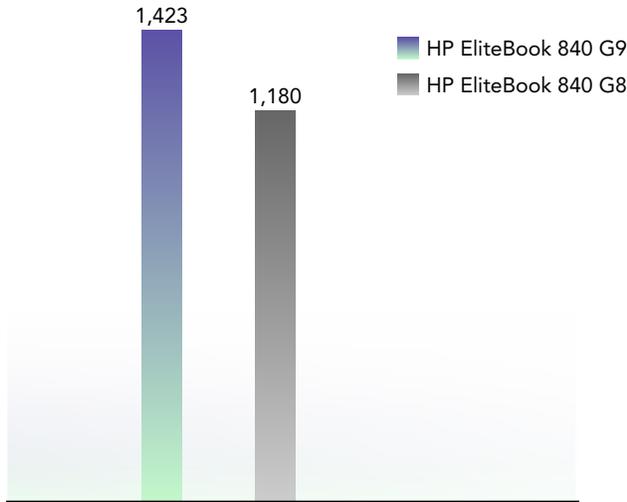


Figure 1: SYSmark 25 benchmark test results. We ran the test three times and report the median result. Higher is better. Source: Principled Technologies.



20.5% higher  
overall rating

## SYSmark 25

Slow responsiveness and performance on your device can cause delays and reduce productivity. The more time you spend waiting for your laptop, the longer every task takes. These delays can add up over time, reducing the number of tasks you can complete.

To compare the responsiveness and performance of the two laptops while running office-centric and media-centric workloads, we used the SYSmark 25 benchmark. If you're wondering how upgrading to the new HP EliteBook 840 G9 might affect your productivity, the results in Figure 1 suggest that upgrading might provide better performance, potentially enabling you to be more productive.

### About SYSmark 25

**BAPCo**<sup>®</sup>, developers of the SYSmark 25 benchmark, says that it measures and compares "system performance using real-world applications and workloads."<sup>2</sup> This benchmark test generates an overall rating based on a combination of results that measure the performance of a system while running office and media tasks and scenarios that model common "pain points" such as file launching and multitasking.



17.2% higher  
overall rating

## CrossMark

Overall rating | Higher is better

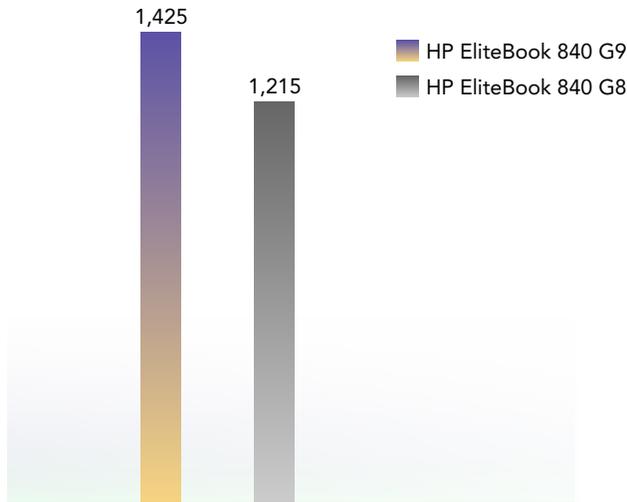


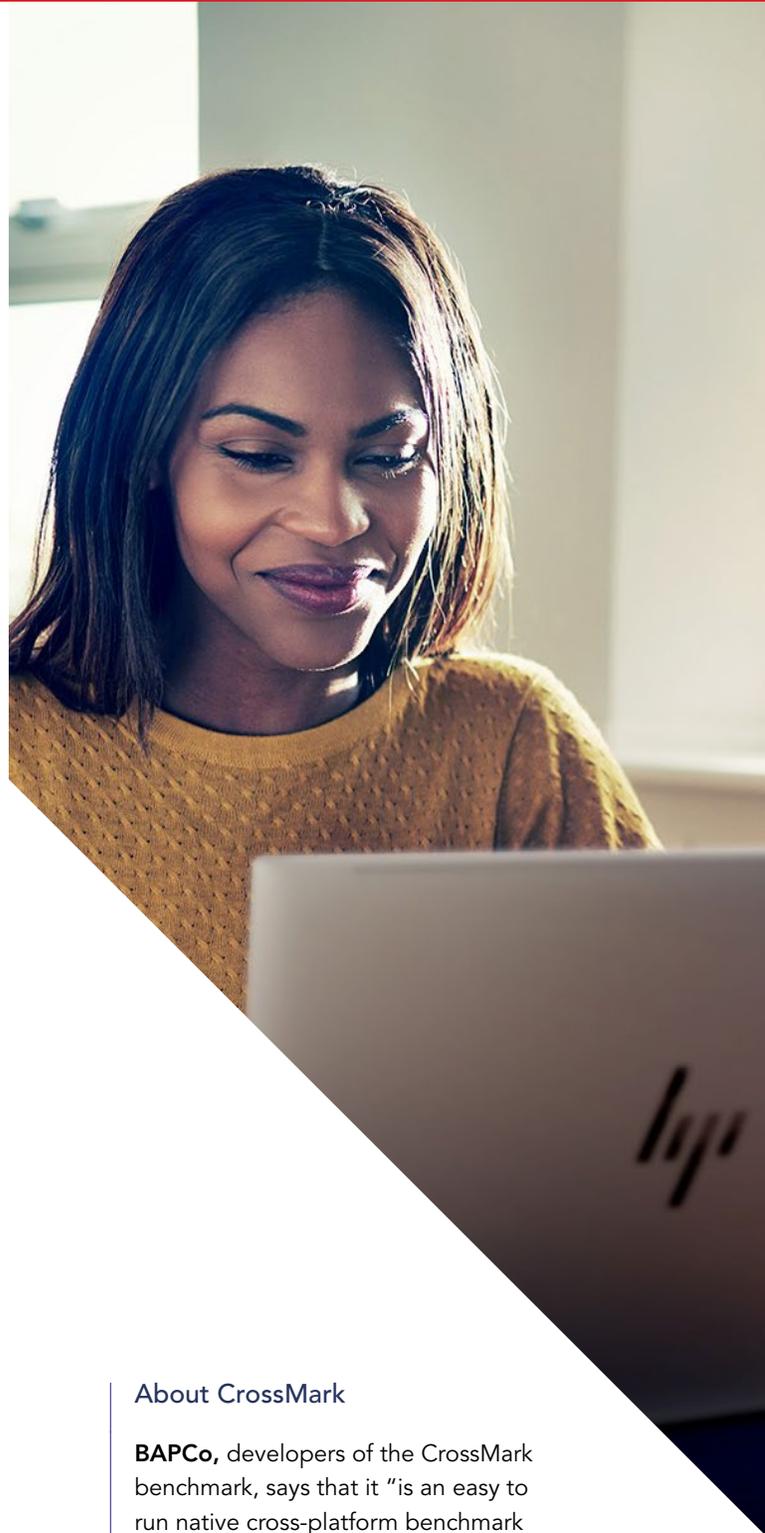
Figure 2: CrossMark benchmark test results. We ran the test three times and report the median result. Higher is better. Source: Principled Technologies.

## CrossMark

To shed more light on the benefits of upgrading your previous-generation laptop, we measured the performance of the devices using the CrossMark benchmark. CrossMark measures responsiveness and performance using models of real-world applications, so it can provide users with a better understanding of how a system might perform day to day. As Figure 2 shows, the HP EliteBook 840 G9 achieved an overall rating that was 17.2 percent higher than the previous-generation EliteBook 840 G8. These results indicate that upgrading your laptop might mean you enjoy better performance in common office-centric scenarios.

### About CrossMark

**BAPCo**, developers of the CrossMark benchmark, says that it “is an easy to run native cross-platform benchmark that measures the overall performance and system responsiveness using models of real-world applications.”<sup>3</sup> BAPCo designed the benchmark to provide a direct comparison of devices and separate ratings for performance and responsiveness.





25.0% higher  
overall rating

### WebXPRT 4 on Edge

Overall score | Higher is better

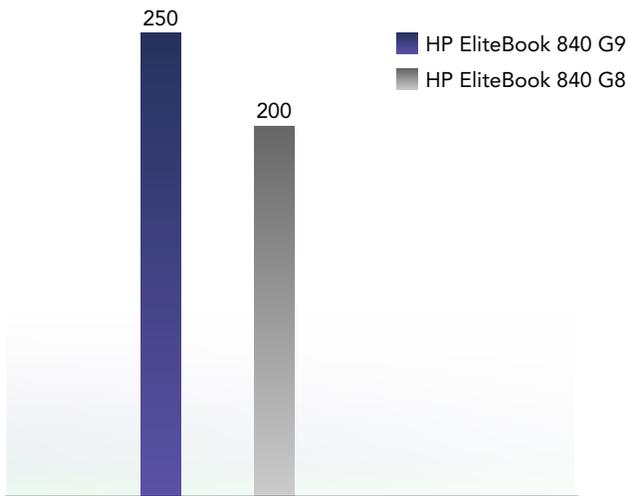


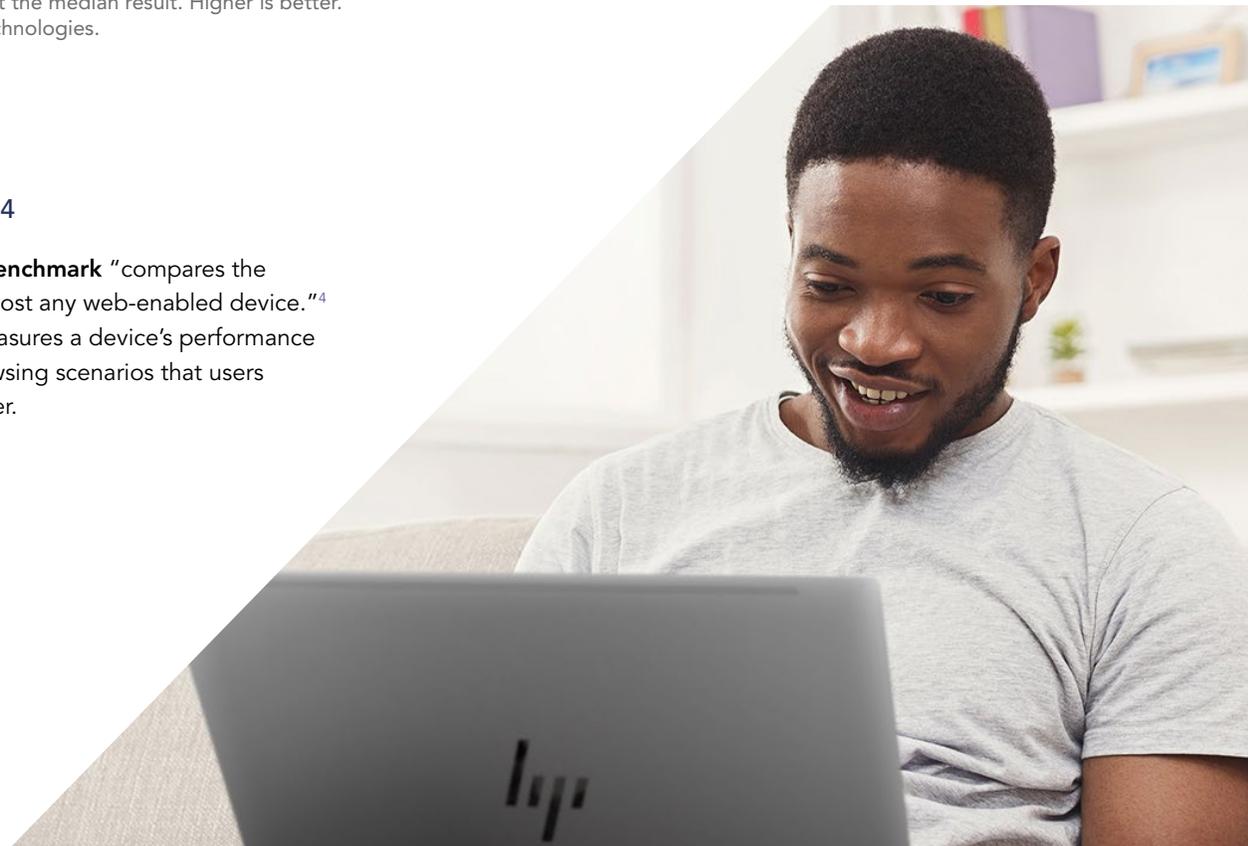
Figure 3: WebXPRT 4 benchmark test results. We ran the test three times and report the median result. Higher is better. Source: Principled Technologies.

## WebXPRT 4

Many professionals use web browsers and web-based applications everyday. A stock broker may browse the web for the latest financial news and a graphic designer may use a web-based application to collaborate with their remote team members. Regardless of which type of work you do, there's a good chance that owning a device that scores higher in this area could improve your day-to-day user experience. To measure the web-browsing performance of the two laptops running Microsoft Edge, we used the WebXPRT 4 benchmark. Our testing found that the HP EliteBook 840 G9 had an overall score that was 25 percent higher than the previous generation device (Figure 3). Based on these results, you might enjoy a better web-browsing experience and enhance your ability to collaborate in web-based applications by upgrading your device.

### About WebXPRT 4

**The WebXPRT 4 benchmark** "compares the performance of almost any web-enabled device."<sup>4</sup> The benchmark measures a device's performance in various web-browsing scenarios that users frequently encounter.





10.1% higher  
overall rating

### Procyon Office Productivity Benchmark

Overall rating | Higher is better

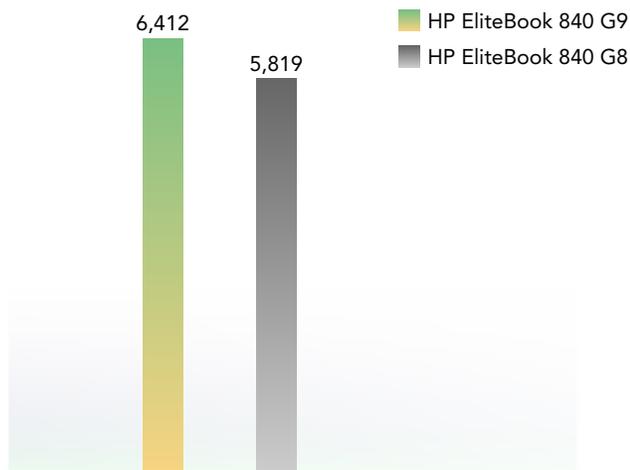


Figure 4: Procyon Office Productivity Benchmark test results. We ran the test three times and report the median result. Higher is better. Source: Principled Technologies.

## Procyon Office Productivity

To understand the benefits of upgrading for business workers who commonly use the Microsoft Office suite of applications, we used the Procyon Office Productivity Benchmark. The Procyon Office Productivity Benchmark measures the performance of laptops while they complete office-productivity tasks in Microsoft Excel, Word, Outlook, and PowerPoint. Figure 4 shows that for these types of users, upgrading to the latest-generation HP EliteBook 840 G9 might improve their productivity while using these applications.

### About the Procyon suite of benchmark tests

**The Procyon suite of benchmark tests** evaluates the performance of systems while running different types of workloads. The Procyon Office Productivity Benchmark measures the performance of systems while they complete common productivity tasks in the Microsoft Office suite of apps (Microsoft Excel, Word, Outlook, and PowerPoint). The Procyon Photo Editing Benchmark measures the performance of systems while they complete common photo-editing tasks such as image retouching in Adobe Photoshop and Adobe Lightroom Classic. The Procyon Video Editing Benchmark measures the video-editing performance of systems while using Adobe Premiere Pro. According to UL, developers of the Procyon suite of benchmark tests, the benchmark suite “uses real applications where possible.”<sup>5</sup>

## Procyon Photo and Video Editing

If you use compute-intensive applications such as photo-editing and video-editing software, it can be difficult to know how well a device will handle these workloads. Imagine a wedding photographer who takes 3,600+ photos for one client and has to make multiple edits to all of them: even a delay of a few seconds for each edit can add up fast. Even if you don't edit photos or videos, it can be beneficial to know how a device will perform while processing demanding workloads. To get a better understanding of how well the laptops handled photo-editing and video-editing workloads, we used the Procyon Photo Editing and Procyon Video Editing benchmarks. The results shown below in Figure 5 and 6 suggest that if you frequently need your device to process these types of heavy workloads, you might benefit from upgrading to the new HP EliteBook 840 G9.



**8.2% higher**  
overall score



**12.3% higher**  
overall score

### Procyon Photo Editing Benchmark using Adobe Photoshop & Adobe Lightroom Classic

Overall score | Higher is better

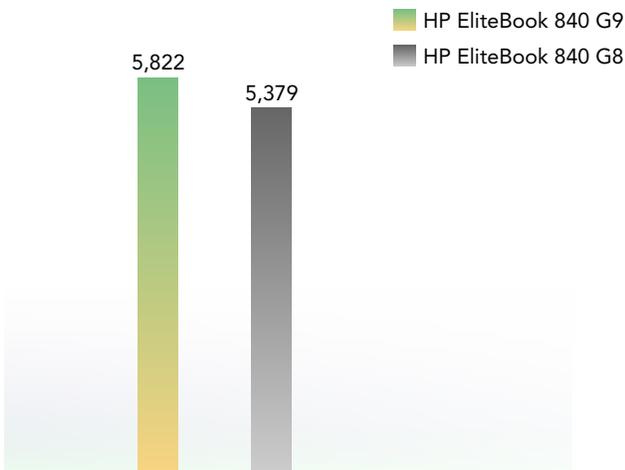


Figure 5: Procyon Photo Editing Benchmark test results. We ran the test three times and report the median result. Higher is better. Source: Principled Technologies.

### Procyon Video Editing Benchmark using Adobe Premiere Pro

Overall score | Higher is better

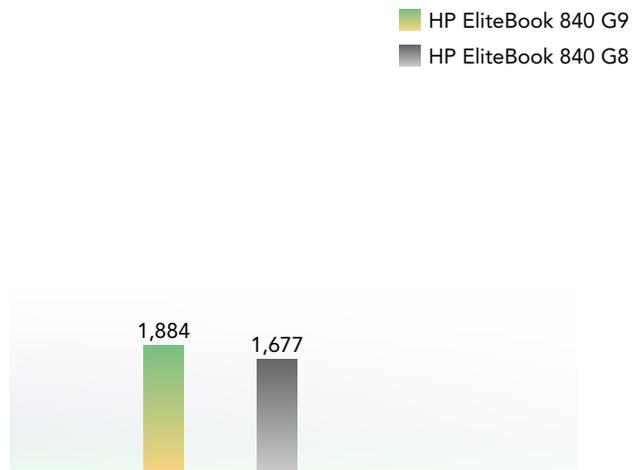


Figure 6: Procyon Video Editing Benchmark test results. We ran the test three times and report the median result. Higher is better. Source: Principled Technologies.

## Conclusion

We compared the performance of a previous-generation HP EliteBook 840 G8 featuring an 11<sup>th</sup> Gen Intel Core i5-1145G7 processor to that of a new EliteBook 840 G9 featuring a 12<sup>th</sup> Gen Intel Core i5-1245U processor and found that the new-generation device achieved higher scores in all of our benchmark tests.



1. HP, "HP EliteBook series," accessed November 22, 2022, <https://www.hp.com/us-en/laptops/business/elitebooks.html>.
2. BAPCo, "SYSmark 25," accessed November 16, 2022, <https://bapco.com/products/sysmark-25/>.
3. BAPCo, "CrossMark," accessed November 16, 2022, <https://bapco.com/products/crossmark/>.
4. Principled Technologies, "WebXPRT 4," accessed November 16, 2022, <https://www.principledtechnologies.com/benchmarkxpert/webxpert/>.
5. UL, "UL Procyon user guide," accessed November 16, 2022, <https://support.benchmarks.ul.com/support/solutions/articles/44002268191-ul-procyon-user-guide>.

Read the science behind this report at <https://facts.pt/Y84daRE> ▶



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