



low-end-gpus

AMD Ryzen 7 5800X 8-Core testing with a ASRock X570 Pro4 (P4.20 BIOS) and AMD Radeon RX 6700 XT 12GB on Ubuntu 22.04 via the Phoronix Test Suite.

Automated Executive Summary

RX 6800 had the most wins, coming in first place for 69% of the tests.

Based on the geometric mean of all complete results, the fastest (RX 6800) was 2.089x the speed of the slowest (RX 6500 XT). RX 6700 XT was 0.93x the speed of RX 6800, RX 6600 XT was 0.89x the speed of RX 6700 XT, RX 5700 XT was 0.987x the speed of RX 6600 XT, RX 6600 was 0.915x the speed of RX 5700 XT, RX Vega 56 was 0.877x the speed of RX 6600, RX 590 8GB was 0.83x the speed of RX Vega 56, RX 5500 XT 4GB was 0.933x the speed of RX 590 8GB, RX 6500 XT was 0.943x the speed of RX 5500 XT 4GB.

The results with the greatest spread from best to worst included:

DiRT Rally 2.0 (Resolution: 1920 x 1080 - Graphics Preset: Ultra) at 8.74x

Shadow of the Tomb Raider (Resolution: 1920 x 1080 - Graphics Preset: High - Anti Aliasing: Off) at 8.512x

DDRaceNetwork (Resolution: 1920 x 1080 - Mode: Fullscreen - Renderer: OpenGL 3.3 - Zoom: Default - Demo: RaiNyMore2) at 3.847x

Unigine Heaven (Resolution: 1920 x 1080 - Mode: Fullscreen - Renderer: OpenGL) at 3.336x

DiRT Rally 2.0 (Resolution: 1920 x 1080 - Graphics Preset: High) at 3.22x

Strange Brigade (Resolution: 1920 x 1080 - Graphics Setting: Ultra) at 3.154x

Unigine Superposition (Resolution: 1920 x 1080 - Mode: Fullscreen - Quality: Low - Renderer: OpenGL) at 3.127x

Strange Brigade (Resolution: 1920 x 1080 - Graphics Setting: High) at 2.993x

HITMAN 3 (Resolution: 1920 x 1080 - Quality Level: Ultra) at 2.821x

Strange Brigade (Resolution: 1920 x 1080 - Graphics Setting: Medium) at 2.758x.

Test Systems:

RX 5500 XT 4GB

Processor: AMD Ryzen 7 5800X 8-Core @ 3.80GHz (8 Cores / 16 Threads), Motherboard: ASRock X570 Pro4 (P4.20 BIOS), Chipset: AMD Starship/Matisse, Memory: 16GB, Disk: 1000GB Sabrent Rocket 4.0 1TB + 2000GB, Graphics: Sapphire AMD Radeon RX 5500 XT 4GB (1900/875MHz), Audio: AMD Navi 10 HDMI Audio, Monitor: ASUS MG28U, Network: Intel I211

OS: Ubuntu 22.04, Kernel: 5.16.0-051600-generic (x86_64), Desktop: GNOME Shell 40.5, Display Server: X Server + Wayland, OpenGL: 4.6 Mesa 22.0.0-devel (git-2002e87 2022-01-24 jammy-oibaf-ppa) (LLVM 13.0.0 DRM 3.44), Vulkan: 1.2.199, Compiler: GCC 11.2.0, File-System: ext4, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: madvise

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-bootstrap --enable-cet --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,m2 --enable-libphobos-checking=release --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-link-serialization=2 --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-11-iOLsLC/gcc-11-11.2.0/debian/tmp-nvptx/usr,amdgc-nvptx=/build/gcc-11-iOLsLC/gcc-11-11.2.0/debian/tmp-gcn/usr --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-build-config=bootstrap-lto-lean --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib=auto --with-tune=generic --without-cuda-driver -v

Processor Notes: Scaling Governor: acpi-cpufreq performance (Boost: Enabled) - CPU Microcode: 0xa201016

Graphics Notes: BAR1 / Visible vRAM Size: 4080 MB

Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl + spectre_v1: Mitigation of usercopy/swaps barriers and __user pointer sanitization + spectre_v2: Mitigation of Full AMD retpoline IBPB: conditional IBRS_FW STIBP: always-on RSB filling + srbds: Not affected + tsx_async_abort: Not affected

RX 590 8GB

Processor: AMD Ryzen 7 5800X 8-Core @ 3.80GHz (8 Cores / 16 Threads), Motherboard: ASRock X570 Pro4 (P4.20 BIOS), Chipset: AMD Starship/Matisse, Memory: 16GB, Disk: 1000GB Sabrent Rocket 4.0 1TB + 2000GB, Graphics: Sapphire AMD Radeon RX 590 8GB (1560/2100MHz), Audio: AMD Ellesmere HDMI Audio, Monitor: ASUS MG28U, Network: Intel I211

OS: Ubuntu 22.04, Kernel: 5.16.0-051600-generic (x86_64), Desktop: GNOME Shell 40.5, Display Server: X Server + Wayland, OpenGL: 4.6 Mesa 22.0.0-devel (git-2002e87 2022-01-24 jammy-oibaf-ppa) (LLVM 13.0.0 DRM 3.44), Vulkan: 1.2.199, Compiler: GCC 11.2.0, File-System: ext4, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: madvise

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-bootstrap --enable-cet --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,m2 --enable-libphobos-checking=release --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-link-serialization=2 --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-11-iOLsLC/gcc-11-11.2.0/debian/tmp-nvptx/usr,amdgc-nvptx=/build/gcc-11-iOLsLC/gcc-11-11.2.0/debian/tmp-gcn/usr --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-build-config=bootstrap-lto-lean --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib=auto --with-tune=generic --without-cuda-driver -v

Processor Notes: Scaling Governor: acpi-cpufreq performance (Boost: Enabled) - CPU Microcode: 0xa201016

Graphics Notes: BAR1 / Visible vRAM Size: 8192 MB

Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl +

spectre_v1: Mitigation of usercopy/swaps barriers and __user pointer sanitization + spectre_v2: Mitigation of Full AMD retpoline IBPB: conditional IBRS_FW STIBP: always-on RSB filling + srbds: Not affected + tsx_async_abort: Not affected

RX Vega 56

Processor: AMD Ryzen 7 5800X 8-Core @ 3.80GHz (8 Cores / 16 Threads), Motherboard: ASRock X570 Pro4 (P4.20 BIOS), Chipset: AMD Starship/Matisse, Memory: 16GB, Disk: 1000GB Sabrent Rocket 4.0 1TB + 2000GB, Graphics: AMD Radeon RX 56/64 8GB (1590/800MHz), Audio: AMD Vega 10 HDMI Audio, Monitor: ASUS MG28U, Network: Intel I211

OS: Ubuntu 22.04, Kernel: 5.16.0-051600-generic (x86_64), Desktop: GNOME Shell 40.5, Display Server: X Server 1.20.14 + Wayland, OpenGL: 4.6 Mesa 22.0.0-devel (git-2002e87 2022-01-24 jammy-oibaf-ppa) (LLVM 13.0.0 DRM 3.44), Vulkan: 1.2.199, Compiler: GCC 11.2.0, File-System: ext4, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: madvise

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-bootstrap --enable-cet --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,m2 --enable-libphobos-checking=release --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-link-serialization=2 --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-11-iOLsLC/gcc-11-11.2.0/debian/tmp-nvptx/usr,amdgc-n-amdhsa=/build/gcc-11-iOLsLC/gcc-11-11.2.0/debian/tmp-gcn/usr --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch=32=i686 --with-build-config=bootstrap-lto-lean --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib=auto --with-tune=generic --without-cuda-driver -v

Processor Notes: Scaling Governor: acpi-cpufreq performance (Boost: Enabled) - CPU Microcode: 0xa201016

Graphics Notes: BAR1 / Visible vRAM Size: 8176 MB

Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl + spectre_v1: Mitigation of usercopy/swaps barriers and __user pointer sanitization + spectre_v2: Mitigation of Full AMD retpoline IBPB: conditional IBRS_FW STIBP: always-on RSB filling + srbds: Not affected + tsx_async_abort: Not affected

RX 5700 XT

Processor: AMD Ryzen 7 5800X 8-Core @ 3.80GHz (8 Cores / 16 Threads), Motherboard: ASRock X570 Pro4 (P4.20 BIOS), Chipset: AMD Starship/Matisse, Memory: 16GB, Disk: 1000GB Sabrent Rocket 4.0 1TB + 2000GB, Graphics: AMD Radeon RX 5700 XT 8GB (2100/875MHz), Audio: AMD Navi 10 HDMI Audio, Monitor: ASUS MG28U, Network: Intel I211

OS: Ubuntu 22.04, Kernel: 5.16.0-051600-generic (x86_64), Desktop: GNOME Shell 40.5, Display Server: X Server 1.20.14 + Wayland, OpenGL: 4.6 Mesa 22.0.0-devel (git-2002e87 2022-01-24 jammy-oibaf-ppa) (LLVM 13.0.0 DRM 3.44), Vulkan: 1.2.199, Compiler: GCC 11.2.0, File-System: ext4, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: madvise

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-bootstrap --enable-cet --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,m2 --enable-libphobos-checking=release --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-link-serialization=2 --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-11-iOLsLC/gcc-11-11.2.0/debian/tmp-nvptx/usr,amdgc-n-amdhsa=/build/gcc-11-iOLsLC/gcc-11-11.2.0/debian/tmp-gcn/usr --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch=32=i686 --with-build-config=bootstrap-lto-lean --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib=auto --with-tune=generic --without-cuda-driver -v

Processor Notes: Scaling Governor: acpi-cpufreq performance (Boost: Enabled) - CPU Microcode: 0xa201016

Graphics Notes: BAR1 / Visible vRAM Size: 8176 MB

Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl + spectre_v1: Mitigation of usercopy/swaps barriers and __user pointer sanitization + spectre_v2: Mitigation of Full AMD retpoline IBPB: conditional IBRS_FW STIBP: always-on RSB filling + srbds: Not affected + tsx_async_abort: Not affected

RX 6800

Processor: AMD Ryzen 7 5800X 8-Core @ 3.80GHz (8 Cores / 16 Threads), Motherboard: ASRock X570 Pro4 (P4.20 BIOS), Chipset: AMD Starship/Matisse, Memory: 16GB, Disk: 1000GB Sabrent Rocket 4.0 1TB + 2000GB, Graphics: AMD Radeon RX 6800 16GB (2475/1000MHz), Audio: AMD Navi 21 HDMI Audio, Monitor: ASUS MG28U, Network: Intel I211

OS: Ubuntu 22.04, Kernel: 5.16.0-051600-generic (x86_64), Desktop: GNOME Shell 40.5, Display Server: X Server

1.20.14 + Wayland, OpenGL: 4.6 Mesa 22.0.0-devel (git-2002e87 2022-01-24 jammy-oibaf-ppa) (LLVM 13.0.0 DRM 3.44), Vulkan: 1.2.199, Compiler: GCC 11.2.0, File-System: ext4, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: madvise

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-bootstrap --enable-cet --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,m2 --enable-libphobos-checking=release --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-link-serialization=2 --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-11-iOLsLC/gcc-11-11.2.0/debian/tmp-nvptx/usr,amdgc-n-amdhsa=/build/gcc-11-iOLsLC/gcc-11-11.2.0/debian/tmp-gcn/usr --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-build-config=bootstrap-lto-lean --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib=auto --with-tune=generic --without-cuda-driver -v

Processor Notes: Scaling Governor: acpi-cpufreq performance (Boost: Enabled) - CPU Microcode: 0xa201016

Graphics Notes: BAR1 / Visible vRAM Size: 16368 MB

Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl + spectre_v1: Mitigation of usercopy/swaps barriers and __user pointer sanitization + spectre_v2: Mitigation of Full AMD retpoline IBPB: conditional IBRS_FW STIBP: always-on RSB filling + srbds: Not affected + tsx_async_abort: Not affected

RX 6500 XT

Processor: AMD Ryzen 7 5800X 8-Core @ 3.80GHz (8 Cores / 16 Threads), Motherboard: ASRock X570 Pro4 (P4.20 BIOS), Chipset: AMD Starship/Matisse, Memory: 16GB, Disk: 1000GB Sabrent Rocket 4.0 1TB + 2000GB, Graphics: Sapphire AMD BEIGE_GOBY 4GB (2975/1124MHz), Audio: AMD Navi 21 HDMI Audio, Monitor: ASUS MG28U, Network: Intel I211

OS: Ubuntu 22.04, Kernel: 5.16.0-051600-generic (x86_64), Desktop: GNOME Shell 40.5, Display Server: X Server 1.20.14 + Wayland, OpenGL: 4.6 Mesa 22.0.0-devel (git-2002e87 2022-01-24 jammy-oibaf-ppa) (LLVM 13.0.0 DRM 3.44), Vulkan: 1.2.199, Compiler: GCC 11.2.0, File-System: ext4, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: madvise

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-bootstrap --enable-cet --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,m2 --enable-libphobos-checking=release --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-link-serialization=2 --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-11-iOLsLC/gcc-11-11.2.0/debian/tmp-nvptx/usr,amdgc-n-amdhsa=/build/gcc-11-iOLsLC/gcc-11-11.2.0/debian/tmp-gcn/usr --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-build-config=bootstrap-lto-lean --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib=auto --with-tune=generic --without-cuda-driver -v

Processor Notes: Scaling Governor: acpi-cpufreq performance (Boost: Enabled) - CPU Microcode: 0xa201016

Graphics Notes: BAR1 / Visible vRAM Size: 4080 MB

Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl + spectre_v1: Mitigation of usercopy/swaps barriers and __user pointer sanitization + spectre_v2: Mitigation of Full AMD retpoline IBPB: conditional IBRS_FW STIBP: always-on RSB filling + srbds: Not affected + tsx_async_abort: Not affected

RX 6600

Processor: AMD Ryzen 7 5800X 8-Core @ 3.80GHz (8 Cores / 16 Threads), Motherboard: ASRock X570 Pro4 (P4.20 BIOS), Chipset: AMD Starship/Matisse, Memory: 16GB, Disk: 1000GB Sabrent Rocket 4.0 1TB + 2000GB, Graphics: Gigabyte AMD Radeon RX 6600/6600 XT/6600M 8GB (2750/875MHz), Audio: AMD Navi 21 HDMI Audio, Monitor: ASUS MG28U, Network: Intel I211

OS: Ubuntu 22.04, Kernel: 5.16.0-051600-generic (x86_64), Desktop: GNOME Shell 40.5, Display Server: X Server 1.20.14 + Wayland, OpenGL: 4.6 Mesa 22.0.0-devel (git-2002e87 2022-01-24 jammy-oibaf-ppa) (LLVM 13.0.0 DRM 3.44), Vulkan: 1.2.199, Compiler: GCC 11.2.0, File-System: ext4, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: madvise

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-bootstrap --enable-cet --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,m2 --enable-libphobos-checking=release --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-link-serialization=2 --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-11-iOLsLC/gcc-11-11.2.0/debian/tmp-nvptx/usr,amdgc-n-amdhsa=/build/gcc-11-iOLsLC/gcc-11-11.2.0/debian/tmp-gcn/usr --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-build-config=bootstrap-lto-lean --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib=auto --with-tune=generic --without-cuda-driver -v

Processor Notes: Scaling Governor: acpi-cpufreq performance (Boost: Enabled) - CPU Microcode: 0xa201016

Graphics Notes: BAR1 / Visible vRAM Size: 8176 MB

Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl + spectre_v1: Mitigation of usercopy/swaps barriers and __user pointer sanitization + spectre_v2: Mitigation of Full AMD retpoline IBPB: conditional IBRS_FW STIBP:

always-on RSB filling + srbds: Not affected + tsx_async_abort: Not affected

RX 6600 XT

Processor: AMD Ryzen 7 5800X 8-Core @ 3.80GHz (8 Cores / 16 Threads), Motherboard: ASRock X570 Pro4 (P4.20 BIOS), Chipset: AMD Starship/Matisse, Memory: 16GB, Disk: 1000GB Sabrent Rocket 4.0 1TB + 2000GB, Graphics: AMD Radeon RX 6600 XT 8GB (2900/1000MHz), Audio: AMD Navi 21 HDMI Audio, Monitor: ASUS MG28U, Network: Intel I211

OS: Ubuntu 22.04, Kernel: 5.16.0-051600-generic (x86_64), Desktop: GNOME Shell 40.5, Display Server: X Server 1.20.14 + Wayland, OpenGL: 4.6 Mesa 22.0.0-devel (git-2002e87 2022-01-24 jammy-oibaf-ppa) (LLVM 13.0.0 DRM 3.44), Vulkan: 1.2.199, Compiler: GCC 11.2.0, File-System: ext4, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: madvise

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-bootstrap --enable-cet --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,m2 --enable-libphobos-checking=release --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-link-serialization=2 --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-11-iOLsLC/gcc-11-11.2.0/debian/tmp-nvptx/usr,amdgc-amdhsa=/build/gcc-11-iOLsLC/gcc-11-11.2.0/debian/tmp-gcn/usr --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-build-config=bootstrap-lto-lean --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib=auto --with-tune=generic --without-cuda-driver -v

Processor Notes: Scaling Governor: acpi-cpufreq performance (Boost: Enabled) - CPU Microcode: 0xa201016

Graphics Notes: BAR1 / Visible vRAM Size: 8176 MB

Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl + spectre_v1: Mitigation of usercopy/swaps barriers and __user pointer sanitization + spectre_v2: Mitigation of Full AMD retpoline IBPB: conditional IBRS_FW STIBP: always-on RSB filling + srbds: Not affected + tsx_async_abort: Not affected

RX 6700 XT

Processor: AMD Ryzen 7 5800X 8-Core @ 3.80GHz (8 Cores / 16 Threads), Motherboard: ASRock X570 Pro4 (P4.20 BIOS), Chipset: AMD Starship/Matisse, Memory: 16GB, Disk: 1000GB Sabrent Rocket 4.0 1TB + 2000GB, Graphics: AMD Radeon RX 6700 XT 12GB (2855/1000MHz), Audio: AMD Navi 21 HDMI Audio, Monitor: ASUS MG28U, Network: Intel I211

OS: Ubuntu 22.04, Kernel: 5.16.0-051600-generic (x86_64), Desktop: GNOME Shell 40.5, Display Server: X Server 1.20.14 + Wayland, OpenGL: 4.6 Mesa 22.0.0-devel (git-2002e87 2022-01-24 jammy-oibaf-ppa) (LLVM 13.0.0 DRM 3.44), Vulkan: 1.2.199, Compiler: GCC 11.2.0, File-System: ext4, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: madvise

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-bootstrap --enable-cet --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,m2 --enable-libphobos-checking=release --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-link-serialization=2 --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-11-iOLsLC/gcc-11-11.2.0/debian/tmp-nvptx/usr,amdgc-amdhsa=/build/gcc-11-iOLsLC/gcc-11-11.2.0/debian/tmp-gcn/usr --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-build-config=bootstrap-lto-lean --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib=auto --with-tune=generic --without-cuda-driver -v

Processor Notes: Scaling Governor: acpi-cpufreq performance (Boost: Enabled) - CPU Microcode: 0xa201016

Graphics Notes: BAR1 / Visible vRAM Size: 12272 MB

Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl + spectre_v1: Mitigation of usercopy/swaps barriers and __user pointer sanitization + spectre_v2: Mitigation of Full AMD retpoline IBPB: conditional IBRS_FW STIBP: always-on RSB filling + srbds: Not affected + tsx_async_abort: Not affected

RX 5500 XT 4GB	RX 590 8GB	RX Vega 56	RX 5700 XT	RX 6800	RX 6500 XT	RX 6600	RX 6600 XT	RX 6700 XT
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low-end-gpus

Ashes of the Singularity:	35.58471	98.17522	81.39157	85.46862	92.63609	94.25035	91.62492	91.74419	93.12862
Escalation - 1920 x 1080	0	7	9	8	3	5	8	8	5
Normalized	36.25%	100%	82.9%	87.06%	94.36%	96%	93.33%	93.45%	94.86%
Standard Deviation	6.8%	0.7%	1.2%	4.9%	6.7%	3.7%	6.7%	6.1%	5.6%
Batman: Arkham	125.55	133.52	185.21	223.43	243.26	116.53	194.34	209.20	235.80
Knight - 1920 x 1080 - Low (FPS)									
Normalized	51.61%	54.89%	76.14%	91.85%	100%	47.9%	79.89%	86%	96.93%
Standard Deviation	1.7%	0.8%	1%	1.2%	1.1%	0.7%	0.9%	1.8%	0.9%
Batman: Arkham	113.29	122.50	167.57	194.80	225.47	105.27	172.95	189.12	215.73
Knight - 1920 x 1080 - High (FPS)									
Normalized	50.25%	54.33%	74.32%	86.4%	100%	46.69%	76.71%	83.88%	95.68%
Standard Deviation	0.1%	0.5%	0.6%	1.4%	1.6%	0.4%	1.4%	0.6%	1.2%
DiRT Rally 2.0 - 1920 x 1080 - Low (FPS)	313.4948	322.9029	387.7806	489.5165	503.2033	319.3336	447.2261	454.7525	496.9262
Normalized	83	34	90	61	08	49	35	74	90
Standard Deviation	62.3%	64.17%	77.06%	97.28%	100%	63.46%	88.88%	90.37%	98.75%
DiRT Rally 2.0 - 1920 x 1080 - High (FPS)	117.2485	135.0672	169.5061	232.7934	350.1456	108.7335	211.3451	257.3594	304.7745
Standard Deviation	0.1%	0.1%	0.3%	0.5%	0.7%	0.2%	2.5%	1.2%	0.7%
DiRT Rally 2.0 - 1920 x 1080 - Ultra (FPS)	45	00	65	77	58	57	23	36	47
Normalized	33.49%	38.57%	48.41%	66.48%	100%	31.05%	60.36%	73.5%	87.04%
Standard Deviation	0%	0.1%	0%	0%	3.2%	4.7%	0.1%	0%	0.1%
DiRT Rally 2.0 - 1920 x 1080 - Ultra (FPS)	35.36515	73.71322	93.85985	122.5100	193.7510	22.16867	112.2528	133.4630	161.6975
Standard Deviation	0.2%	0%	0.1%	0.1%	0.1%	0%	0%	0.1%	0%
F1 2020 - 1920 x 1080 - High (FPS)	158	167	197	239	243	161	231	235	237
Normalized	65.02%	68.72%	81.07%	98.35%	100%	66.26%	95.06%	96.71%	97.53%
Standard Deviation	0%	0.3%	0.3%	1.1%	0.2%	0.4%	0.7%	1.9%	0.9%
F1 2020 - 1920 x 1080 - Ultra (FPS)	96	107	131	179	197	90	164	182	191
Normalized	48.73%	54.31%	66.5%	90.86%	100%	45.69%	83.25%	92.39%	96.95%
Standard Deviation	0.6%	0.5%	0%	0.6%	1.5%	0.6%	0.4%	0.6%	0.8%
HITMAN 3 - 1920 x 1080 - Low (FPS)	112.08	114.54	142.67	188.72	293.63	106.78	172.44	204.83	247.55
Normalized	38.17%	39.01%	48.59%	64.27%	100%	36.37%	58.73%	69.76%	84.31%
Standard Deviation	0%	0%	0.1%	0%	0.2%	0%	0.1%	0.1%	0.1%
HITMAN 3 - 1920 x 1080 - Ultra (FPS)	103.86	108.43	133.92	176.48	273.51	96.94	161.02	191.18	230.79
Normalized	37.97%	39.64%	48.96%	64.52%	100%	35.44%	58.87%	69.9%	84.38%
Standard Deviation	0.1%	0.1%	0.1%	0.1%	0.1%	0%	0%	0%	0.2%
HITMAN 3 - 1920 x 1080 - Medium (FPS)	110.27	112.99	140.50	185.67	288.54	104.97	169.09	201.17	243.80
Normalized	38.22%	39.16%	48.69%	64.35%	100%	36.38%	58.6%	69.72%	84.49%
Standard Deviation	0.1%	0%	0.1%	0.1%	0.4%	0.3%	0.1%	0.2%	0.1%
Half-Life 2: Episode Two - 1920 x 1080 - OpenGL (FPS)	561.20	596.51	648.29	738.63	544.95	530.76	547.31		540.79
Normalized	75.98%	80.76%	87.77%	100%	73.78%	71.86%	74.1%		73.22%
Standard Deviation	0.2%	0.1%	0.1%	0%	1.2%	0.5%	0.1%		0.7%

low-end-gpus

Left 4 Dead 2 - 1920 x 1080 - OpenGL	359.80	355.47	384.70	388.95	301.74	297.88	300.05	302.00	293.99
Normalized	92.51%	91.39%	98.91%	100%	77.58%	76.59%	77.14%	77.64%	75.59%
Standard Deviation	1%	3.6%	4.4%	4.3%	3.5%	3.6%	3.4%	1.6%	4%
Left 4 Dead 2 - 1920 x 1080 - Vulkan	352.04	380.64	413.82	420.42	417.23	344.78	408.84	411.39	405.41
Normalized	83.74%	90.54%	98.43%	100%	99.24%	82.01%	97.25%	97.85%	96.43%
Standard Deviation	0.1%	0.2%	0.2%	0.3%	1.4%	0.1%	0.1%	0.1%	1.7%
Shadow of the Tomb Raider - 1920 x 1080 - Lowest - Off (FPS)	155.5	146.2	180.1	242.2	282.7	151.3	224.8	245.5	263.1
Normalized	55.01%	51.72%	63.71%	85.67%	100%	53.52%	79.52%	86.84%	93.07%
Standard Deviation	0.1%	0%	0.2%	2%	1%	0.1%	0.2%	0.4%	1.5%
Shadow of the Tomb Raider - 1920 x 1080 - Low - Off (FPS)	122.0	117.7	144.1	202.8	249.9	123.9	186.6	211.2	233.3
Normalized	48.82%	47.1%	57.66%	81.15%	100%	49.58%	74.67%	84.51%	93.36%
Standard Deviation	0%	0%	0%	0.6%	1.6%	0.1%	0.3%	1.4%	0.3%
Shadow of the Tomb Raider - 1920 x 1080 - Medium - Off (FPS)	89.6	88.2	108.8	158.8	224.6	87.3	140.7	166.2	198.0
Normalized	39.89%	39.27%	48.44%	70.7%	100%	38.87%	62.64%	74%	88.16%
Standard Deviation	0%	0.1%	0.1%	0%	0.7%	0%	0%	0.2%	0.6%
Shadow of the Tomb Raider - 1920 x 1080 - High - Off (FPS)	58.5	86.0	105.8	154.2	217.9	25.6	135.5	160.3	192.1
Normalized	26.85%	39.47%	48.55%	70.77%	100%	11.75%	62.18%	73.57%	88.16%
Standard Deviation	16%	0.1%	0.1%	0%	0.7%	2%	0.1%	0.1%	0.7%
Strange Brigade - 1920 x 1080 - Low (FPS)	158.7	167.5	224.2	289.8	385.8	142.5	257.4	301.1	377.4
Normalized	41.14%	43.42%	58.11%	75.12%	100%	36.94%	66.72%	78.05%	97.82%
Standard Deviation	0.1%	0.4%	0.3%	0.2%	0.1%	0.7%	0.6%	0.1%	0.6%
Strange Brigade - 1920 x 1080 - Medium (FPS)	134.8	145.8	188.1	243.6	340.3	123.4	217.5	251.5	327.5
Normalized	39.61%	42.84%	55.27%	71.58%	100%	36.26%	63.91%	73.91%	96.24%
Standard Deviation	0.2%	0.5%	0.1%	0.3%	1.6%	0.3%	0.2%	0.2%	0.8%
Strange Brigade - 1920 x 1080 - High (FPS)	120.5	134.4	171.6	221.3	337.0	112.6	197.4	227.7	308.0
Normalized	35.76%	39.88%	50.92%	65.67%	100%	33.41%	58.58%	67.57%	91.39%
Standard Deviation	0.1%	0.4%	0.3%	0.2%	1.1%	0.1%	0.2%	0.1%	0.4%
Strange Brigade - 1920 x 1080 - Ultra (FPS)	111.1	123.5	159.9	207.2	326.1	103.4	181.7	209.7	283.4
Normalized	34.07%	37.87%	49.03%	63.54%	100%	31.71%	55.72%	64.31%	86.91%
Standard Deviation	0.1%	0.5%	0.1%	0.2%	0.5%	0.1%	0.2%	0.2%	0.2%

low-end-gpus

DDraceNetwork - 1418	1920 x 1080 - Fullscreen - OpenGL 3.3 - Default - RaiNyMore2 (FPS)	1344	2307	1200	2114	2550	2915		
Normalized	37.78%	26%	35.82%	61.48%	100%	31.97%	56.34%	67.95%	77.68%
Standard Deviation	0%	0%	0%	0.1%	0%	0%	0.1%	0.1%	0.1%
DDraceNetwork - 975.66	1920 x 1080 - Fullscreen - OpenGL 3.3 - Default - Multeasymap (FPS)	971.66	969.77	1013	906.16	989.79	992.59	1014	
Normalized	93.2%	92.82%	92.64%	100%	96.73%	86.56%	94.55%	94.82%	96.89%
Standard Deviation	1.1%	1%	0.5%	0.7%	0.8%	0.4%	0.7%	0.2%	0.7%
Tesseract - 1920 x 1080 (FPS)	819.5207	879.4949	920.1944	968.4955	947.5264	860.3361	942.3270	964.8437	945.8598
Normalized	84.62%	90.81%	95.01%	100%	97.83%	88.83%	97.3%	99.62%	97.66%
Standard Deviation	0.6%	0.9%	0.5%	1.2%	1.5%	0.1%	0.8%	0.2%	0.9%
Unigine Heaven - 1920 x 1080 - Fullscreen - OpenGL (FPS)	96.7010	96.8550	128.182	174.460	322.574	115.421	179.151	226.601	269.124
Normalized	29.98%	30.03%	39.74%	54.08%	100%	35.78%	55.54%	70.25%	83.43%
Standard Deviation	0%	0.1%	0%	0%	0.3%	0.1%	0.1%	0.1%	0.1%
Unigine Superposition - 1920 x 1080 - Fullscreen - Low - OpenGL (FPS)	147.5	112.4	180.7	277.2	351.5	145.2	233.2	281.3	324.6
Normalized	41.96%	31.98%	51.41%	78.86%	100%	41.31%	66.34%	80.03%	92.35%
Standard Deviation	0%	0%	0%	0.1%	0.6%	0%	0%	0.1%	0.4%
Unigine Valley - 1920 x 1080 - Fullscreen - OpenGL (FPS)	109.698	106.306	137.800	191.291	265.949	124.955	189.883	232.972	260.344
Normalized	41.25%	39.97%	51.81%	71.93%	100%	46.98%	71.4%	87.6%	97.89%
Standard Deviation	0%	0.1%	0.1%	0%	0.5%	0.1%	0.1%	0.5%	0.5%
Unvanquished - 1920 x 1080 - High (FPS)	413.3	411.9	416.4	424.4	420.1	388.3	405.2	405.0	417.6
Normalized	97.38%	97.05%	98.11%	100%	98.99%	91.49%	95.48%	95.43%	98.4%
Standard Deviation	0.7%	0.9%	0.4%	1%	2.4%	0.9%	1%	0.5%	1%
Unvanquished - 1920 x 1080 - Ultra (FPS)	407.1	414.2	411.6	425.1	415.5	381.5	397.8	401.8	404.2
Normalized	95.77%	97.44%	96.82%	100%	97.74%	89.74%	93.58%	94.52%	95.08%
Standard Deviation	2.2%	0.3%	0.7%	1.2%	0.6%	2.2%	1.3%	0.4%	0.8%
Unvanquished - 1920 x 1080 - Medium (FPS)	423.3	422.9	421.9	428.3	420.8	407.4	413.5	413.2	421.9
Normalized	98.83%	98.74%	98.51%	100%	98.25%	95.12%	96.54%	96.47%	98.51%
Standard Deviation	0%	0.4%	0.7%	0.1%	1.2%	0.2%	2%	1.1%	0.2%
Xonotic - 1920 x 1080 - Ultimate (FPS)	442.1328	460.8250	461.5465	462.8161	441.2275	376.5157	418.1236	420.0618	432.0728
Normalized	656	556	894	040	736	330	635	899	767
Standard Deviation	95.53%	99.57%	99.73%	100%	95.34%	81.35%	90.34%	90.76%	93.36%
	0.6%	1.1%	2.4%	1.6%	0.7%	1.7%	1.7%	0.9%	1.3%

low-end-gpus

yquake2 - Vulkan - 1920 x 1080 (FPS)	610.1	489.3	748.9	976.3	988.6	440.8	758.4	822.3	964.5
Normalized	61.71%	49.49%	75.75%	98.76%	100%	44.59%	76.71%	83.18%	97.56%
Standard Deviation	0.3%	0.2%	0.1%	0.3%	0.6%	0.3%	0.3%	0.3%	0.6%
Ashes of the Singularity: Escalation - 1920 x 1080 (FPS/Watt)	0.691	0.79	0.776	0.976	1.803		2.406	2.718	2.014
Normalized	25.42%	29.07%	28.55%	35.91%	66.34%		88.52%	100%	74.1%
Batman: Arkham Knight - 1920 x 1080 - Low (FPS/Watt)	1.774	0.966	1.449	1.653	2.575		2.501	2.507	2.09
Normalized	68.89%	37.51%	56.27%	64.19%	100%		97.13%	97.36%	81.17%
Batman: Arkham Knight - 1920 x 1080 - High (FPS/Watt)	1.556	0.869	1.296	1.42	2.304		2.232	2.211	1.854
Normalized	67.53%	37.72%	56.25%	61.63%	100%		96.88%	95.96%	80.47%
DiRT Rally 2.0 - 1920 x 1080 - Low (FPS/Watt)	3.283	1.887	2.593	3.033	4.496		4.901	4.463	3.618
Normalized	66.99%	38.5%	52.91%	61.89%	91.74%		100%	91.06%	73.82%
DiRT Rally 2.0 - 1920 x 1080 - High (FPS/Watt)	1.393	0.8	1.126	1.416	2.077		2.32	2.158	1.806
Normalized	60.04%	34.48%	48.53%	61.03%	89.53%		100%	93.02%	77.84%
DiRT Rally 2.0 - 1920 x 1080 - Ultra (FPS/Watt)	0.56	0.437	0.622	0.741	1.137		1.225	1.164	0.965
Normalized	45.71%	35.67%	50.78%	60.49%	92.82%		100%	95.02%	78.78%
Half-Life 2: Episode Two - 1920 x 1080 - OpenGL (FPS/Watt)	11.048	5.612	8.661	10.684	14.247		17.237		14.231
Normalized	64.09%	32.56%	50.25%	61.98%	82.65%		100%		82.56%
Left 4 Dead 2 - 1920 x 1080 - OpenGL (FPS/Watt)	12.525	4.421	7.287	10.416	10.808		18.228	21.433	12.161
Normalized	58.44%	20.63%	34%	48.6%	50.43%		85.05%	100%	56.74%
Left 4 Dead 2 - 1920 x 1080 - Vulkan (FPS/Watt)	9.844	4.245	7.026	10.061	13.336		13.678	15.112	12.937
Normalized	65.14%	28.09%	46.49%	66.58%	88.25%		90.51%	100%	85.61%
Shadow of the Tomb Raider - 1920 x 1080 - Lowest - Off (FPS/Watt)	1.818	0.928	1.253	1.701	2.512		2.68	2.578	2.154
Normalized	67.84%	34.63%	46.75%	63.47%	93.73%		100%	96.19%	80.37%

low-end-gpus

Shadow of the Tomb Raider - 1920 x 1080 - Low - Off	1.366	0.708	0.958	1.287	1.871	2.067	1.944	1.615
Normalized	66.09%	34.25%	46.35%	62.26%	90.52%	100%	94.05%	78.13%
Shadow of the Tomb Raider - 1920 x 1080 - Medium - Off (FPS/Watt)	1.015	0.537	0.723	0.979	1.451	1.558	1.467	1.252
Normalized	65.15%	34.47%	46.41%	62.84%	93.13%	100%	94.16%	80.36%
Shadow of the Tomb Raider - 1920 x 1080 - High - Off	0.815	0.522	0.704	0.952	1.398	1.5	1.417	1.203
Normalized	54.33%	34.8%	46.93%	63.47%	93.2%	100%	94.47%	80.2%
Strange Brigade - 1920 x 1080 - Low (FPS/Watt)	2.242	1.257	1.877	2.298	3.506	3.688	3.503	3.134
Normalized	60.79%	34.08%	50.89%	62.31%	95.07%	100%	94.98%	84.98%
Strange Brigade - 1920 x 1080 - Medium (FPS/Watt)	1.933	1.058	1.554	1.835	2.895	3.006	2.889	2.582
Normalized	64.3%	35.2%	51.7%	61.04%	96.31%	100%	96.11%	85.89%
Strange Brigade - 1920 x 1080 - High (FPS/Watt)	1.694	0.976	1.421	1.706	2.674	2.753	2.608	2.415
Normalized	61.53%	35.45%	51.62%	61.97%	97.13%	100%	94.73%	87.72%
Strange Brigade - 1920 x 1080 - Ultra (FPS/Watt)	1.616	0.908	1.307	1.589	2.545	2.484	2.476	2.232
Normalized	63.5%	35.68%	51.36%	62.44%	100%	97.6%	97.29%	87.7%
Tesseract - 1920 x 1080 (FPS/Watt)	9.867	5.634	6.685	6.953	14.164	11.739	12.692	13.46
Normalized	69.66%	39.78%	47.2%	49.09%	100%	82.88%	89.61%	95.03%
Unigine Heaven - 1920 x 1080 - Fullscreen - OpenGL (FPS/Watt)	1.027	0.547	0.811	1.01	1.688	1.881	1.673	1.516
Normalized	54.6%	29.08%	43.12%	53.69%	89.74%	100%	88.94%	80.6%
Unigine Superposition - 1920 x 1080 - Fullscreen - Low - OpenGL	1.631	0.745	1.182	1.668	2.24	2.501	2.395	1.948
Normalized	65.21%	29.79%	47.26%	66.69%	89.56%	100%	95.76%	77.89%
Unigine Valley - 1920 x 1080 - Fullscreen - OpenGL (FPS/Watt)	1.076	0.598	0.875	1.118	1.772	1.989	1.755	1.574
Normalized	54.1%	30.07%	43.99%	56.21%	89.09%	100%	88.24%	79.14%

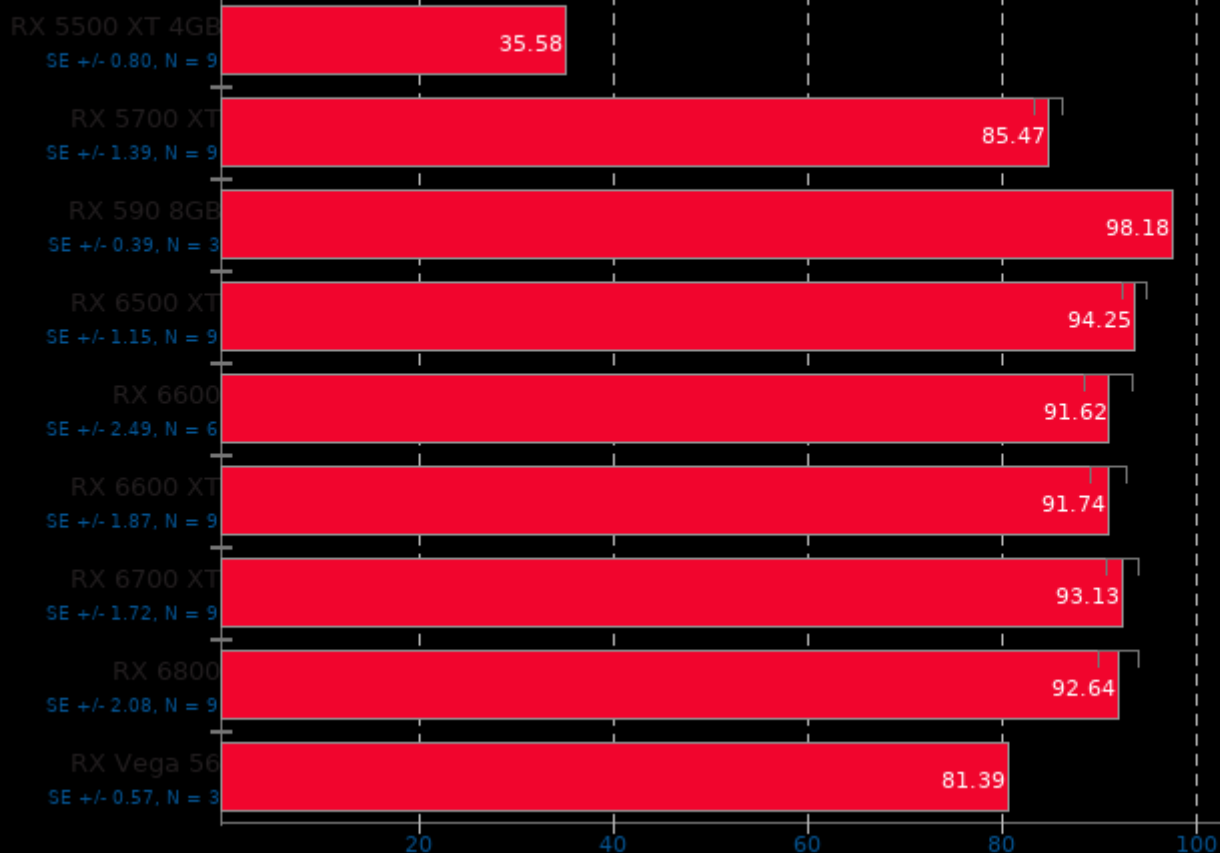
low-end-gpus

Unvanquished - 1920 x 1080 - High (FPS/Watt)	29.241	5.982	25.552	20.035	17.792	32.122	33.606	27.048
Normalized	87.01%	17.8%	76.03%	59.62%	52.94%	95.58%	100%	80.49%
Unvanquished - 1920 x 1080 - Ultra (FPS/Watt)	14.644	4.929	17.05	15.307	15.005	21.199	26.183	21.551
Normalized	55.93%	18.83%	65.12%	58.46%	57.31%	80.96%	100%	82.31%
Unvanquished - 1920 x 1080 - Medium (FPS/Watt)	37.84	6.223	27.531	20.697	18.031	33.204	37.793	26
Normalized	100%	16.45%	72.76%	54.7%	47.65%	87.75%	99.88%	68.71%
Xonotic - 1920 x 1080 - Ultimate	11.478	4.284	10.495	11.617	10.661	16.494	17.598	13.646
Normalized	65.22%	24.34%	59.64%	66.01%	60.58%	93.73%	100%	77.54%
yquake2 - Vulkan - 1920 x 1080 (FPS/Watt)	27.616	7.824	23.612	32.138	41.78	38.513	54.343	48.886
Normalized	50.82%	14.4%	43.45%	59.14%	76.88%	70.87%	100%	89.96%

Ashes of the Singularity: Escalation

Resolution: 1920 x 1080

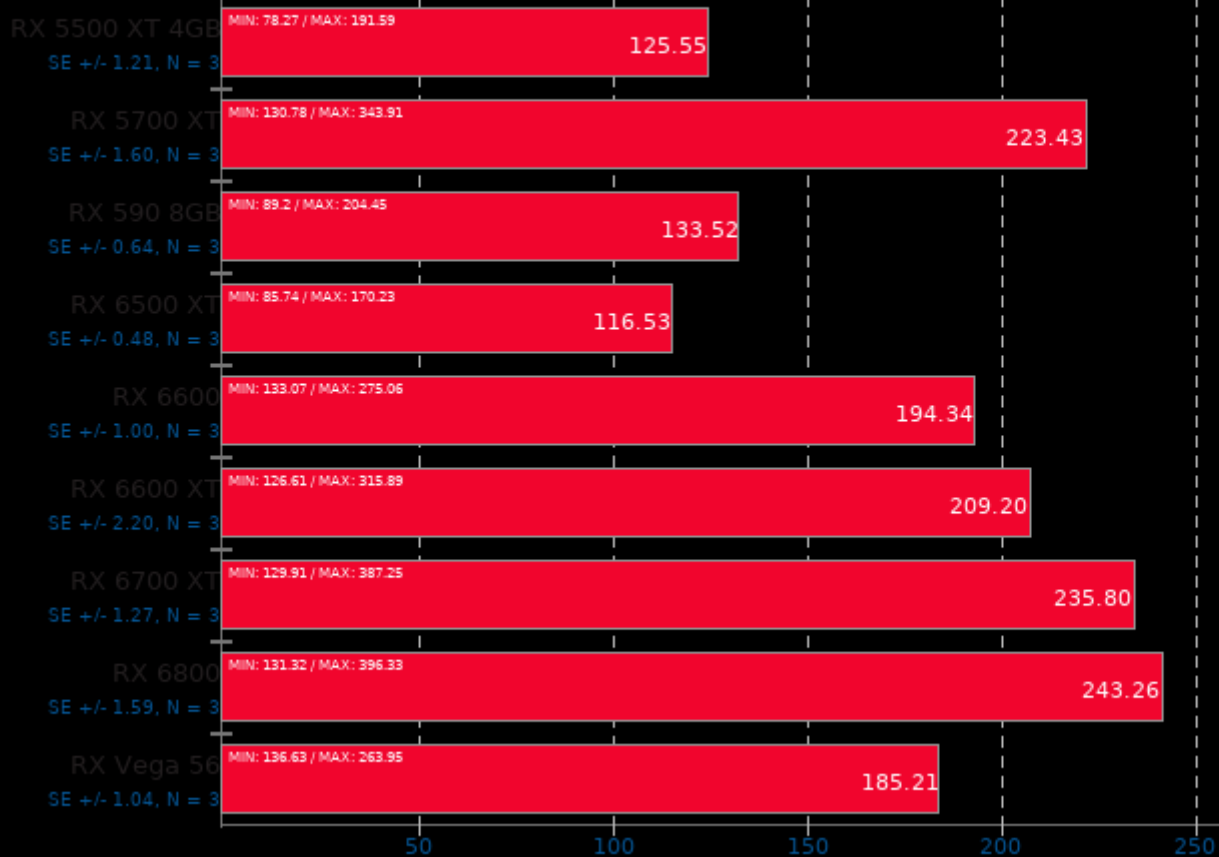
► Frames Per Second, More Is Better



Batman: Arkham Knight

Resolution: 1920 x 1080 - Quality: Low

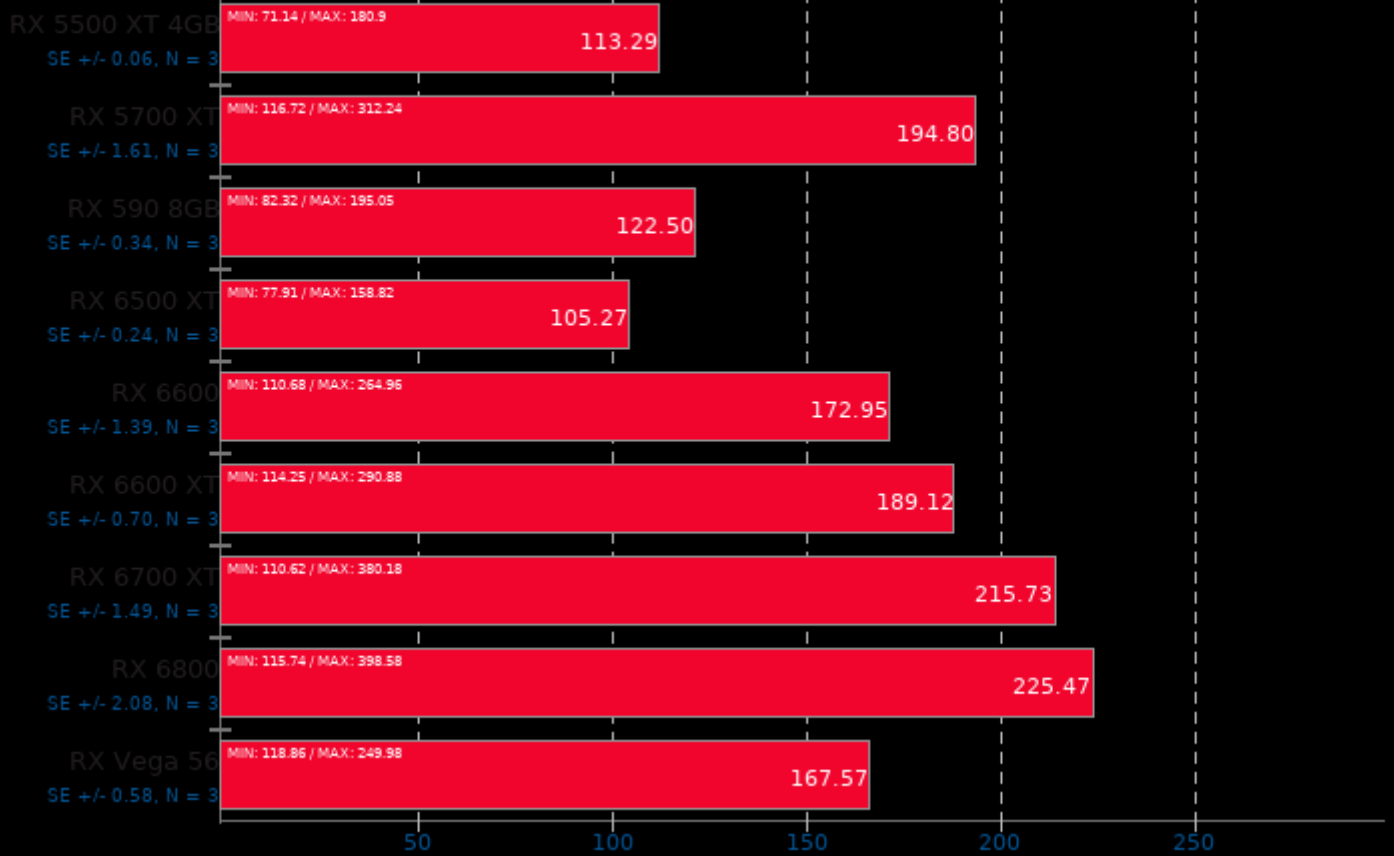
► Frames Per Second, More Is Better



Batman: Arkham Knight

Resolution: 1920 x 1080 - Quality: High

► Frames Per Second, More Is Better

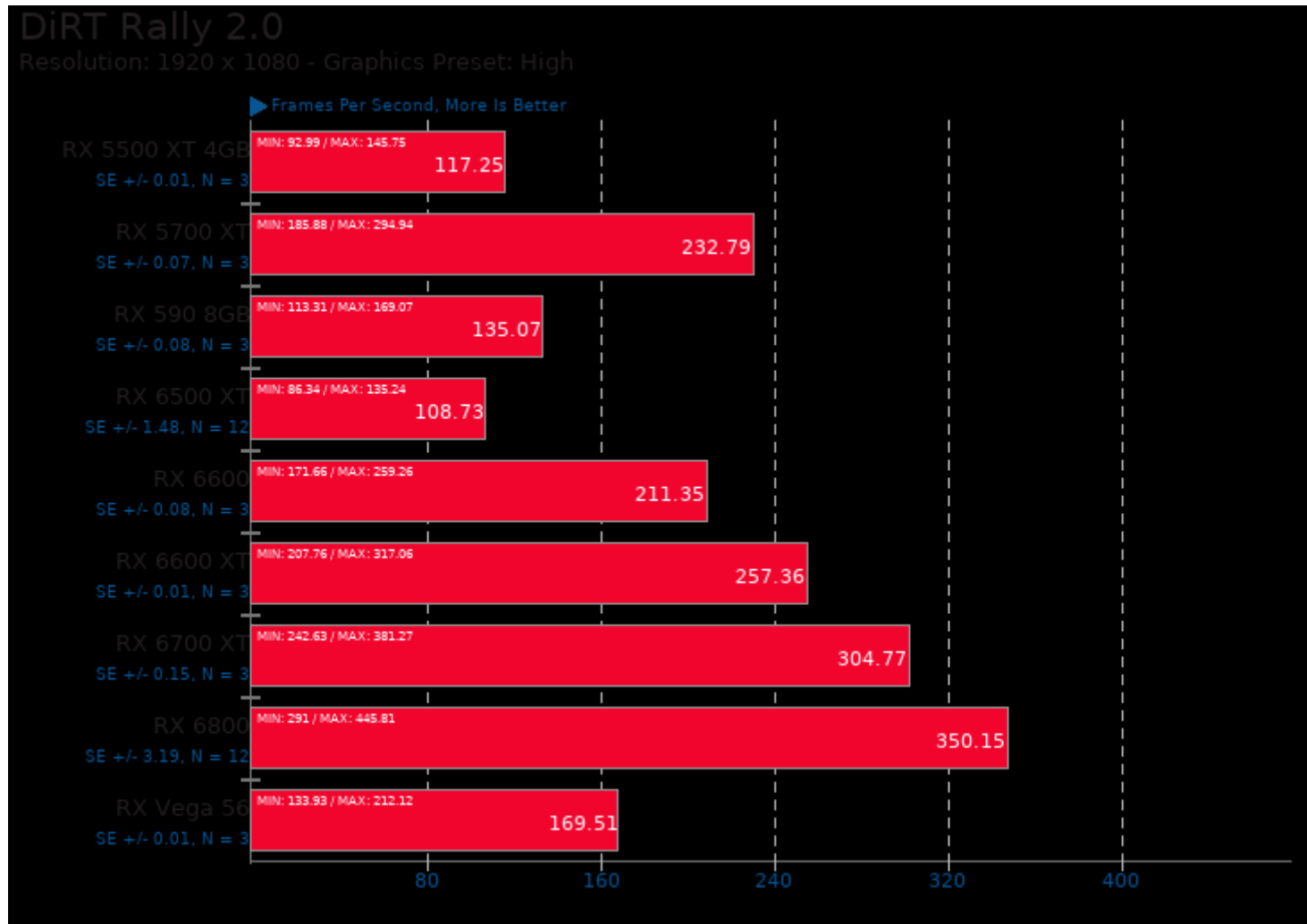


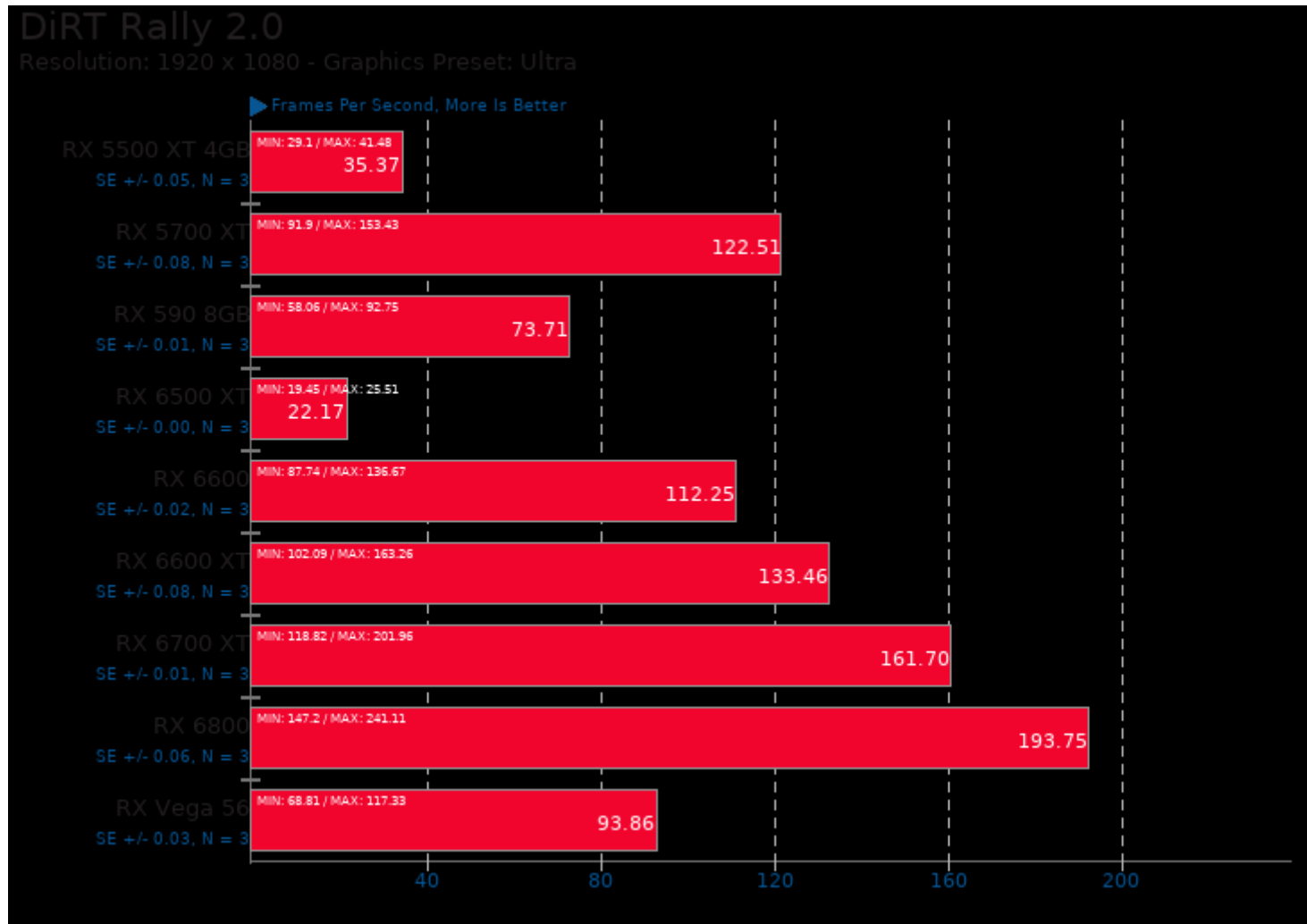
DiRT Rally 2.0

Resolution: 1920 x 1080 - Graphics Preset: Low

► Frames Per Second, More Is Better







F1 2020

Resolution: 1920 x 1080 - Graphics Preset: High

► Frames Per Second, More Is Better

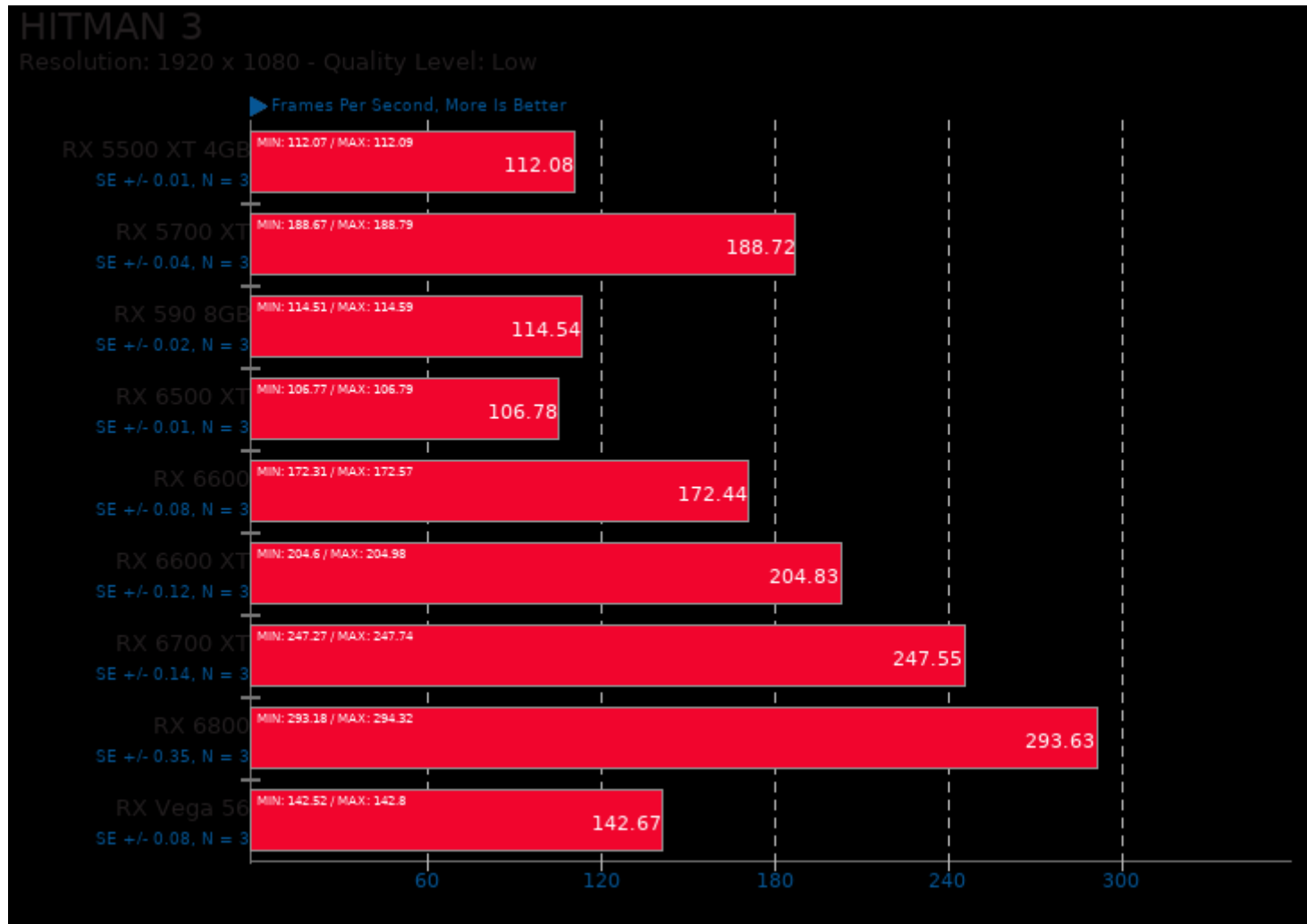


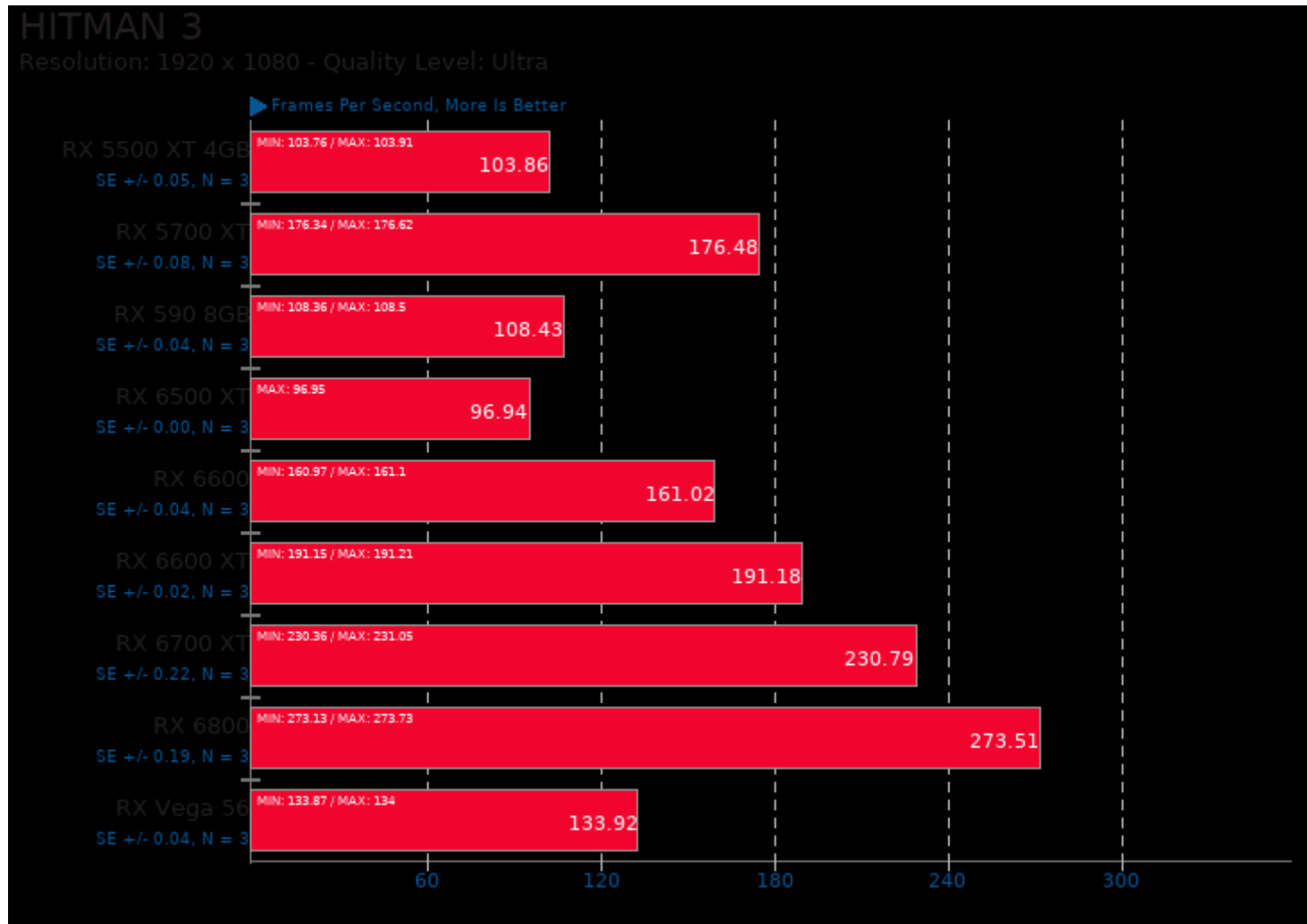
F1 2020

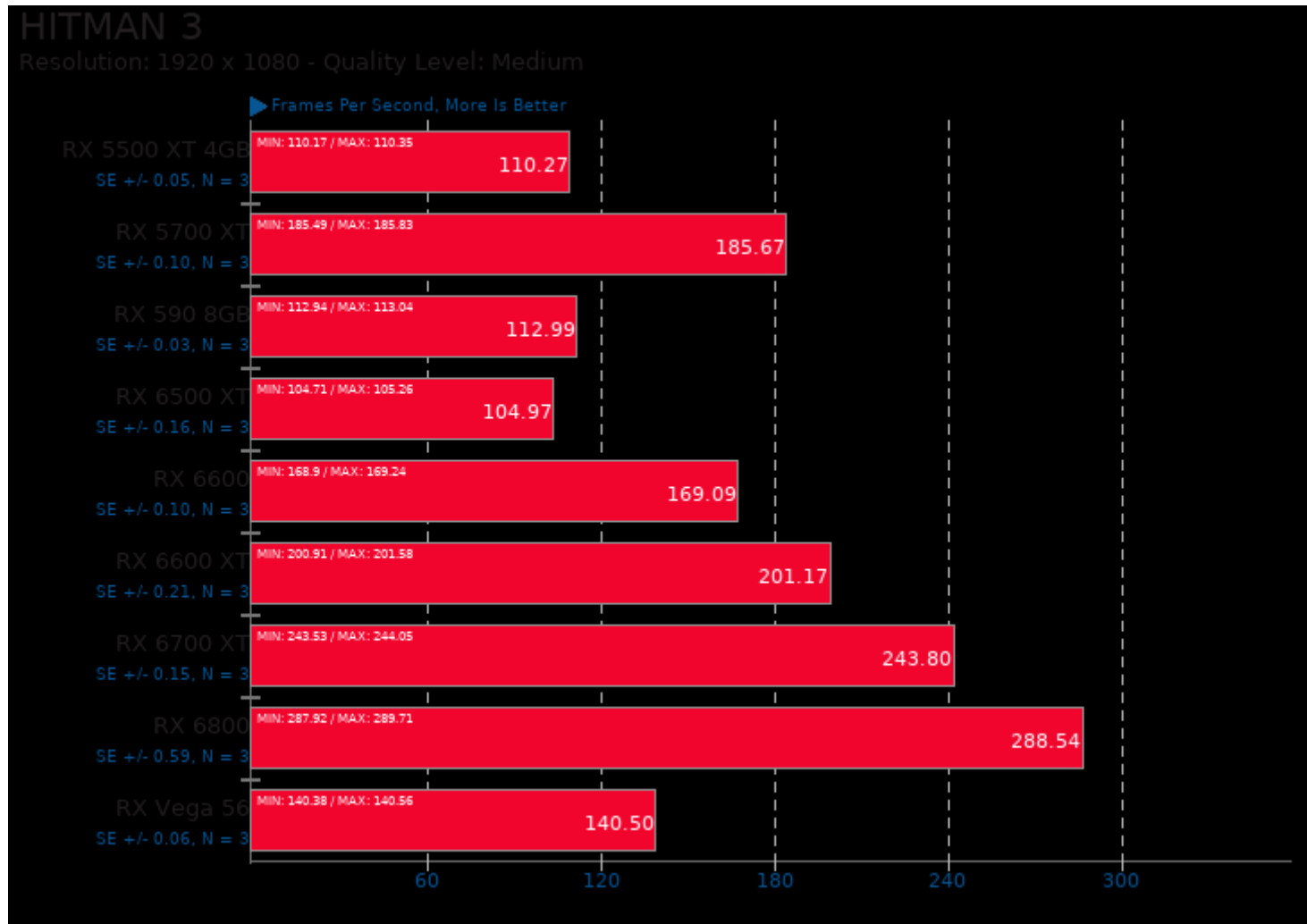
Resolution: 1920 x 1080 - Graphics Preset: Ultra

► Frames Per Second, More Is Better





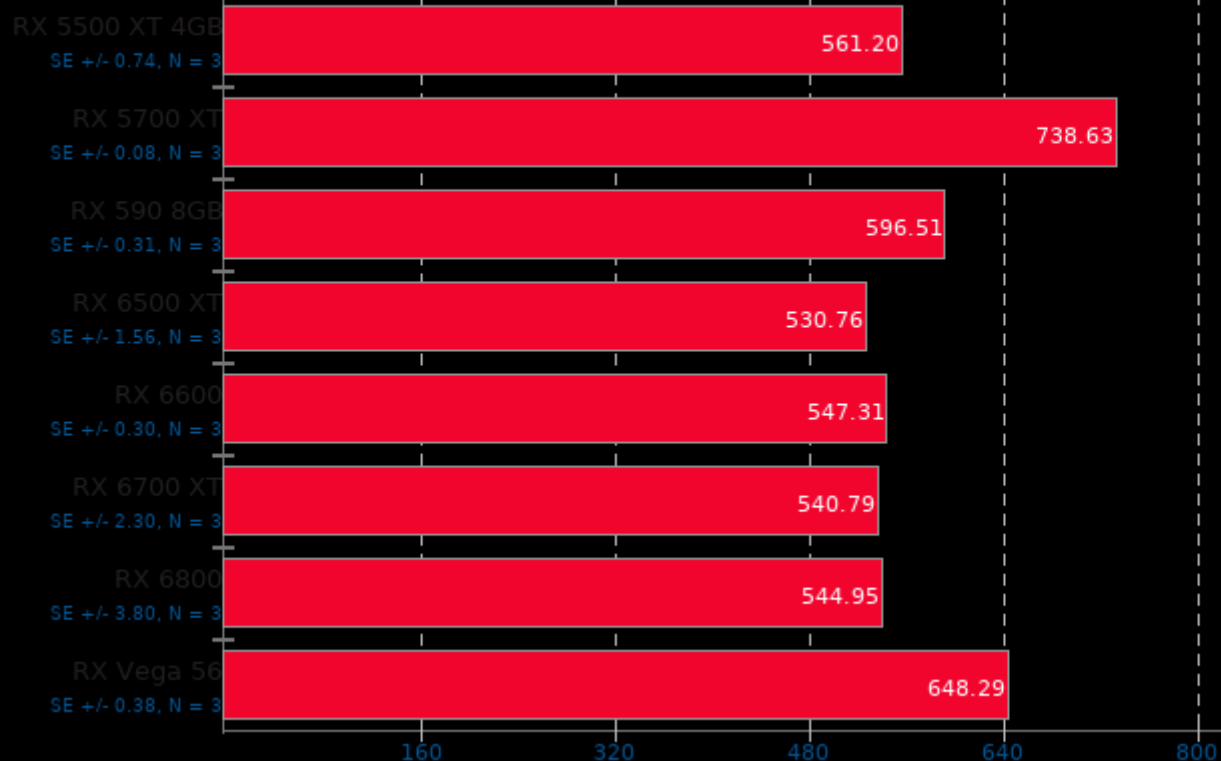




Half-Life 2: Episode Two

Resolution: 1920 x 1080 - Renderer: OpenGL

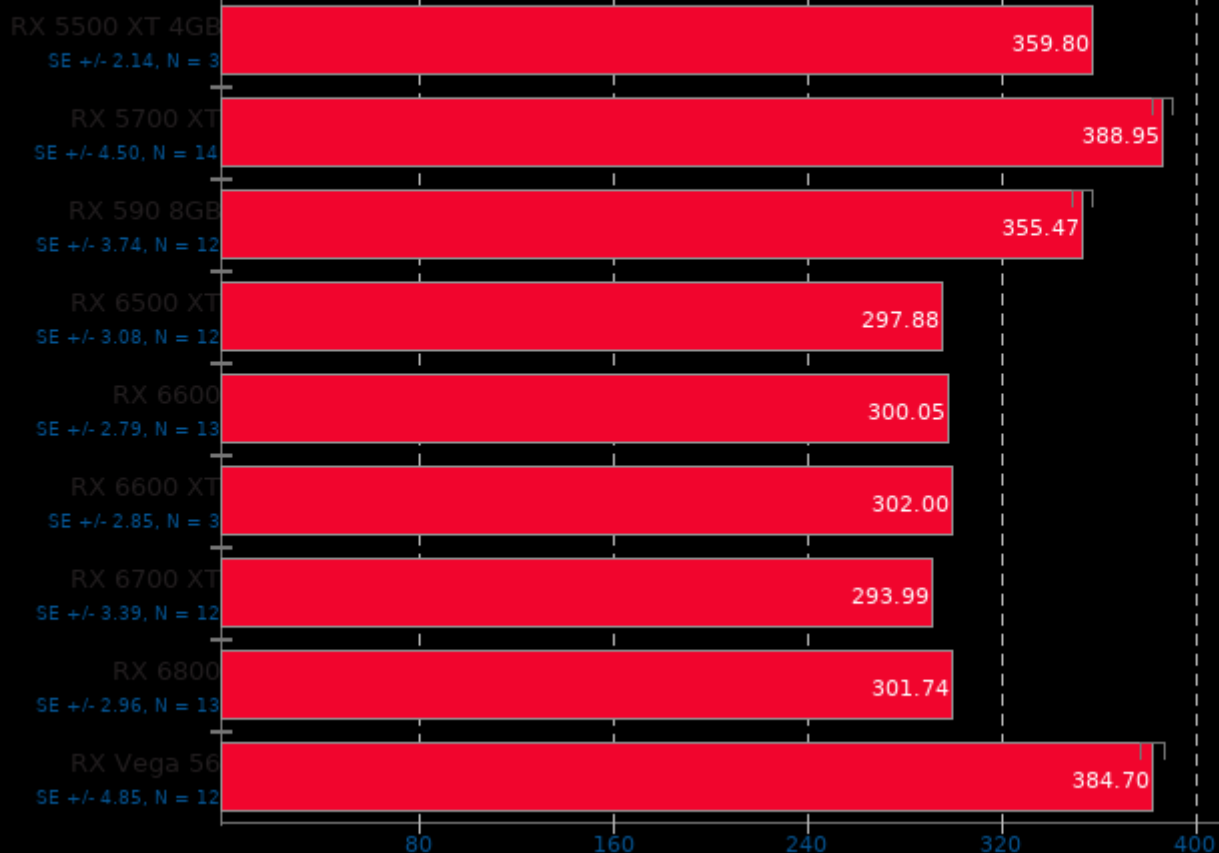
► Frames Per Second, More Is Better



Left 4 Dead 2

Resolution: 1920 x 1080 - Renderer: OpenGL

► Frames Per Second, More Is Better



Left 4 Dead 2

Resolution: 1920 x 1080 - Renderer: Vulkan

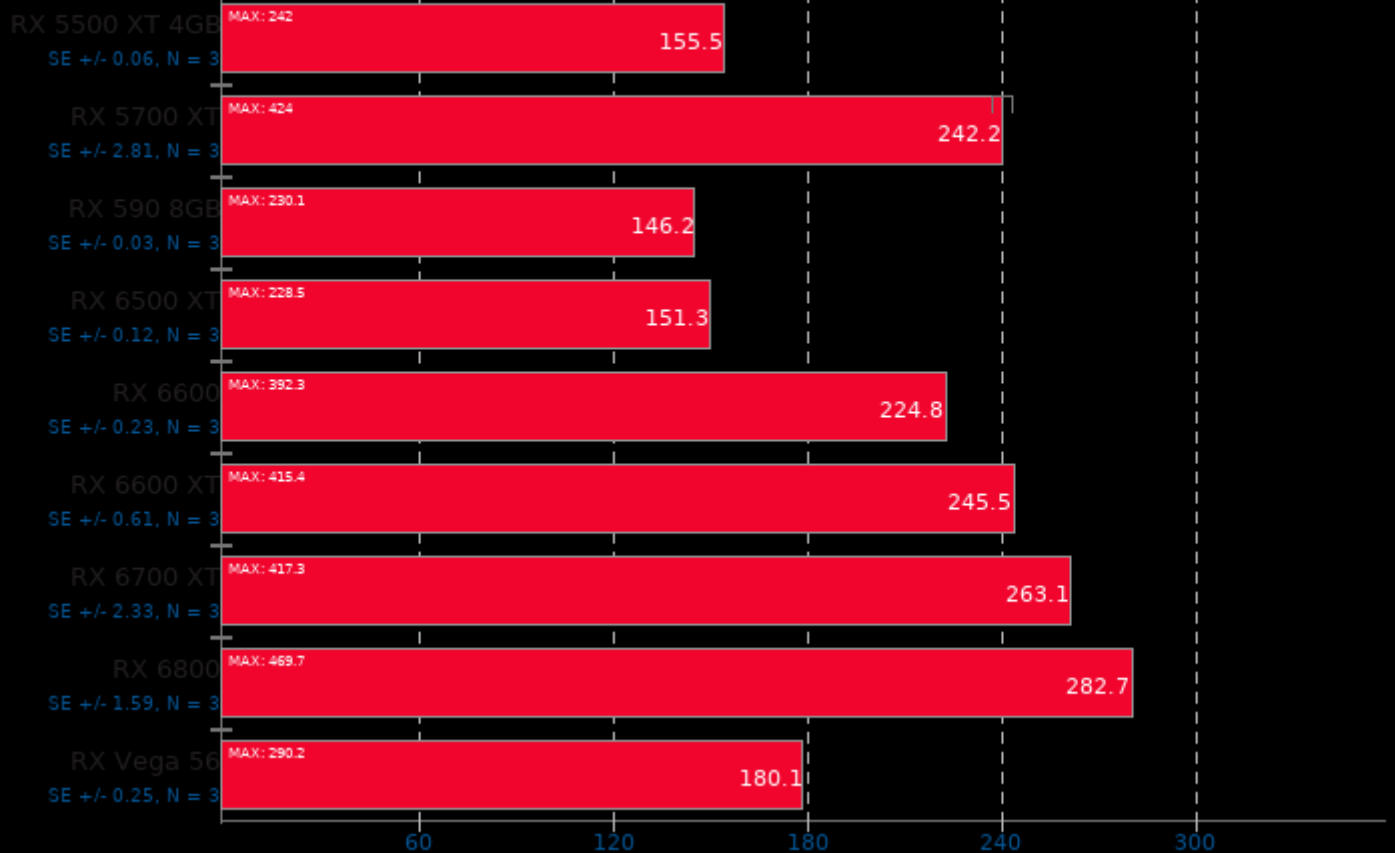
► Frames Per Second, More Is Better



Shadow of the Tomb Raider

Resolution: 1920 x 1080 - Graphics Preset: Lowest - Anti Aliasing: Off

► Frames Per Second, More Is Better

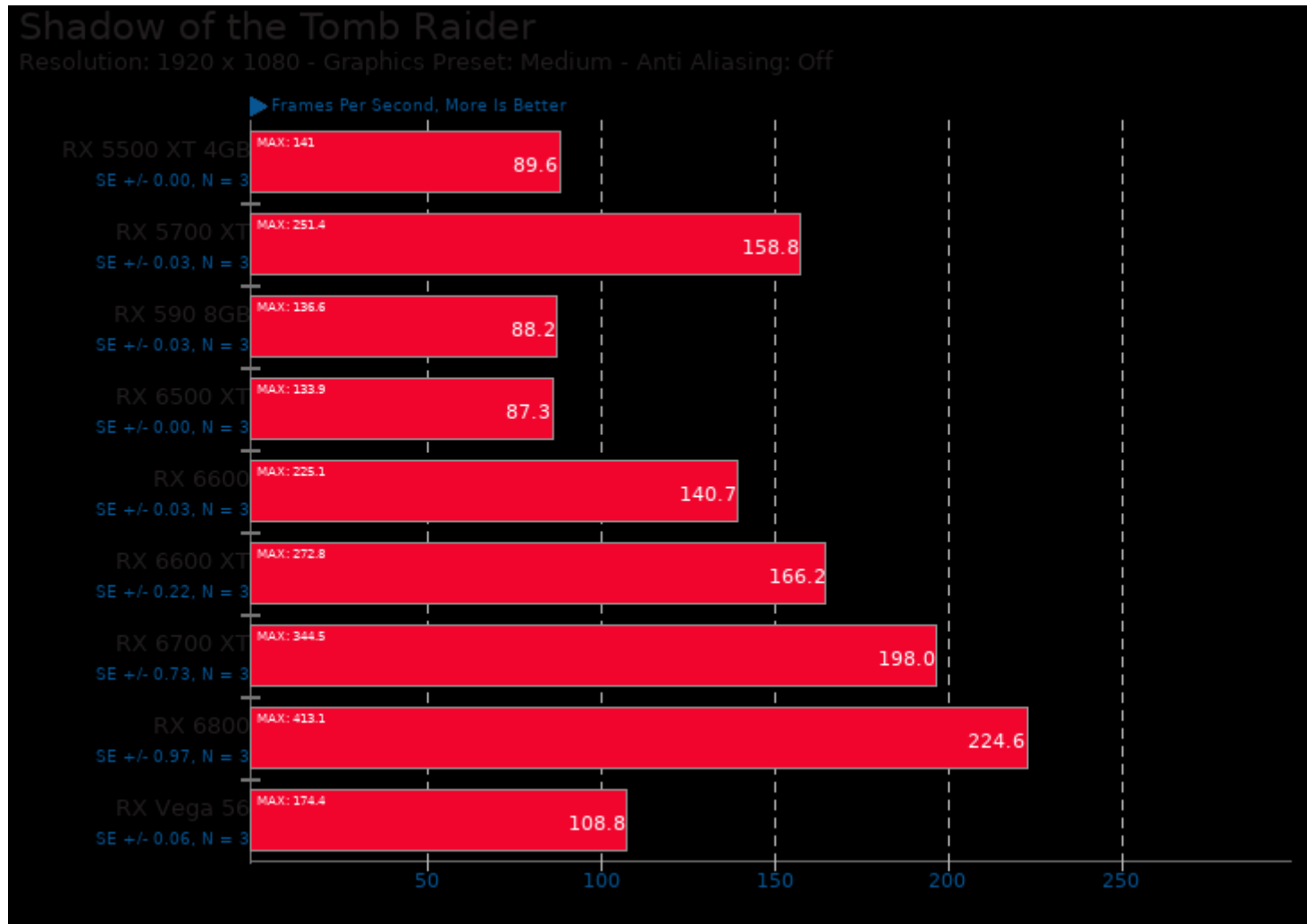


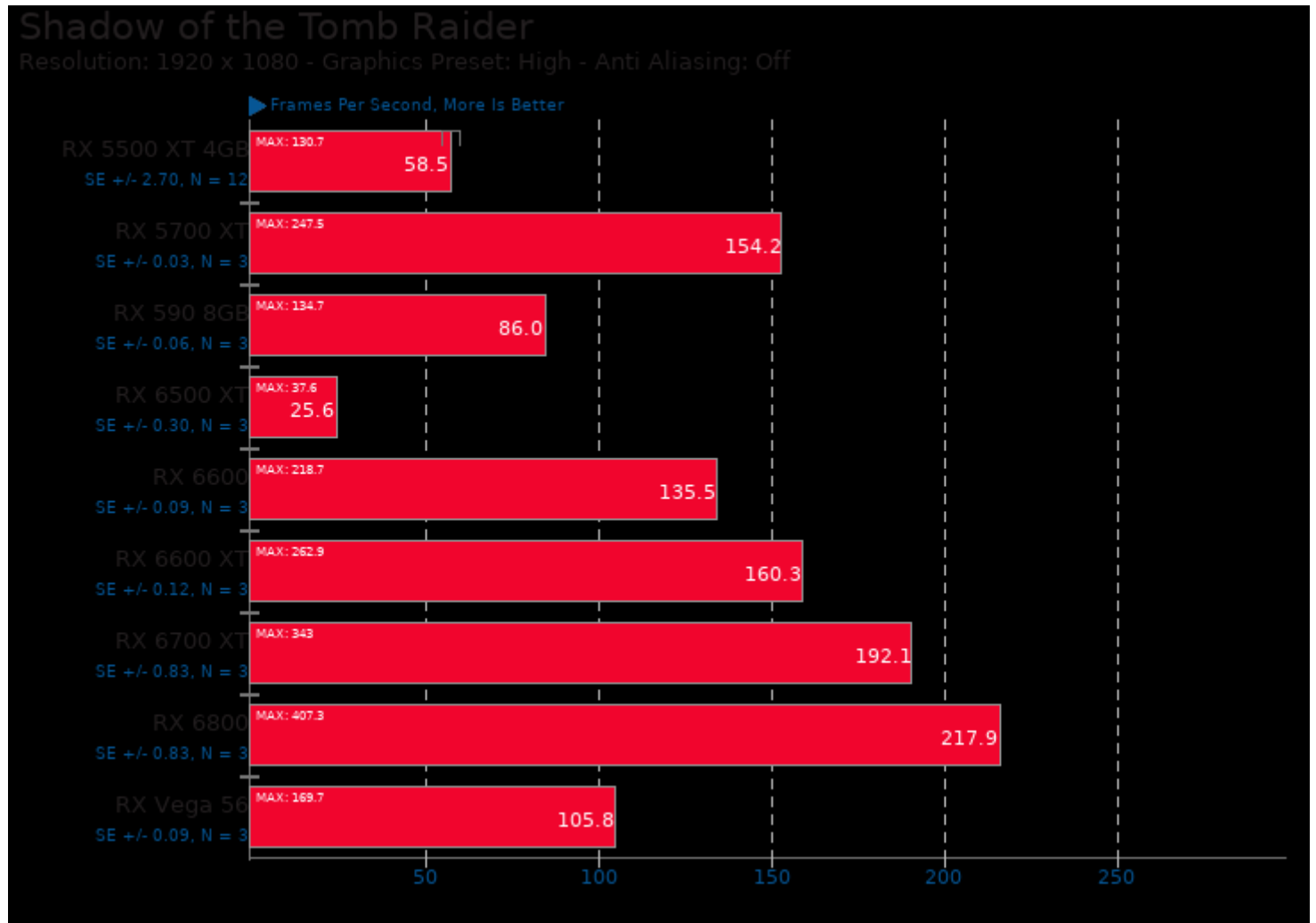
Shadow of the Tomb Raider

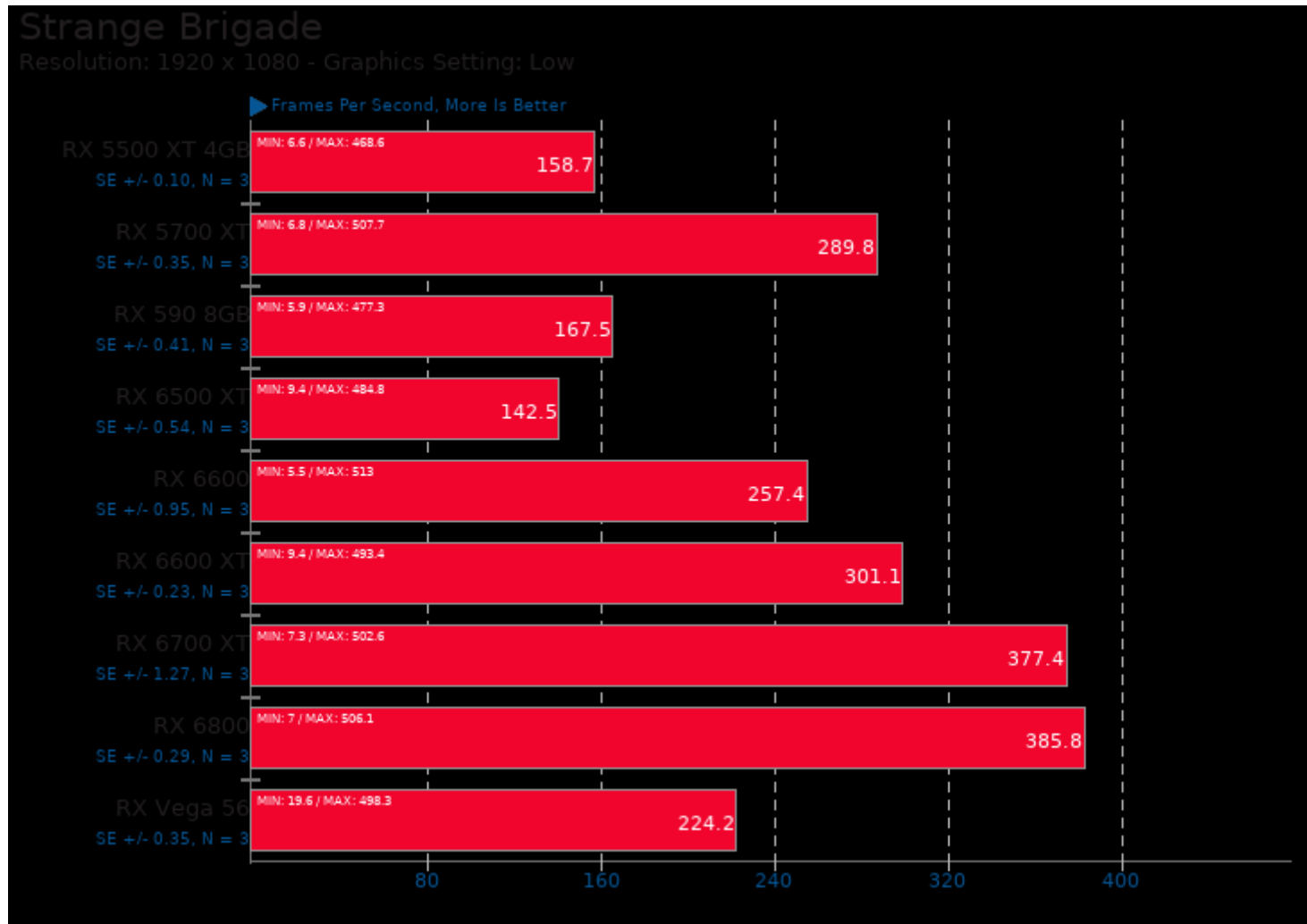
Resolution: 1920 x 1080 - Graphics Preset: Low - Anti Aliasing: Off

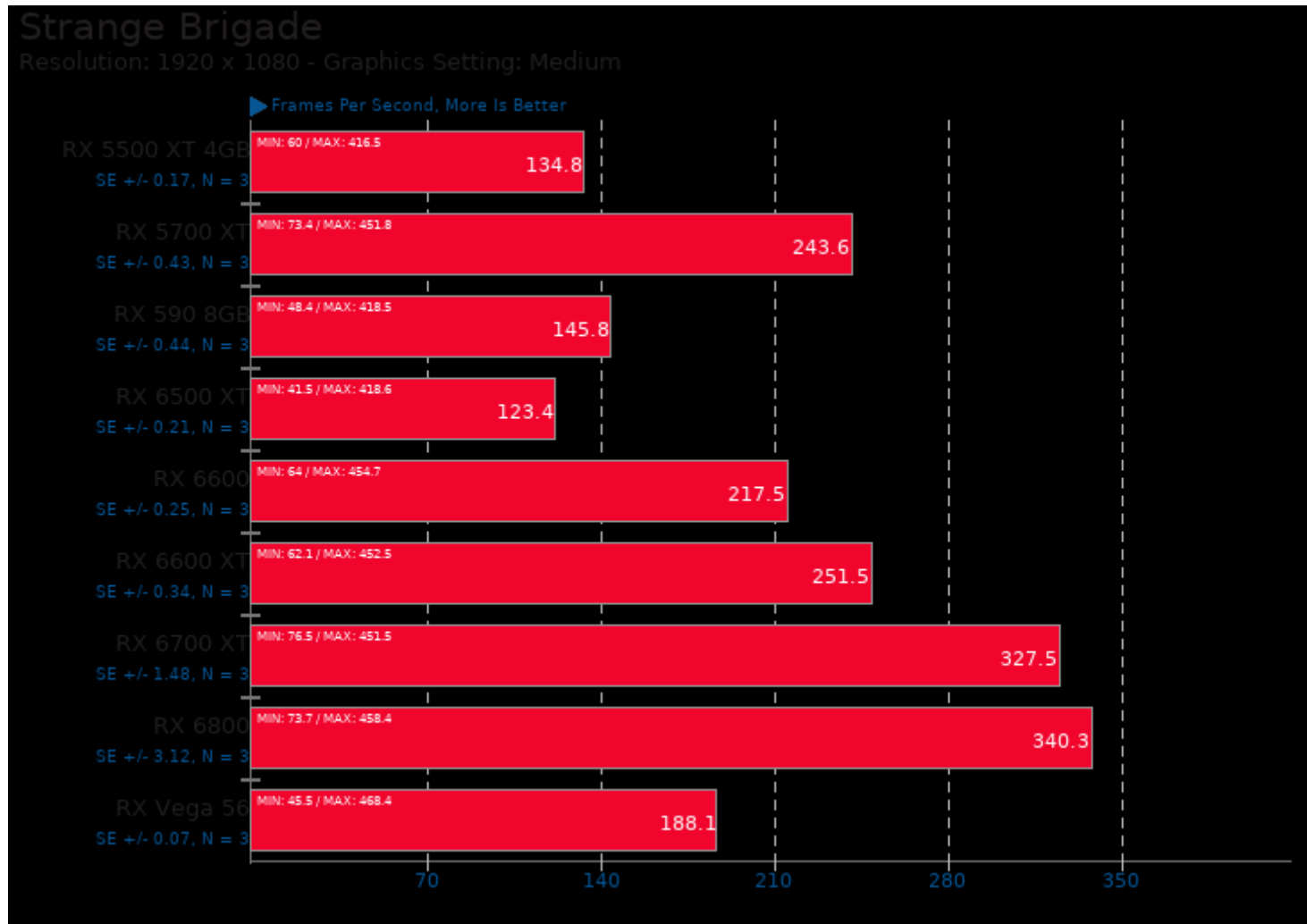
► Frames Per Second, More Is Better







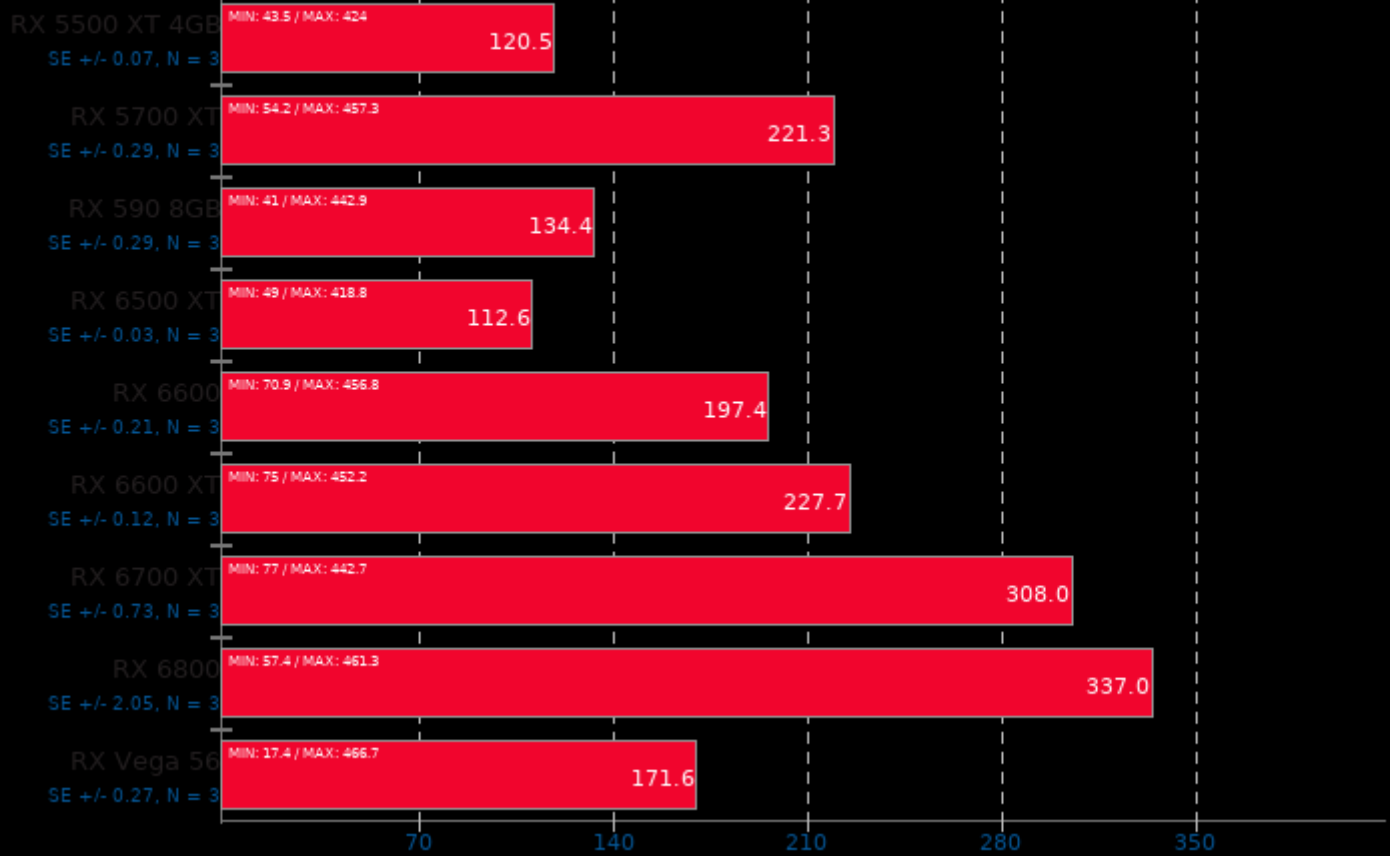


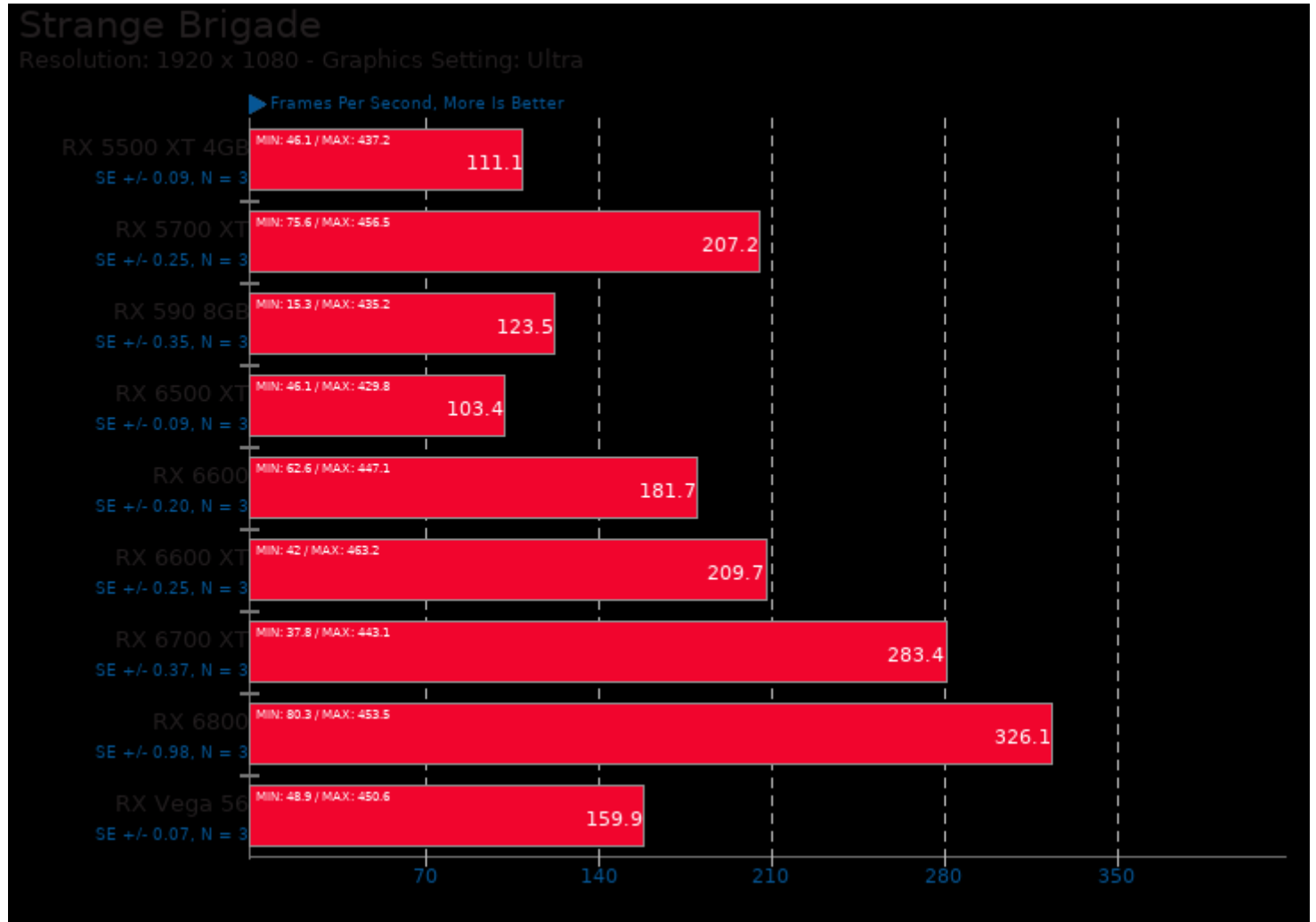


Strange Brigade

Resolution: 1920 x 1080 - Graphics Setting: High

► Frames Per Second, More Is Better





DDRaceNetwork 15.8.1

Resolution: 1920 x 1080 - Mode: Fullscreen - Renderer: OpenGL 3.3 - Zoom: Default - Demo: RaiNyMore2

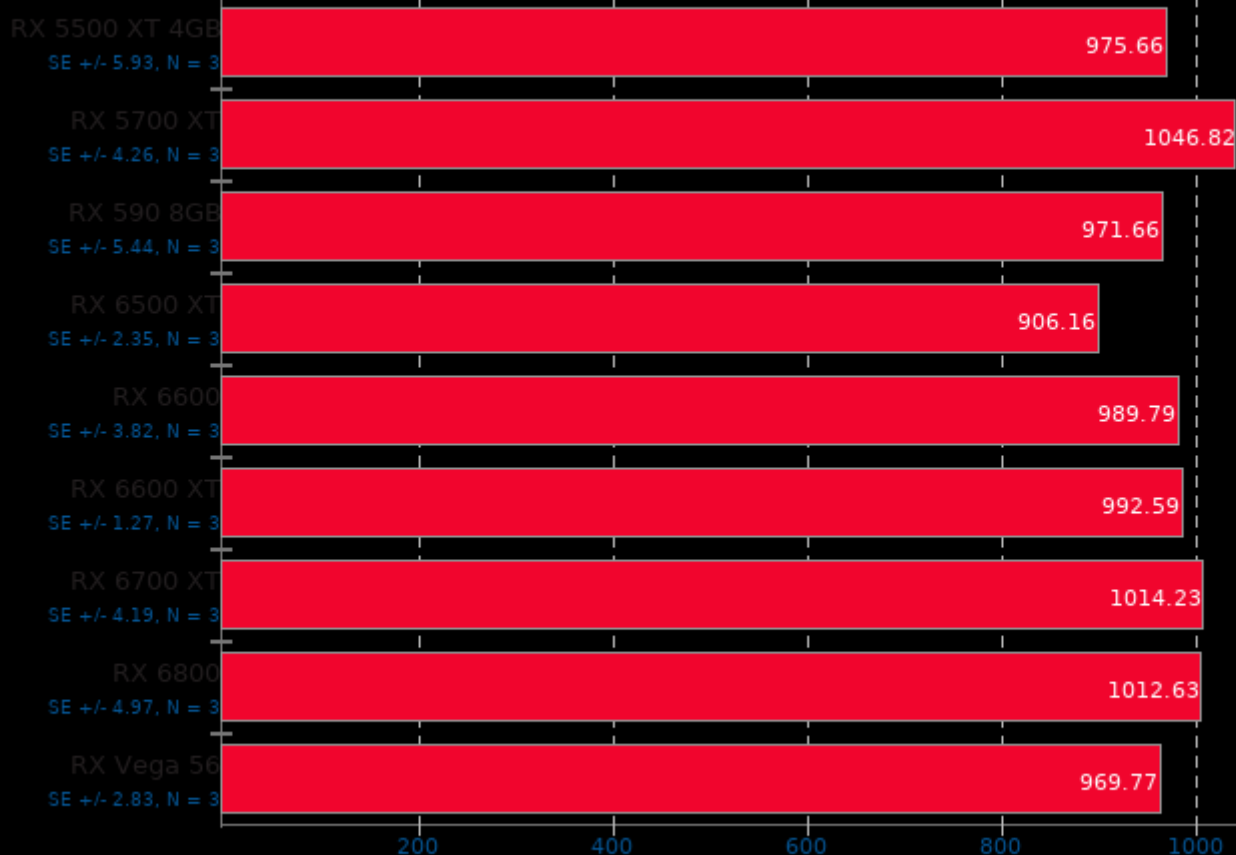


1. (CXX) g++ options: -O3 -lrt -lnotify -lgdk_pixbuf-2.0 -lgio-2.0 -lgobject-2.0 -lglib-2.0

DDRaceNetwork 15.8.1

Resolution: 1920 x 1080 - Mode: Fullscreen - Renderer: OpenGL 3.3 - Zoom: Default - Demo: Multeasymap

► Frames Per Second, More Is Better



1. (CXX) g++ options: -O3 -ftr -fnotify -lgdk_pixbuf-2.0 -lgio-2.0 -lgobject-2.0 -lglib-2.0

Tesseract 2014-05-12

Resolution: 1920 x 1080

► Frames Per Second, More Is Better

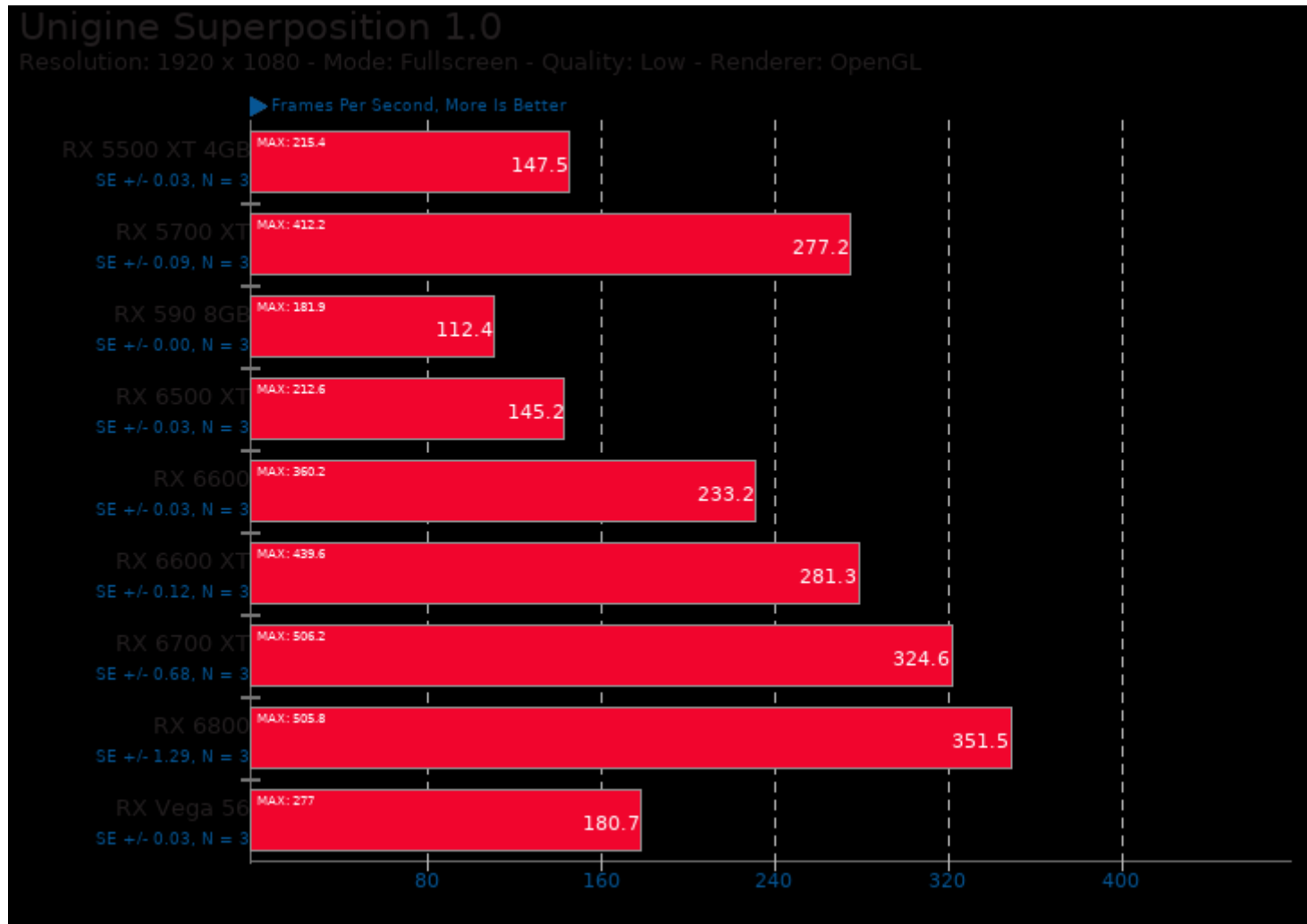


Unigine Heaven 4.0

Resolution: 1920 x 1080 - Mode: Fullscreen - Renderer: OpenGL

► Frames Per Second, More Is Better

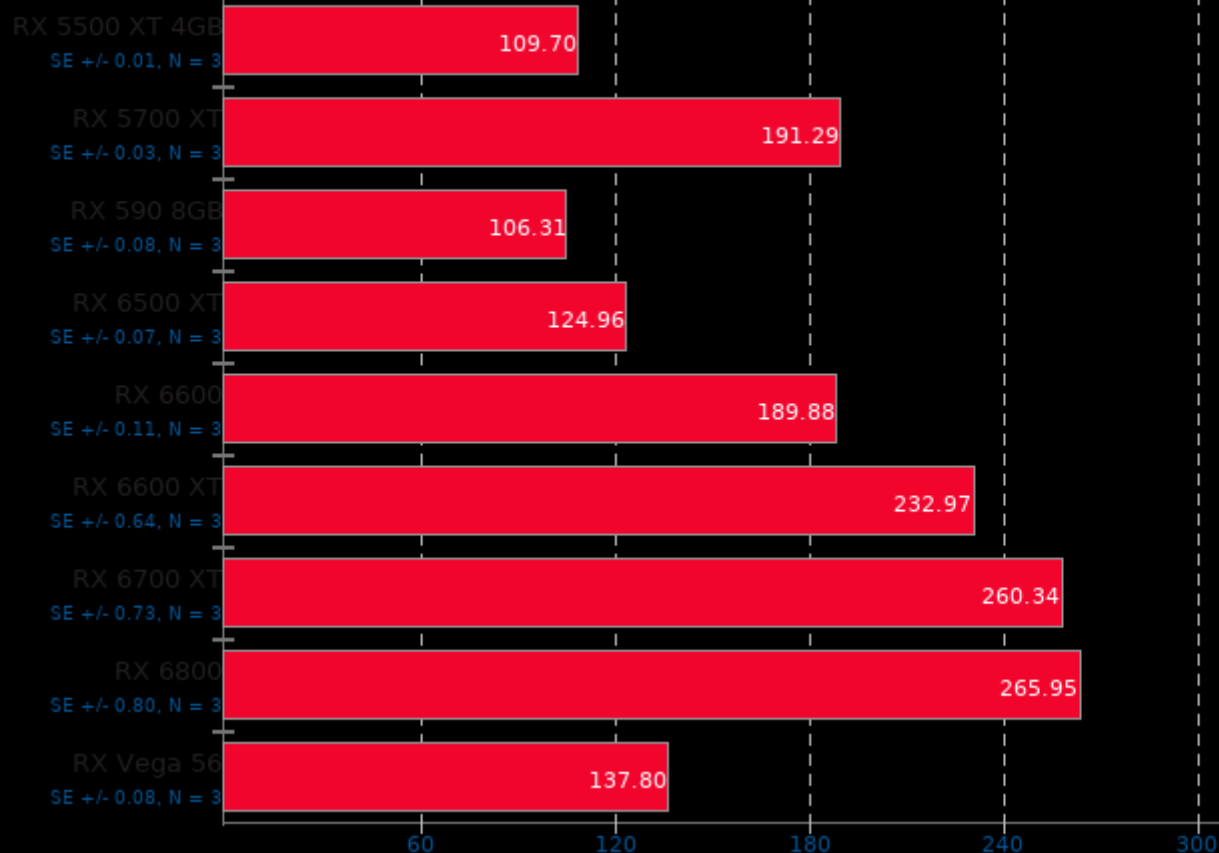




Unigine Valley 1.0

Resolution: 1920 x 1080 - Mode: Fullscreen - Renderer: OpenGL

► Frames Per Second, More Is Better



Unvanquished 0.52.1

Resolution: 1920 x 1080 - Effects Quality: High

► Frames Per Second, More Is Better



Unvanquished 0.52.1

Resolution: 1920 x 1080 - Effects Quality: Ultra

► Frames Per Second, More Is Better



Unvanquished 0.52.1

Resolution: 1920 x 1080 - Effects Quality: Medium

► Frames Per Second, More Is Better



Xonotic 0.8.2

Resolution: 1920 x 1080 - Effects Quality: Ultimate

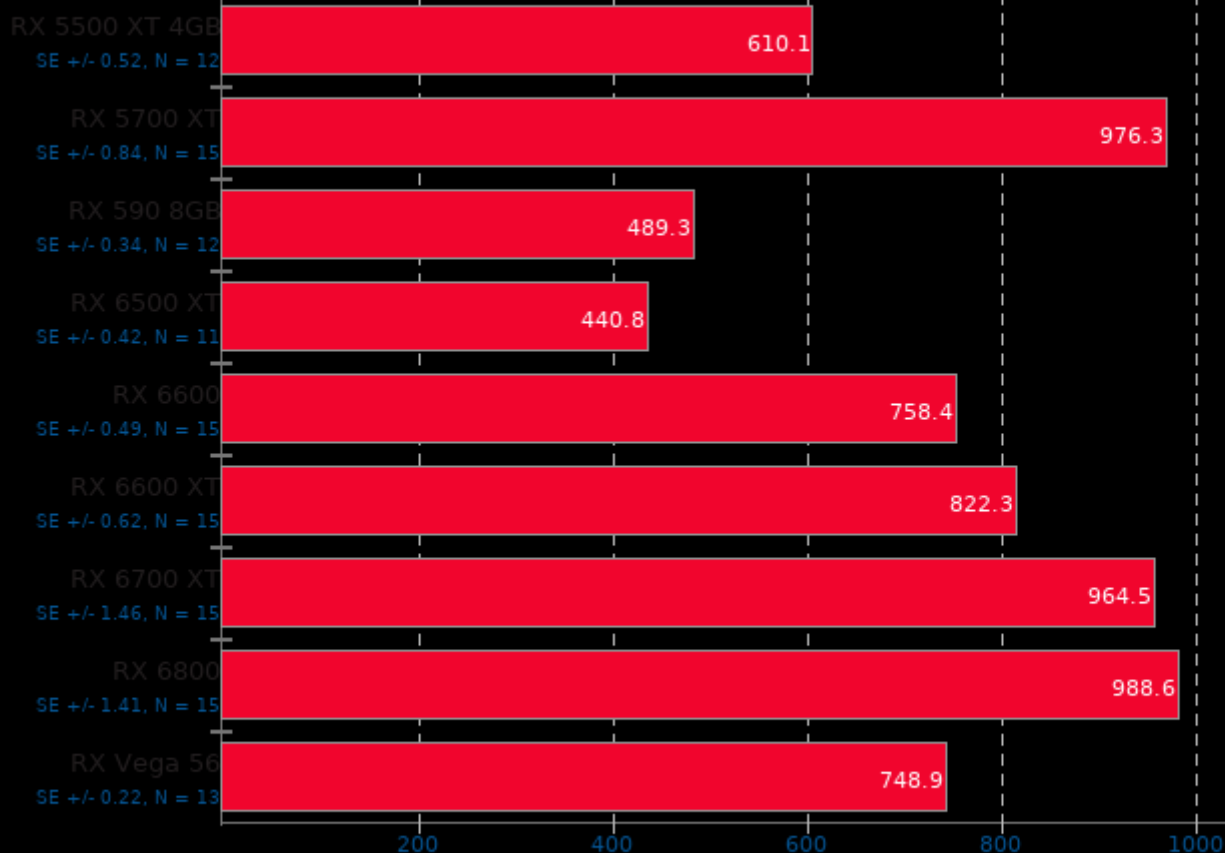
► Frames Per Second, More Is Better



yquake2 8.0

Renderer: Vulkan - Resolution: 1920 x 1080

► Frames Per Second, More Is Better

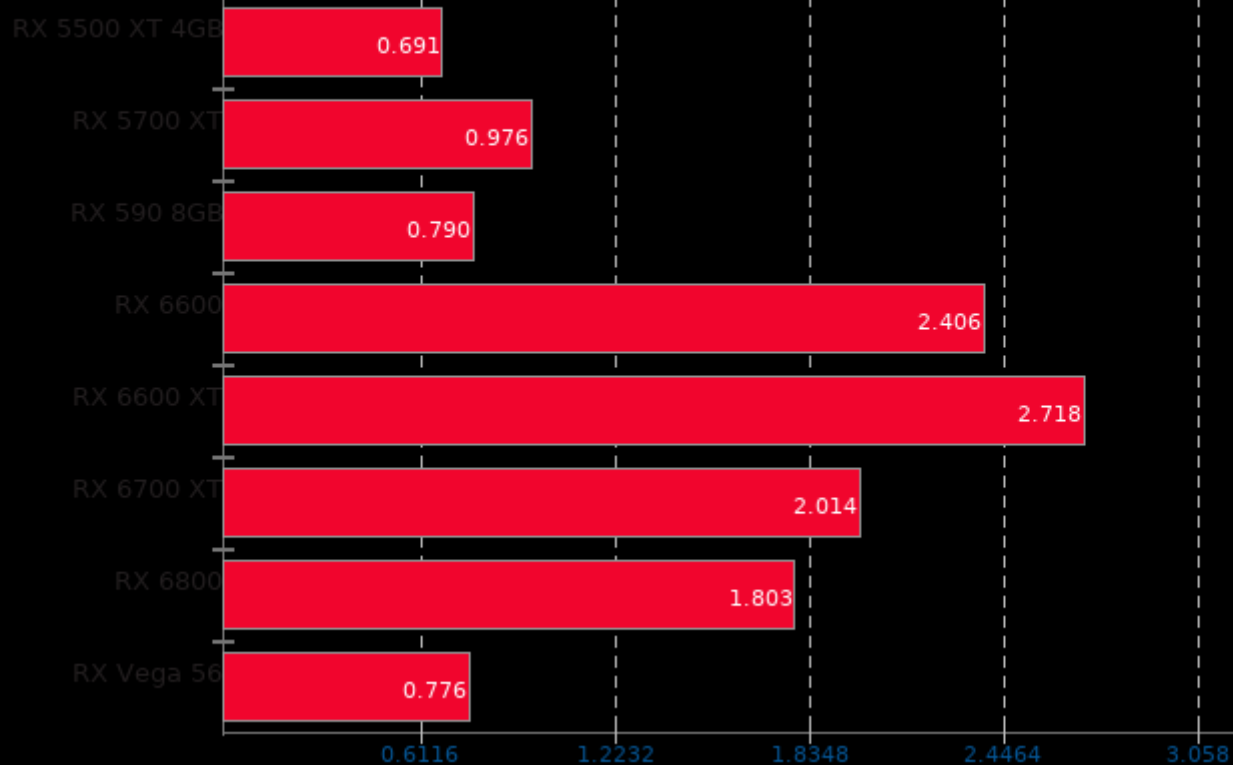


1. (CO) gcc options: -lm -ldl -rdynamic -shared -lSDL2 -O2 -pipe -fomit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfr

Ashes of the Singularity: Escalation

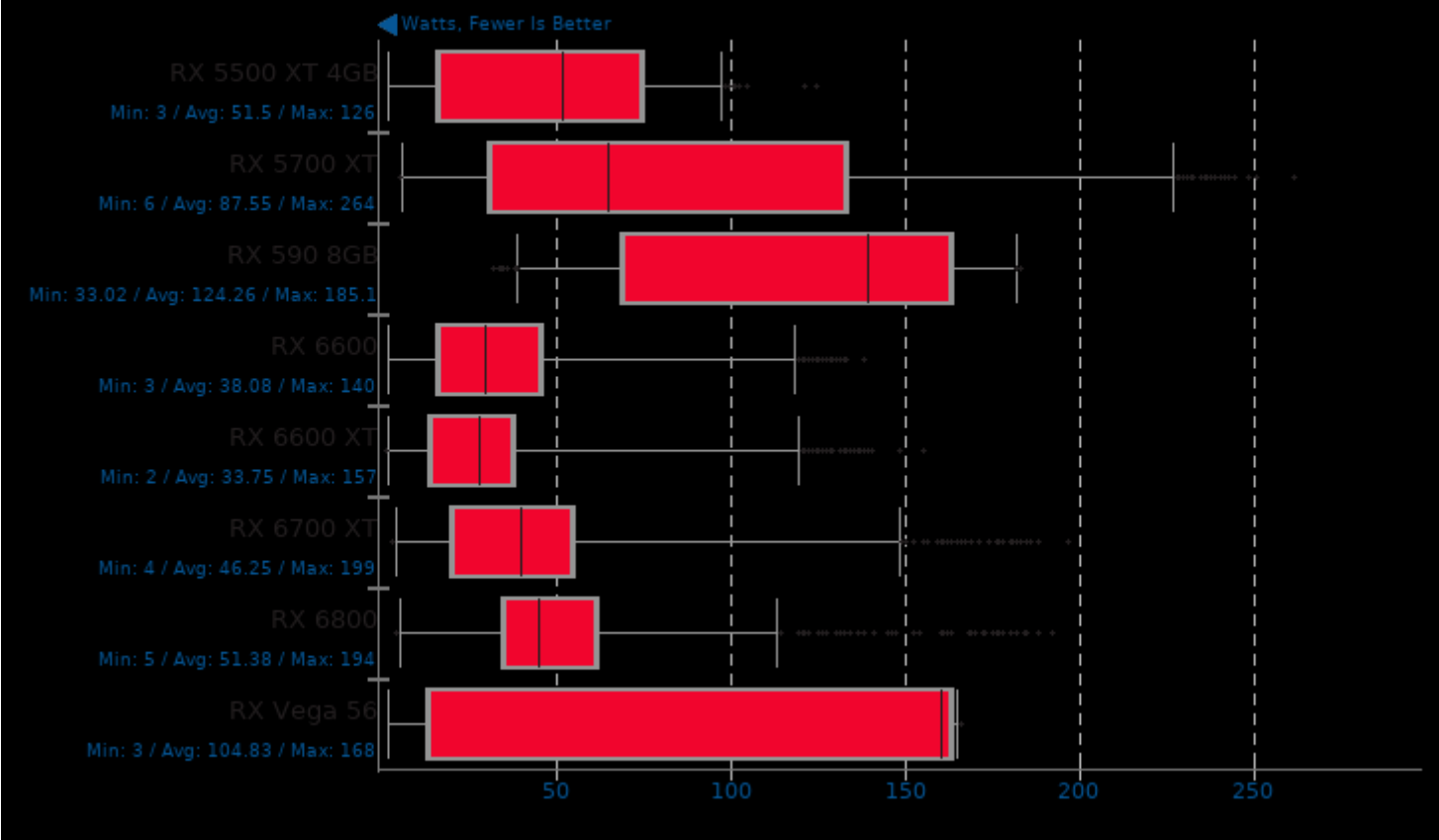
Resolution: 1920 x 1080

► Frames Per Second Per Watt, More Is Better



Ashes of the Singularity: Escalation

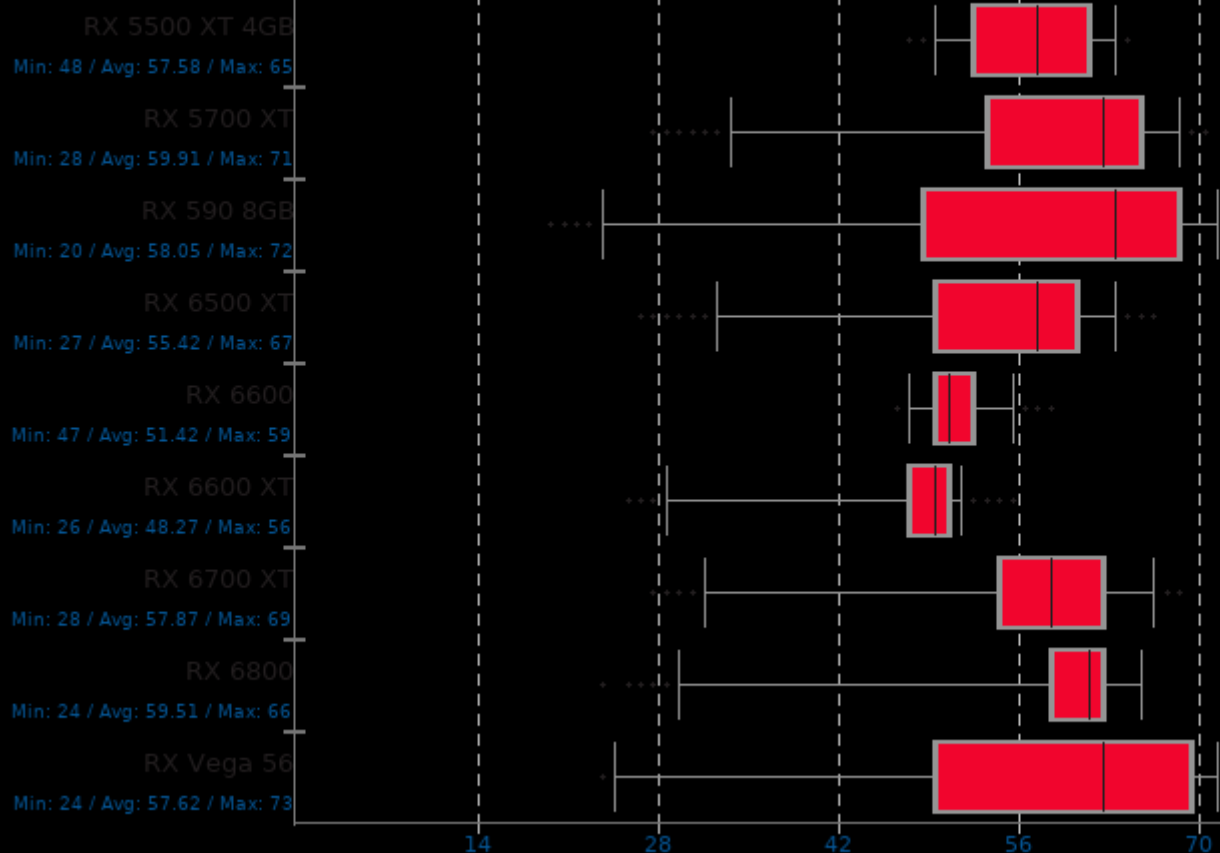
GPU Power Consumption Monitor



Ashes of the Singularity: Escalation

GPU Temperature Monitor

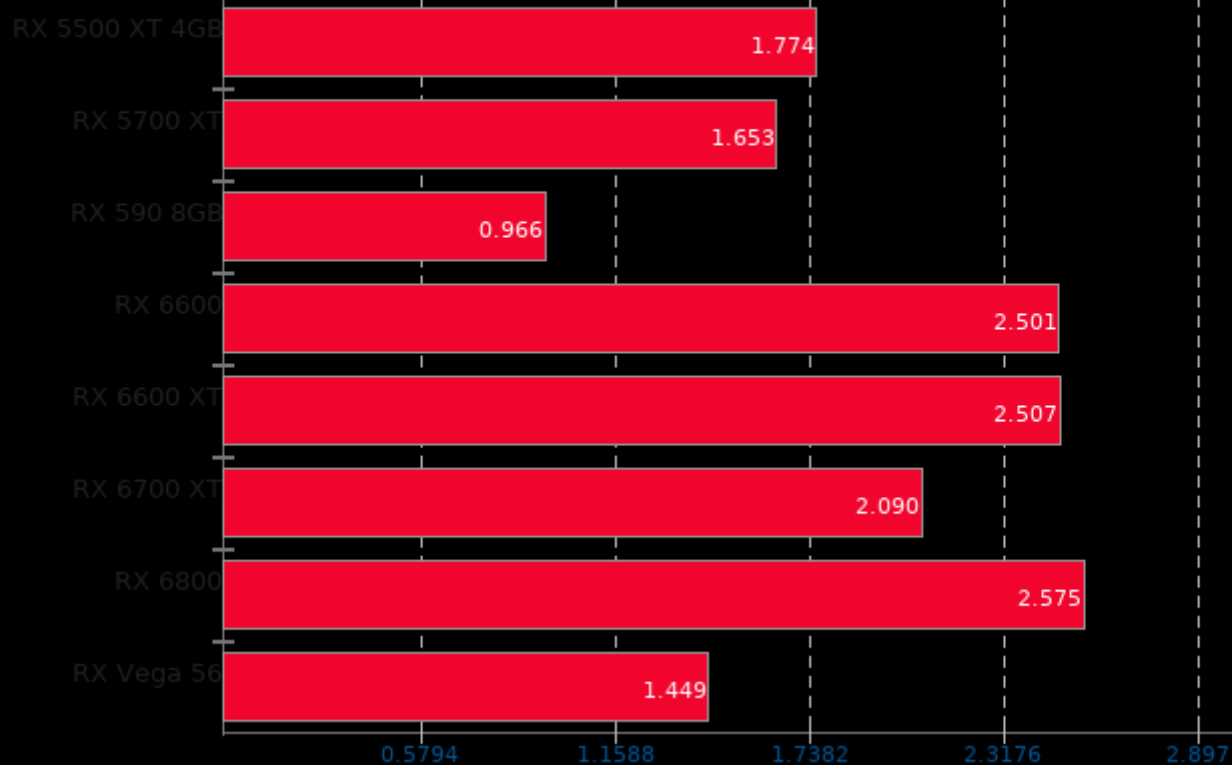
◀ Celsius, Fewer Is Better



Batman: Arkham Knight

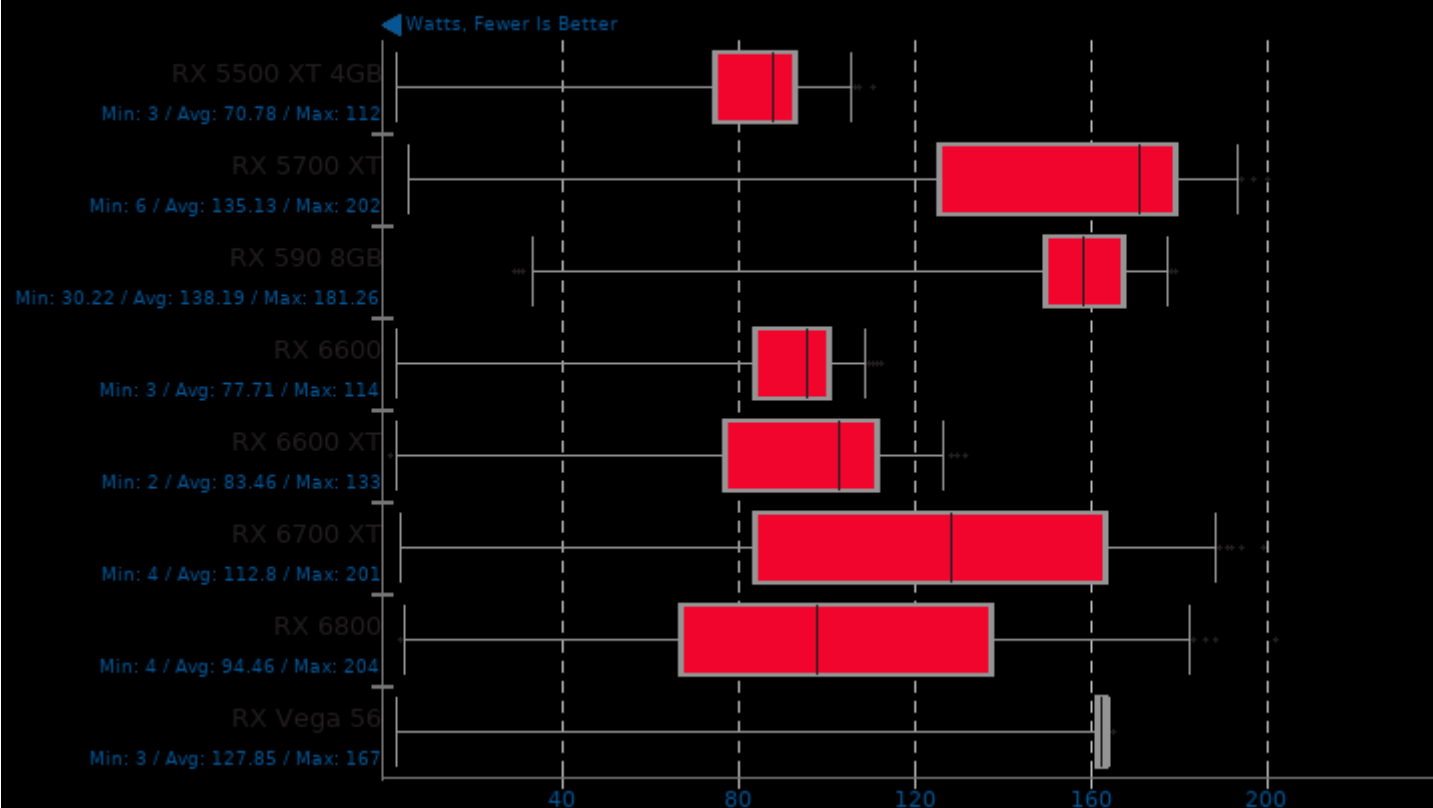
Resolution: 1920 x 1080 - Quality: Low

► Frames Per Second Per Watt, More Is Better



Batman: Arkham Knight

GPU Power Consumption Monitor

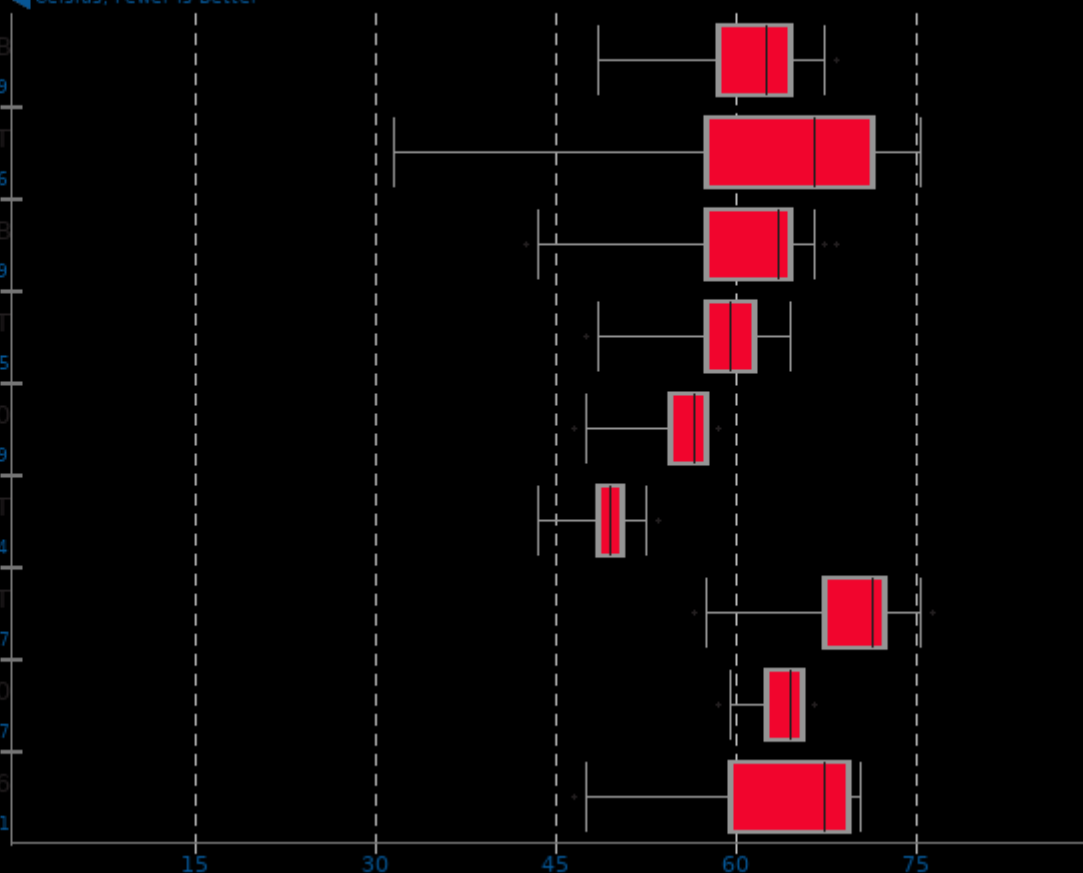


Batman: Arkham Knight

GPU Temperature Monitor

◀ Celsius, Fewer Is Better

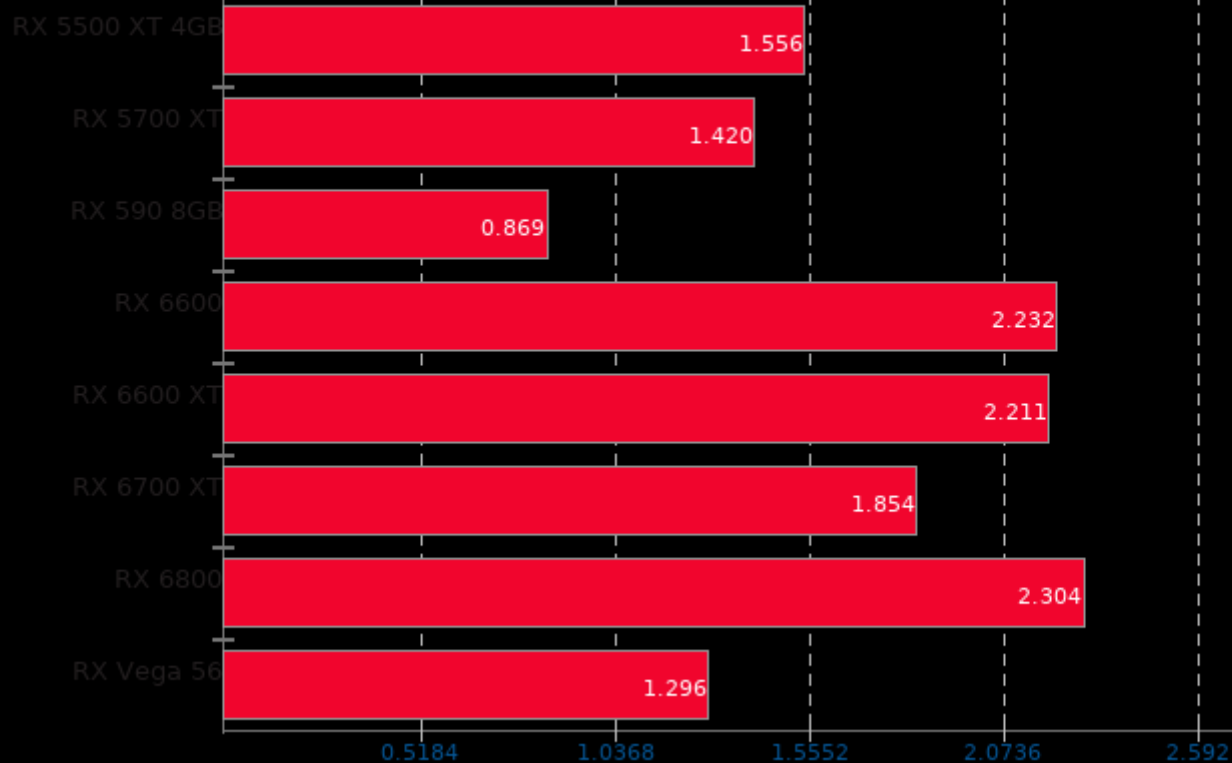
RX 5500 XT 4GB
Min: 49 / Avg: 61.45 / Max: 69
RX 5700 XT
Min: 32 / Avg: 63.02 / Max: 76
RX 590 8GB
Min: 43 / Avg: 60.22 / Max: 69
RX 6500 XT
Min: 48 / Avg: 58.93 / Max: 65
RX 6600
Min: 47 / Avg: 55.44 / Max: 59
RX 6600 XT
Min: 44 / Avg: 49.51 / Max: 54
RX 6700 XT
Min: 57 / Avg: 69.66 / Max: 77
RX 6800
Min: 59 / Avg: 64.22 / Max: 67
RX Vega 56
Min: 47 / Avg: 64.29 / Max: 71

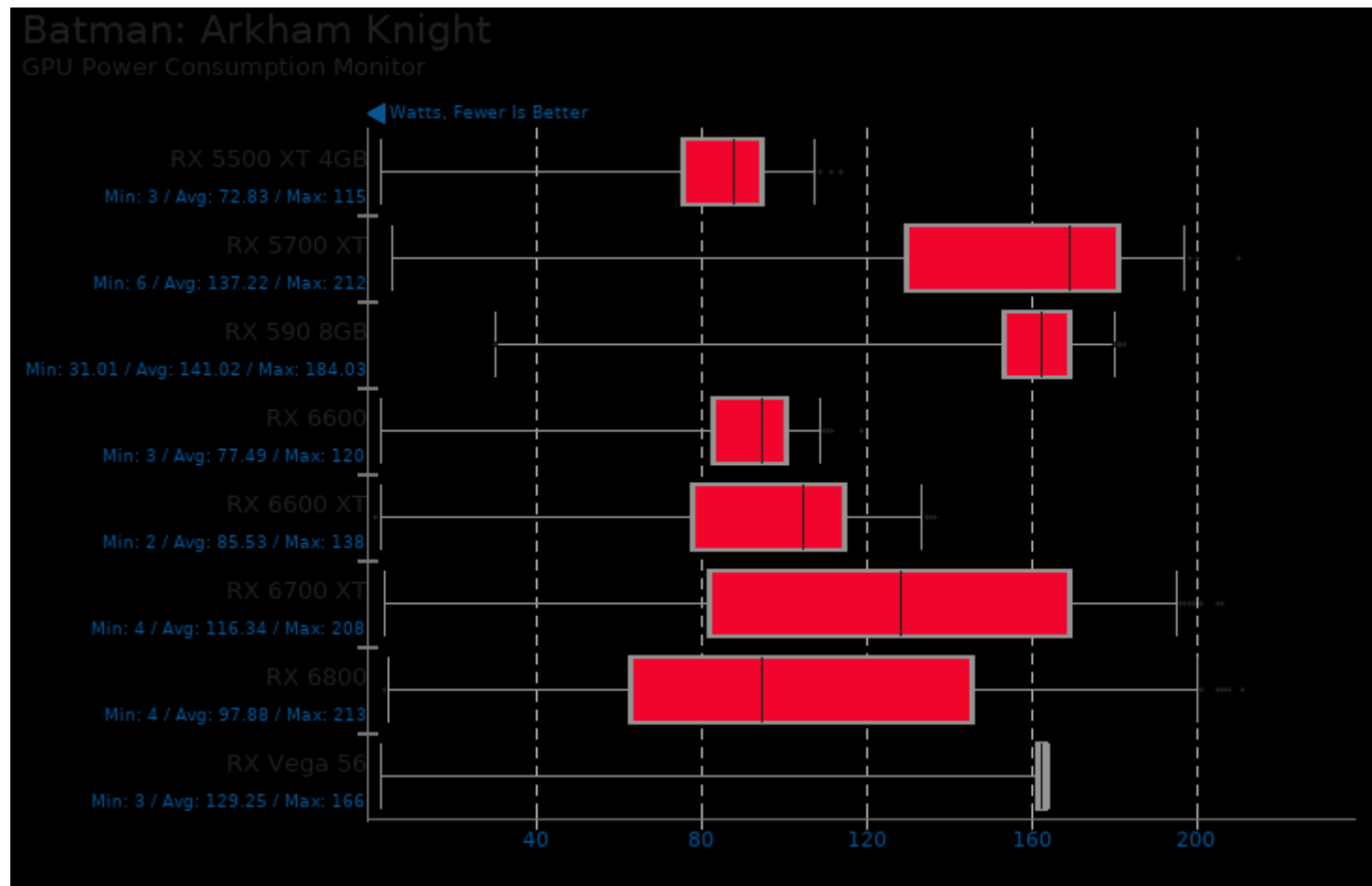


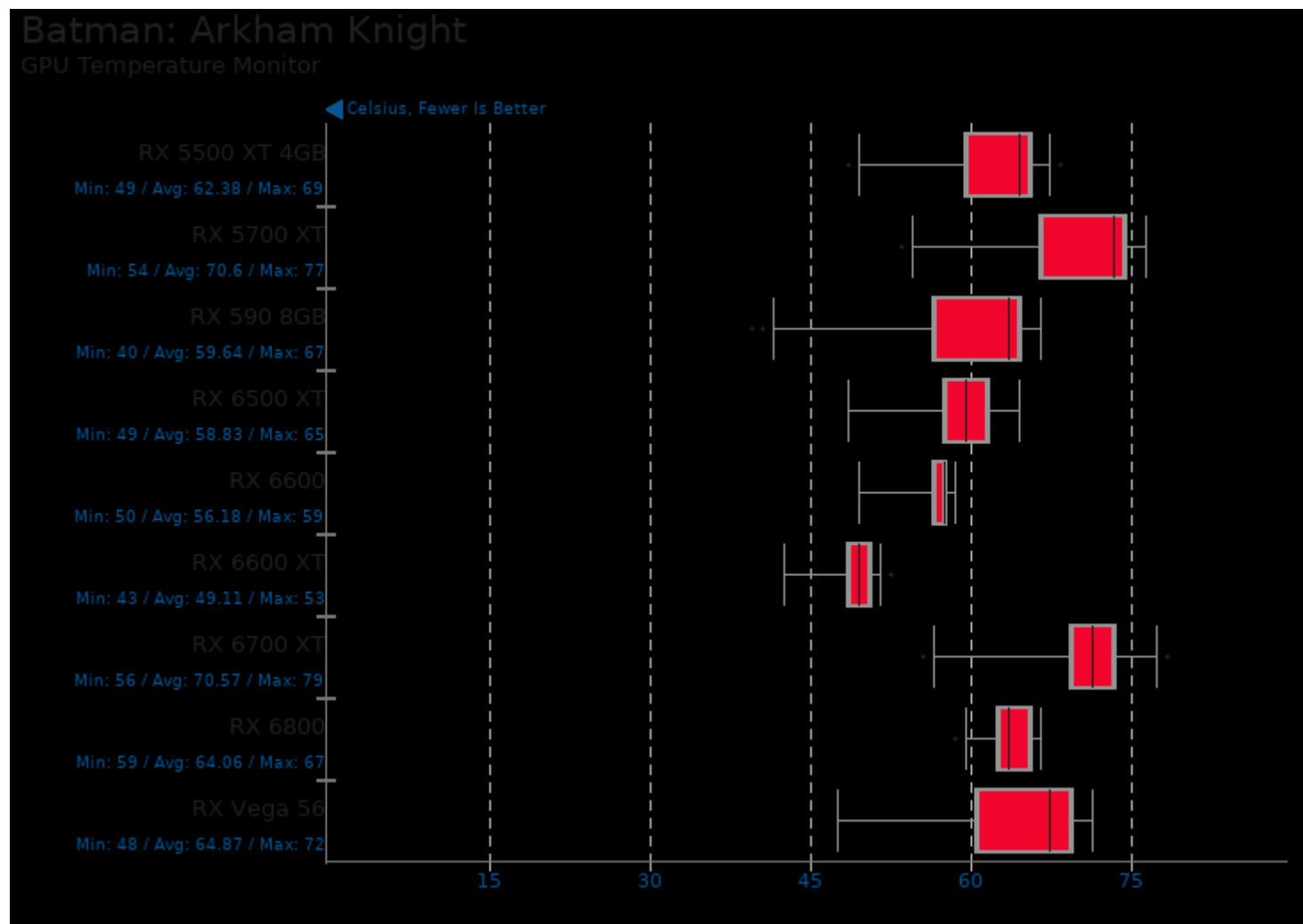
Batman: Arkham Knight

Resolution: 1920 x 1080 - Quality: High

► Frames Per Second Per Watt, More Is Better



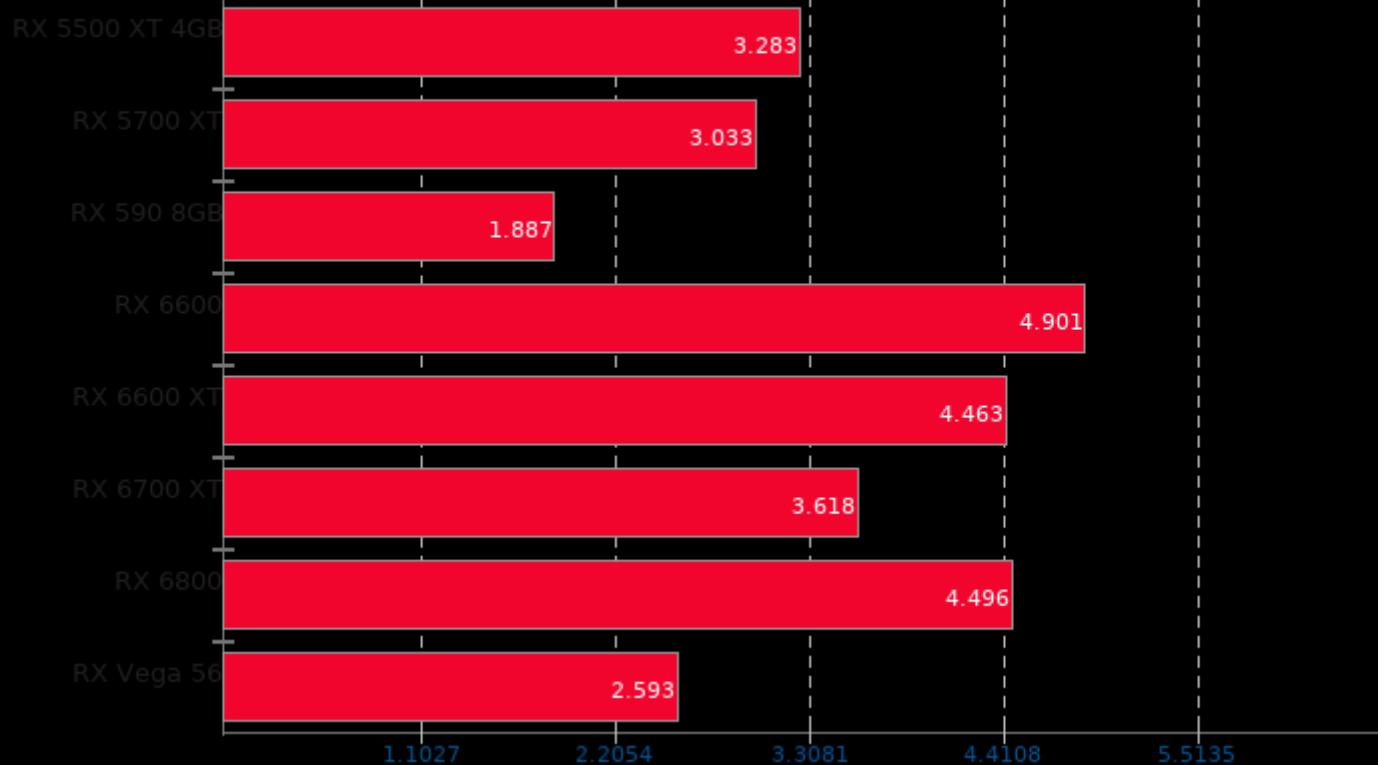


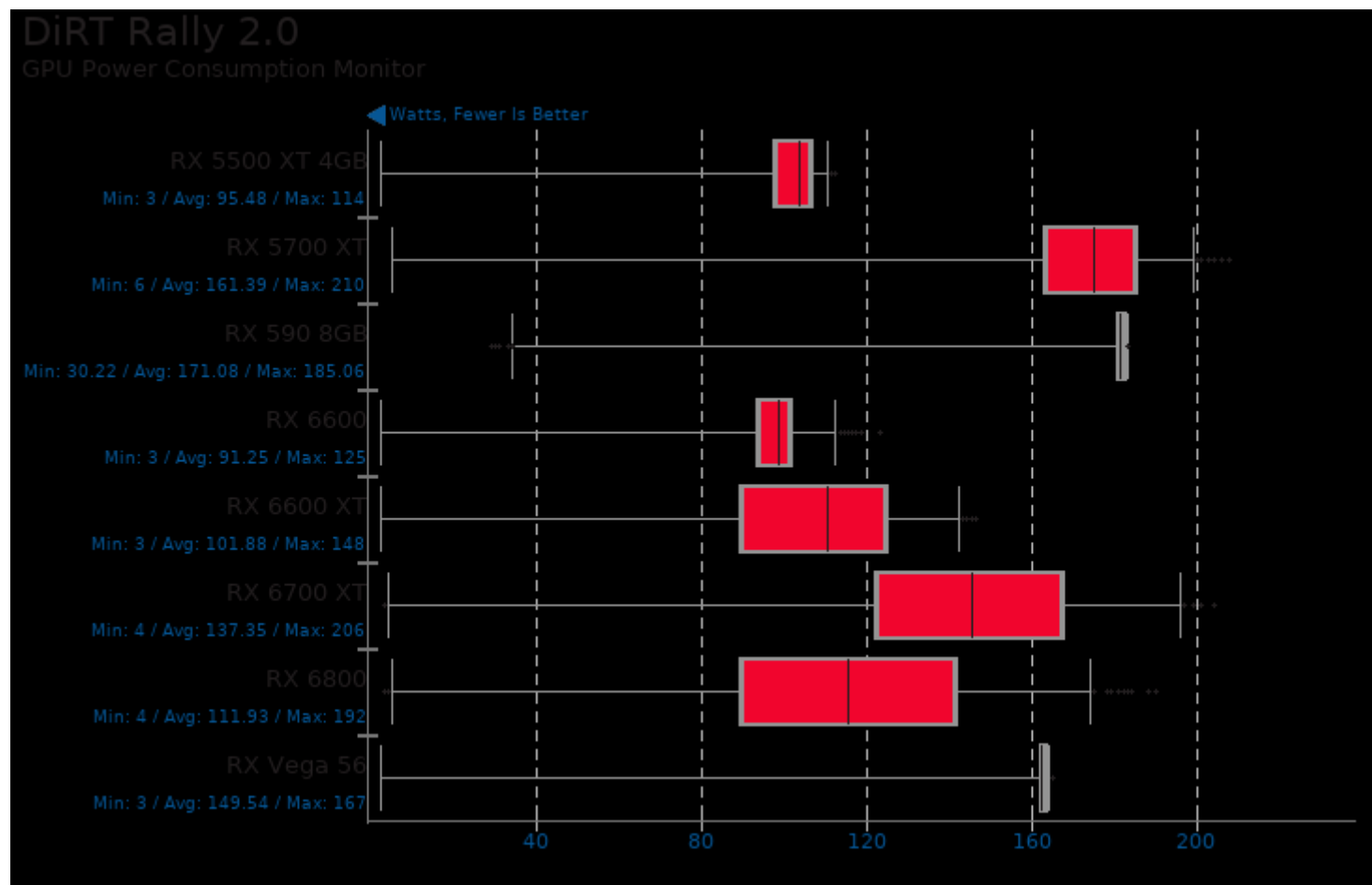


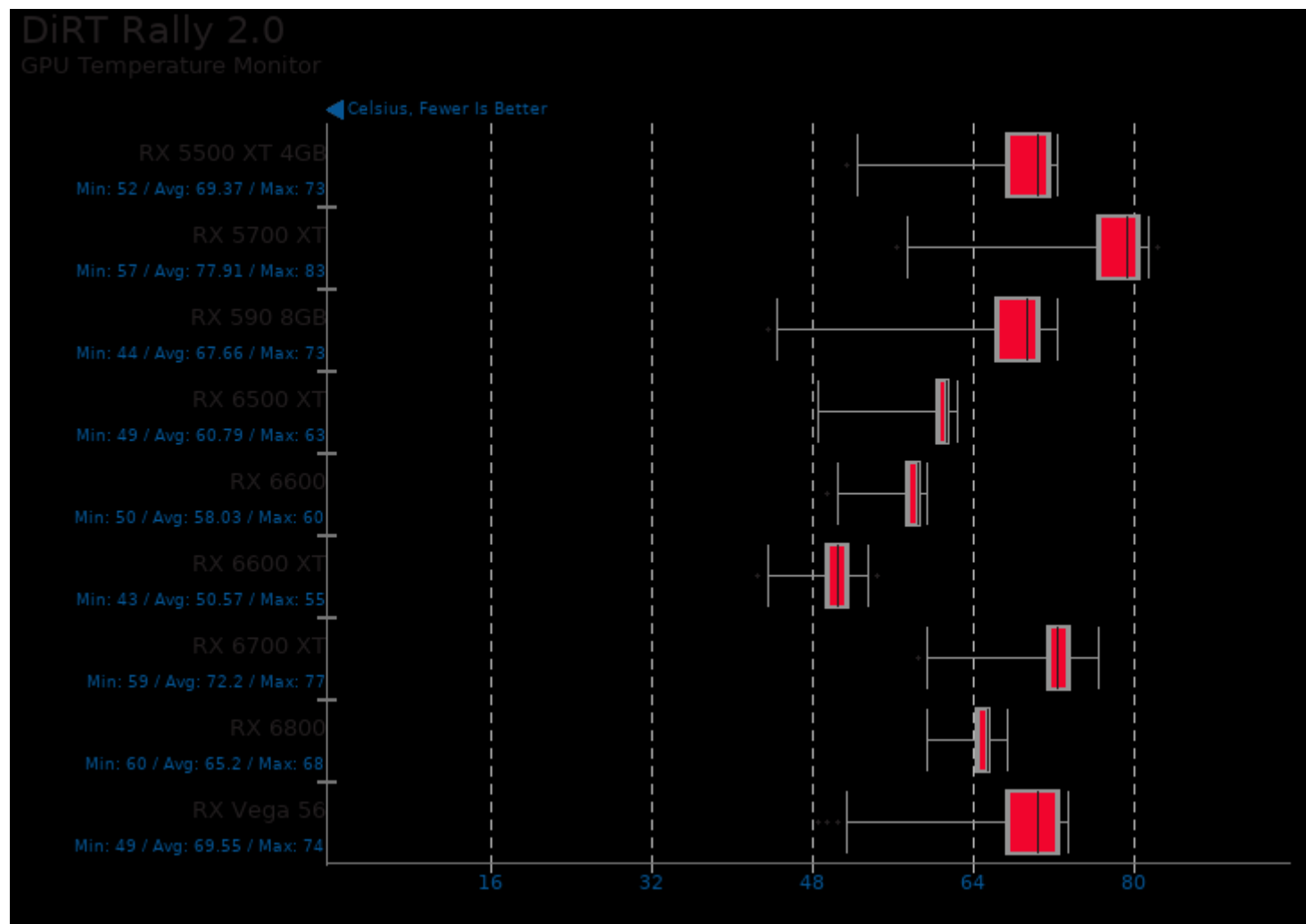
DiRT Rally 2.0

Resolution: 1920 x 1080 - Graphics Preset: Low

► Frames Per Second Per Watt, More Is Better



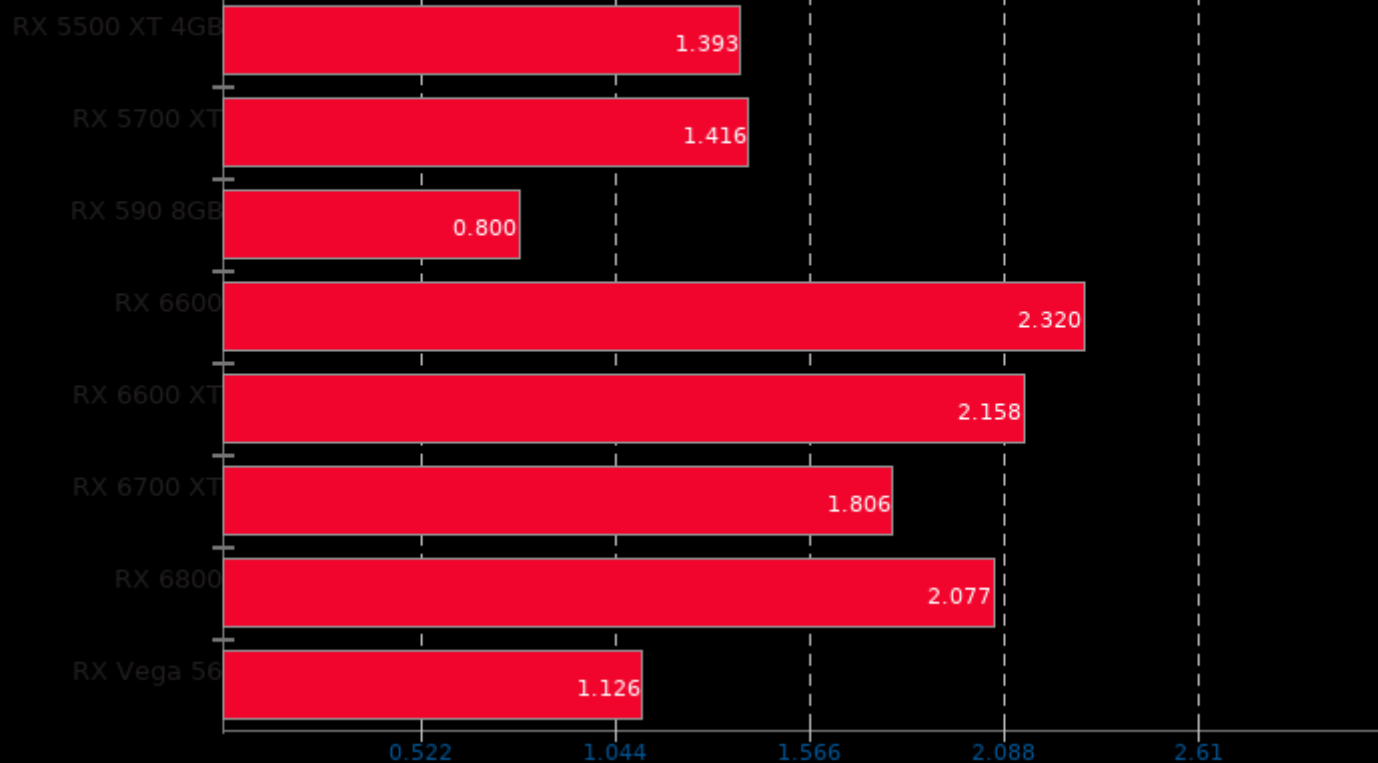


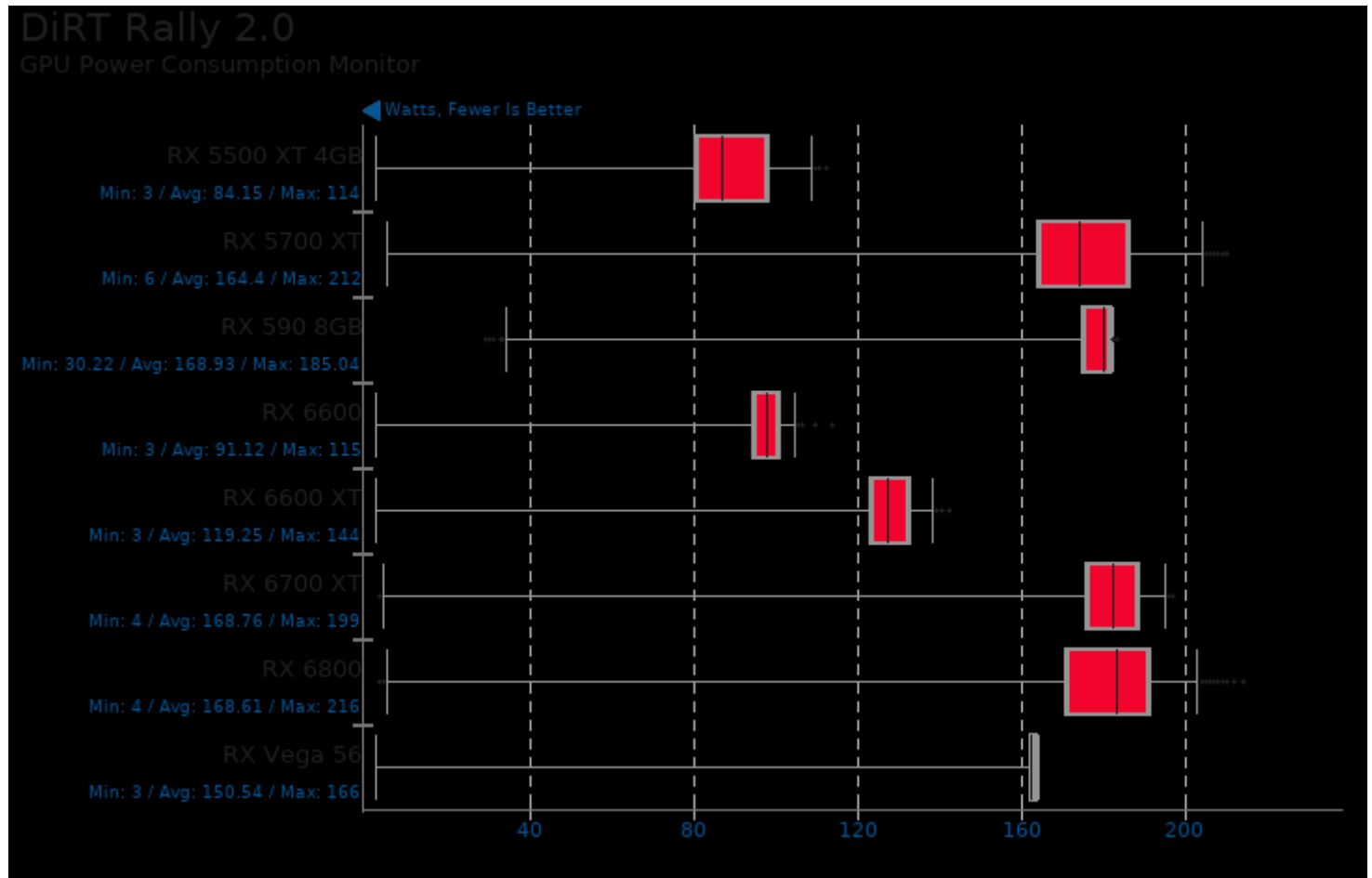


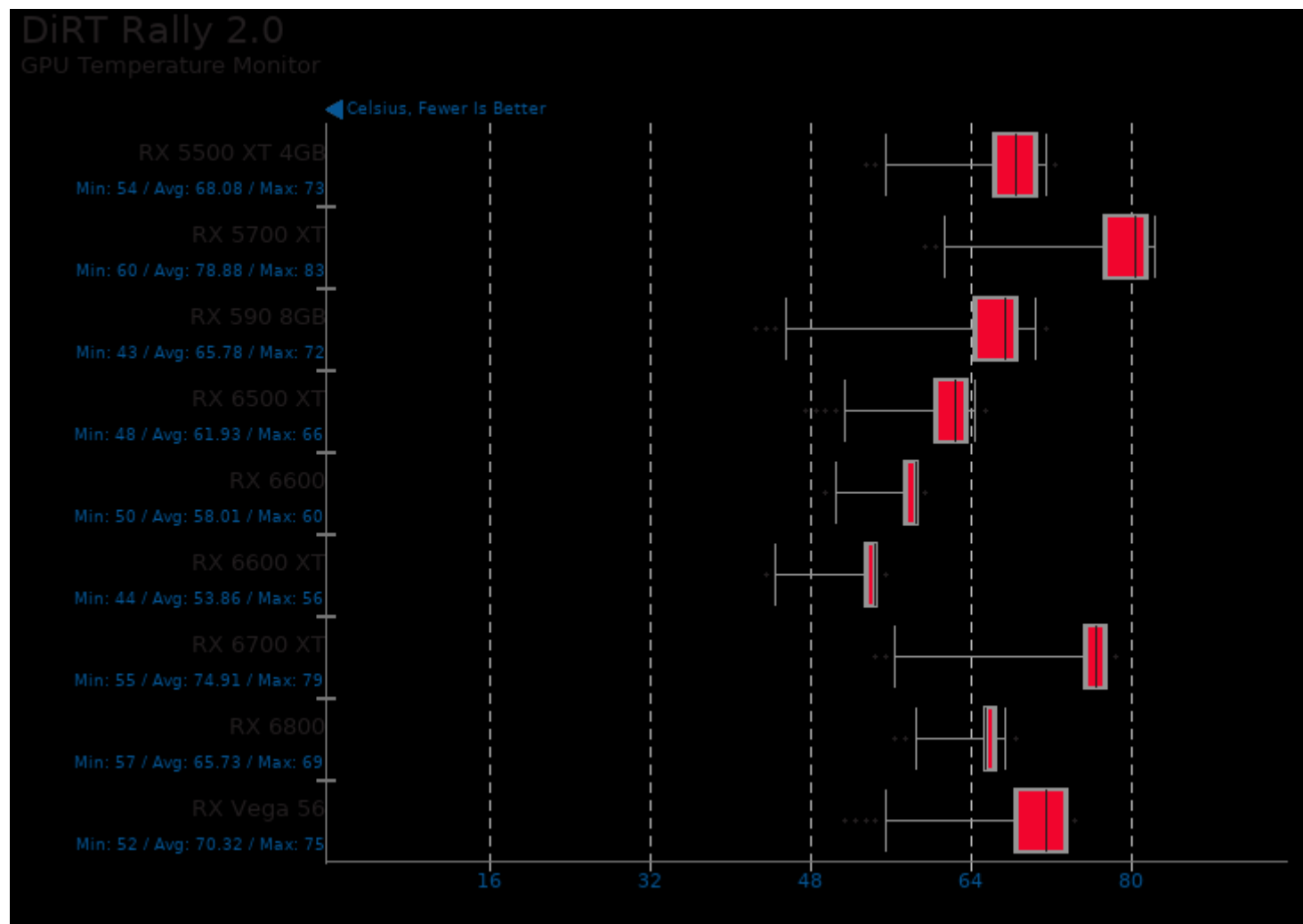
DiRT Rally 2.0

Resolution: 1920 x 1080 - Graphics Preset: High

► Frames Per Second Per Watt, More Is Better



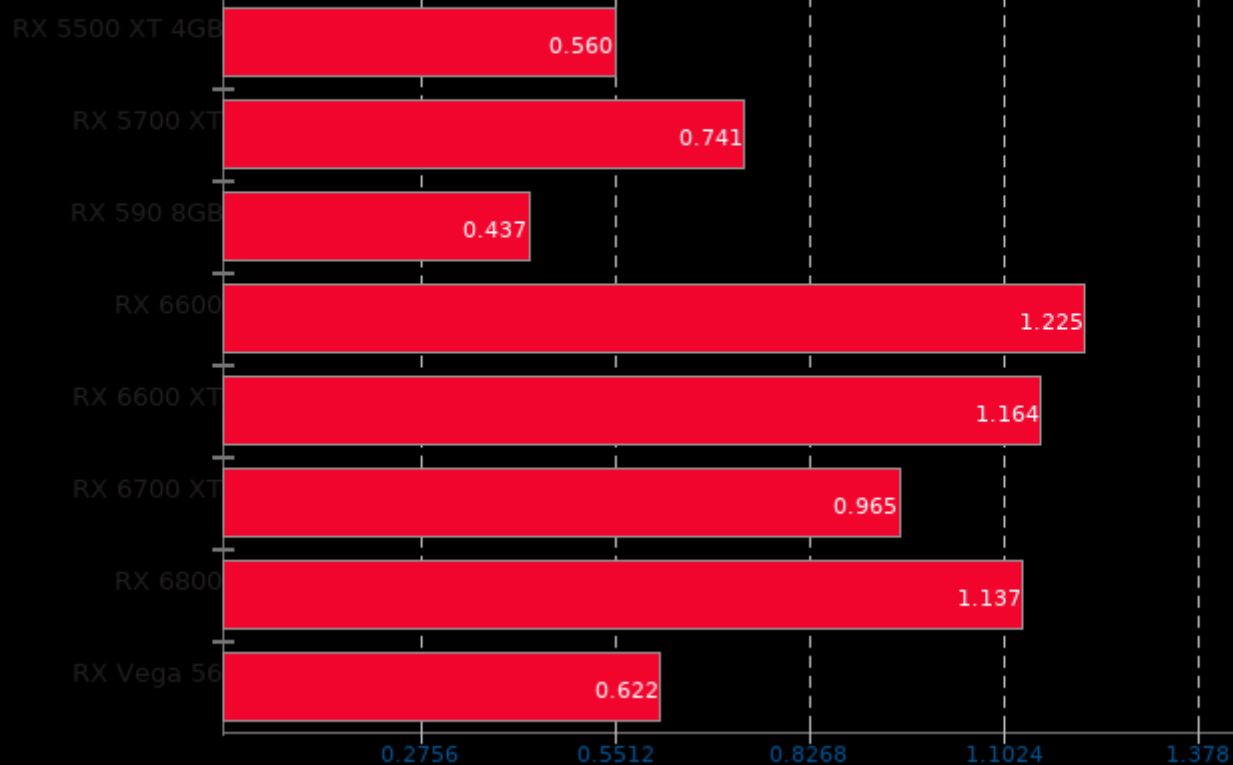


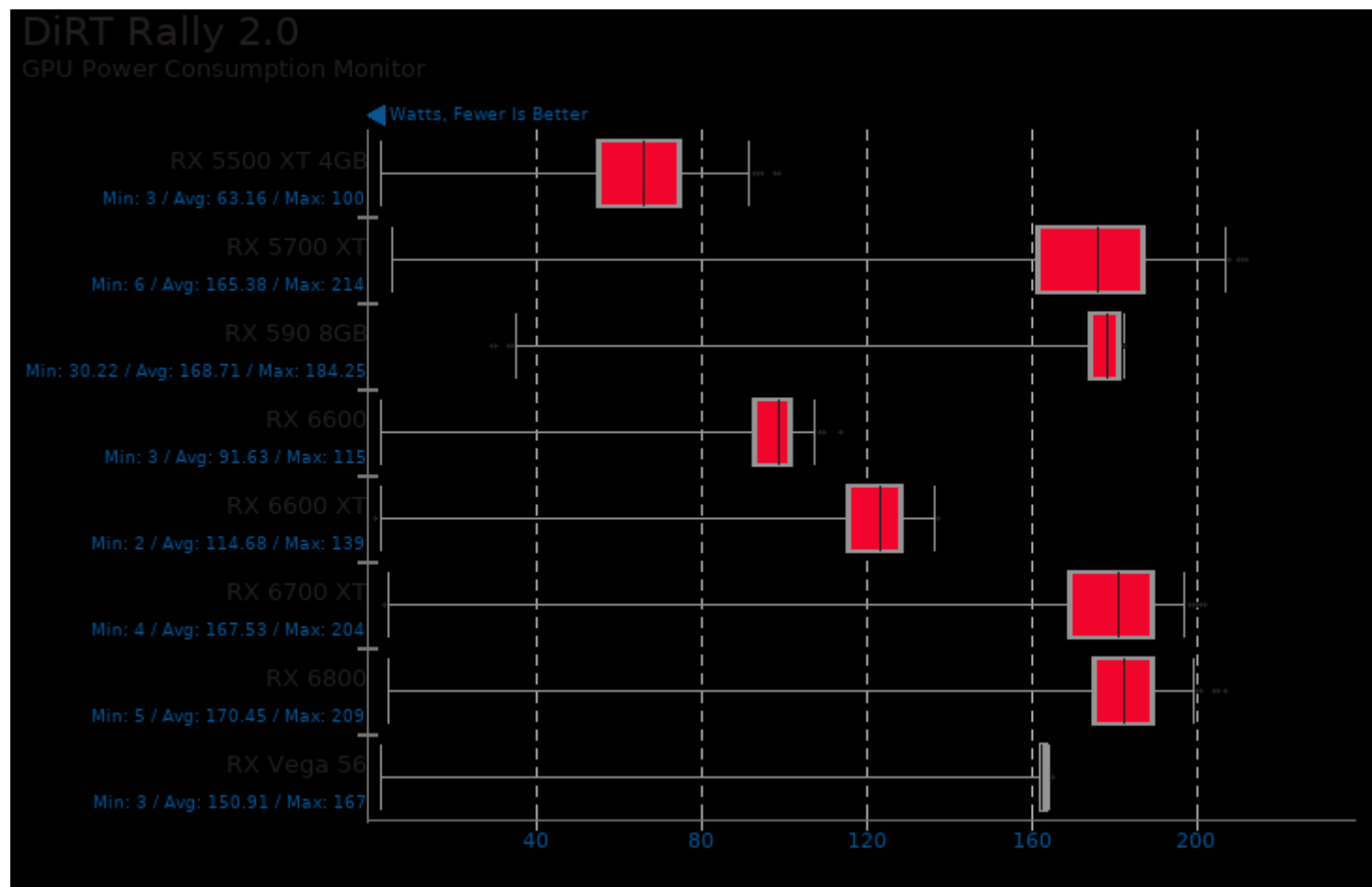


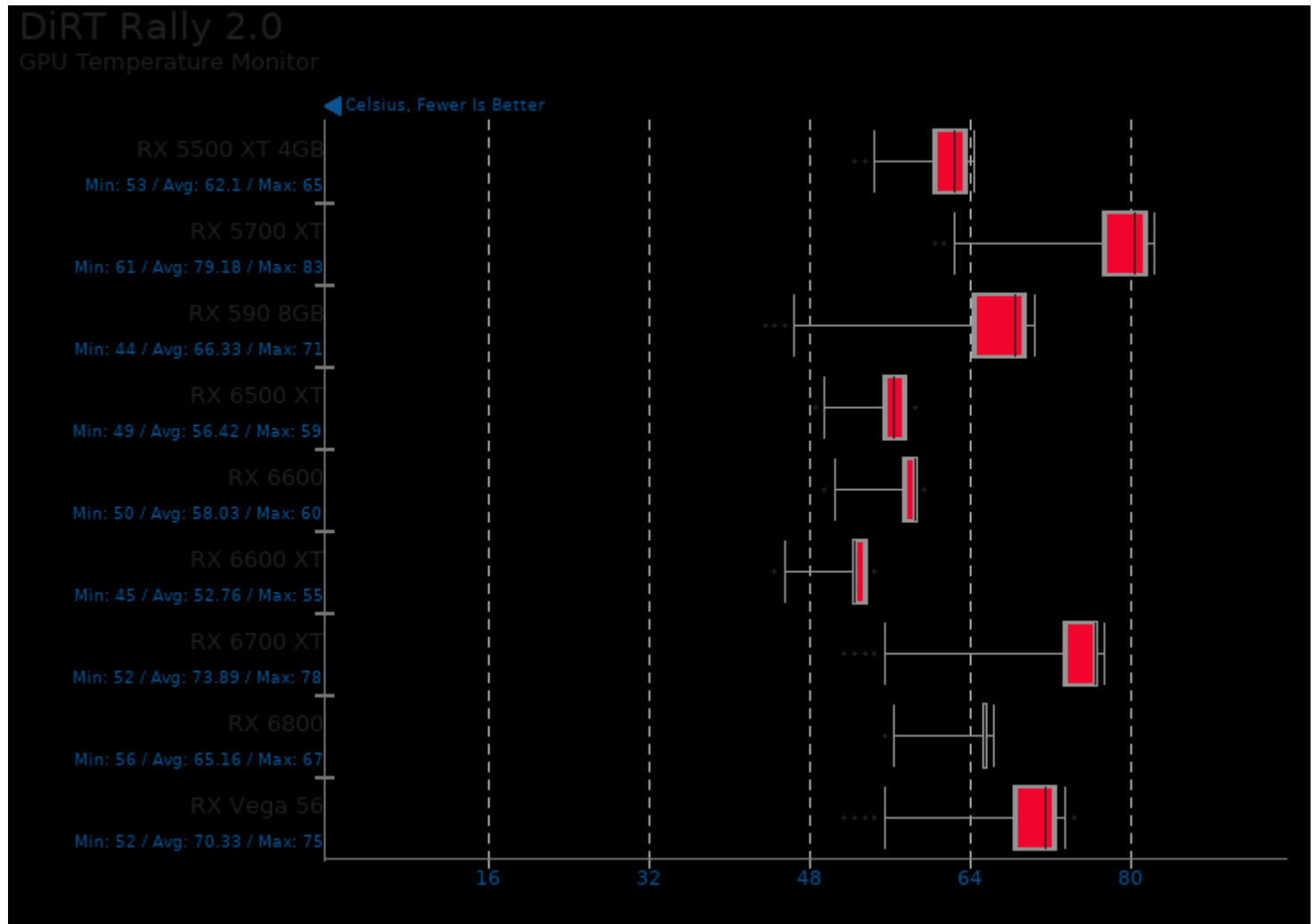
DiRT Rally 2.0

Resolution: 1920 x 1080 - Graphics Preset: Ultra

► Frames Per Second Per Watt, More Is Better



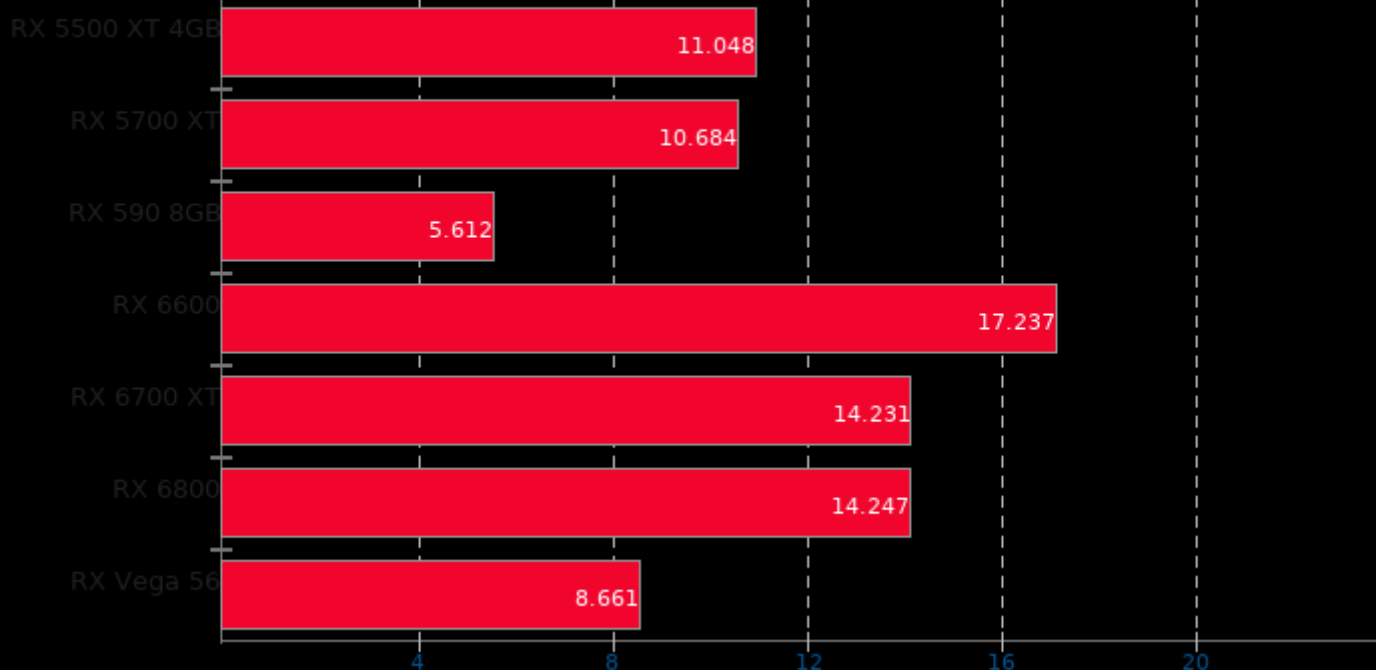




Half-Life 2: Episode Two

Resolution: 1920 x 1080 - Renderer: OpenGL

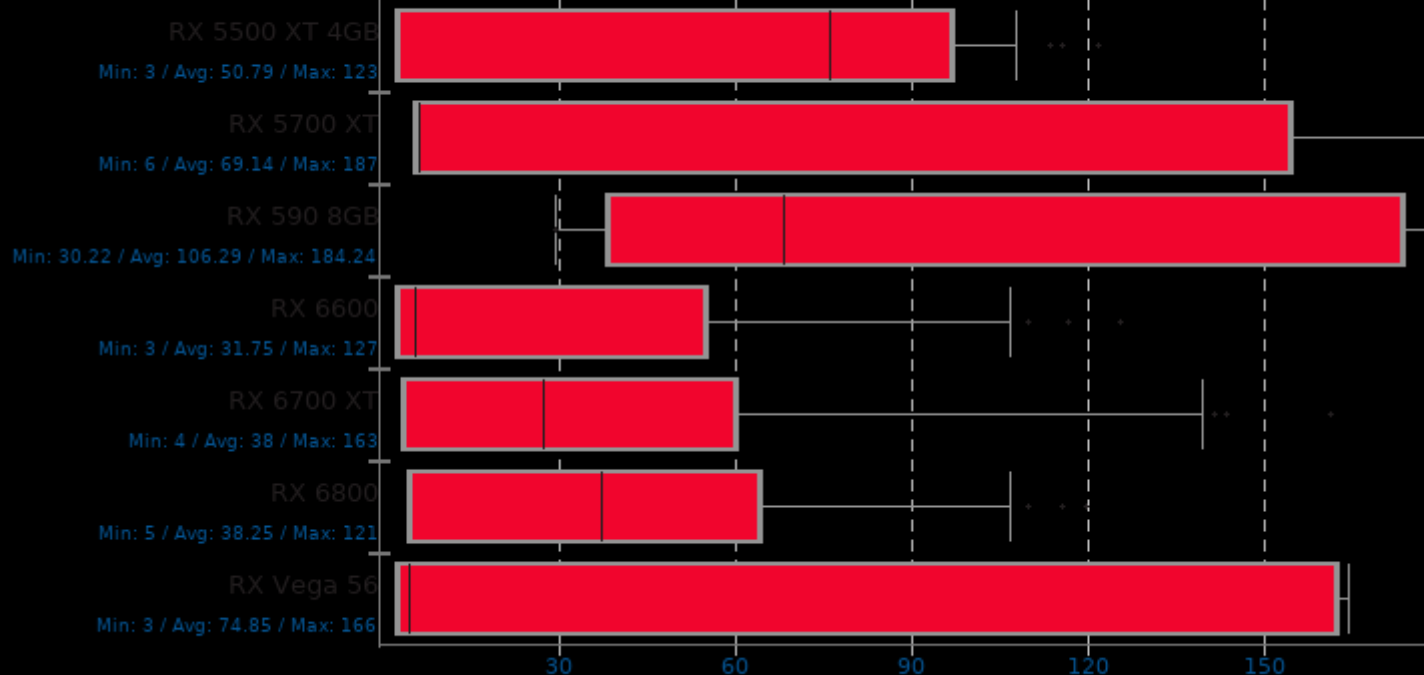
► Frames Per Second Per Watt, More Is Better

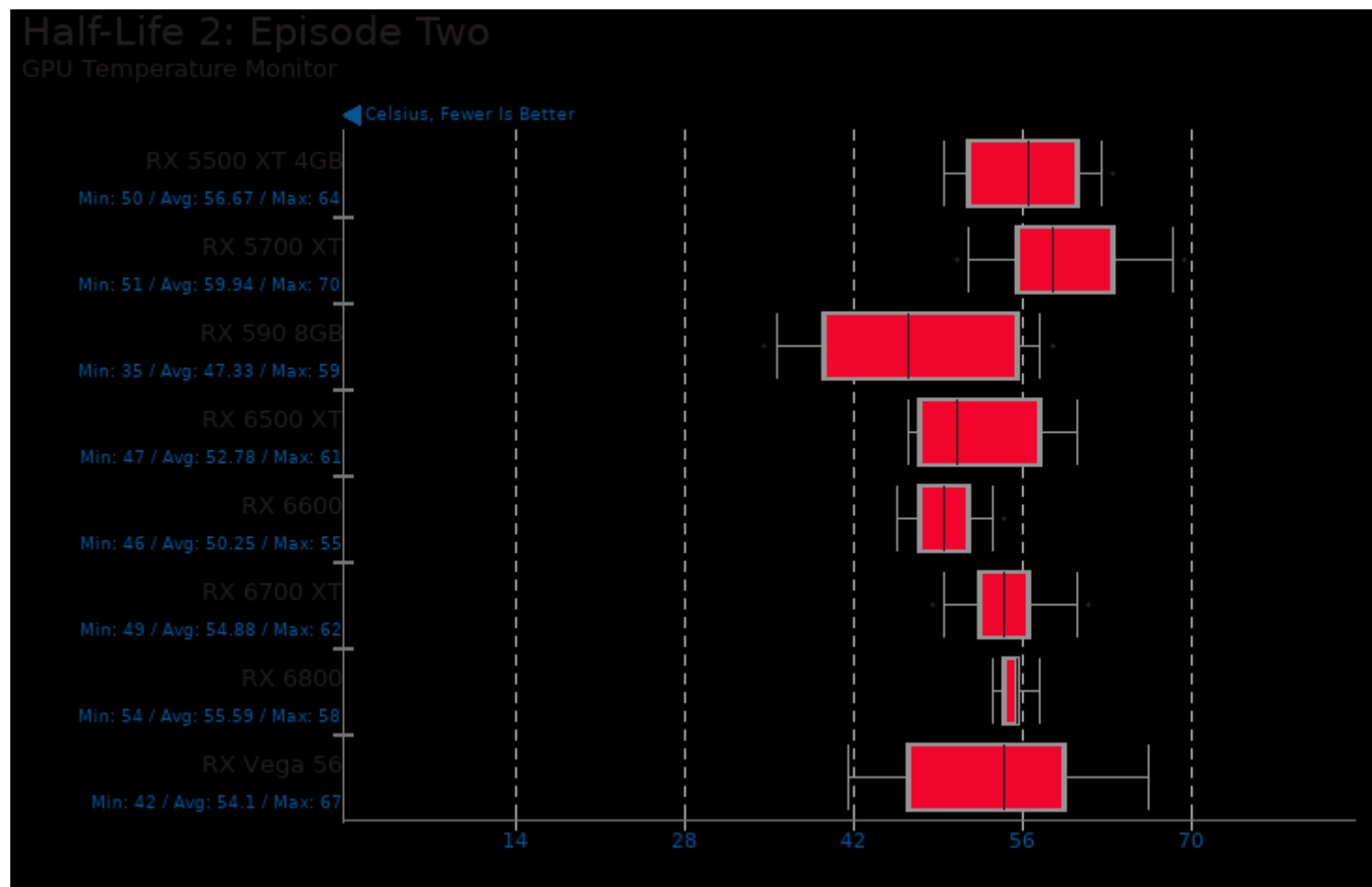


Half-Life 2: Episode Two

GPU Power Consumption Monitor

◄ Watts, Fewer Is Better

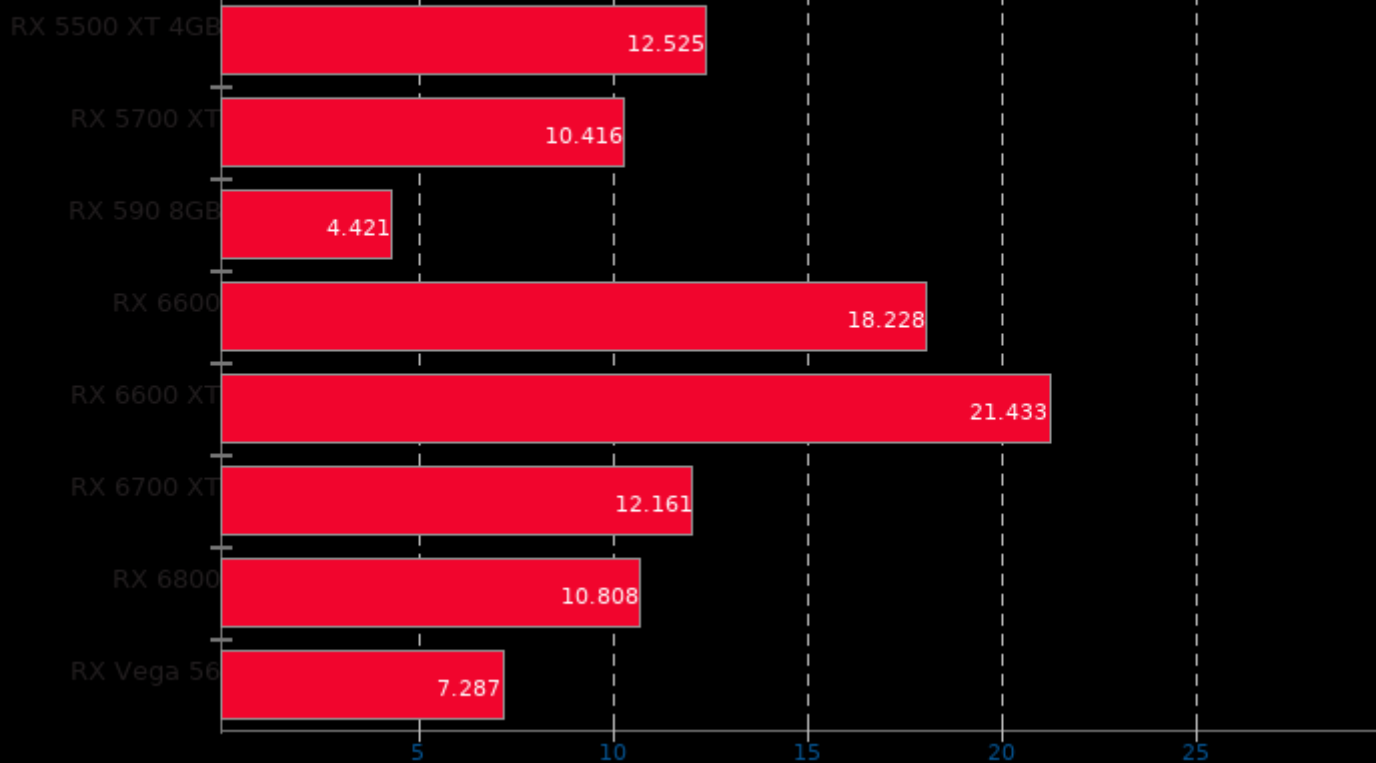




Left 4 Dead 2

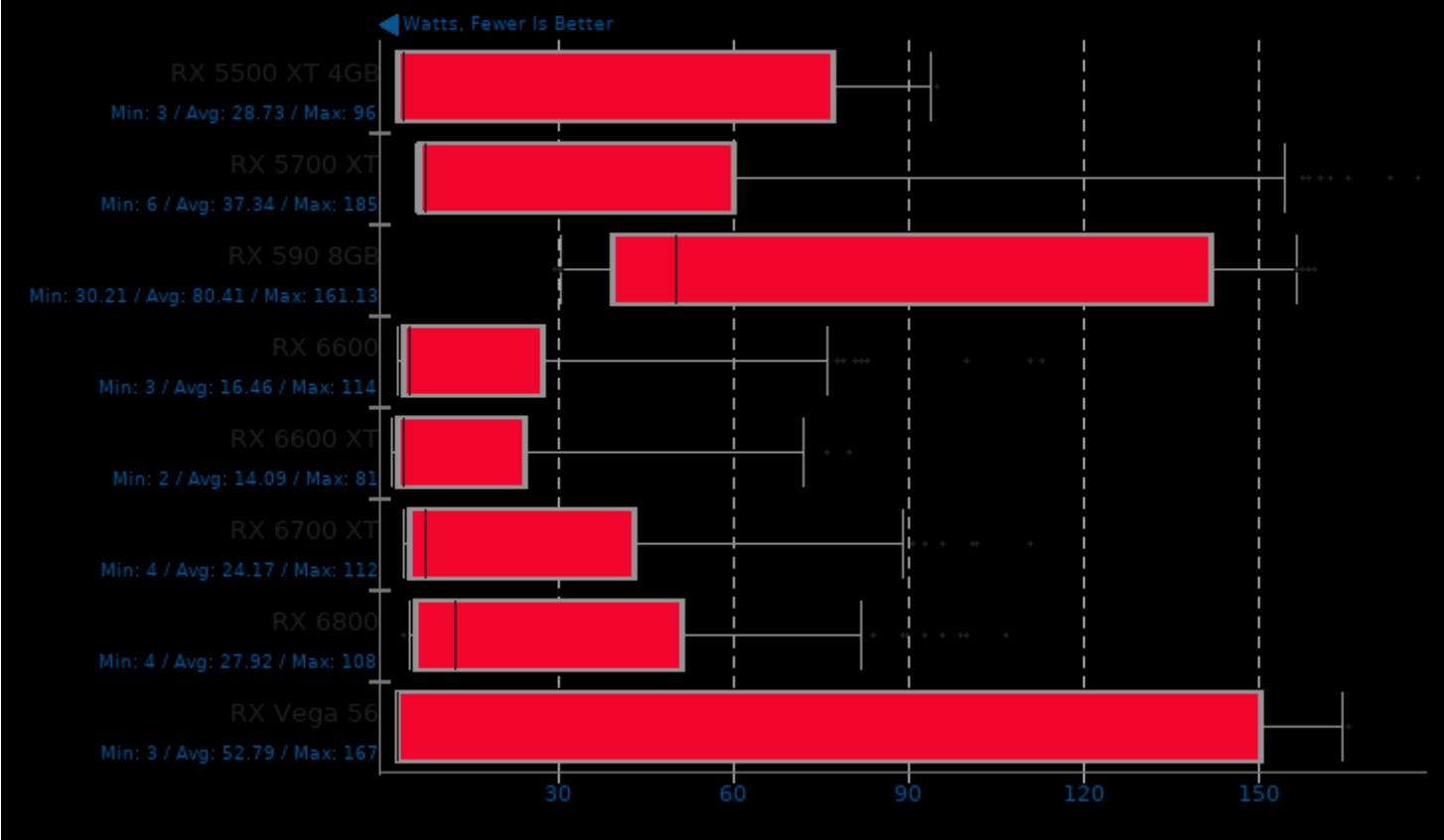
Resolution: 1920 x 1080 - Renderer: OpenGL

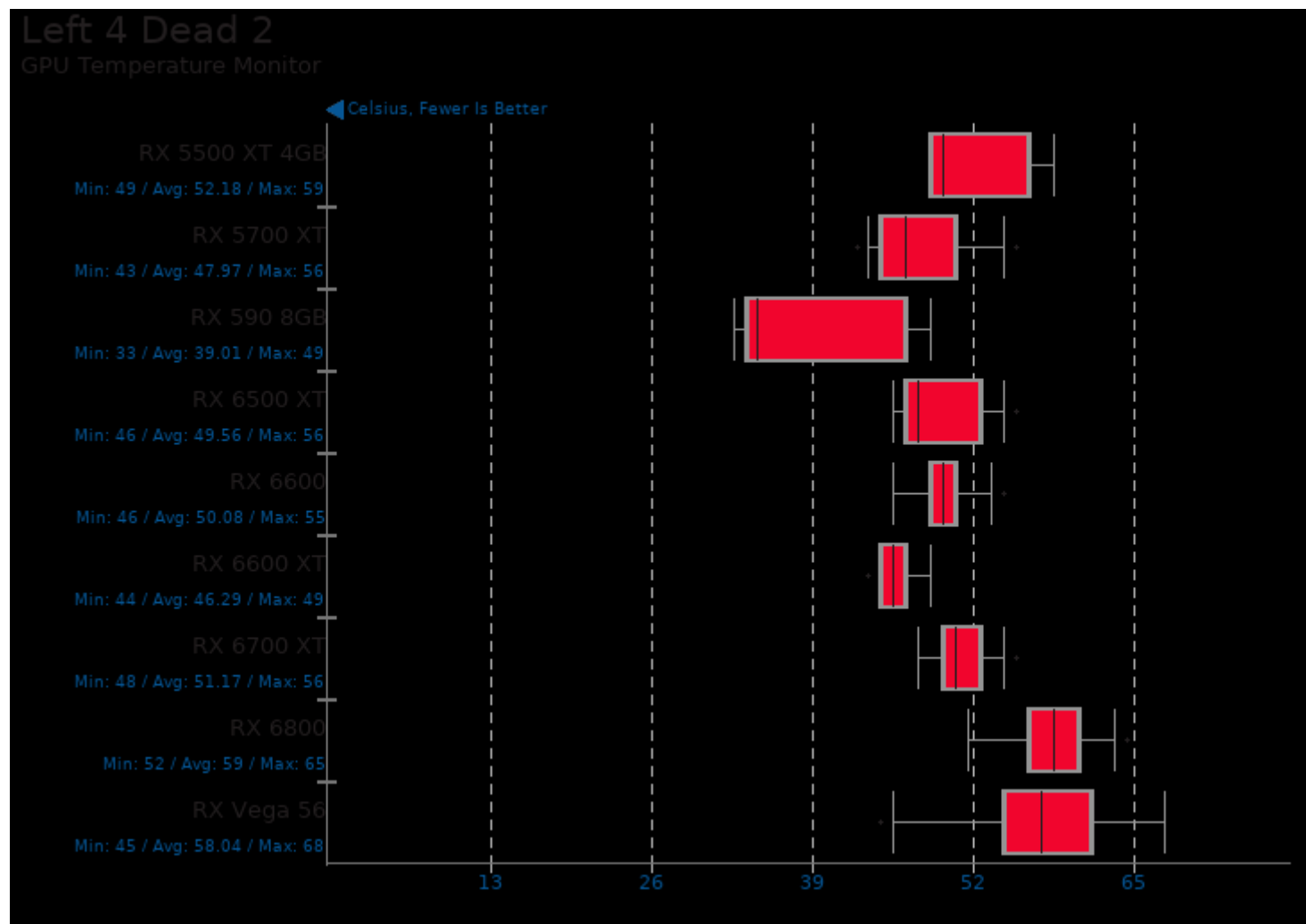
► Frames Per Second Per Watt, More Is Better



Left 4 Dead 2

GPU Power Consumption Monitor





Left 4 Dead 2

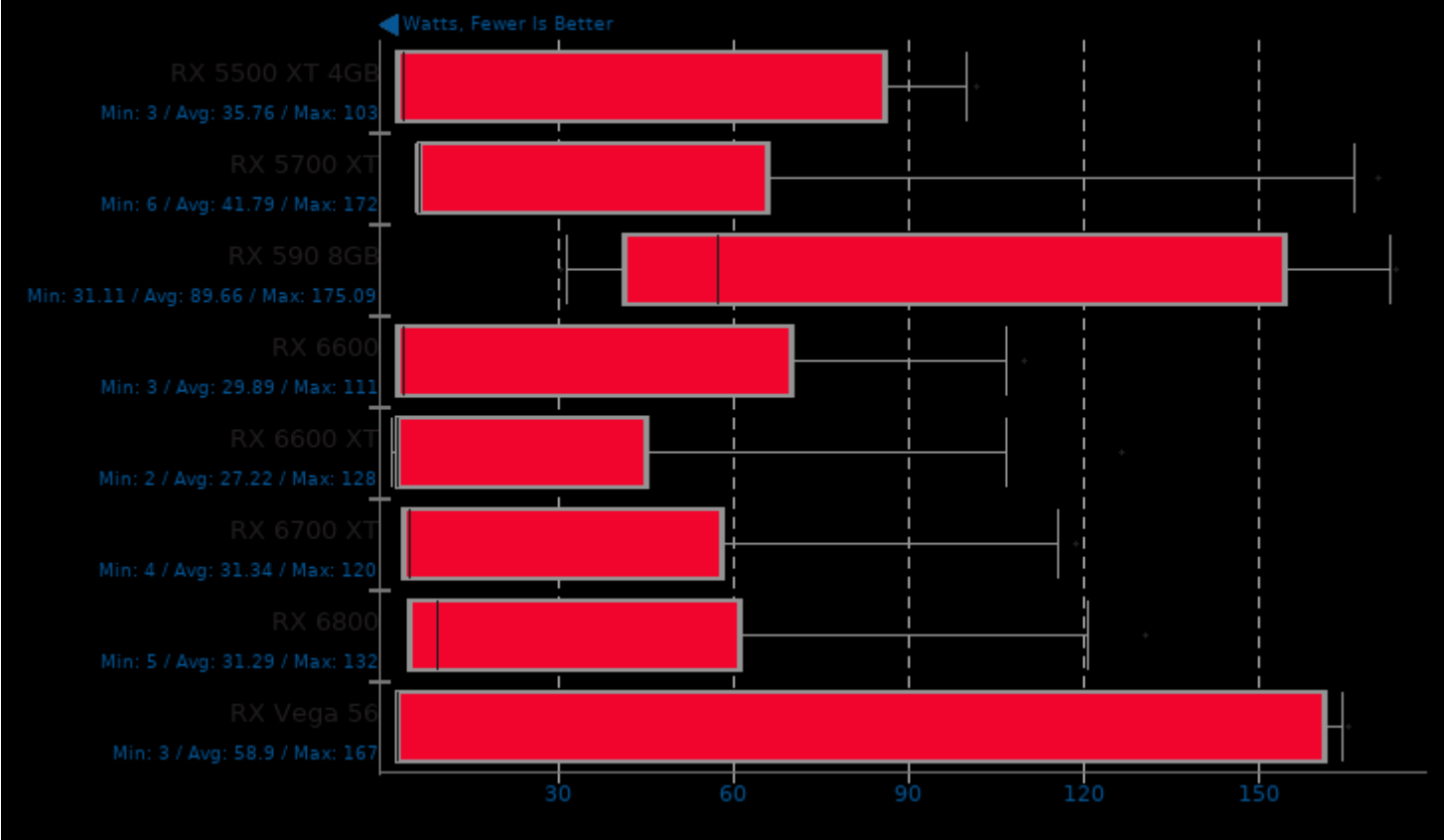
Resolution: 1920 x 1080 - Renderer: Vulkan

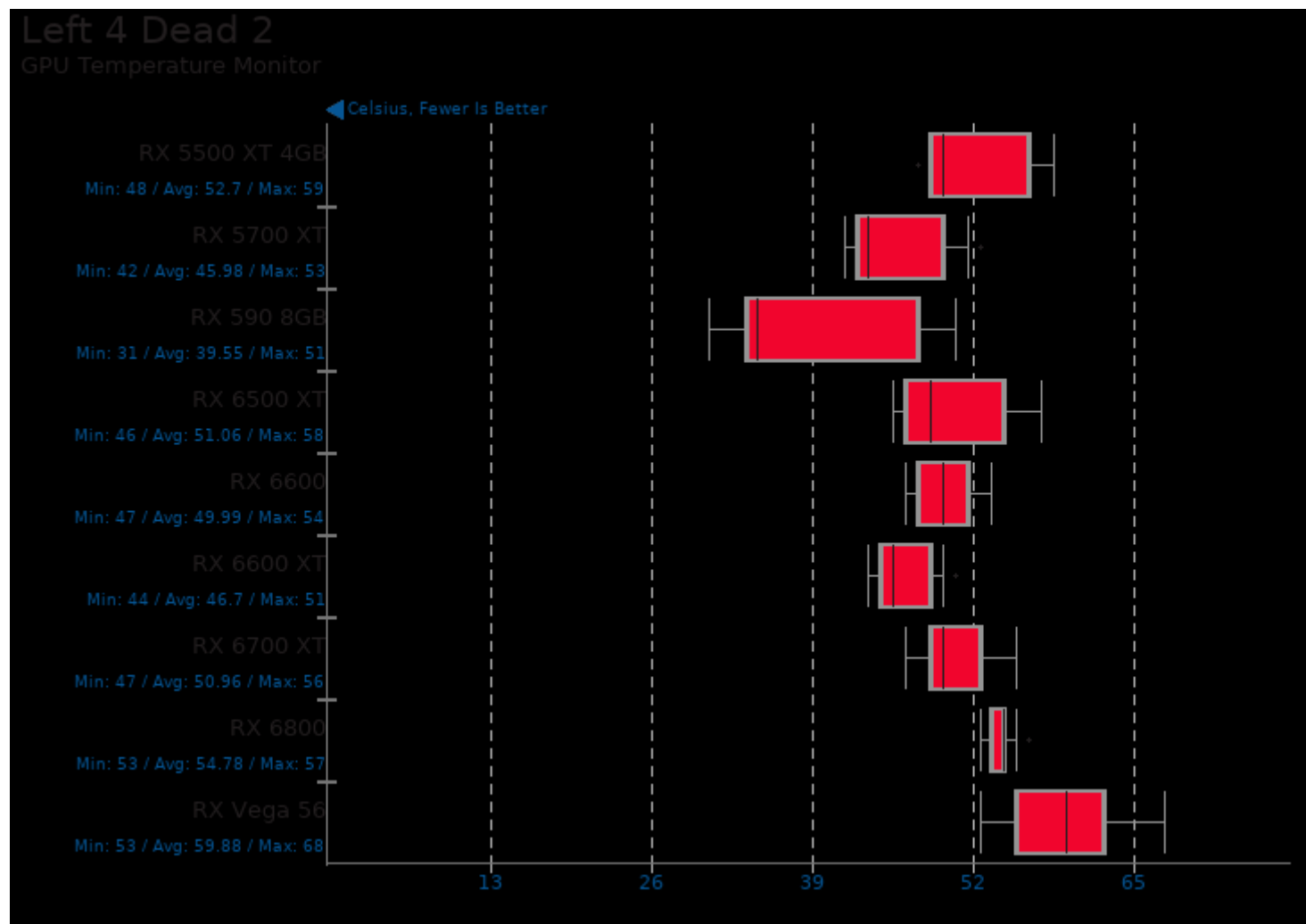
► Frames Per Second Per Watt, More Is Better



Left 4 Dead 2

GPU Power Consumption Monitor



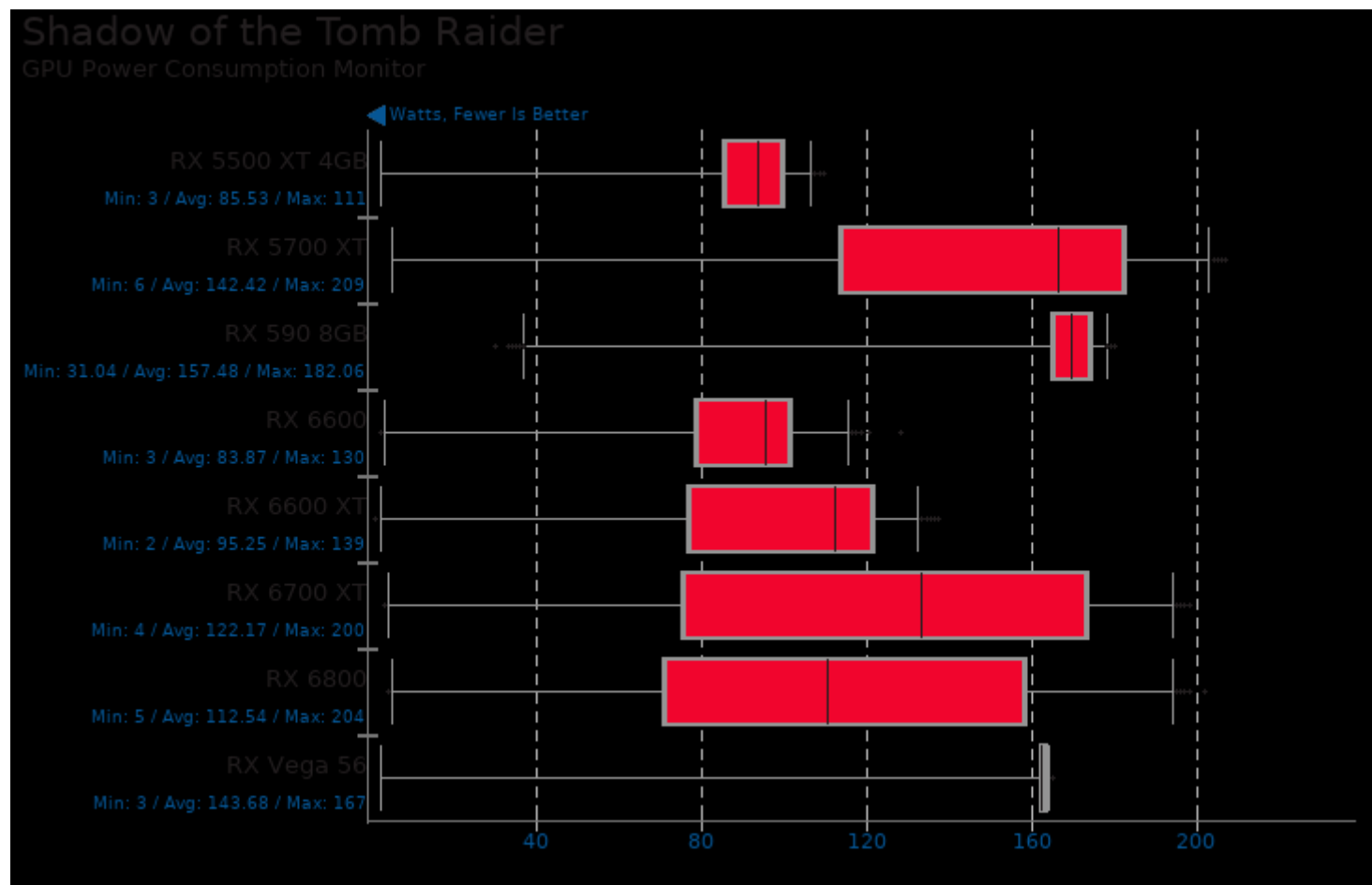


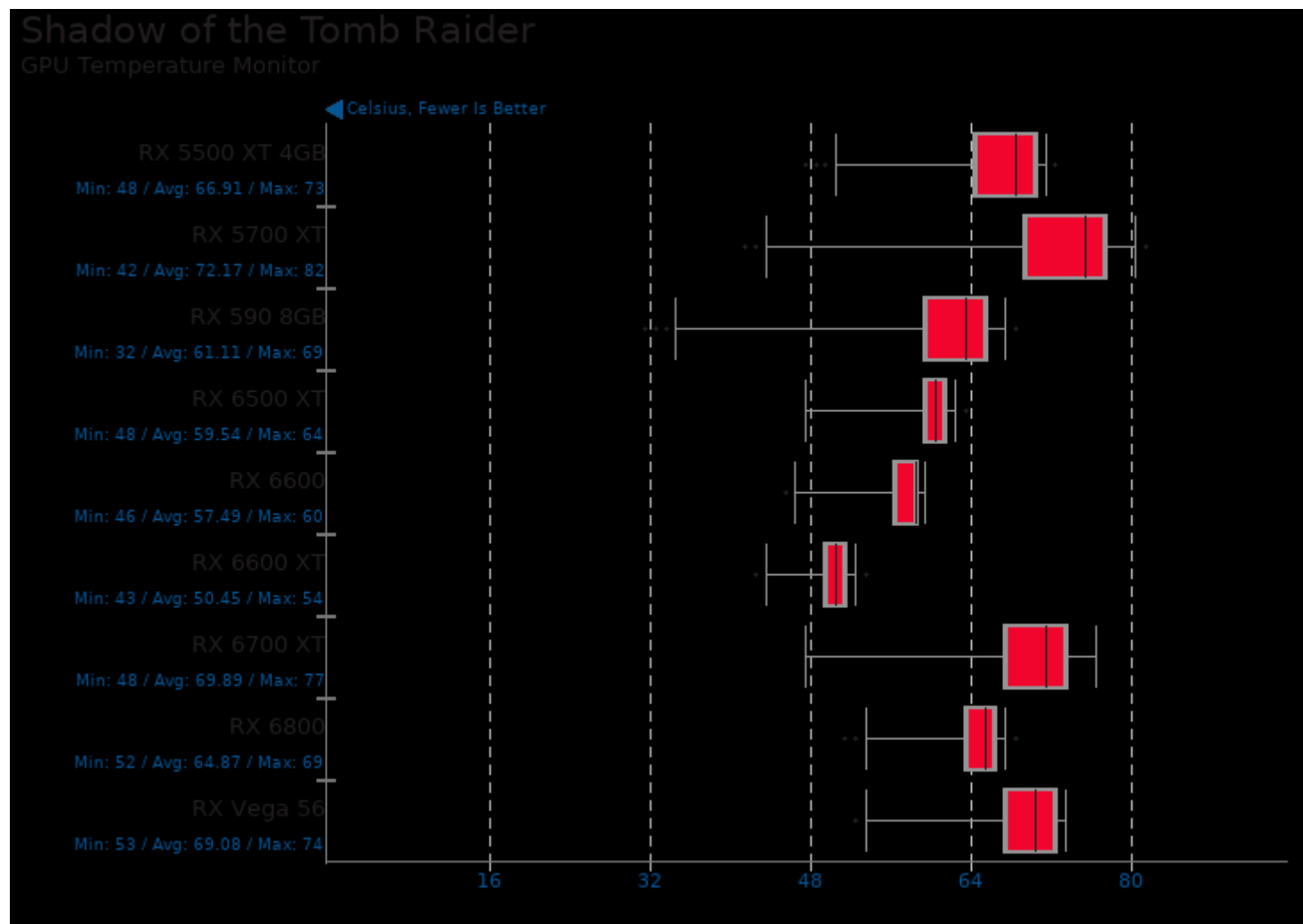
Shadow of the Tomb Raider

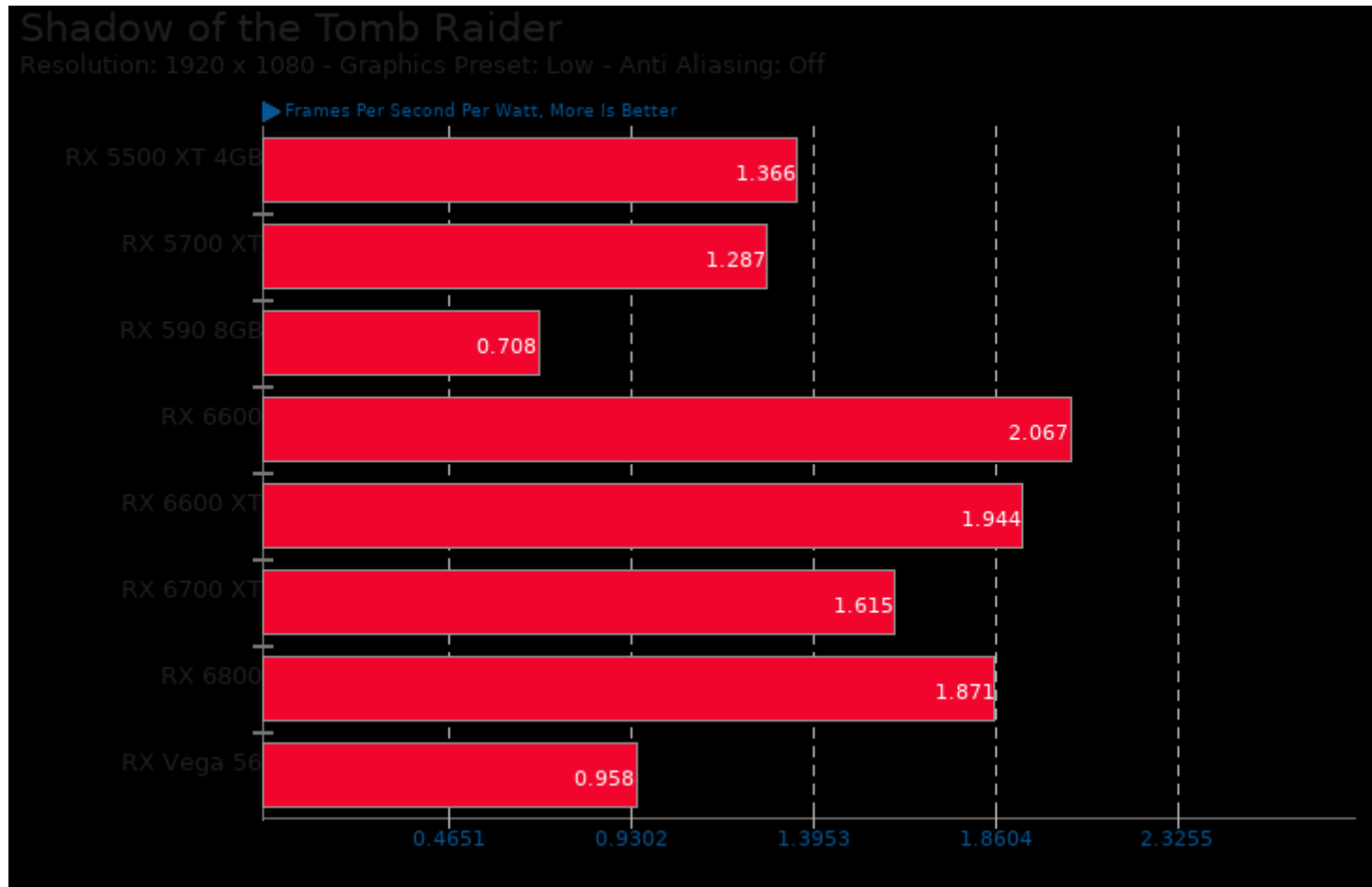
Resolution: 1920 x 1080 - Graphics Preset: Lowest - Anti Aliasing: Off

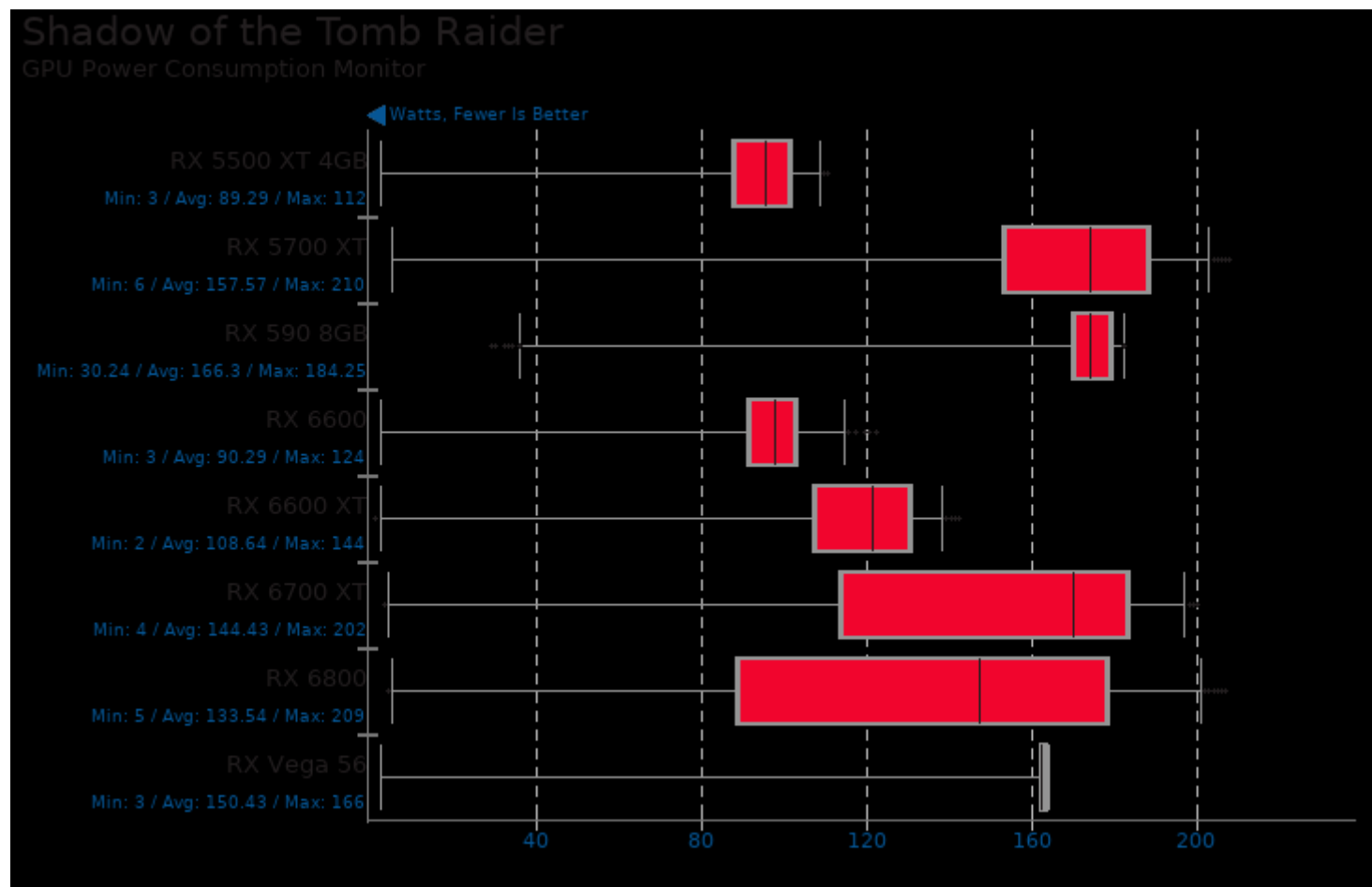
► Frames Per Second Per Watt, More Is Better

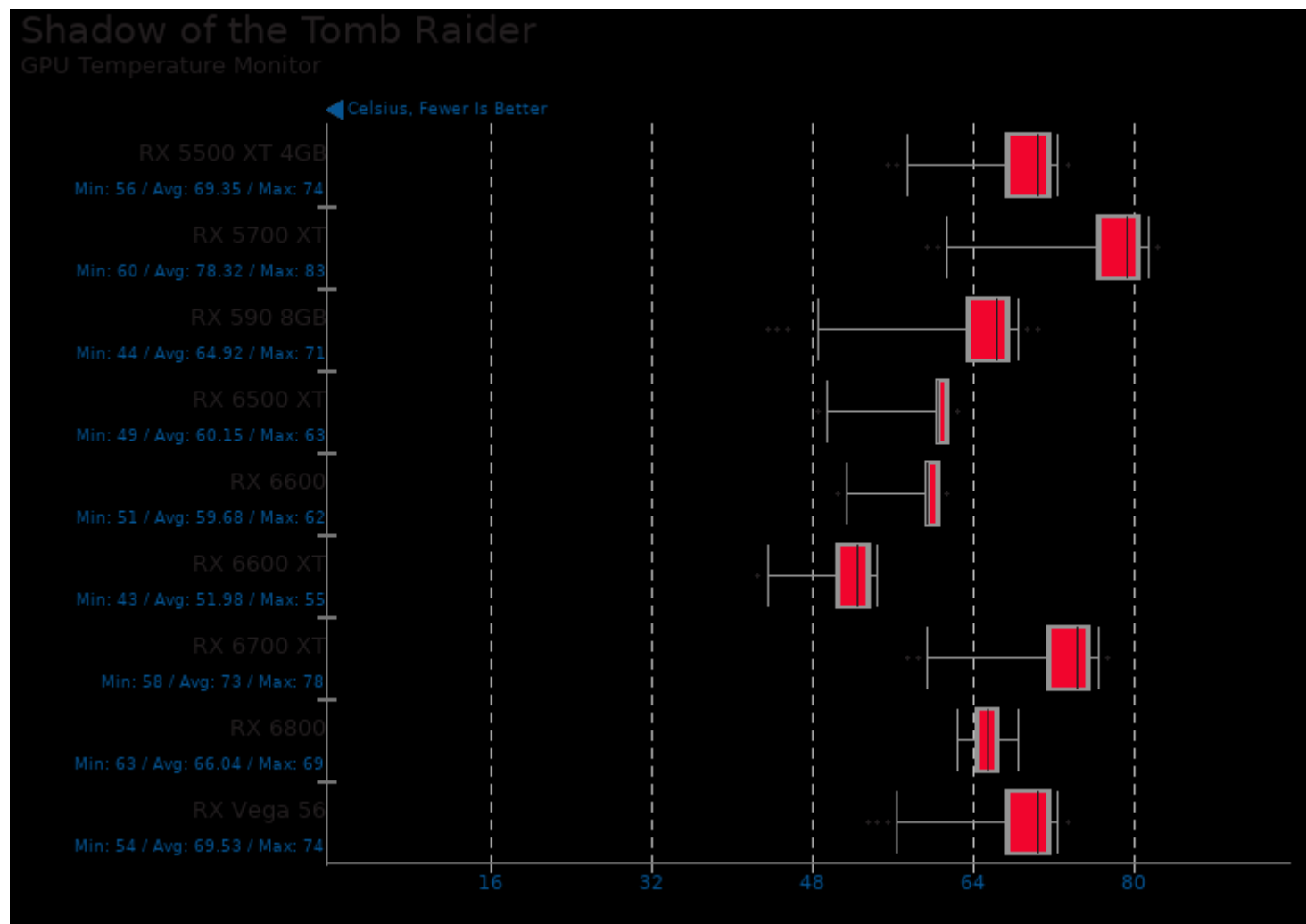








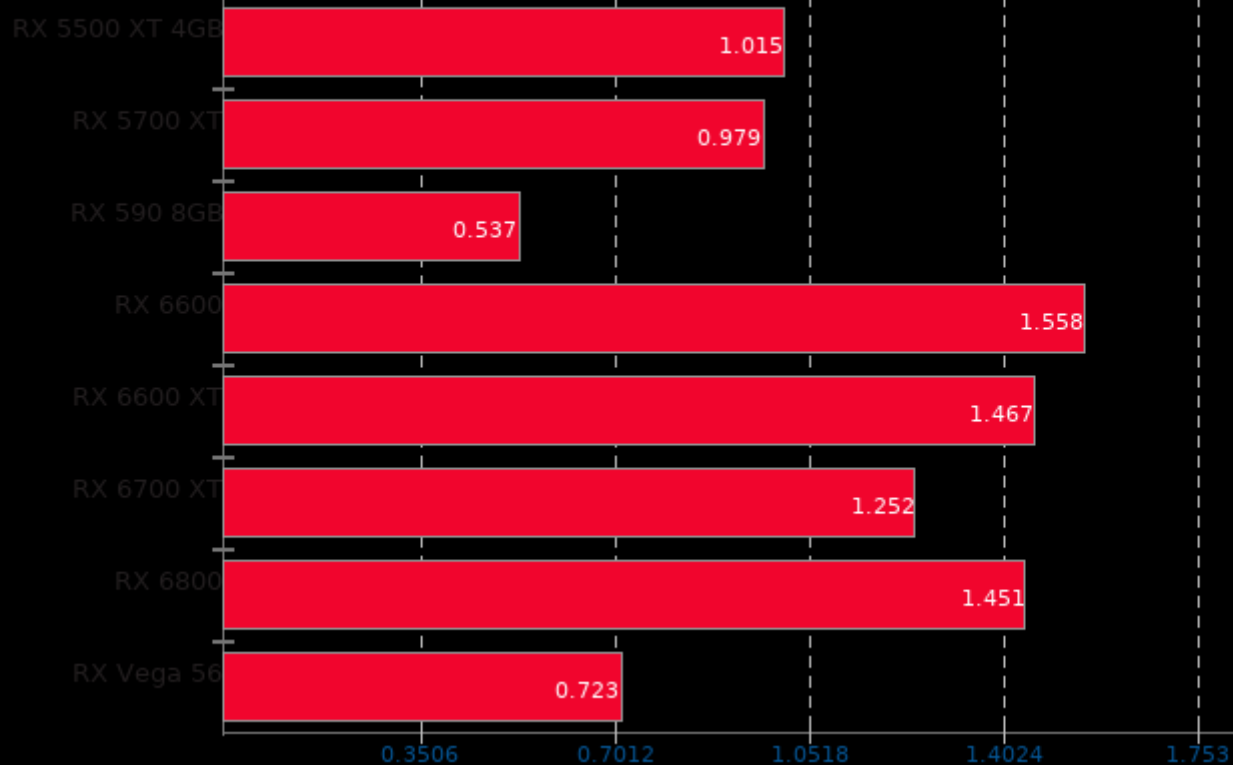




Shadow of the Tomb Raider

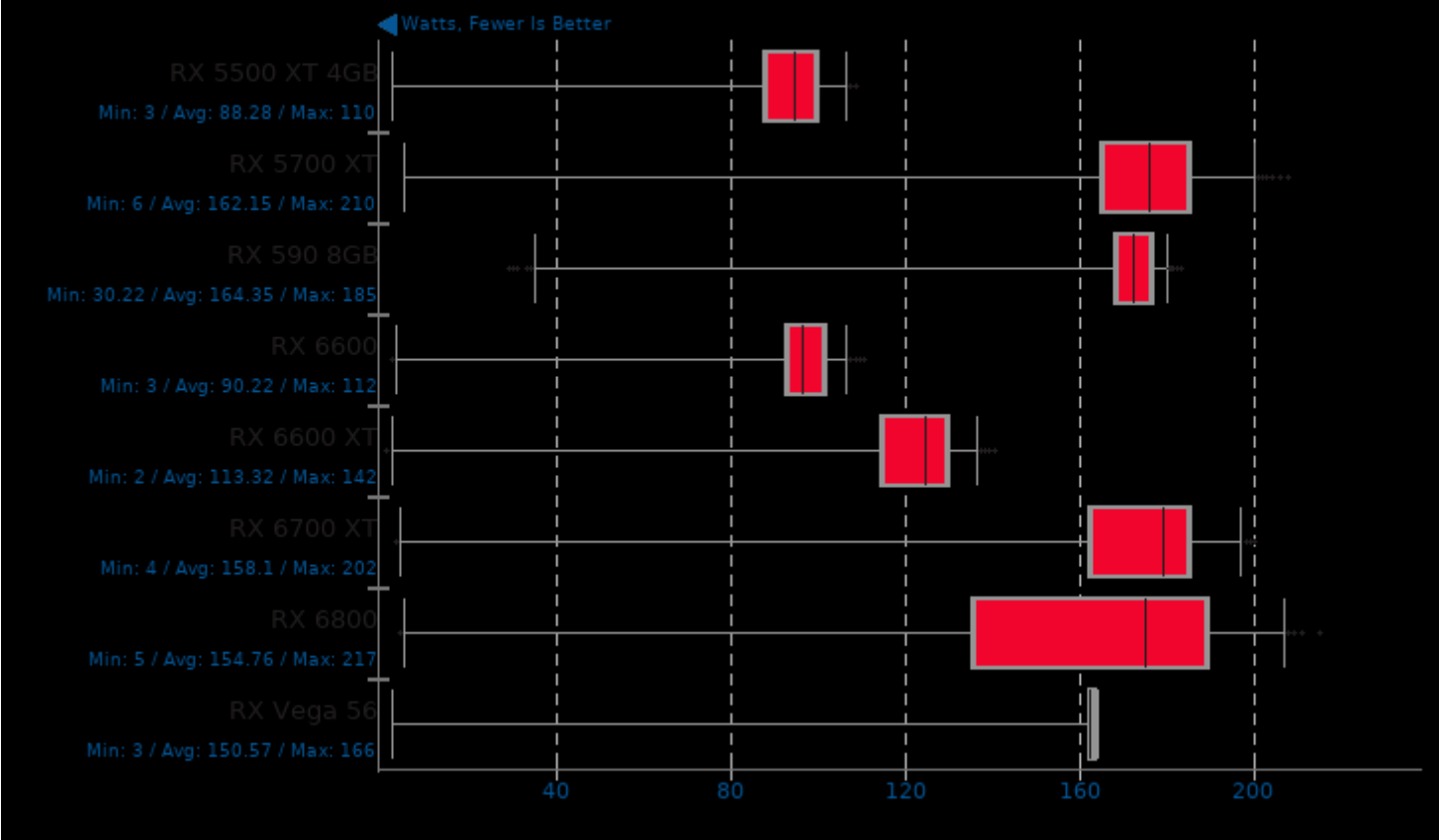
Resolution: 1920 x 1080 - Graphics Preset: Medium - Anti Aliasing: Off

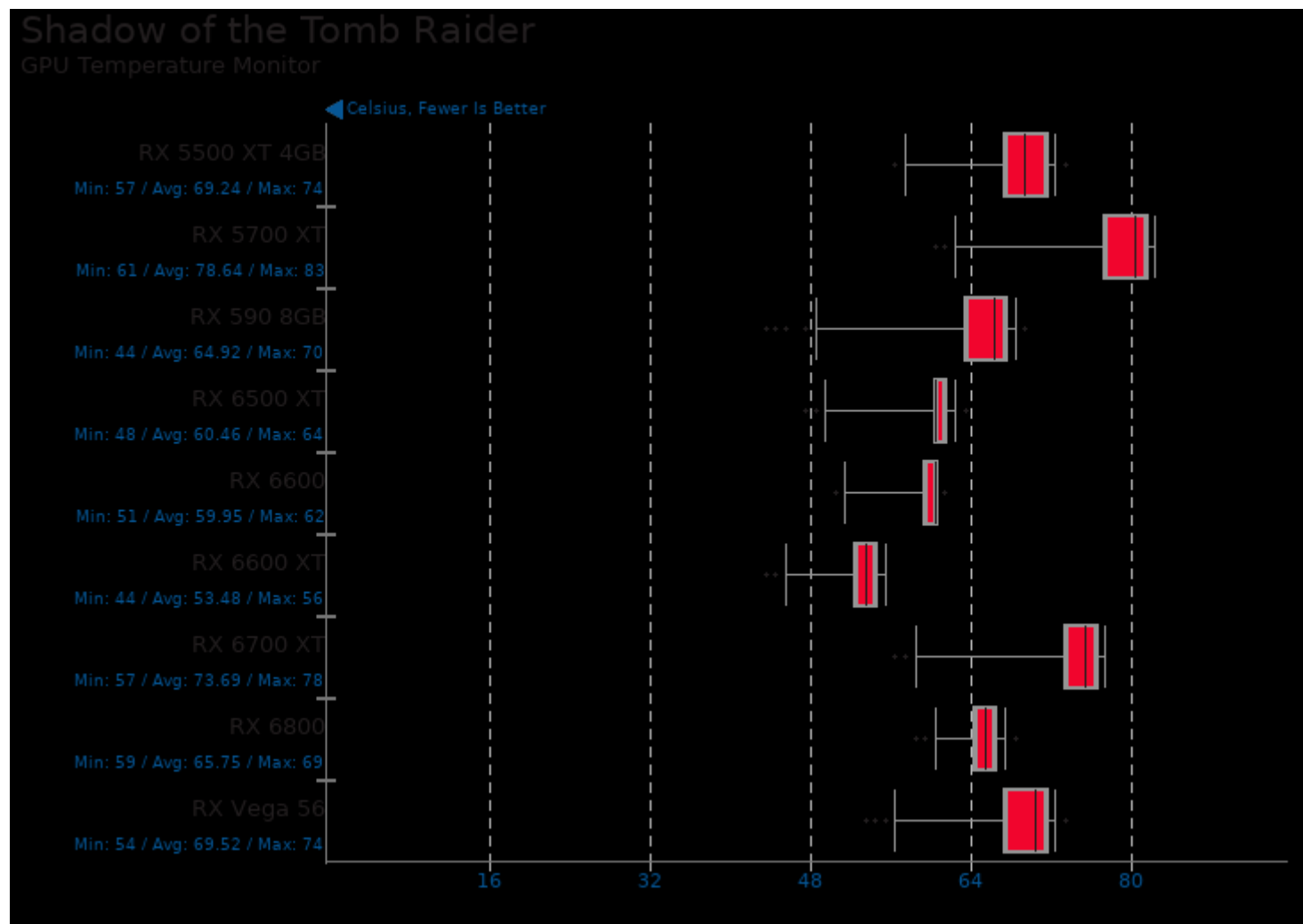
► Frames Per Second Per Watt, More Is Better



Shadow of the Tomb Raider

GPU Power Consumption Monitor

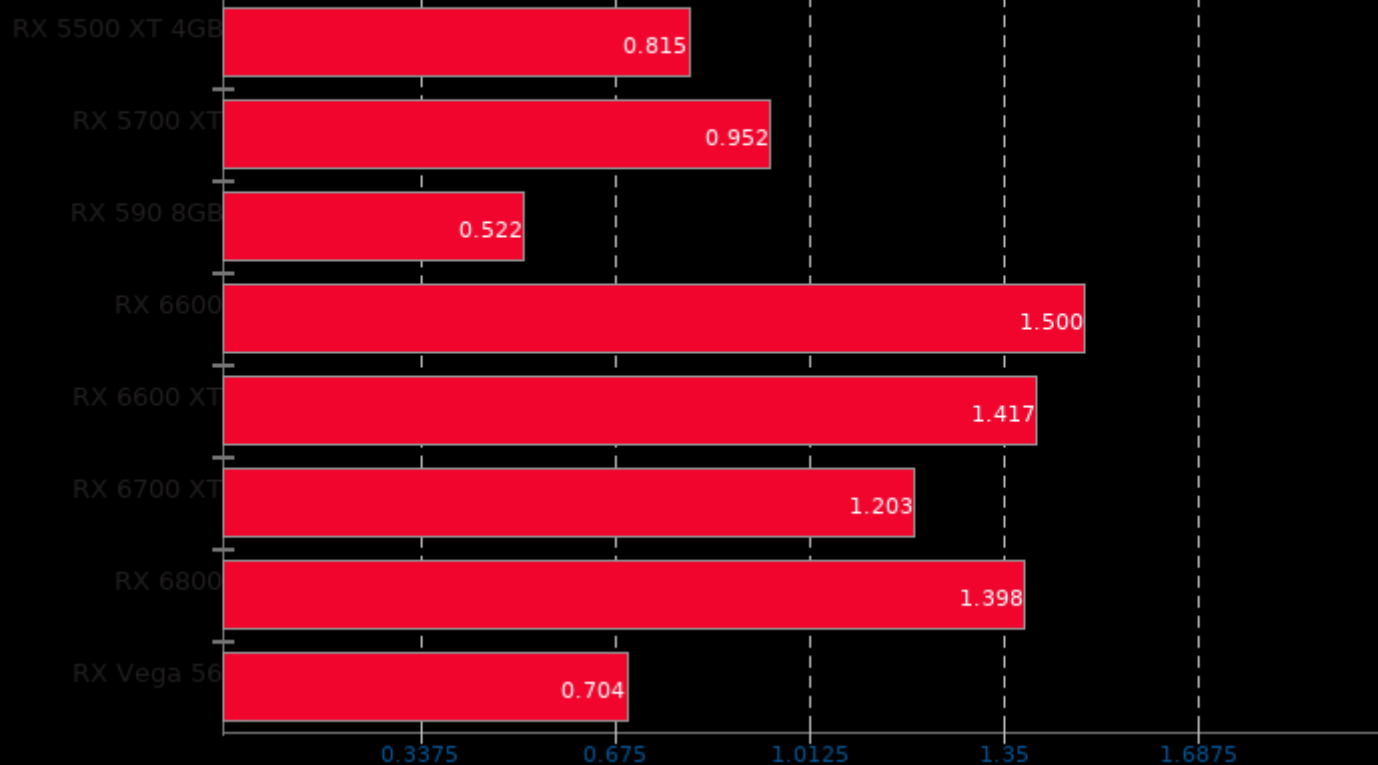




Shadow of the Tomb Raider

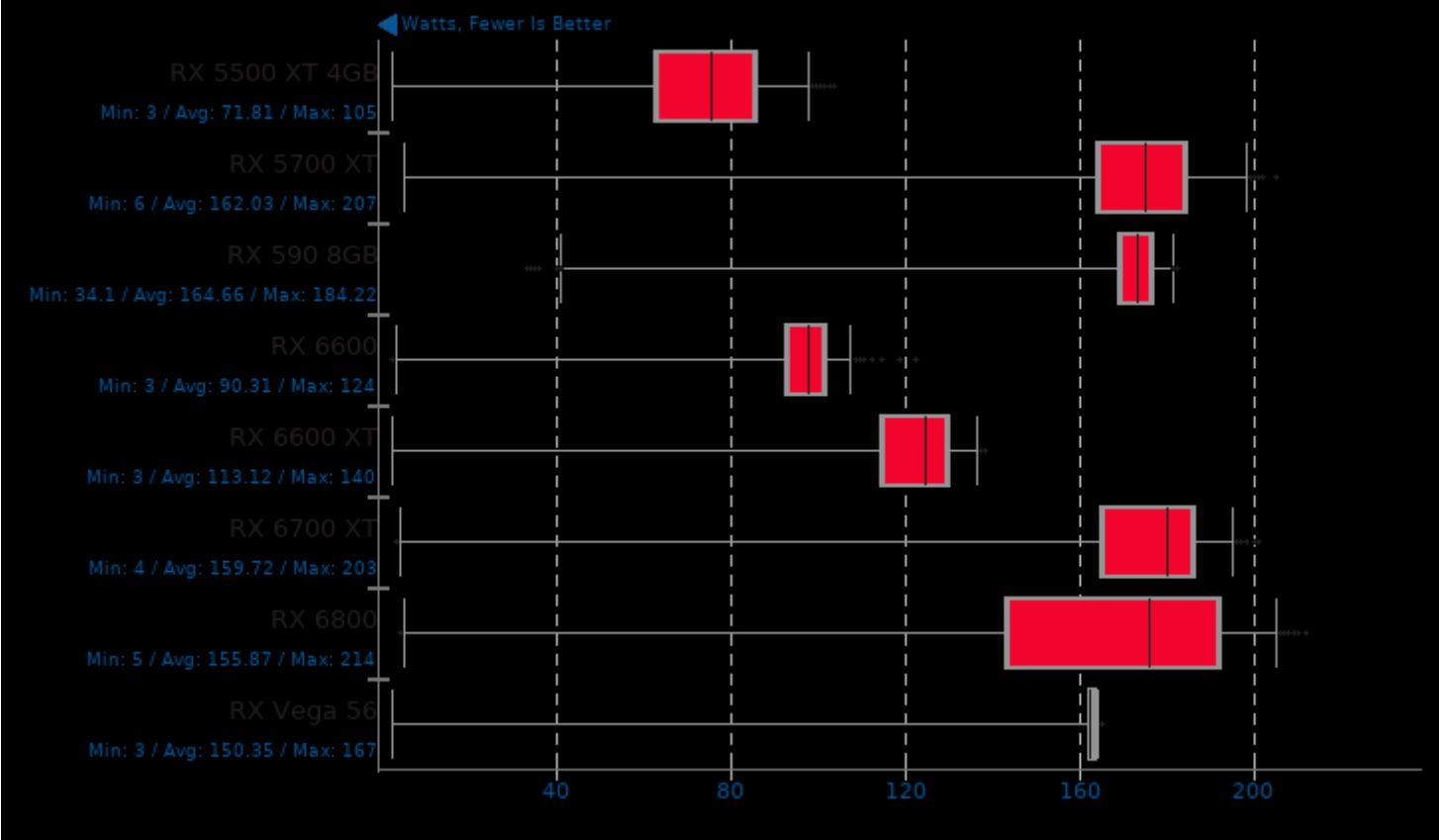
Resolution: 1920 x 1080 - Graphics Preset: High - Anti Aliasing: Off

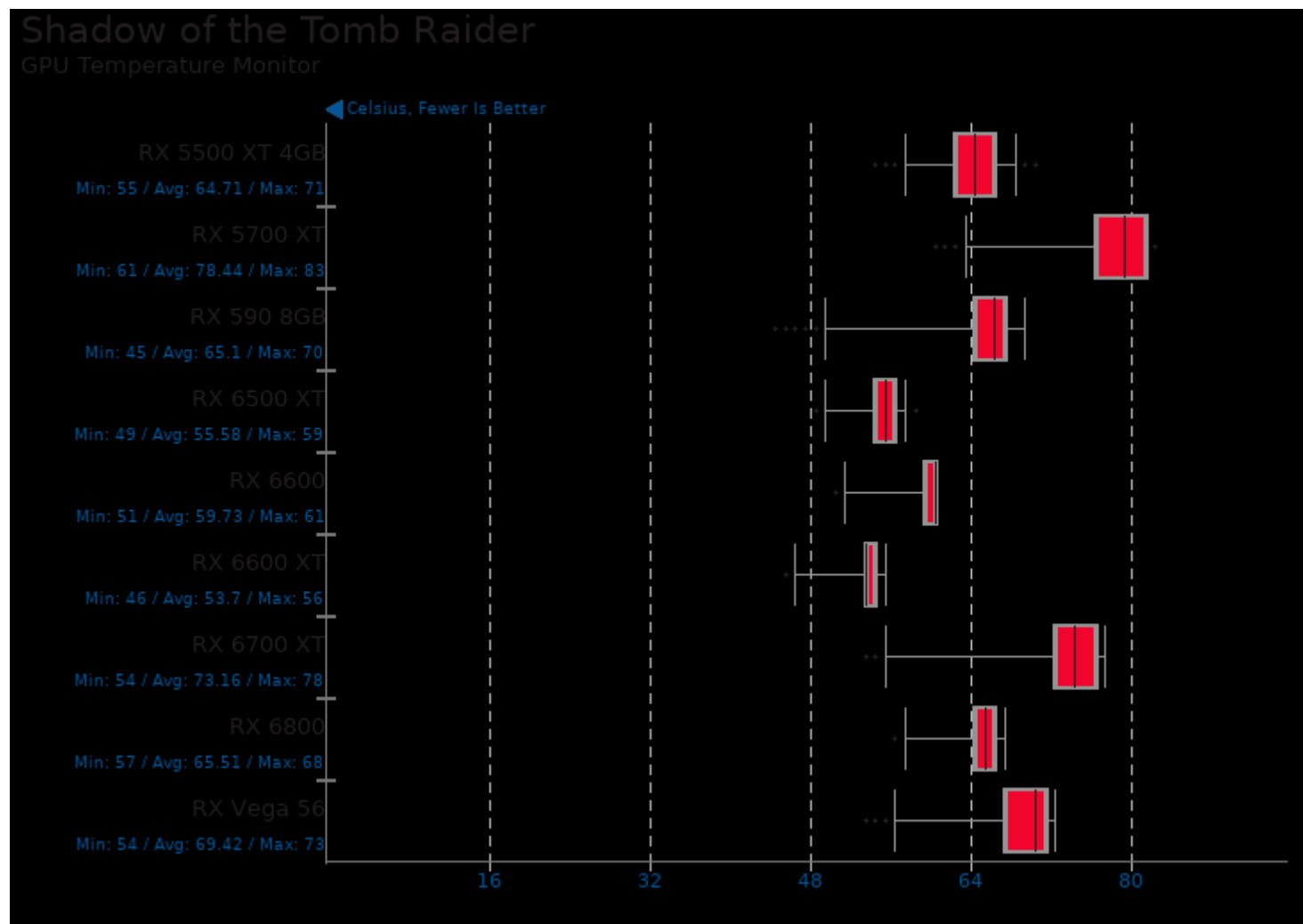
► Frames Per Second Per Watt, More Is Better



Shadow of the Tomb Raider

GPU Power Consumption Monitor

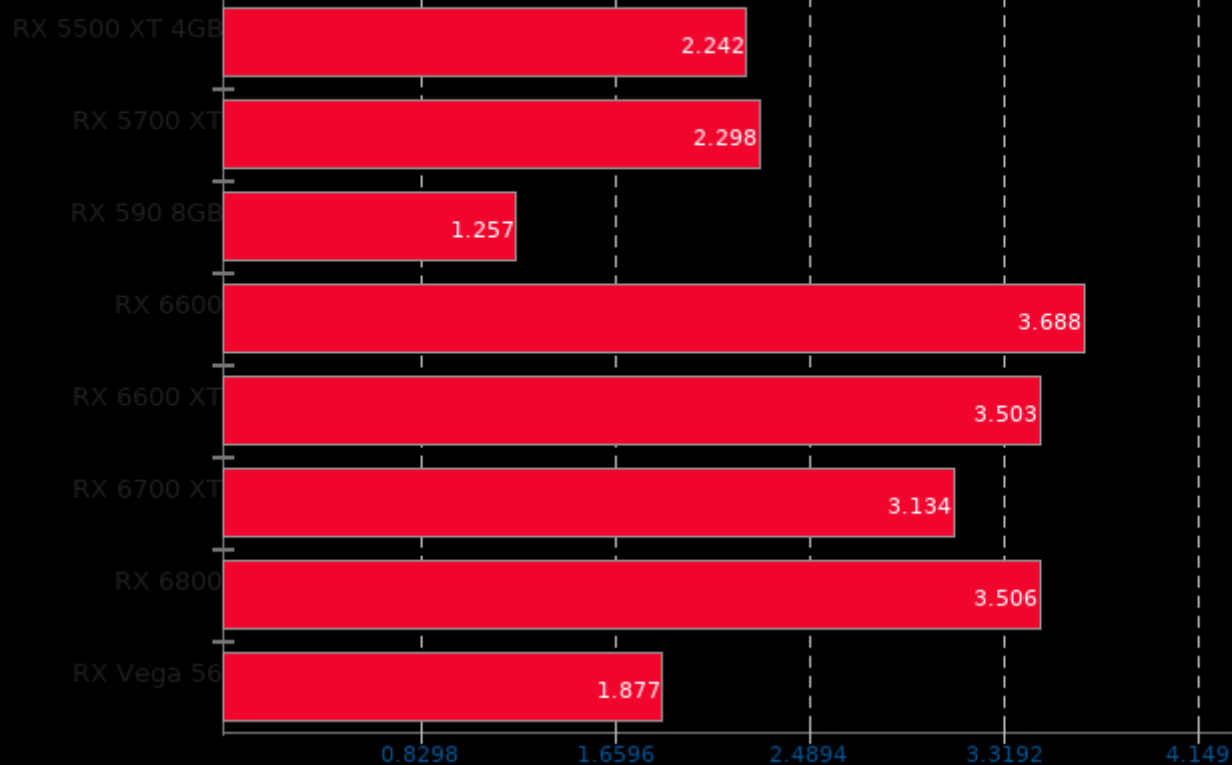


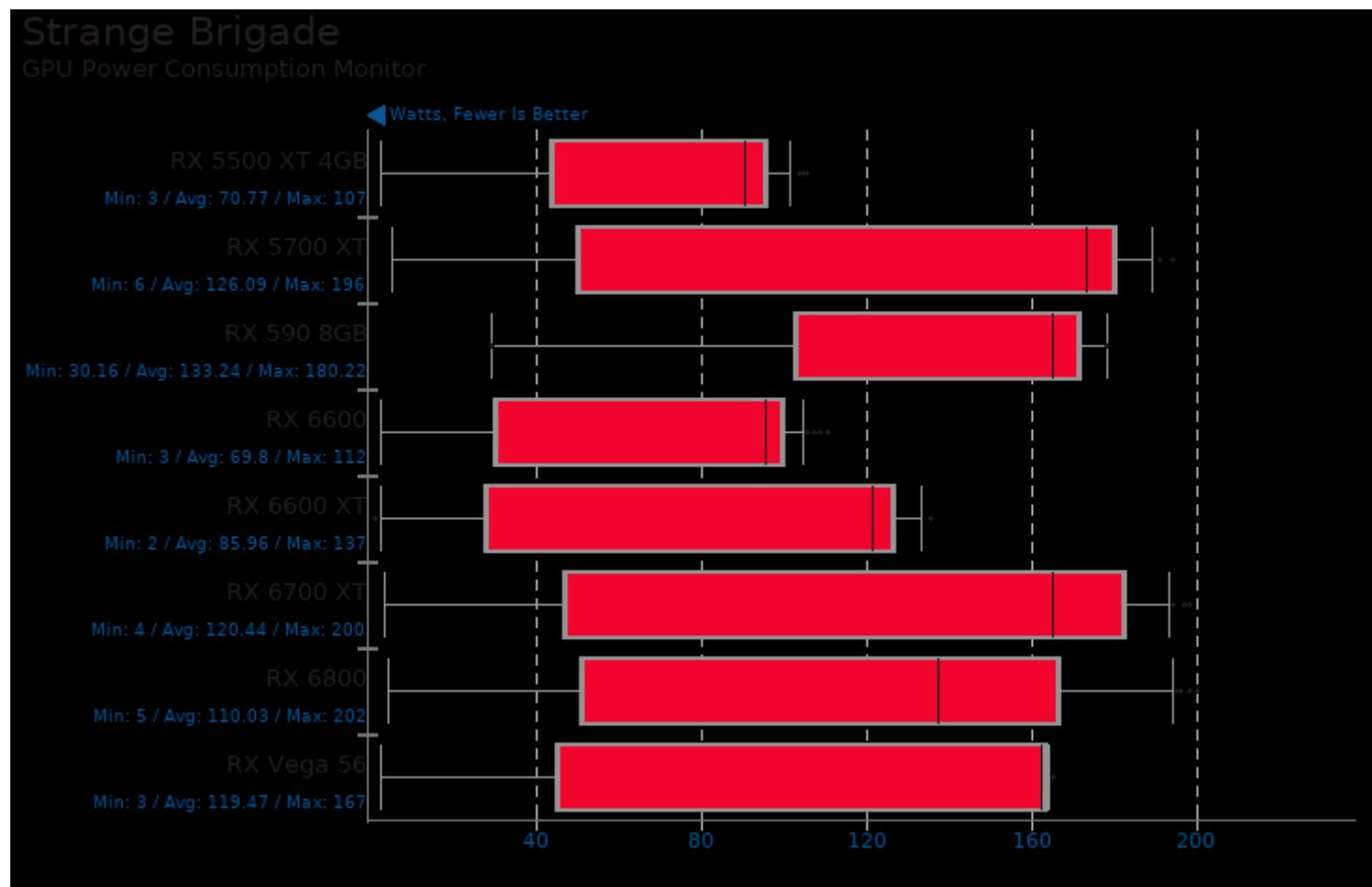


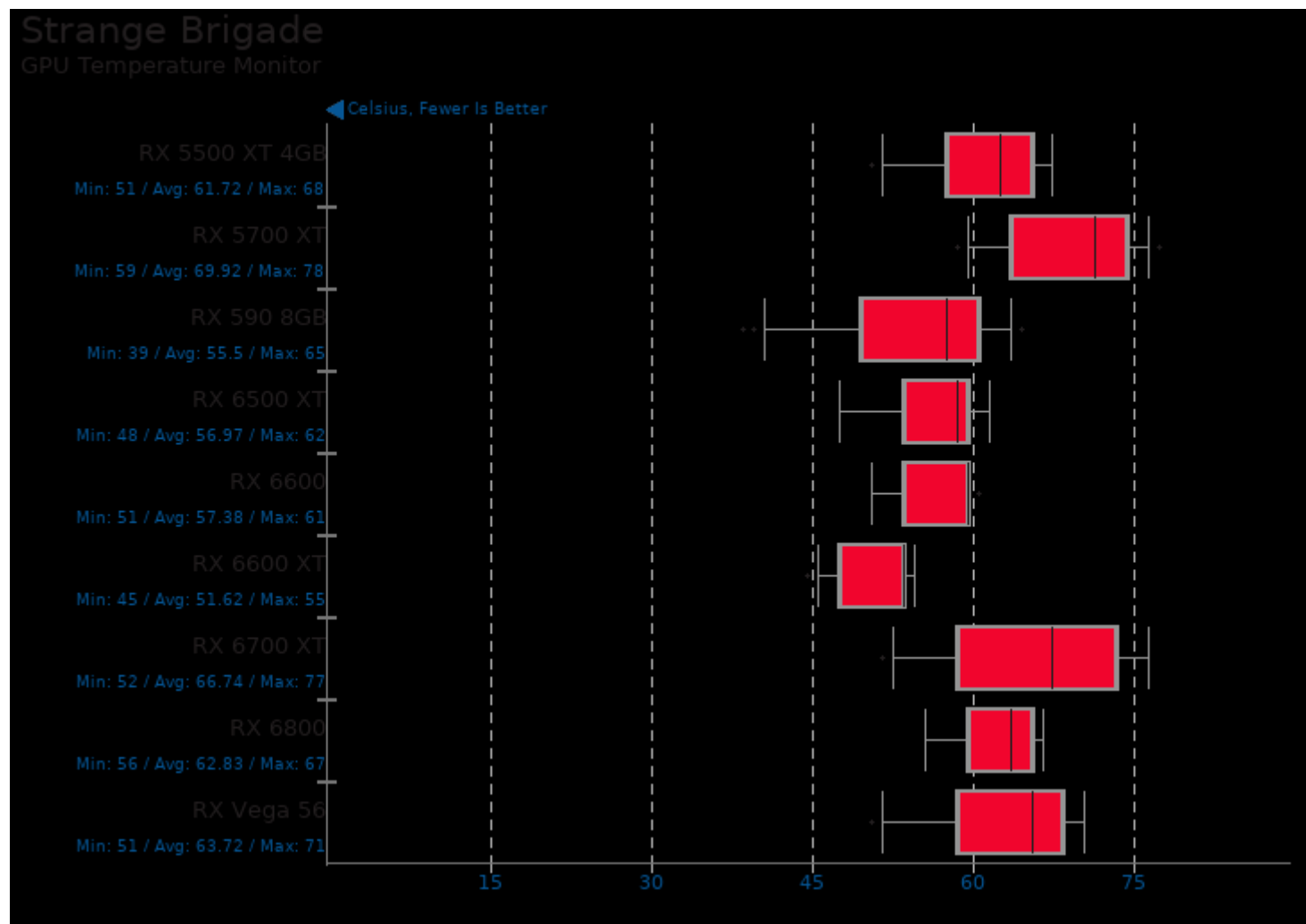
Strange Brigade

Resolution: 1920 x 1080 - Graphics Setting: Low

► Frames Per Second Per Watt, More Is Better



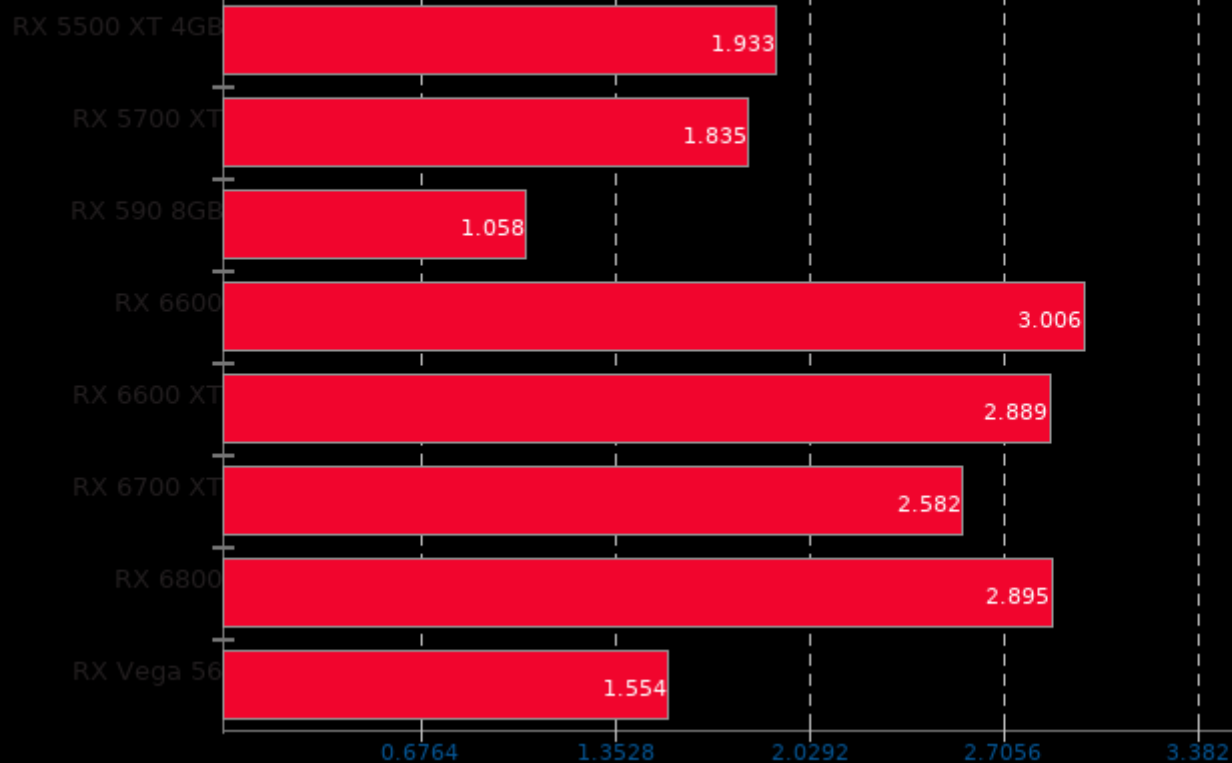


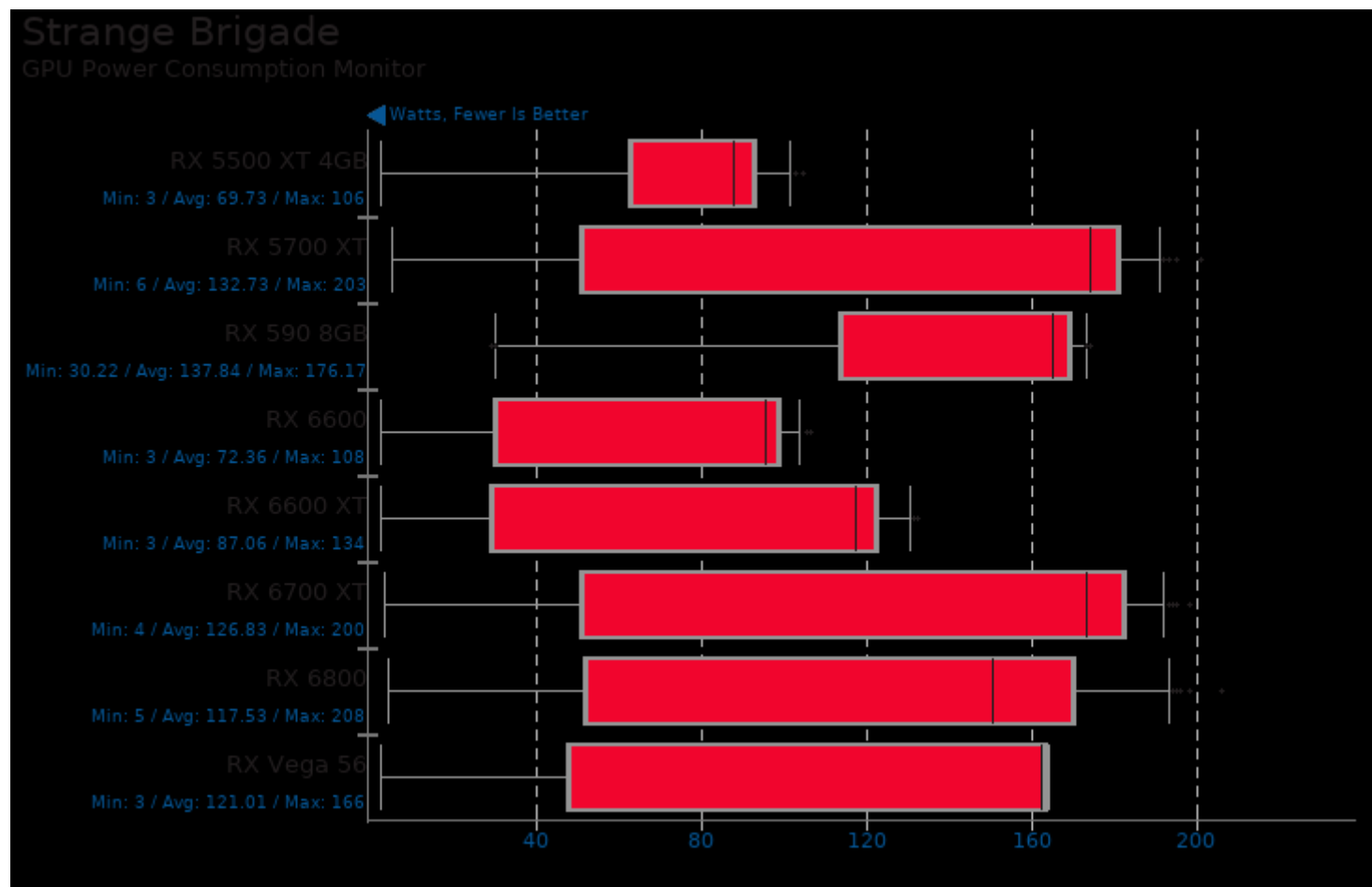


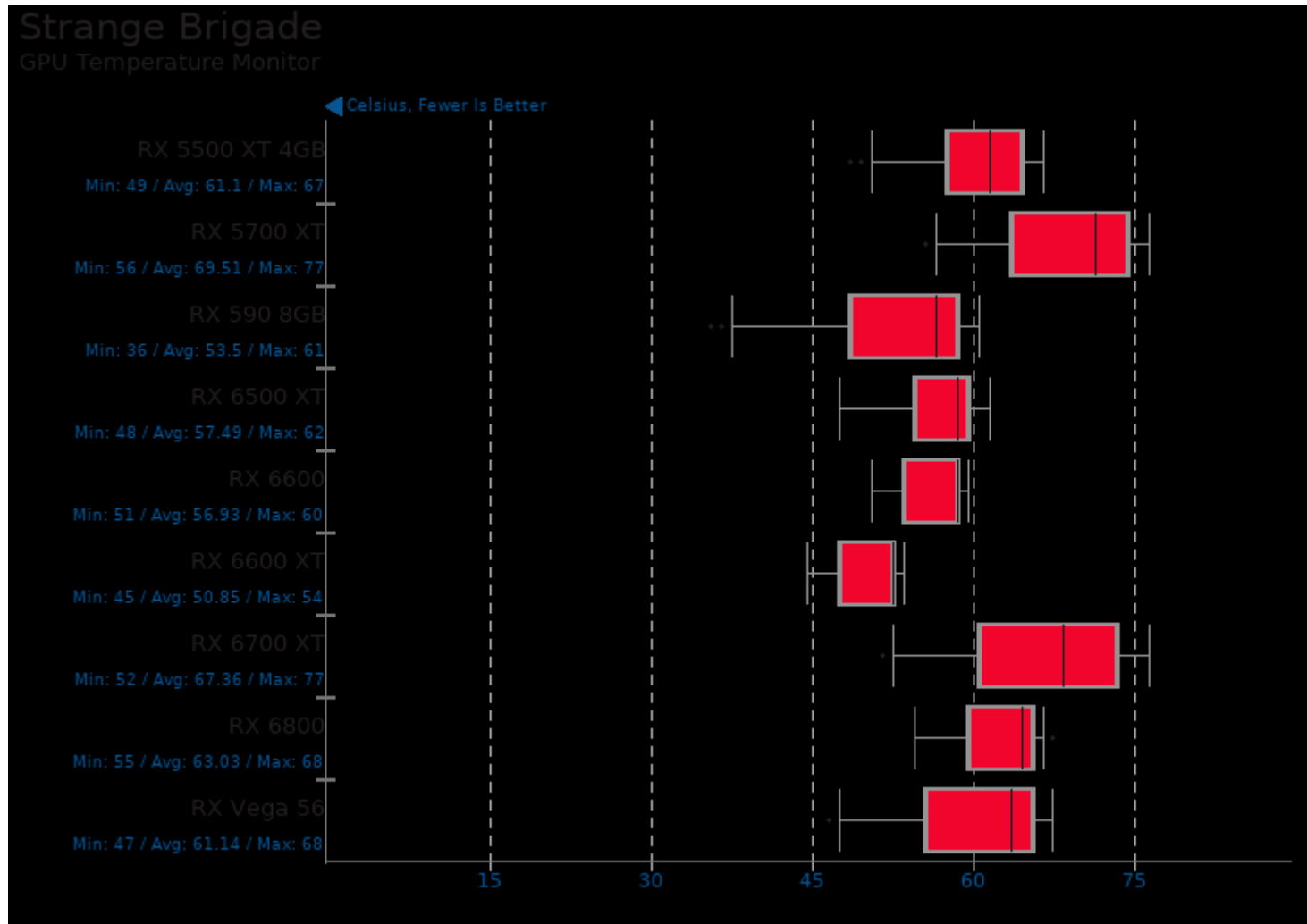
Strange Brigade

Resolution: 1920 x 1080 - Graphics Setting: Medium

► Frames Per Second Per Watt, More Is Better





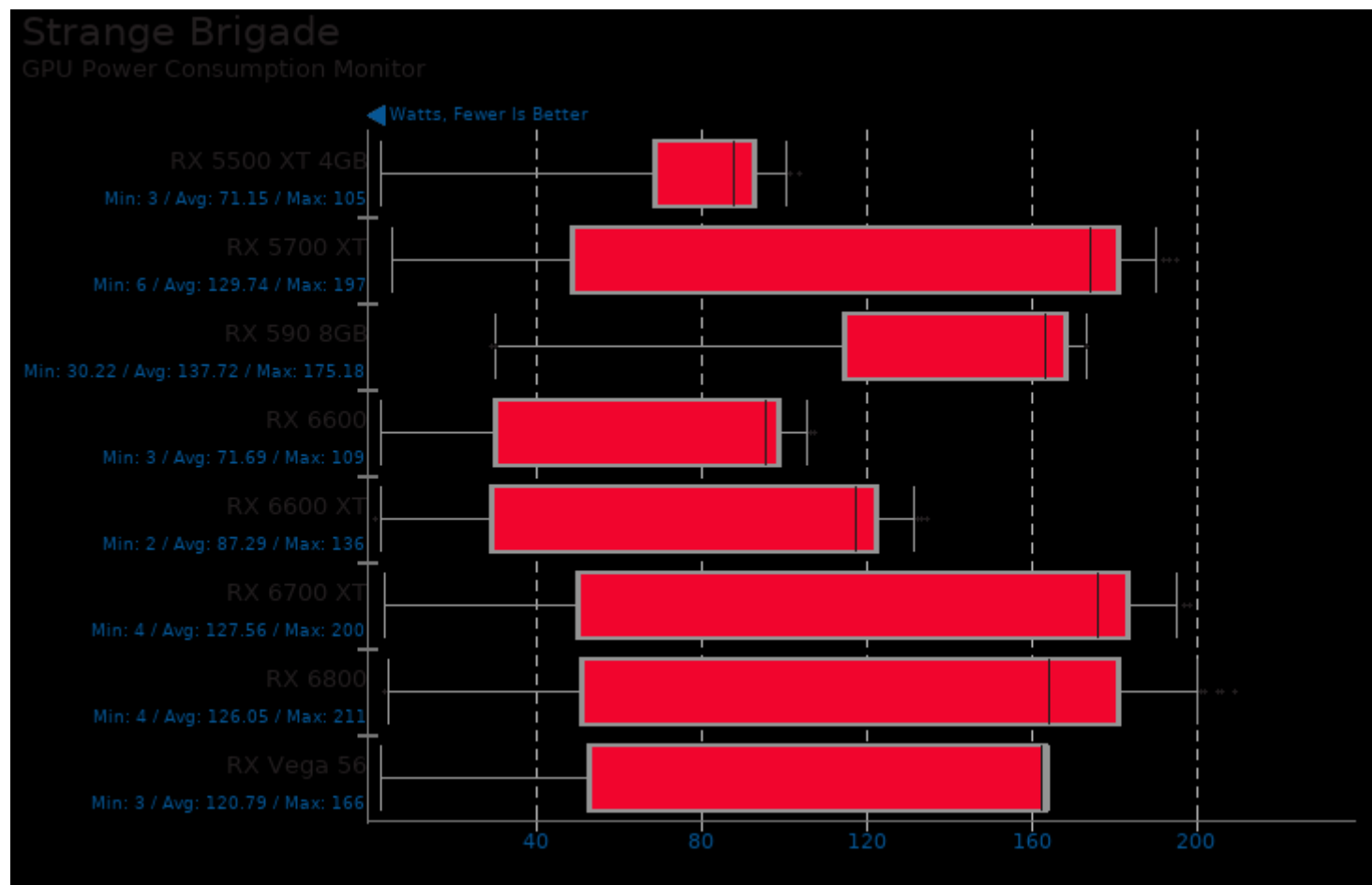


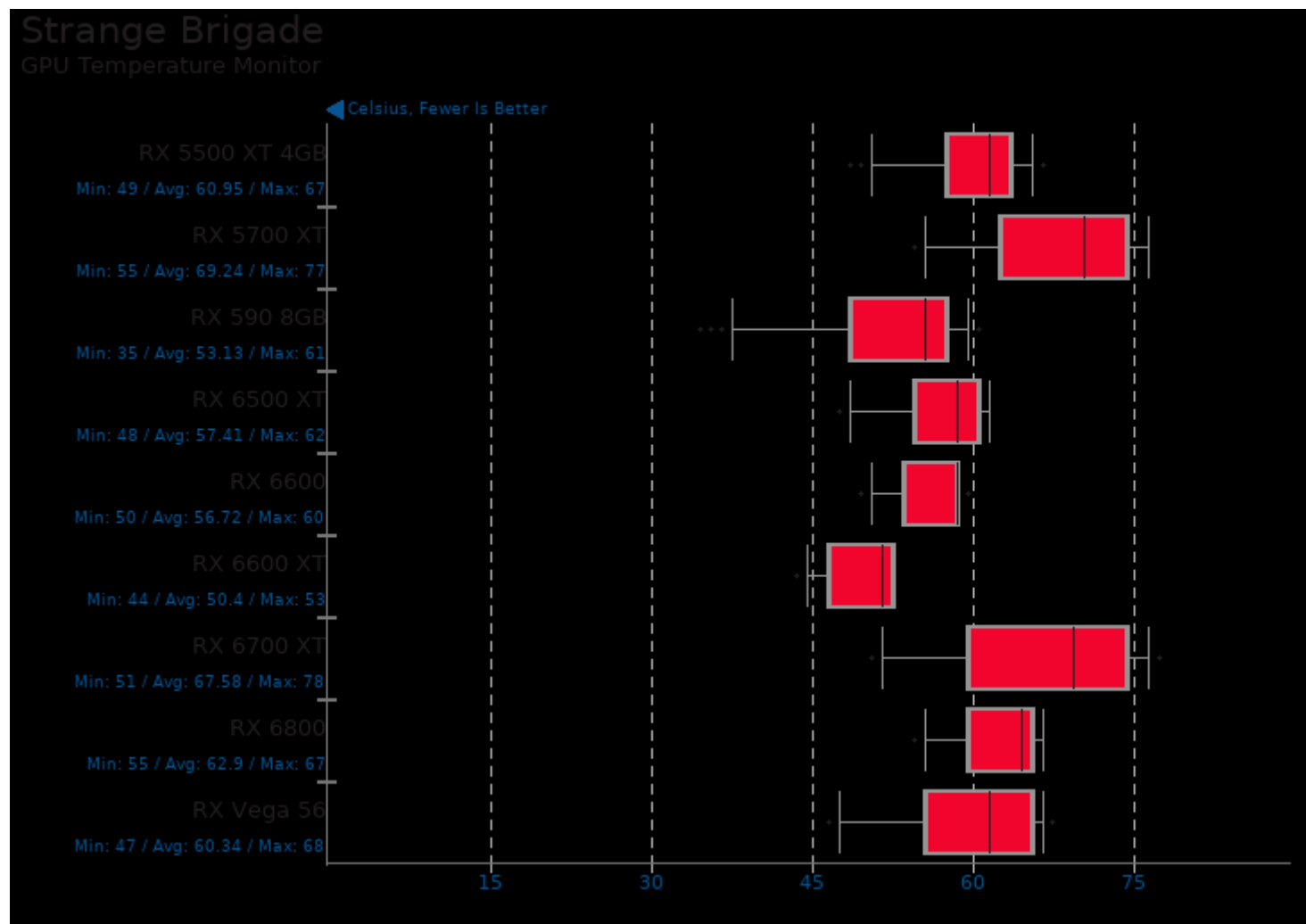
Strange Brigade

Resolution: 1920 x 1080 - Graphics Setting: High

► Frames Per Second Per Watt, More Is Better



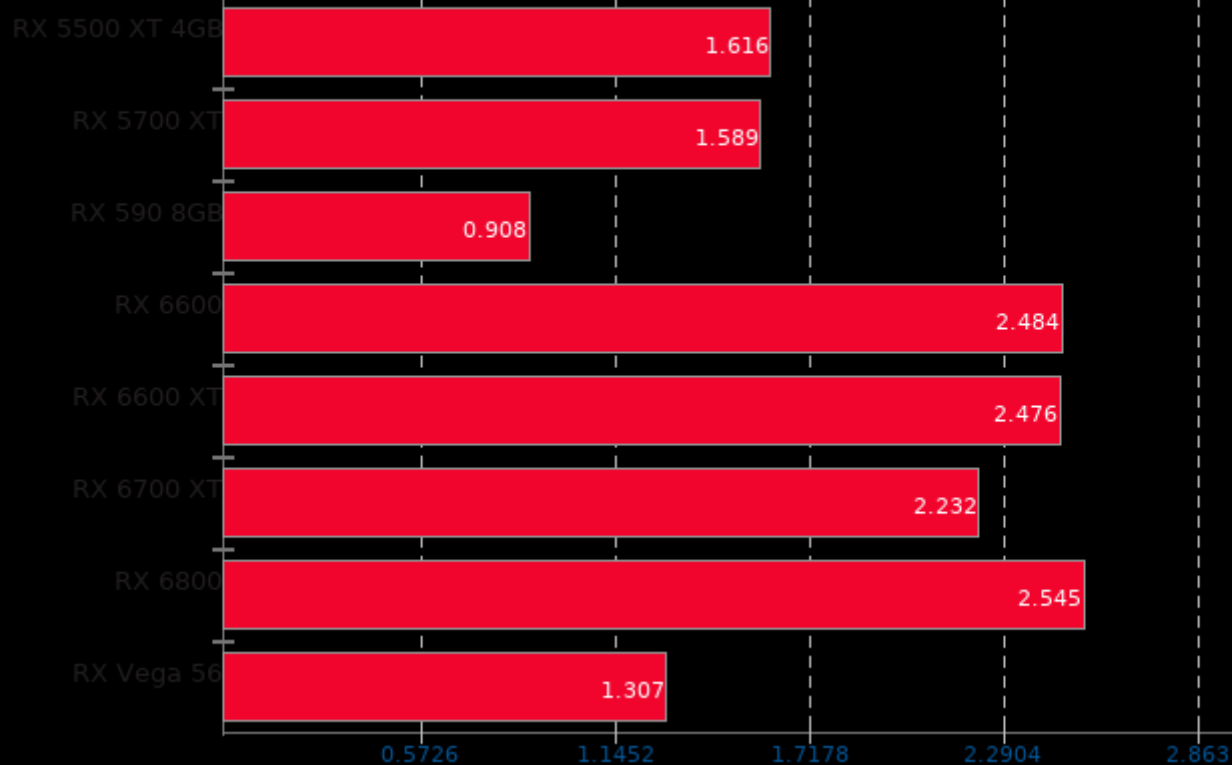


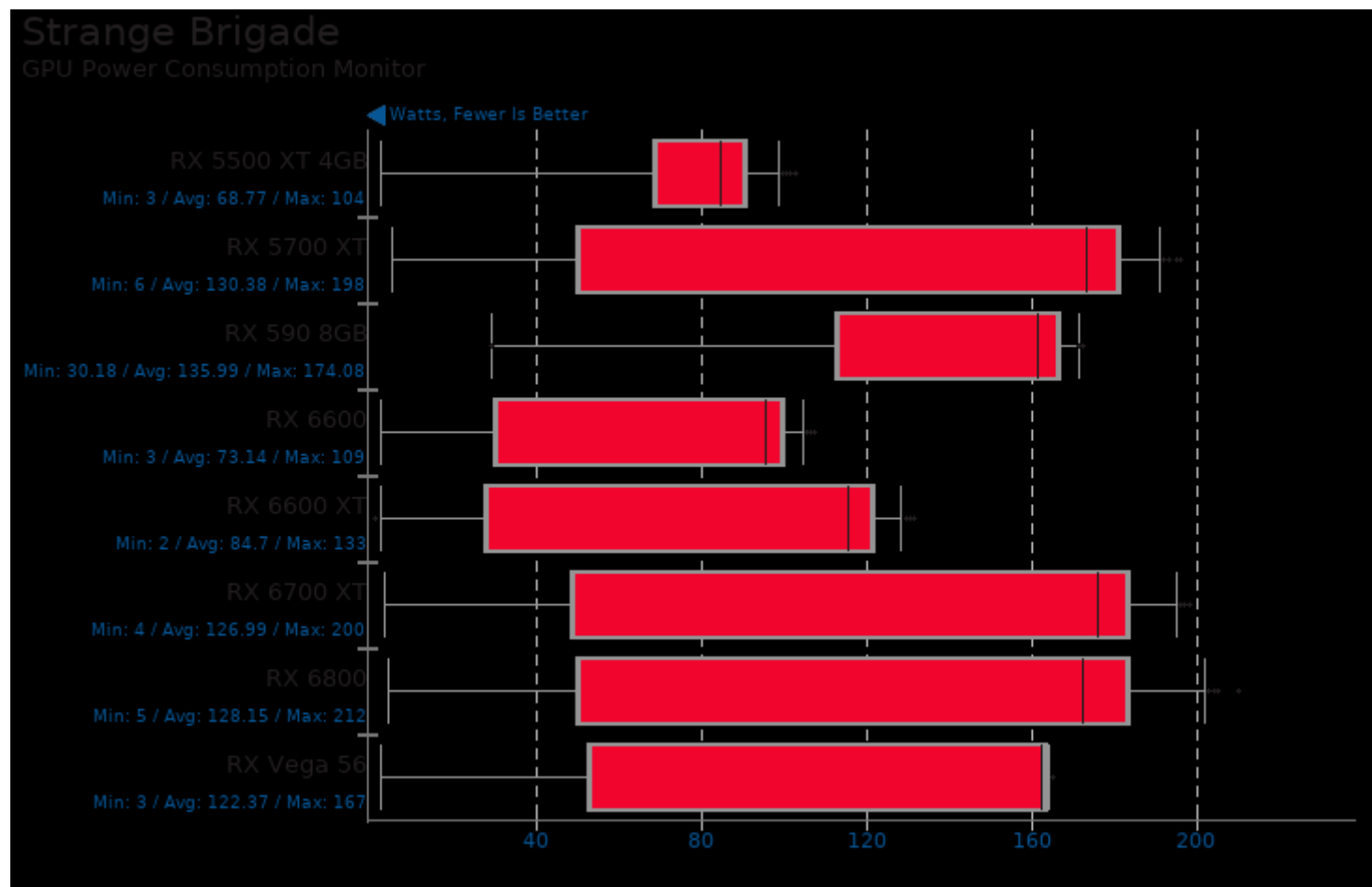


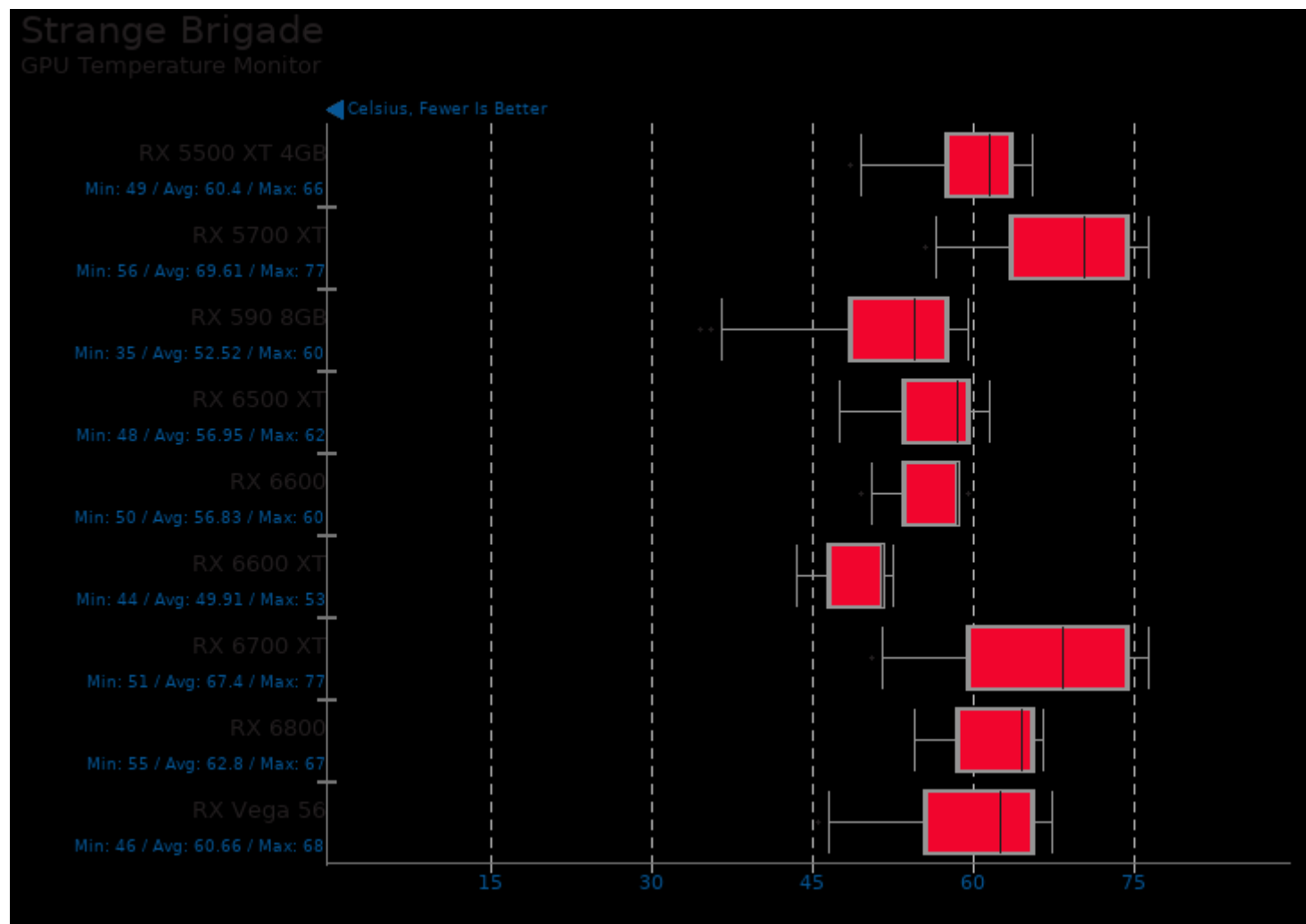
Strange Brigade

Resolution: 1920 x 1080 - Graphics Setting: Ultra

► Frames Per Second Per Watt, More Is Better



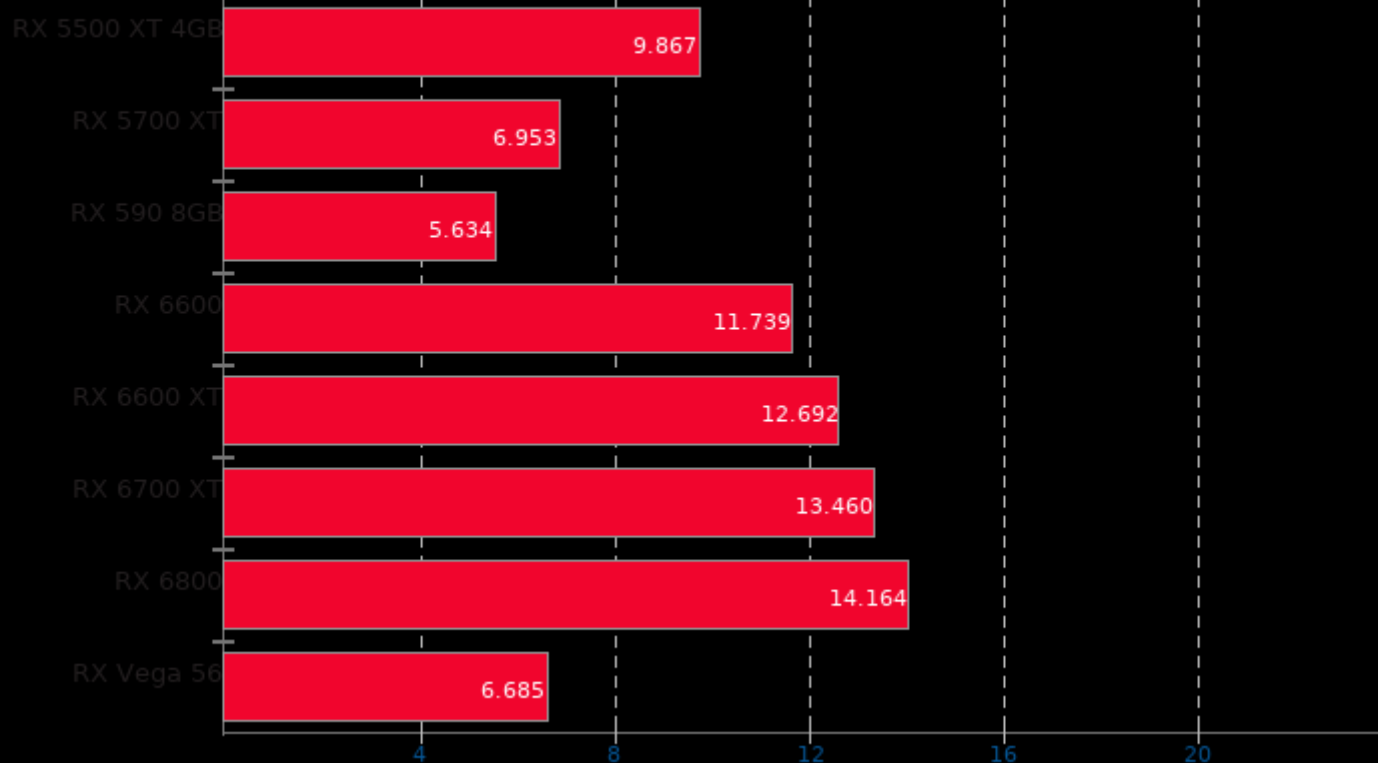




Tesseract 2014-05-12

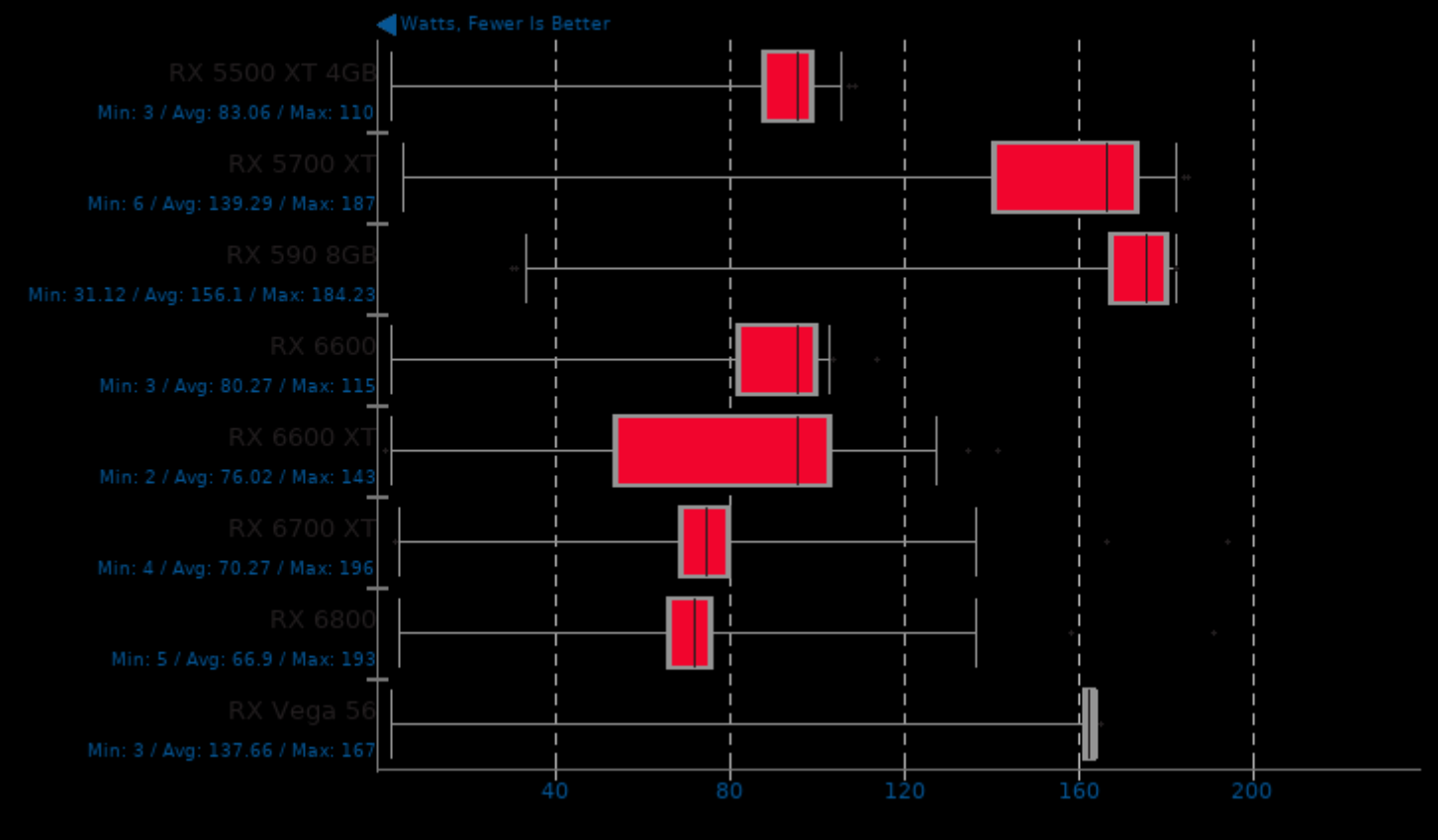
Resolution: 1920 x 1080

► Frames Per Second Per Watt, More Is Better



Tesseract 2014-05-12

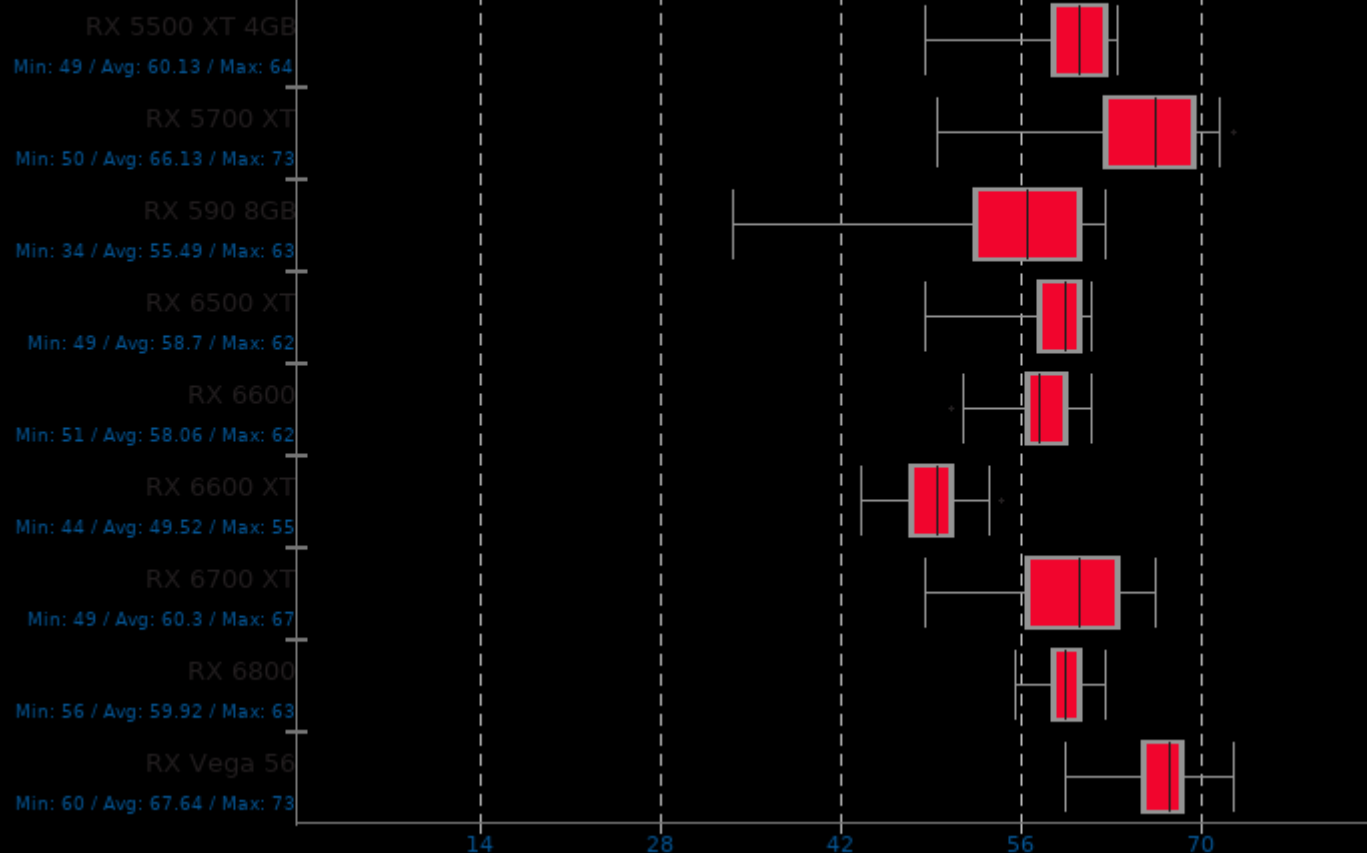
GPU Power Consumption Monitor



Tesseract 2014-05-12

GPU Temperature Monitor

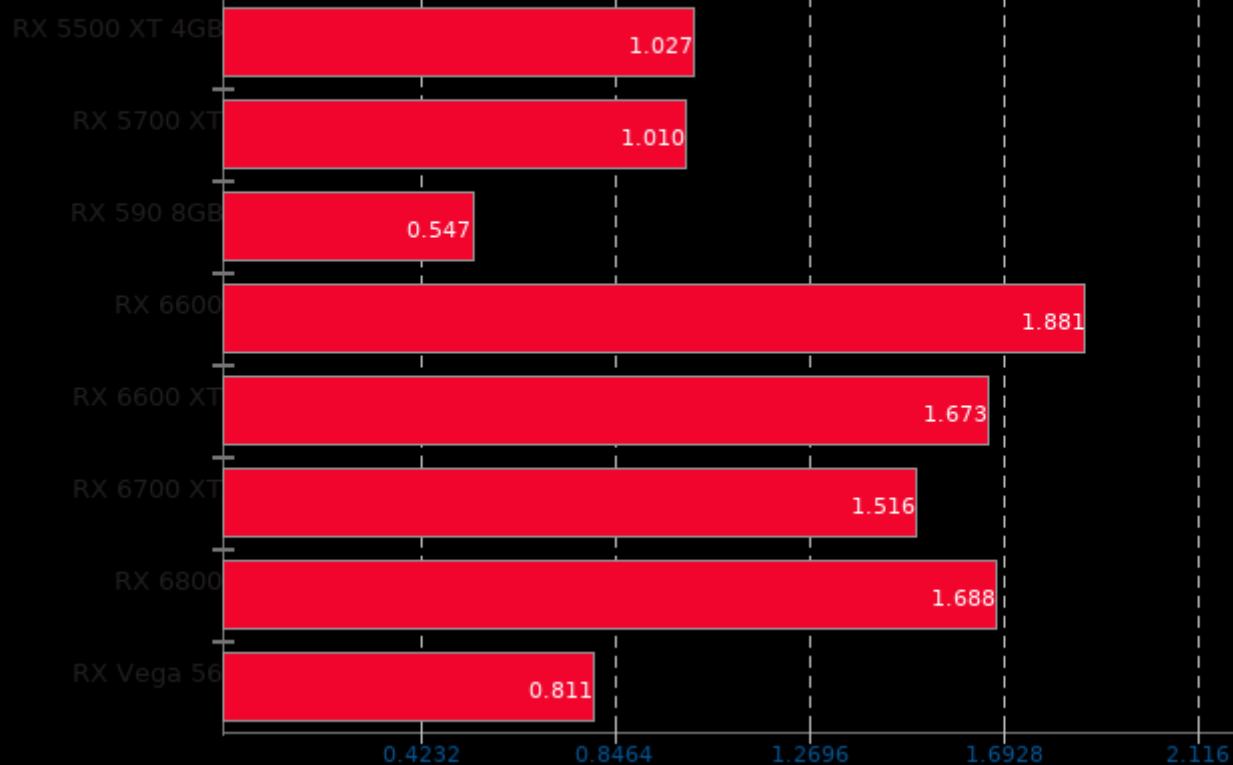
◀ Celsius, Fewer Is Better

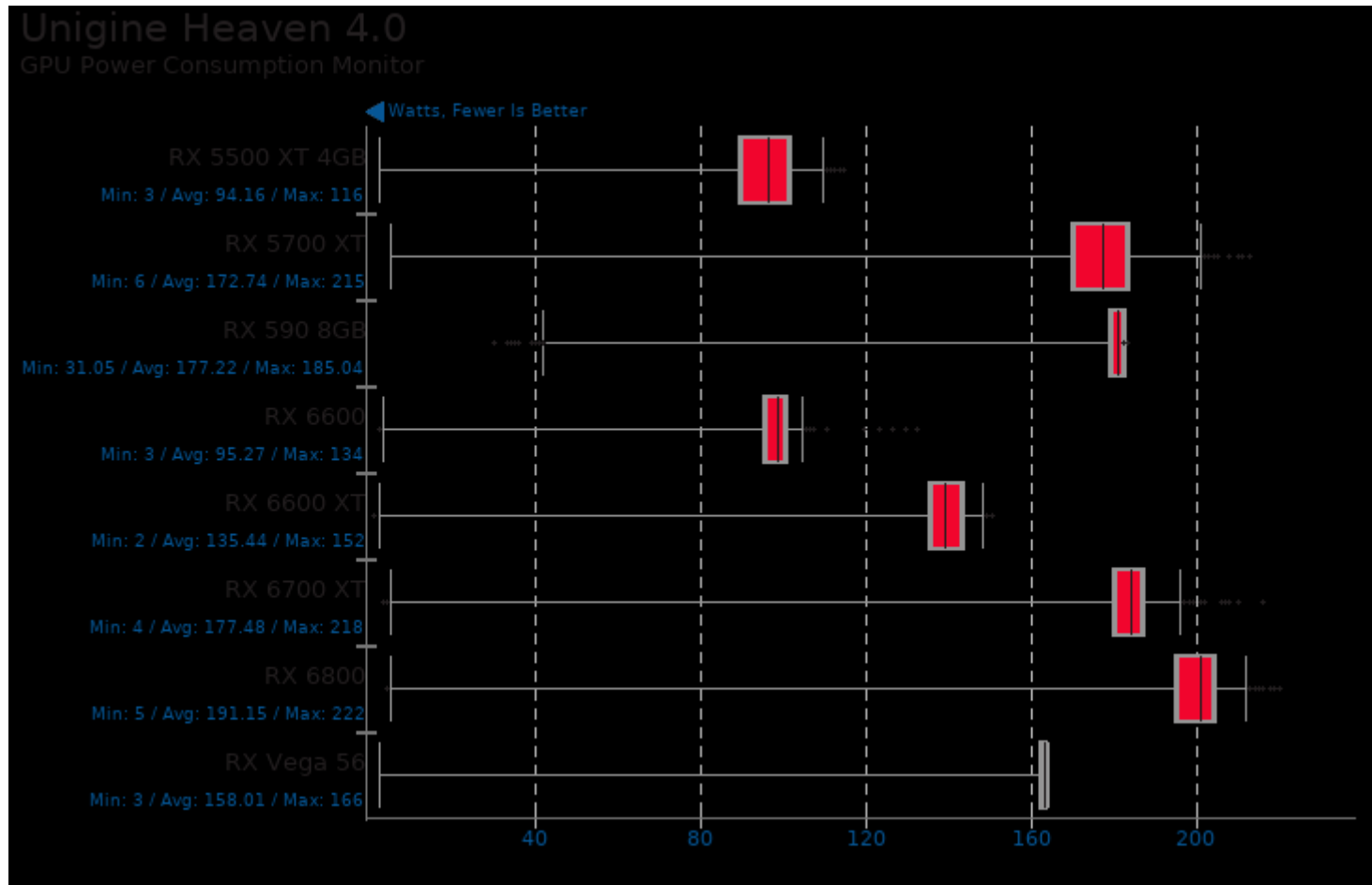


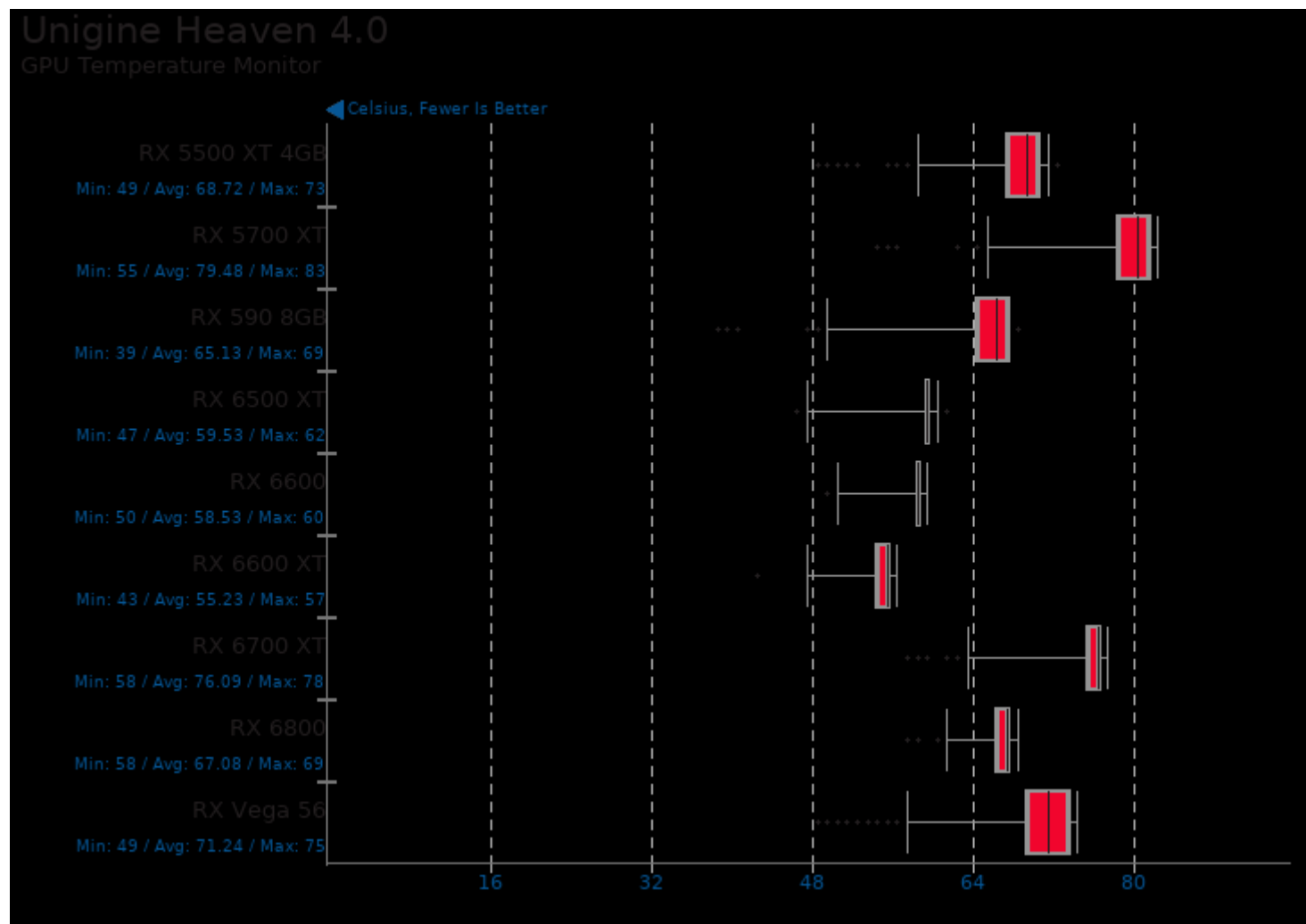
Unigine Heaven 4.0

Resolution: 1920 x 1080 - Mode: Fullscreen - Renderer: OpenGL

► Frames Per Second Per Watt, More Is Better





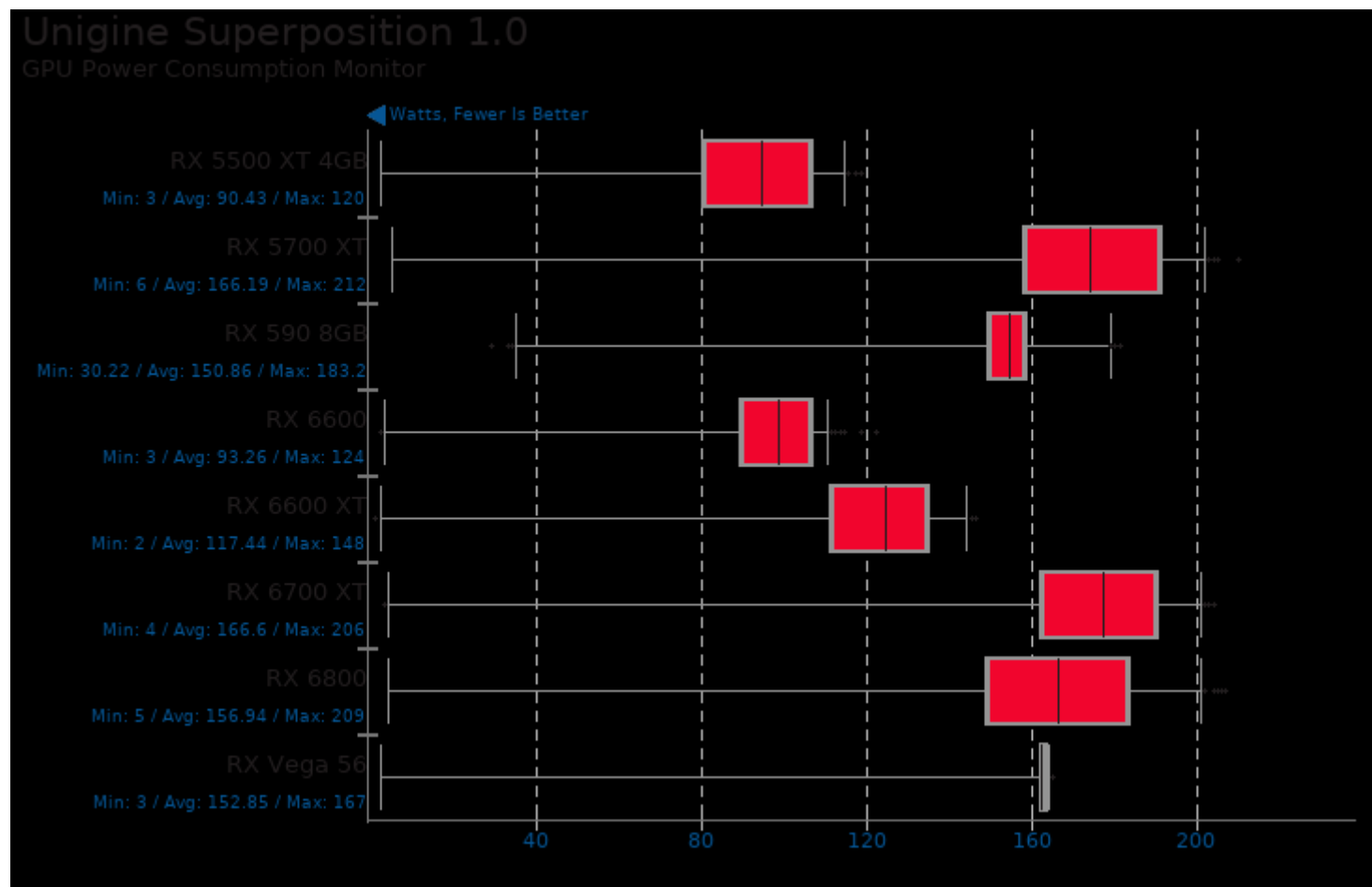


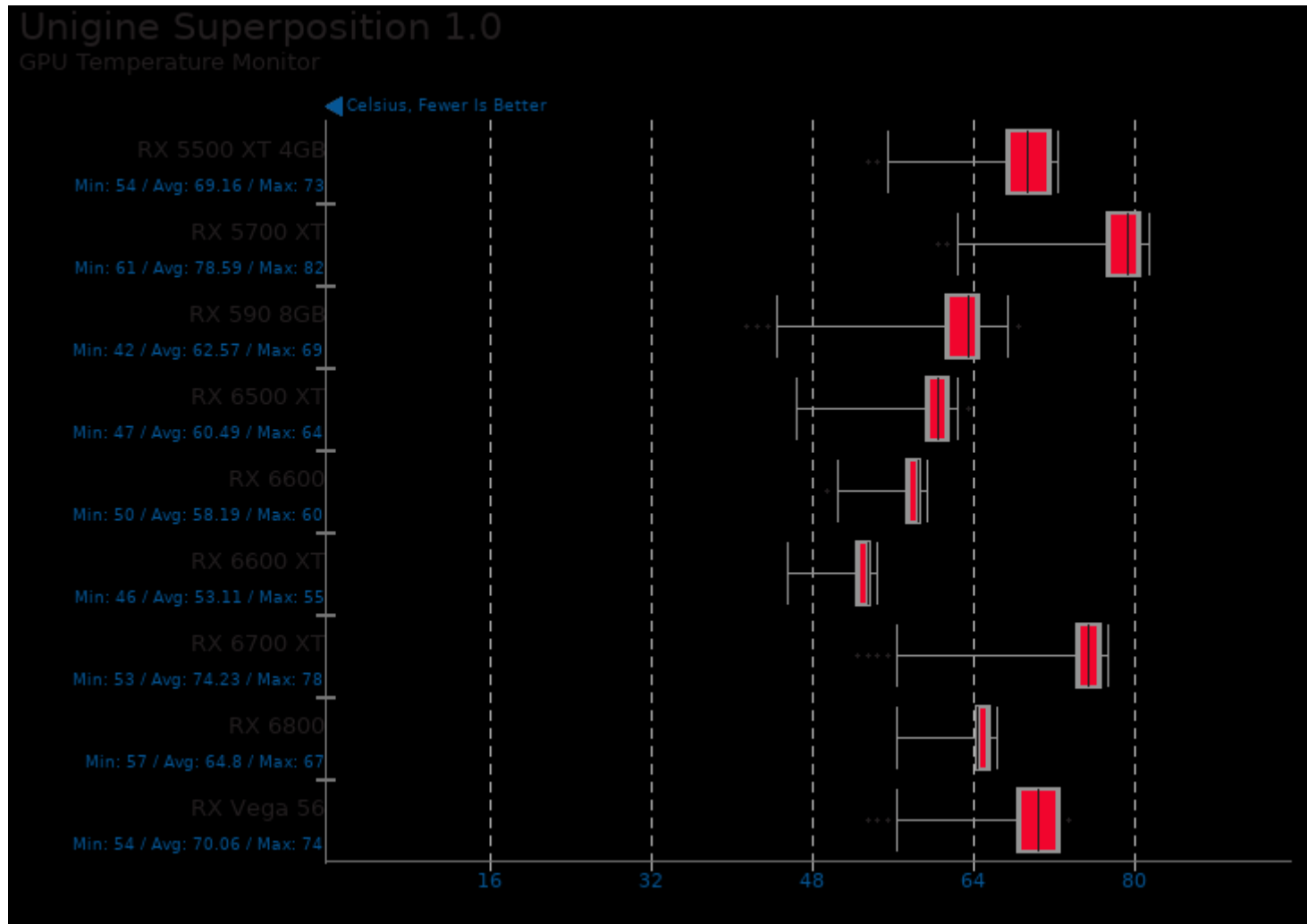
Unigine Superposition 1.0

Resolution: 1920 x 1080 - Mode: Fullscreen - Quality: Low - Renderer: OpenGL

► Frames Per Second Per Watt, More Is Better





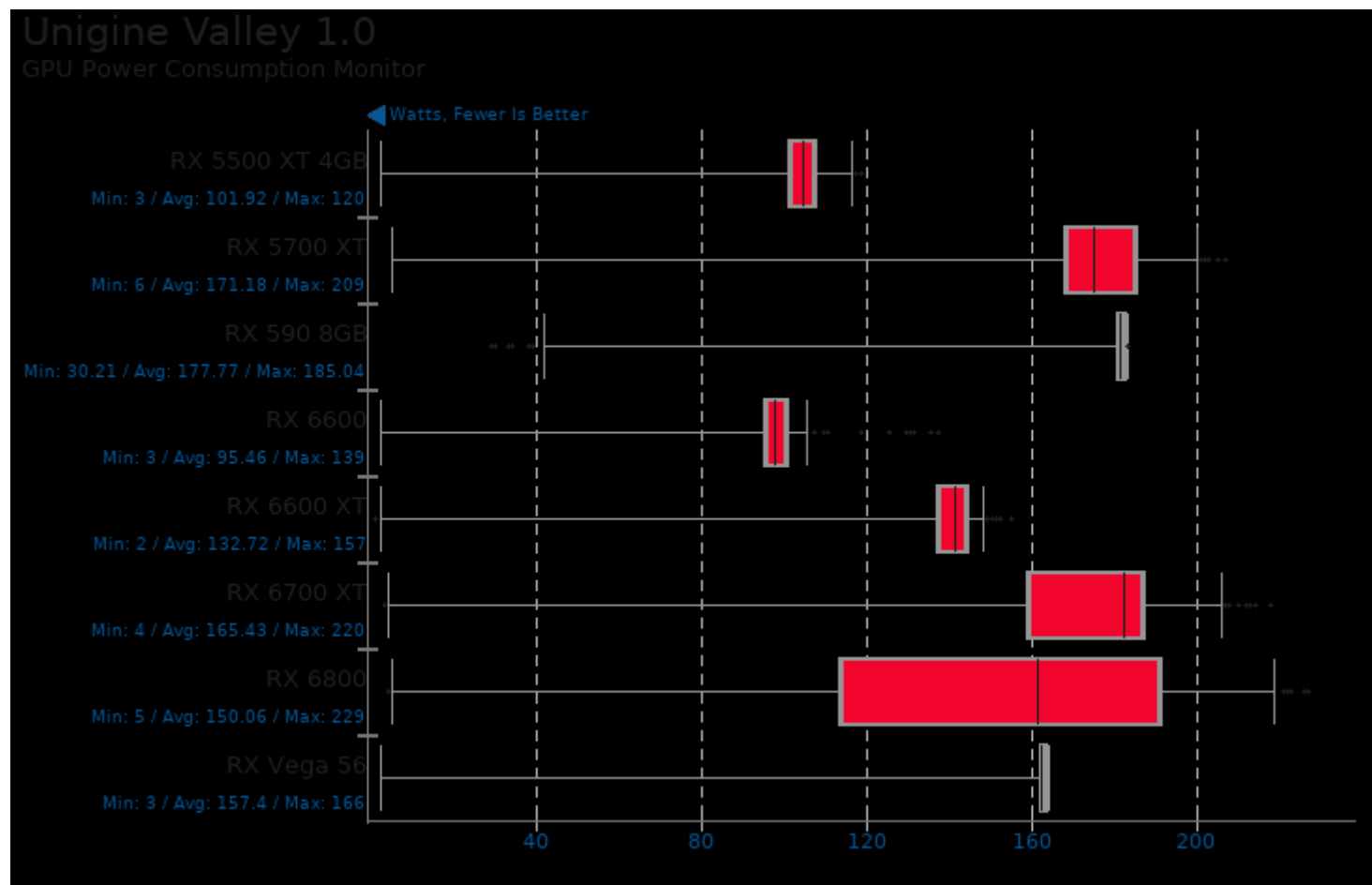


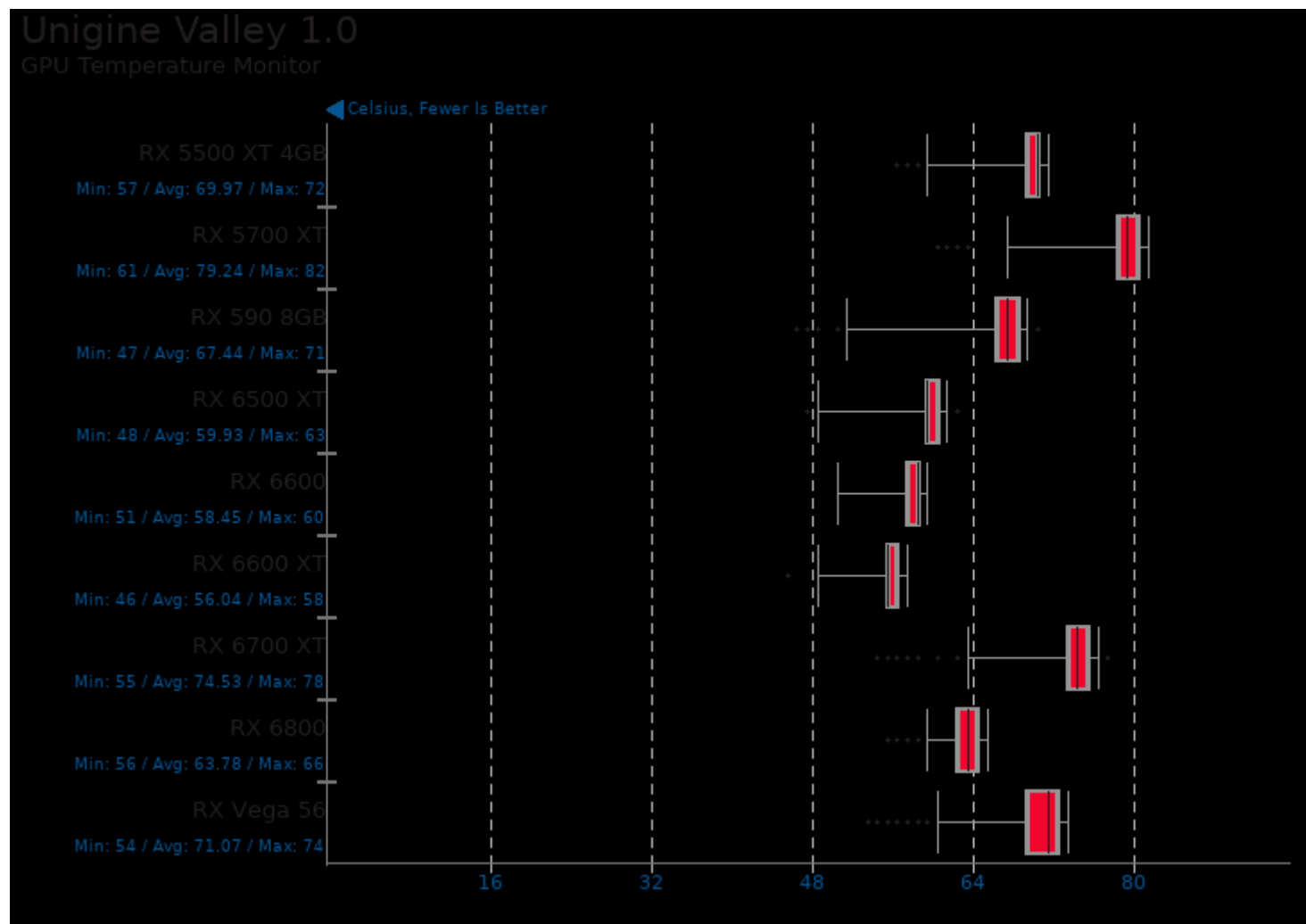
Unigine Valley 1.0

Resolution: 1920 x 1080 - Mode: Fullscreen - Renderer: OpenGL

► Frames Per Second Per Watt, More Is Better



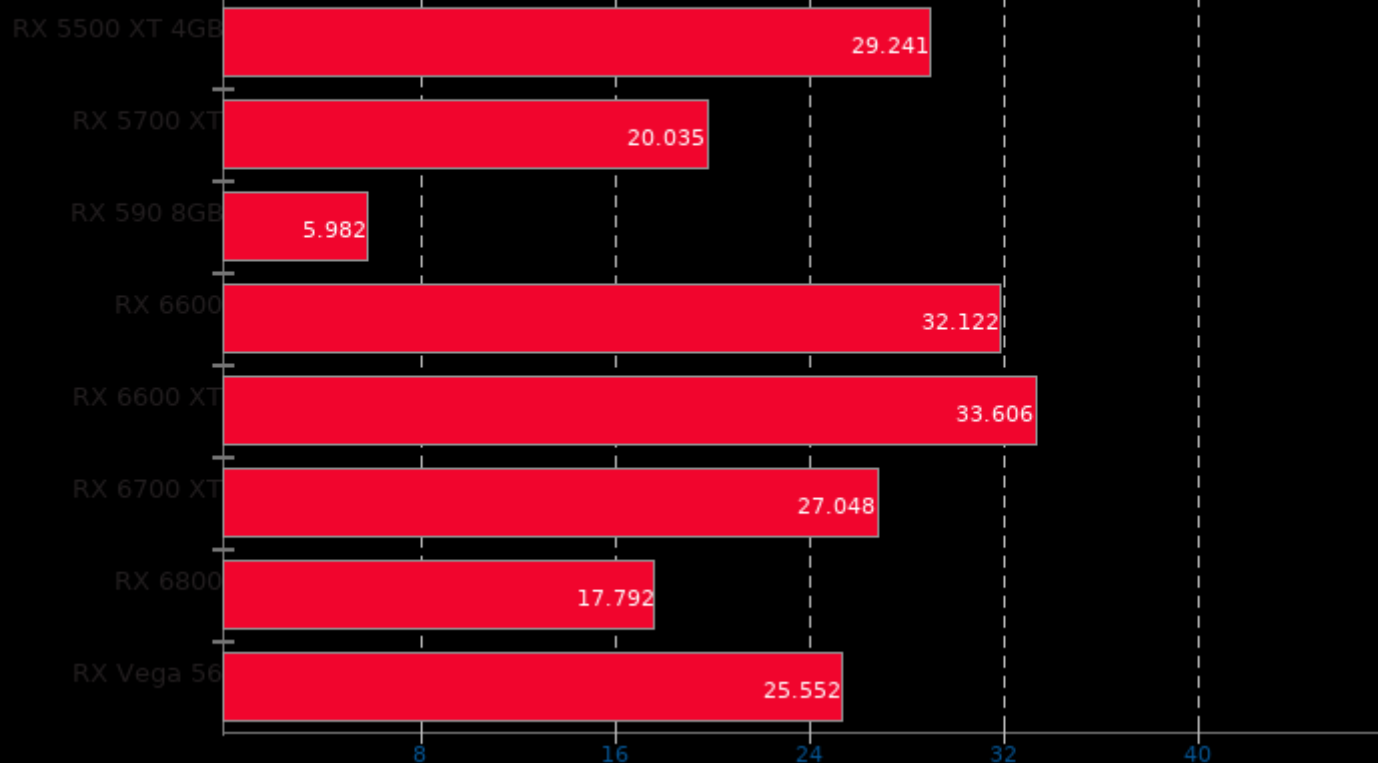




Unvanquished 0.52.1

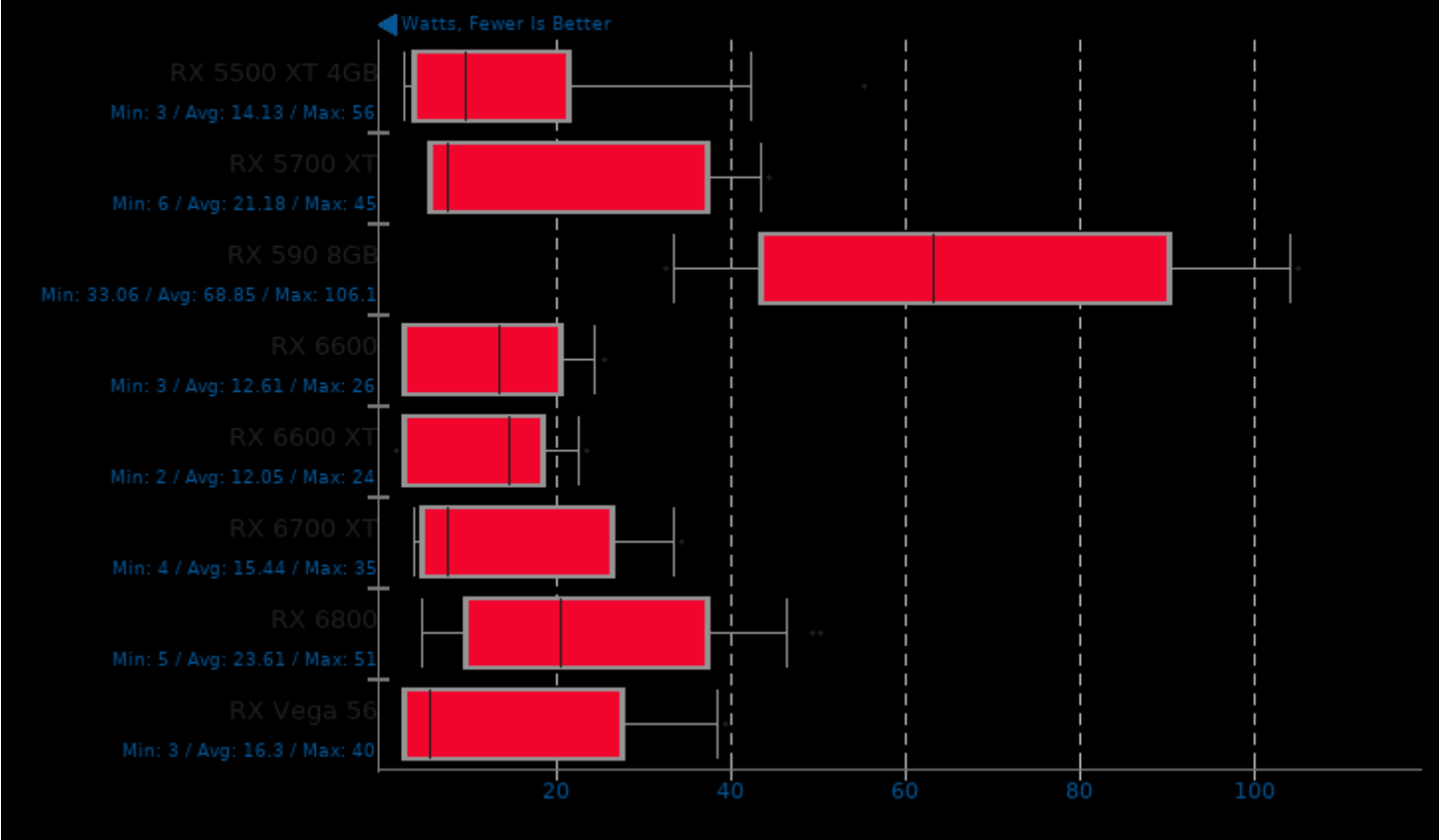
Resolution: 1920 x 1080 - Effects Quality: High

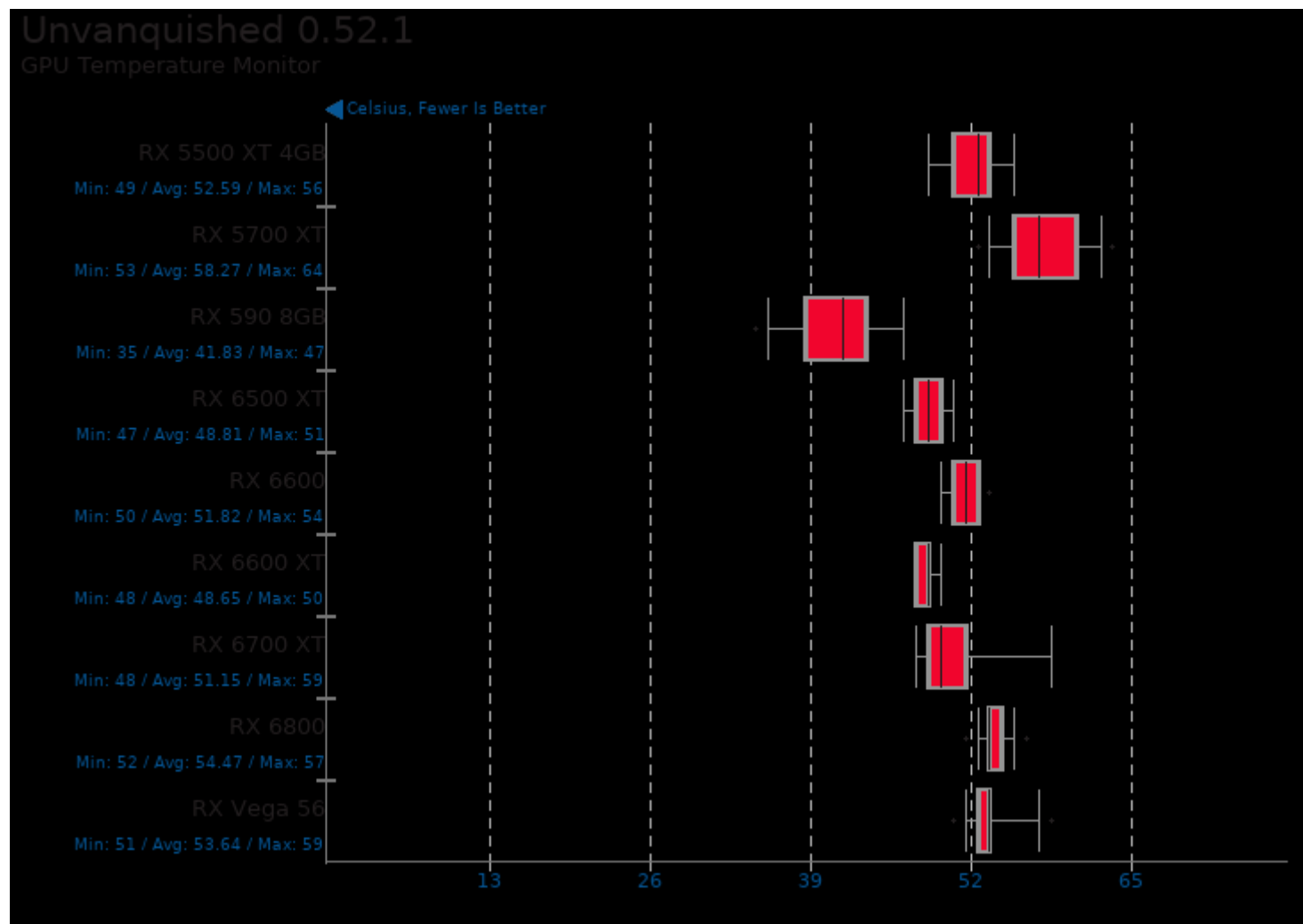
► Frames Per Second Per Watt, More Is Better



Unvanquished 0.52.1

GPU Power Consumption Monitor

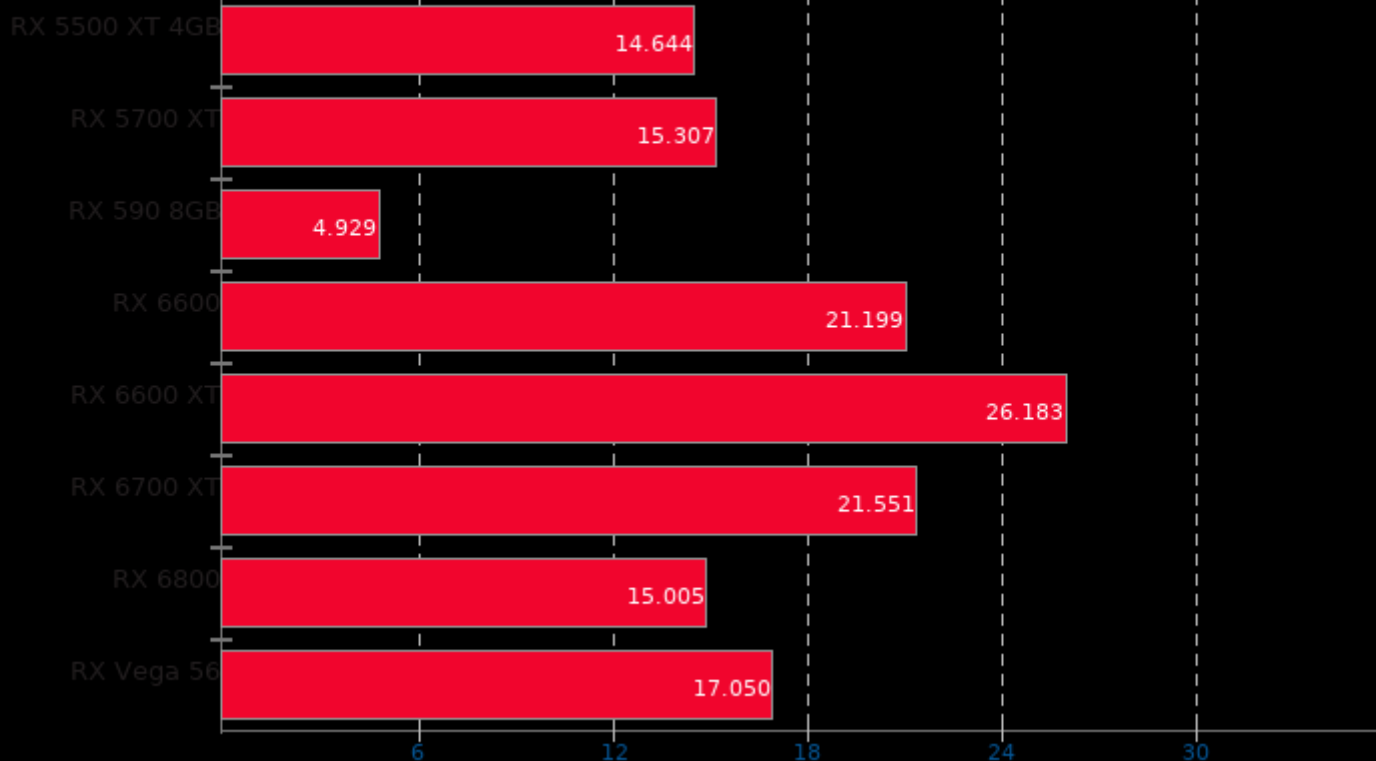




Unvanquished 0.52.1

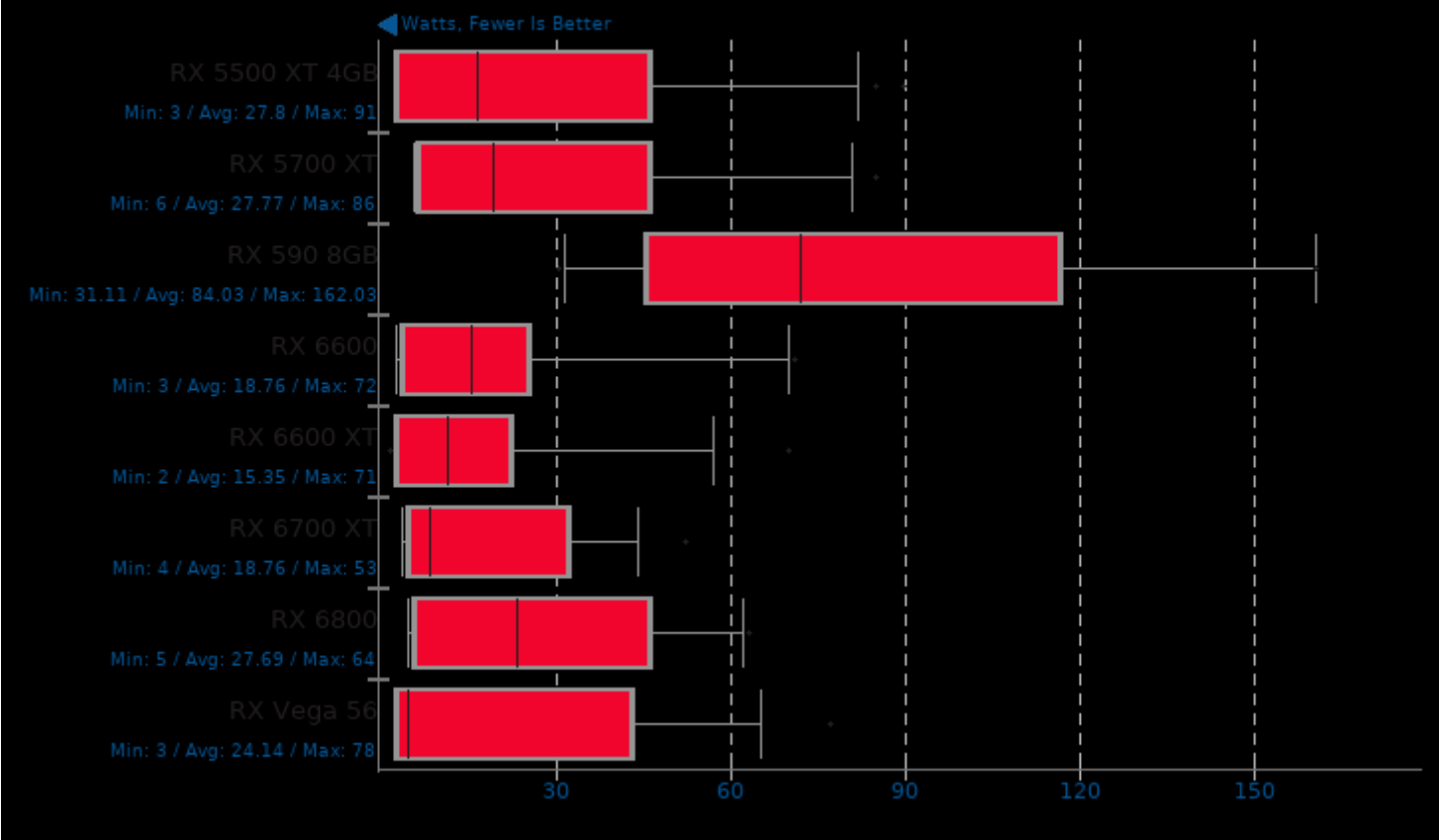
Resolution: 1920 x 1080 - Effects Quality: Ultra

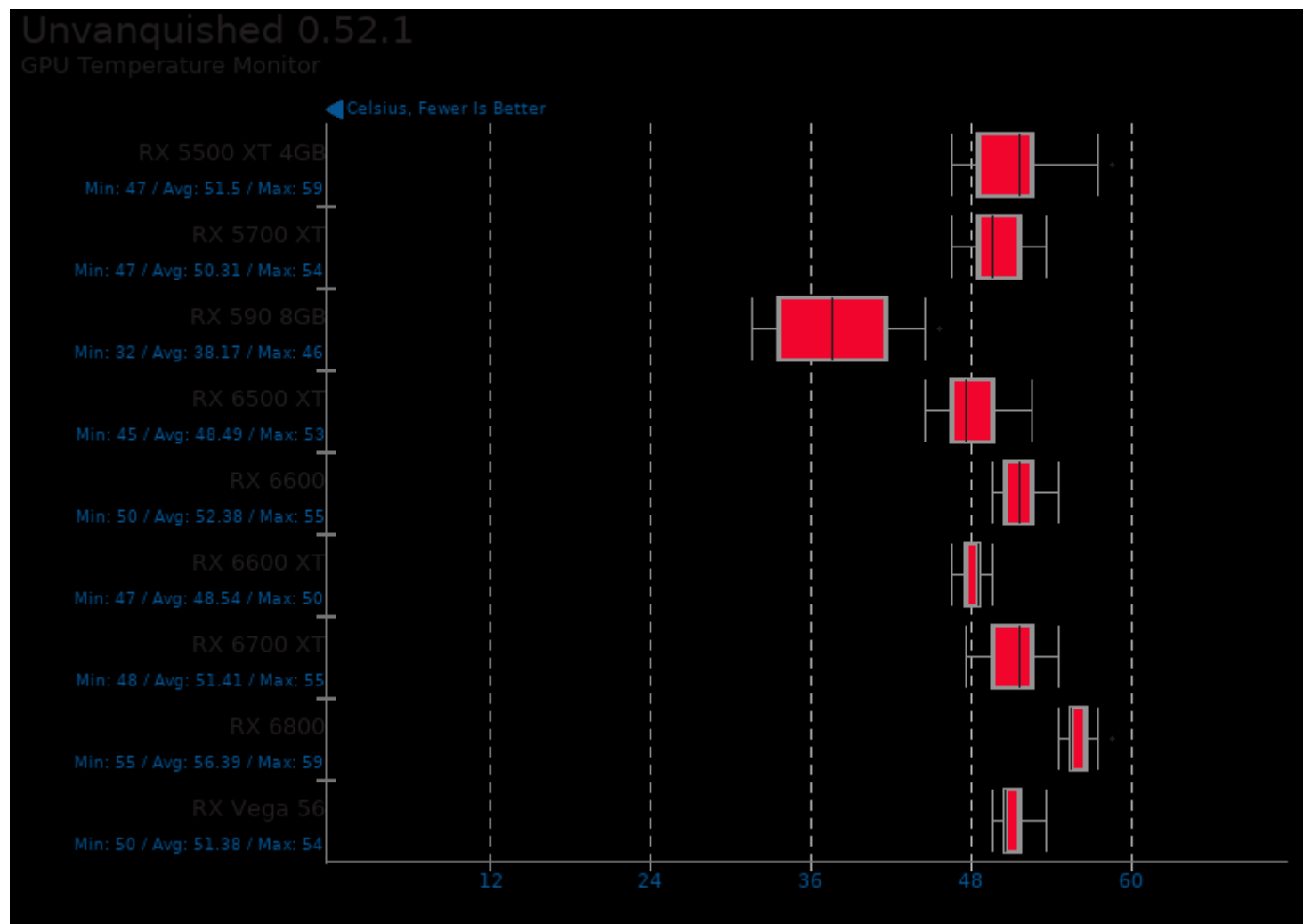
► Frames Per Second Per Watt, More Is Better



Unvanquished 0.52.1

GPU Power Consumption Monitor

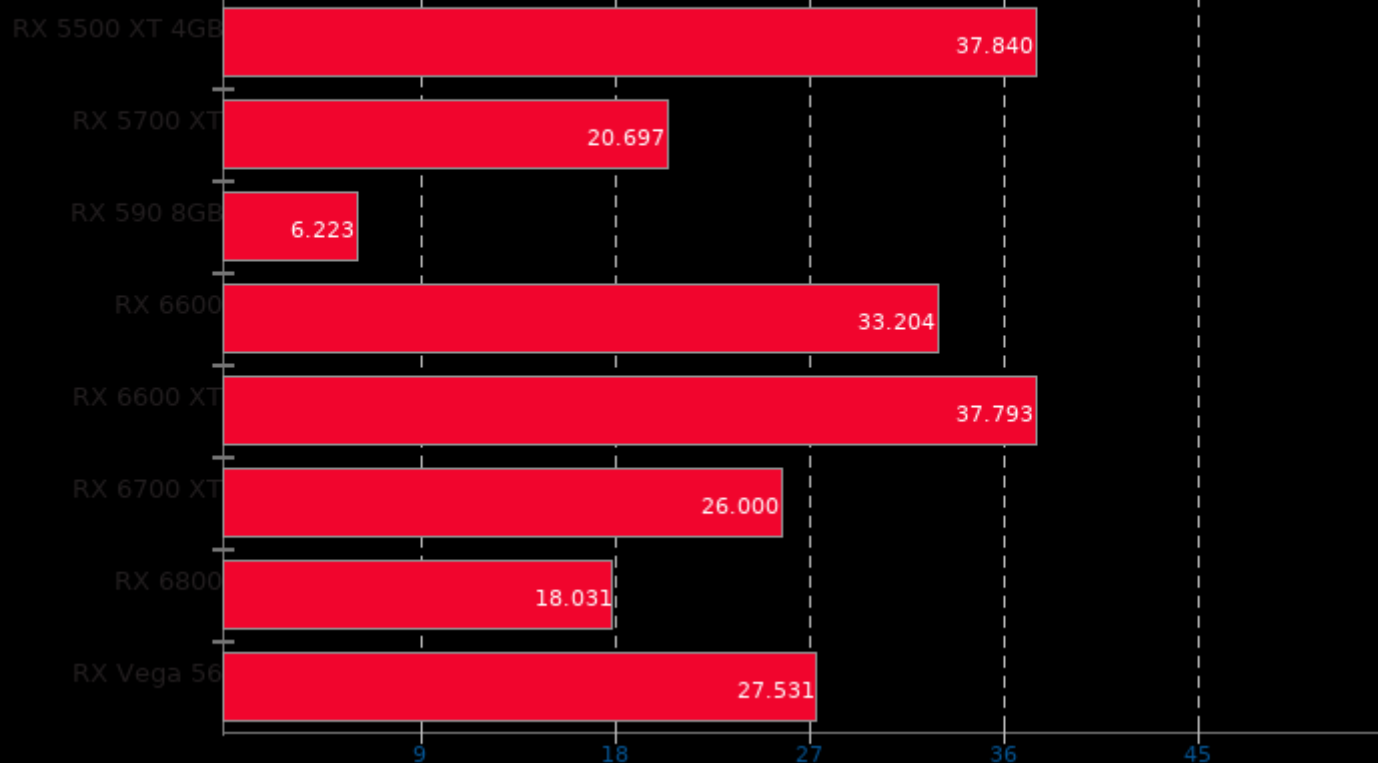




Unvanquished 0.52.1

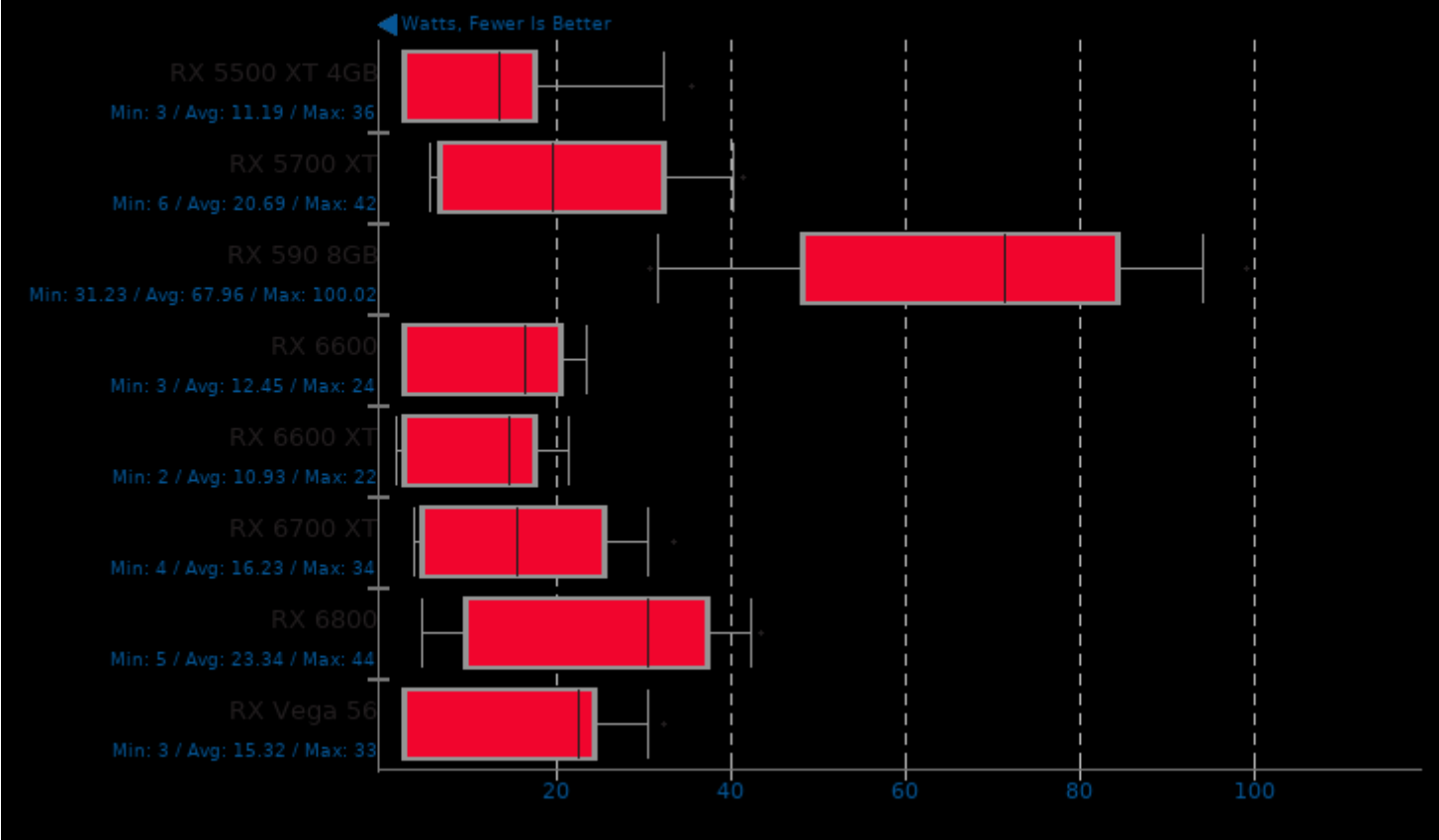
Resolution: 1920 x 1080 - Effects Quality: Medium

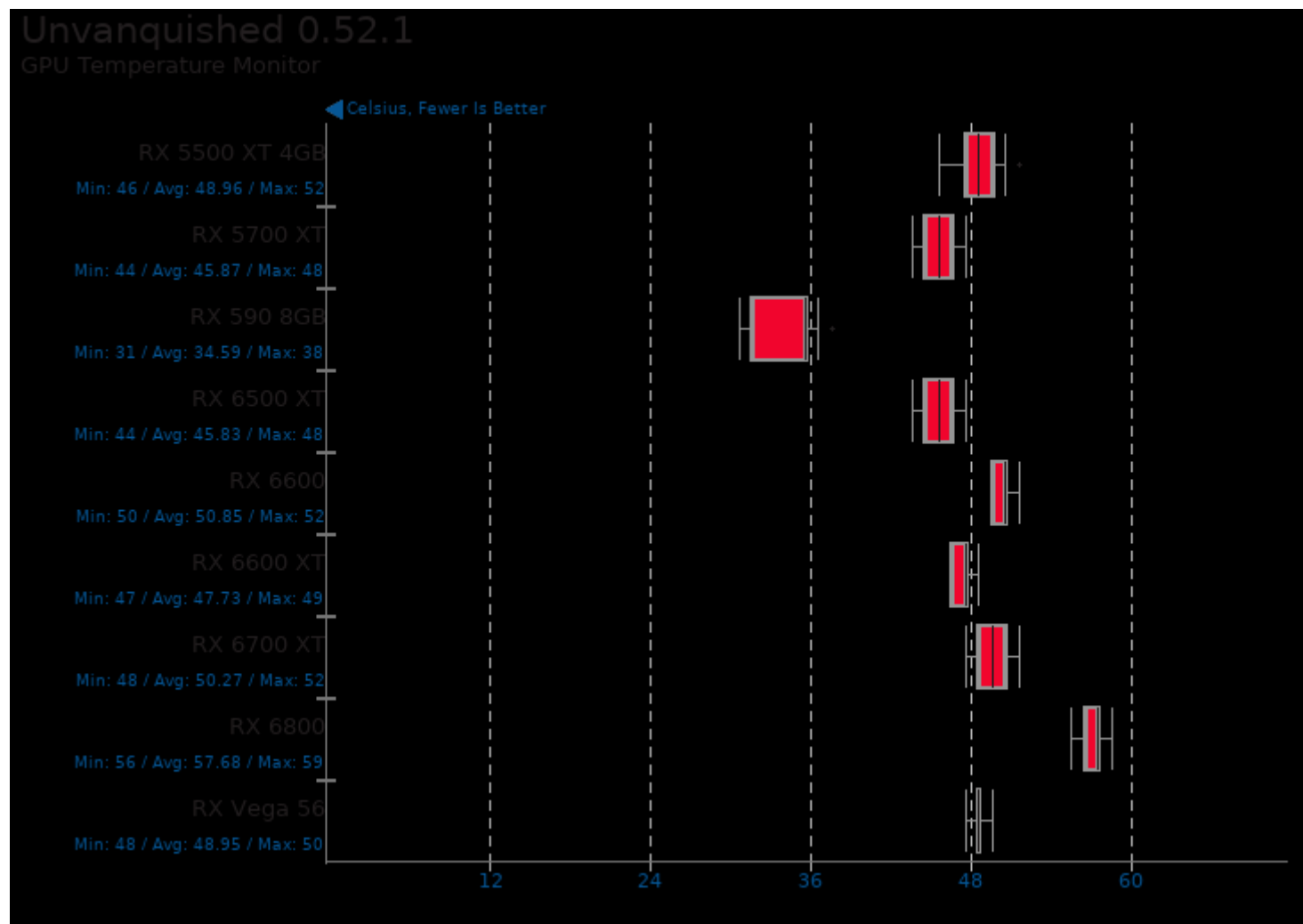
► Frames Per Second Per Watt, More Is Better



Unvanquished 0.52.1

GPU Power Consumption Monitor

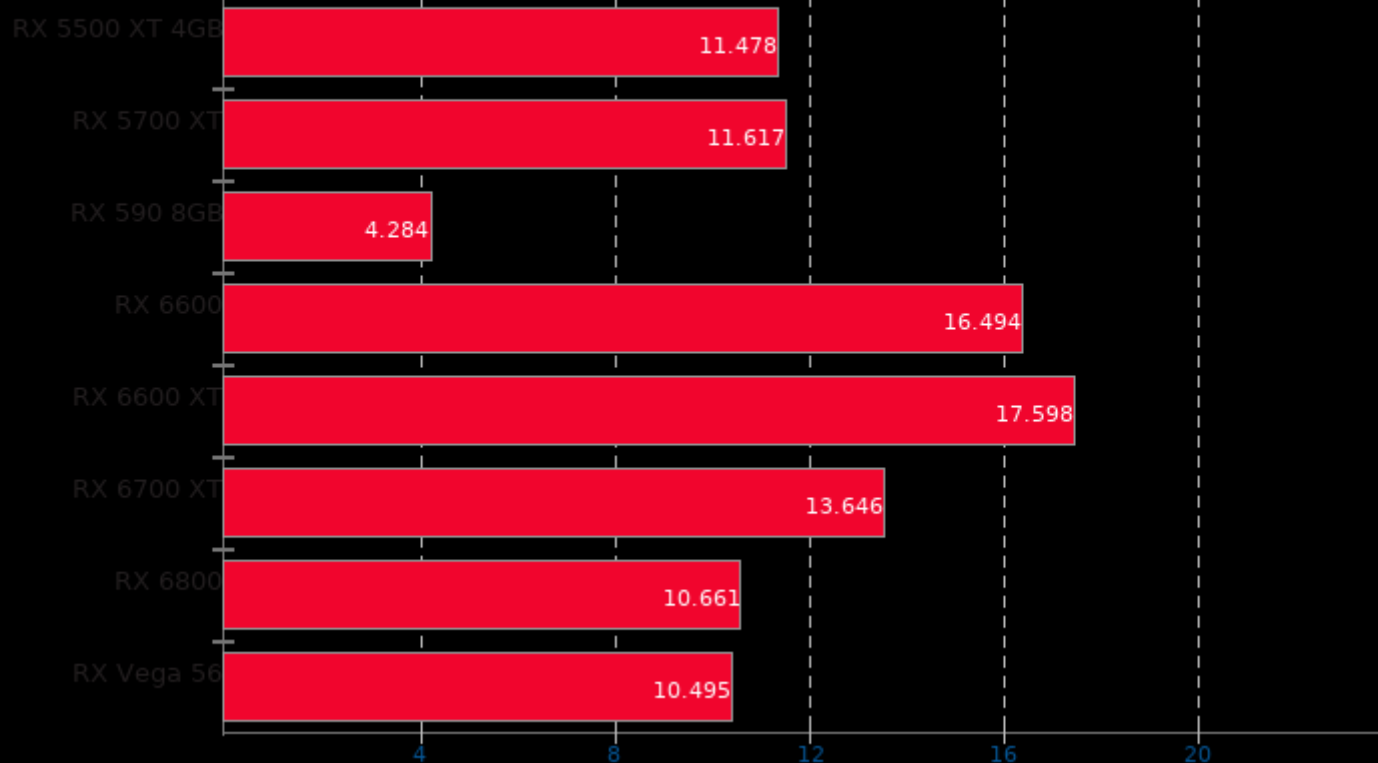




Xonotic 0.8.2

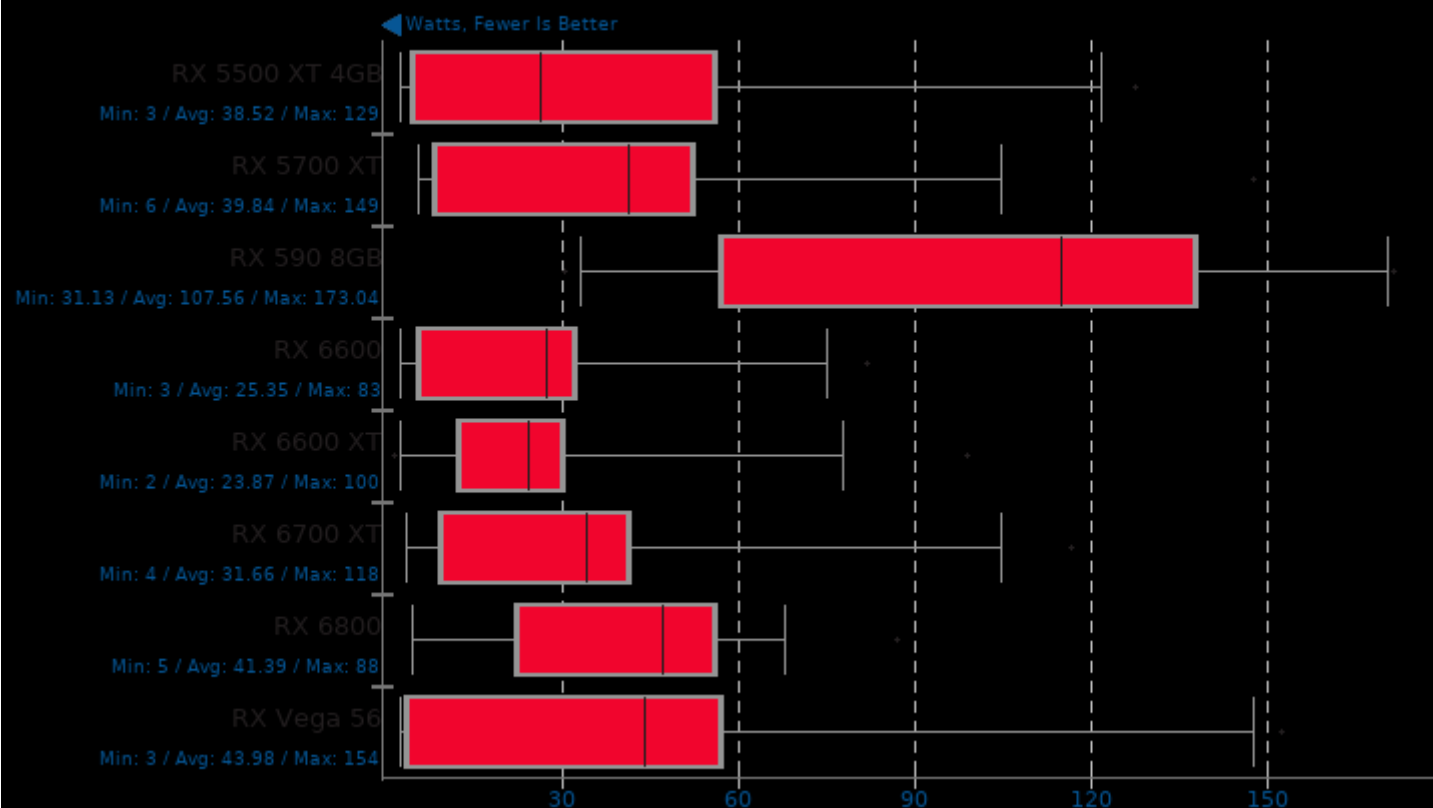
Resolution: 1920 x 1080 - Effects Quality: Ultimate

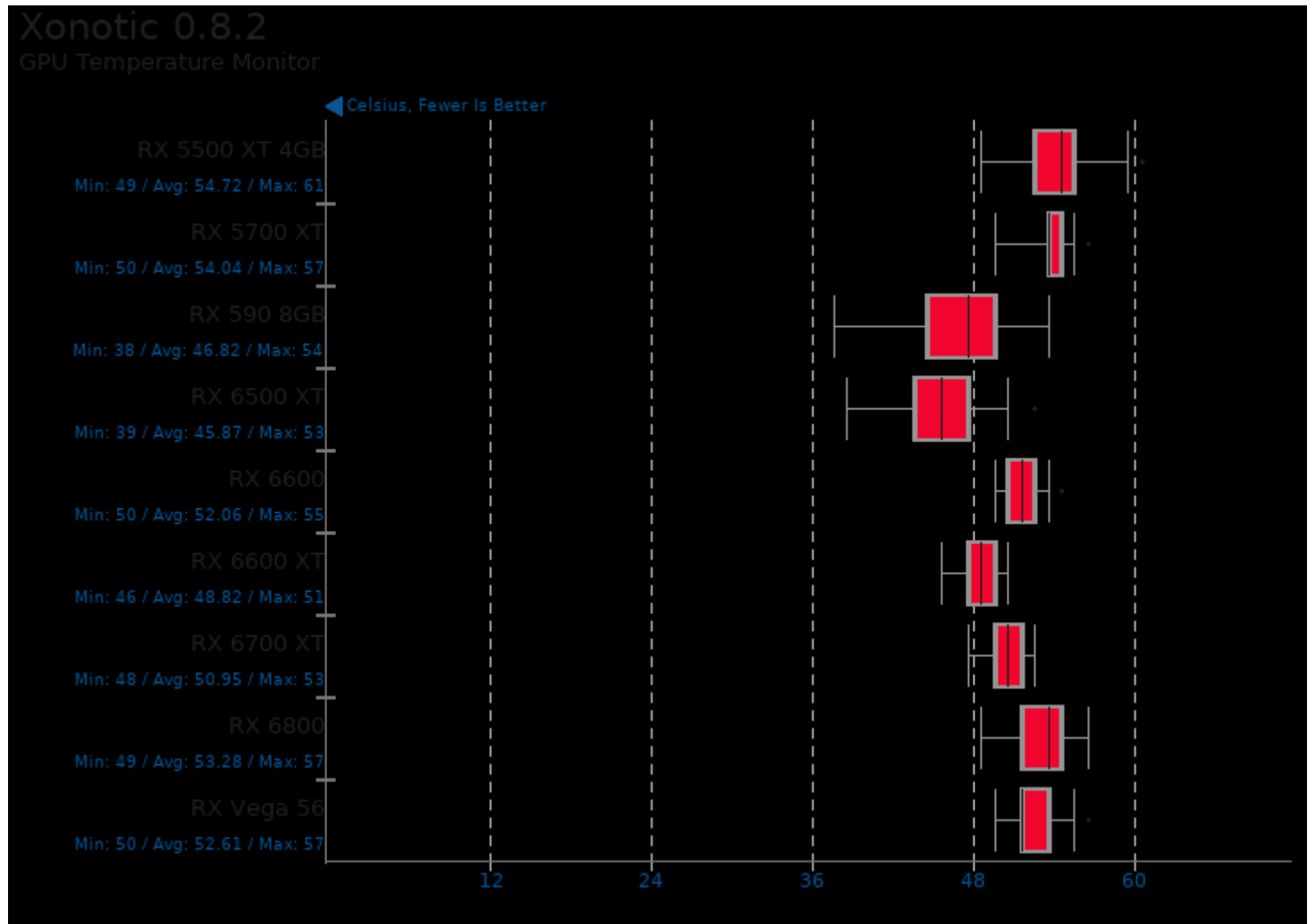
► Frames Per Second Per Watt, More Is Better



Xonotic 0.8.2

GPU Power Consumption Monitor



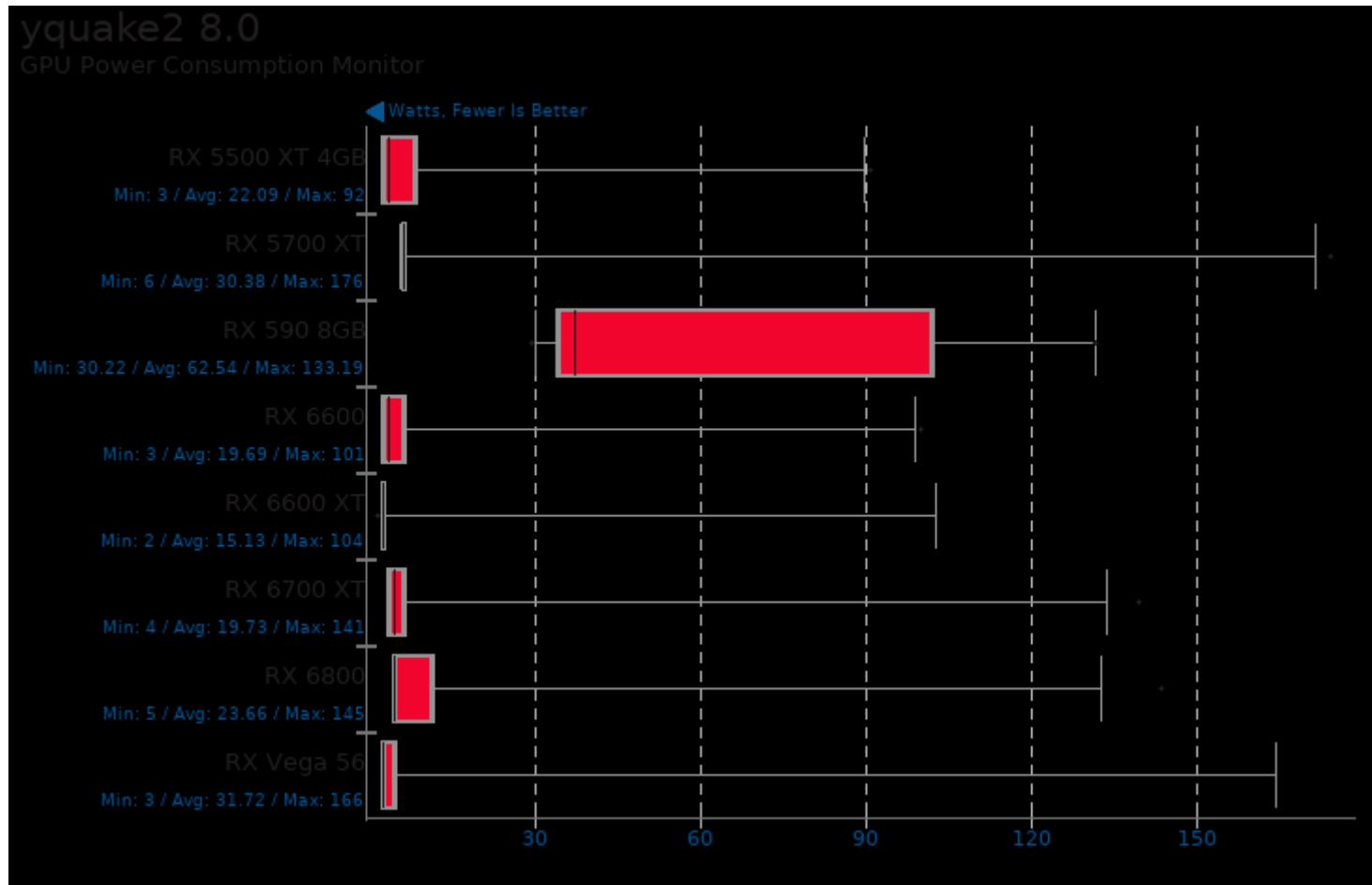


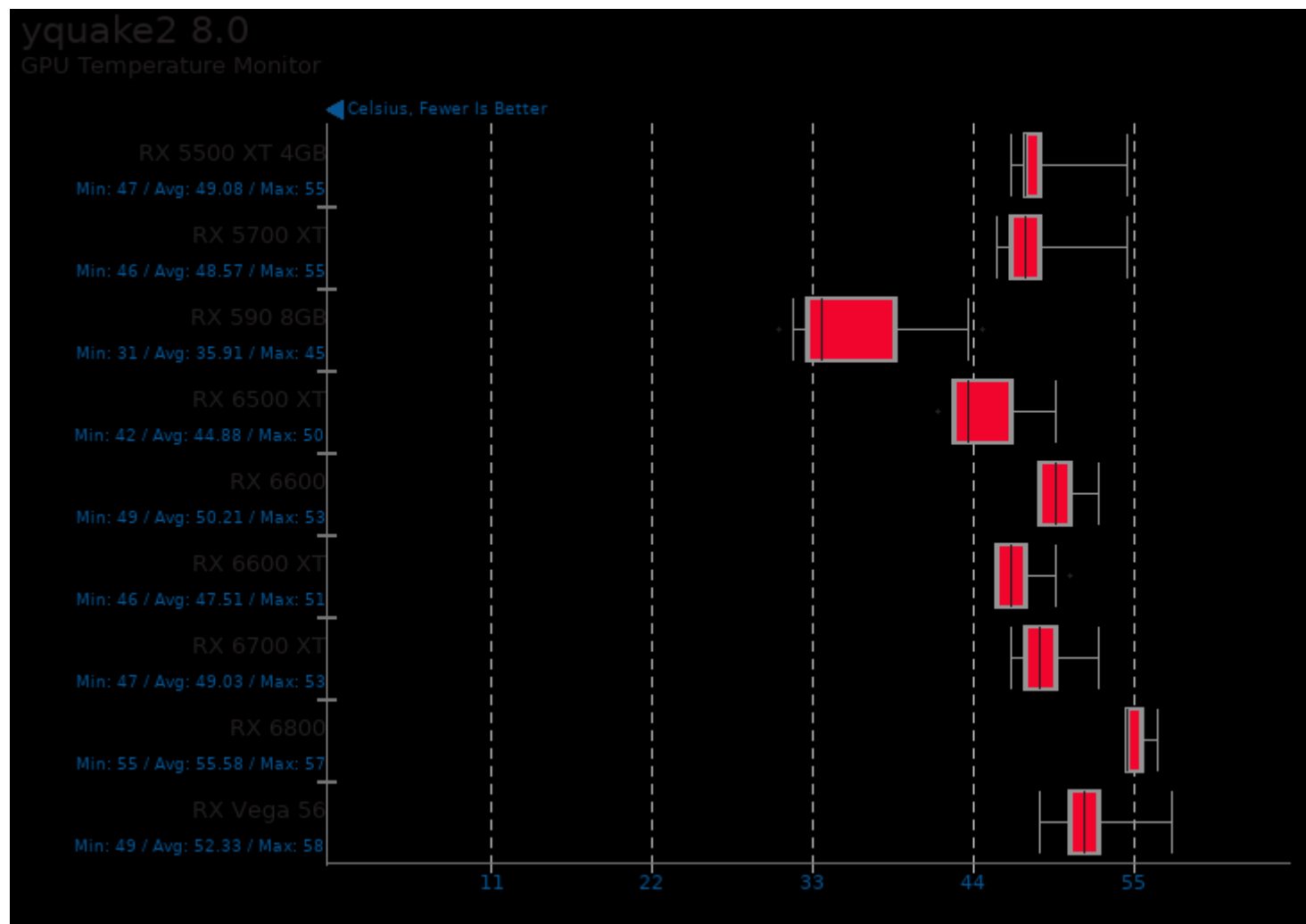
yquake2 8.0

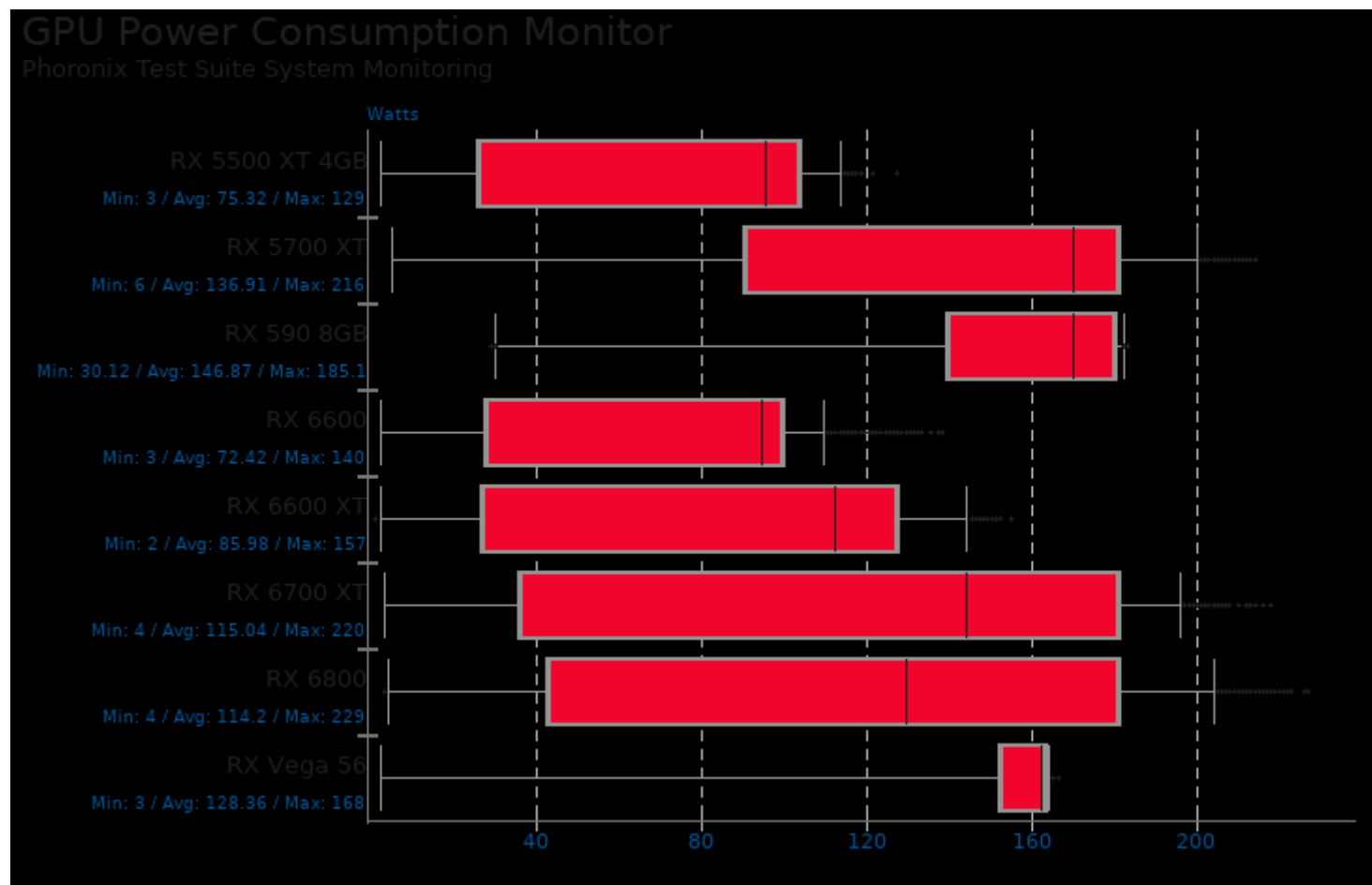
Renderer: Vulkan - Resolution: 1920 x 1080

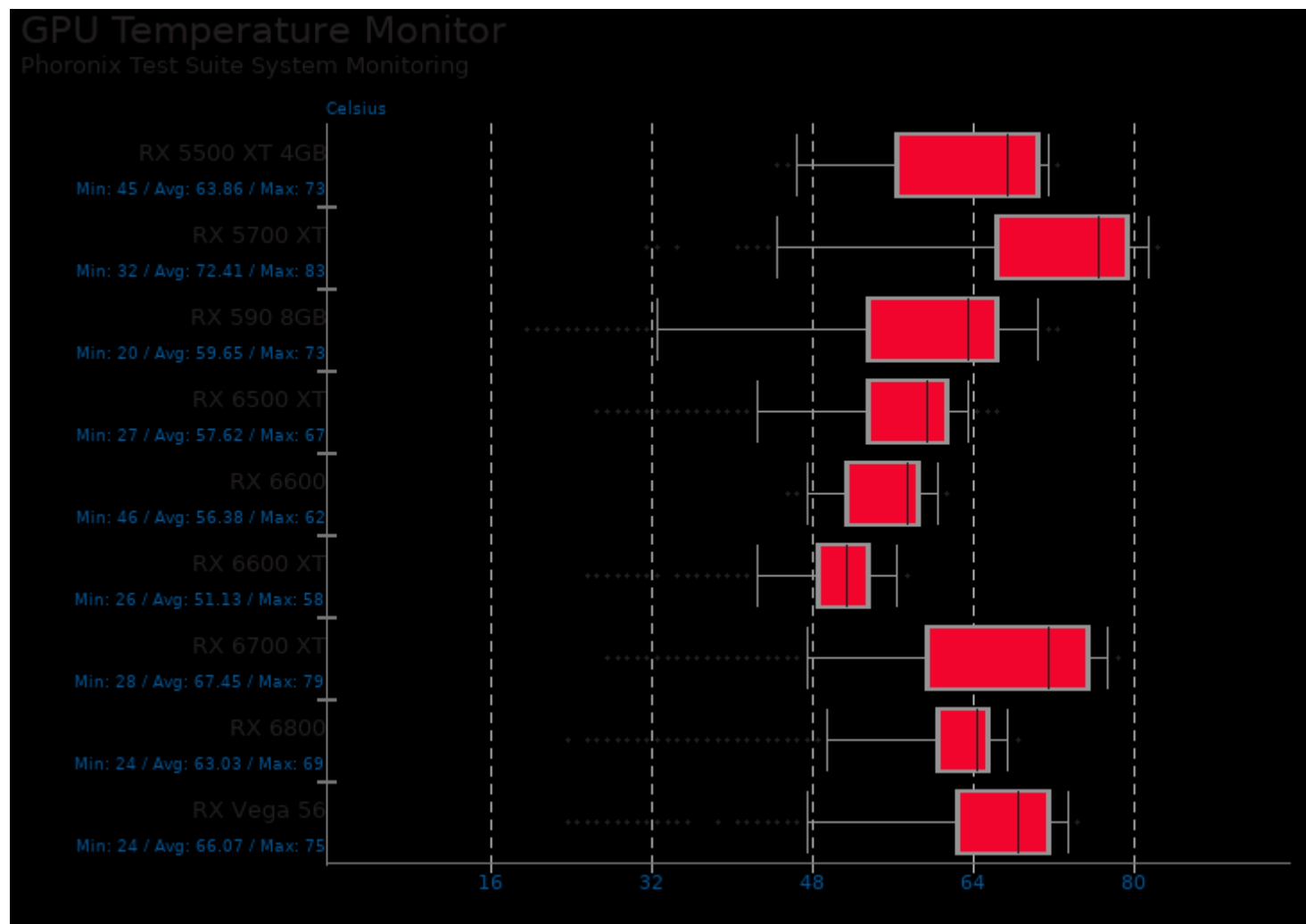
► Frames Per Second Per Watt, More Is Better



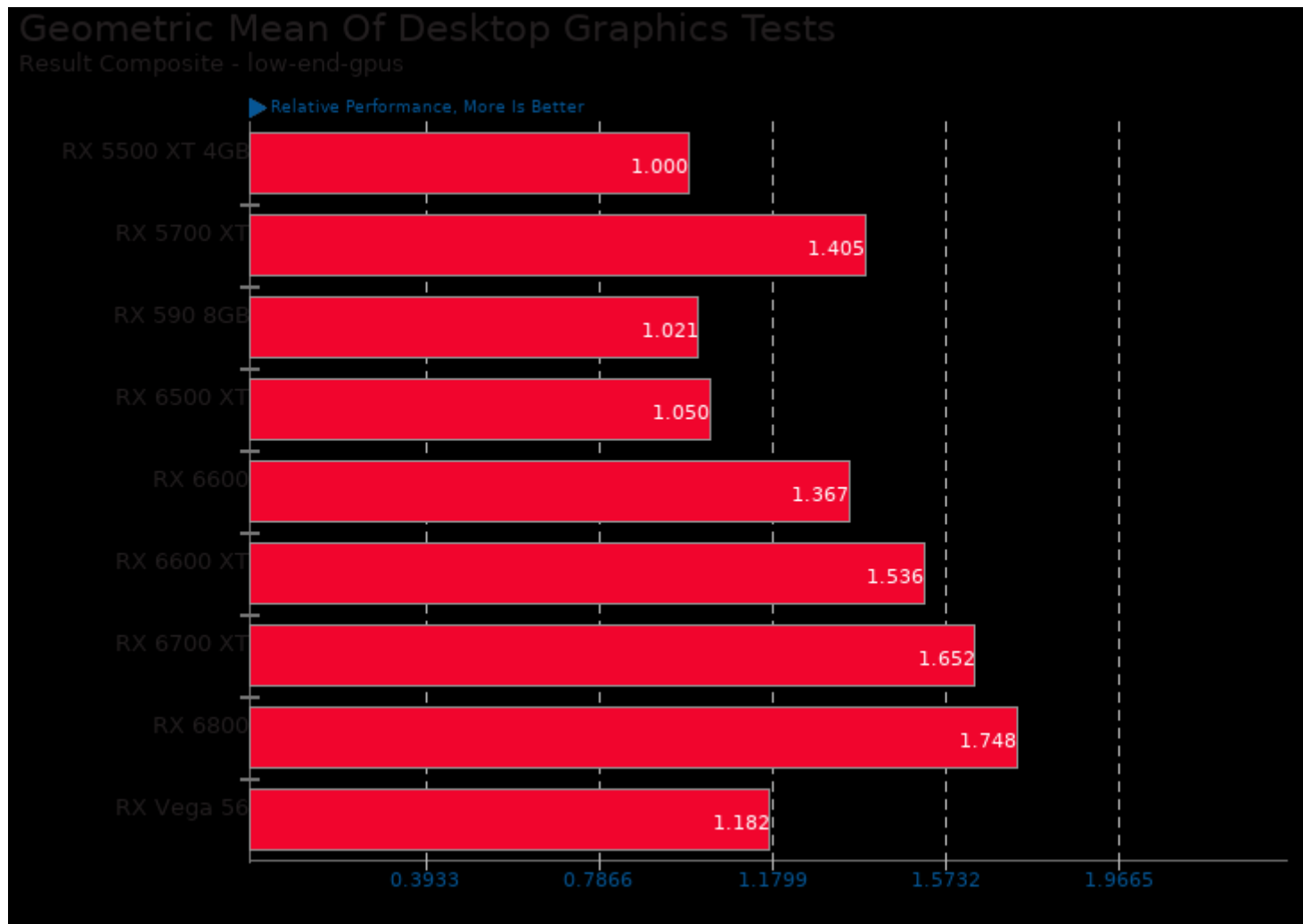




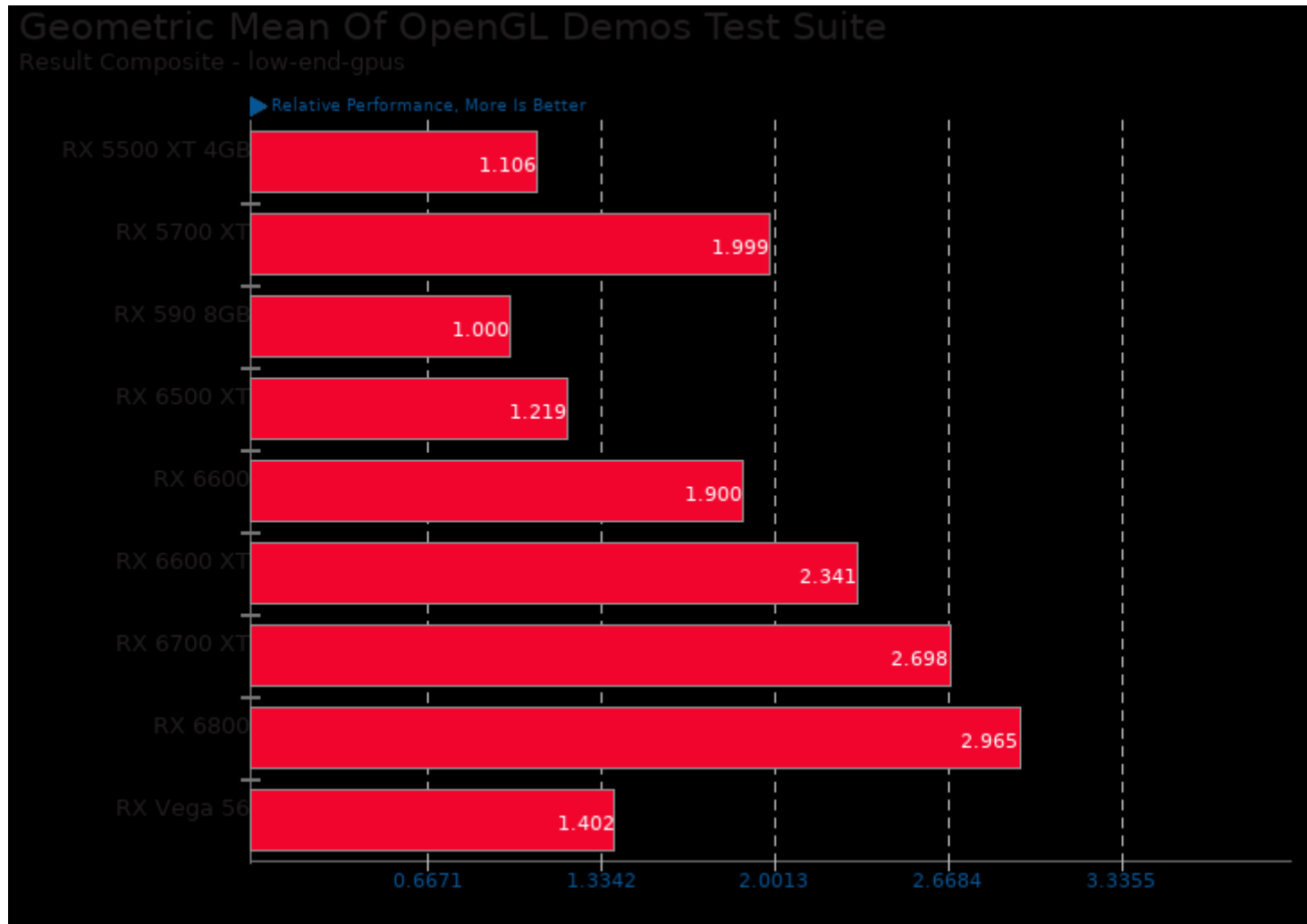




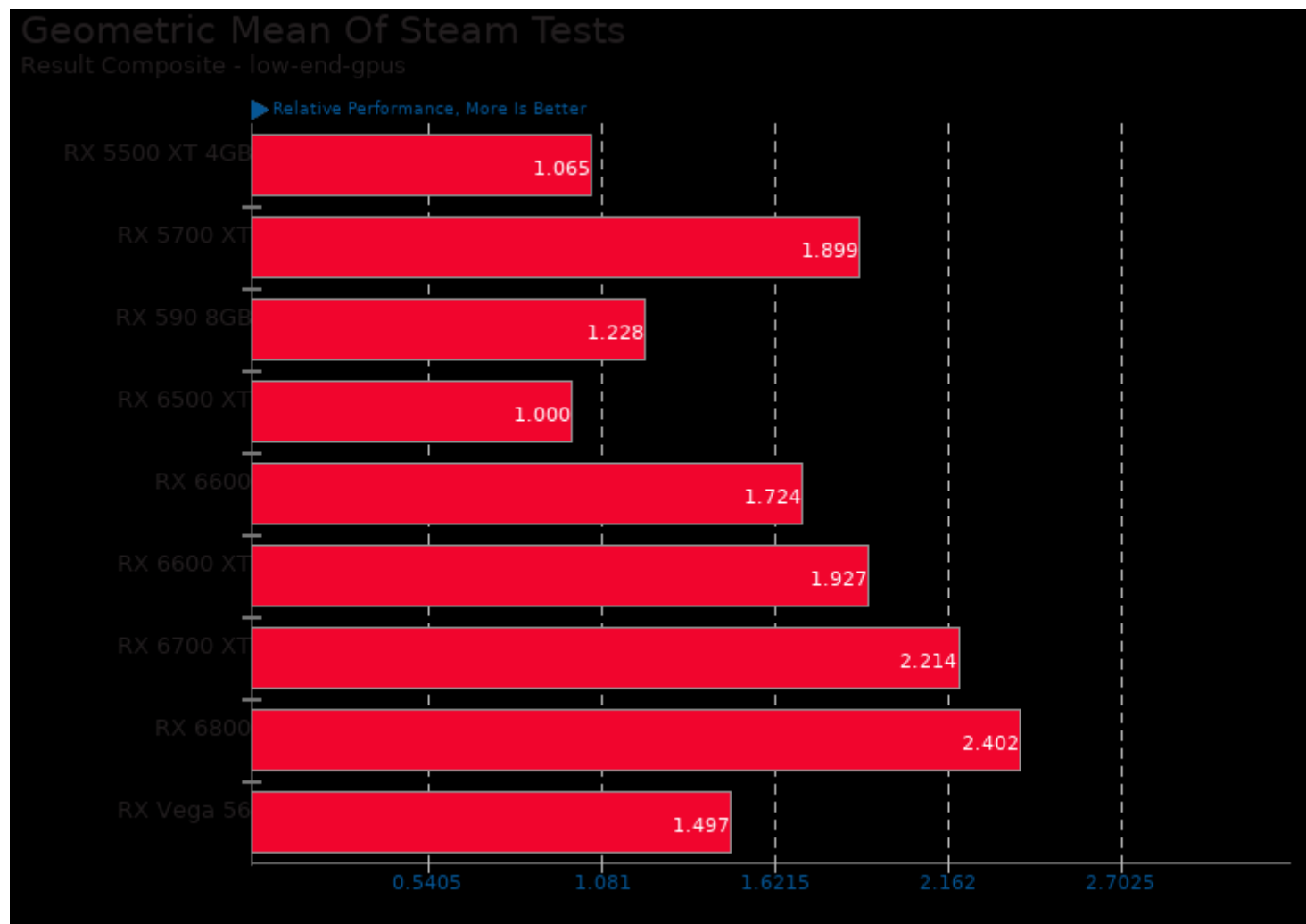
These geometric means are based upon test groupings / test suites for this result file.



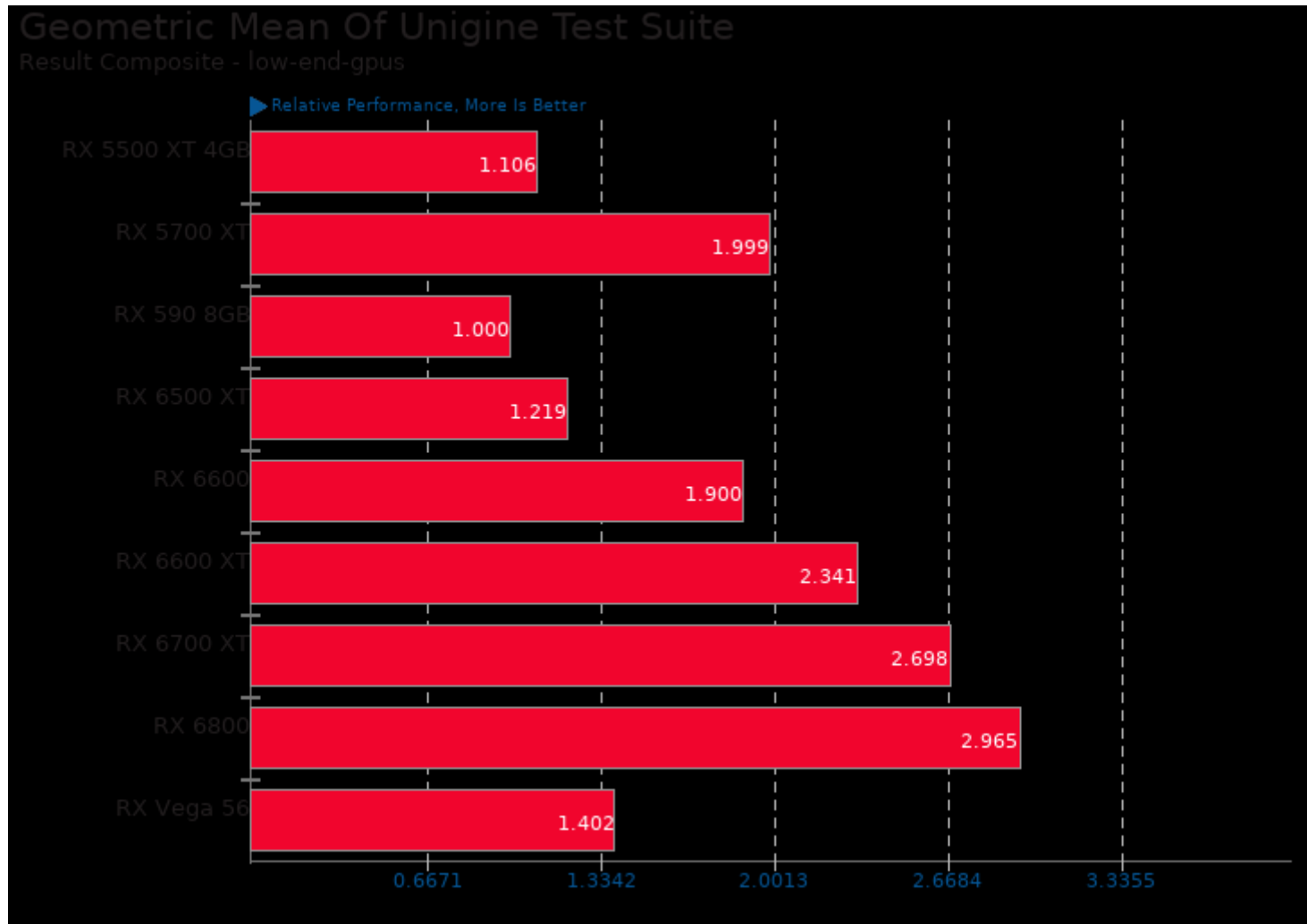
Geometric mean based upon tests: pts/xonotic, pts/tesseract, pts/unigine-valley and pts/unigine-heaven



Geometric mean based upon tests: pts/unigine-valley, pts/unigine-heaven and pts/unigine-super



Geometric mean based upon tests: pts/ashes-escalation, pts/batman-knight, pts/dirt-rally2, pts/f12020, pts/hitman3, pts/shadowofthetombraider, pts/strange-brigade, pts/l4d2 and pts/hl2-ep2



Geometric mean based upon tests: pts/unigine-valley, pts/unigine-heaven and pts/unigine-super

This file was automatically generated via the Phoronix Test Suite benchmarking software on Saturday, 21 December 2024 23:52.