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Radeon RX 6800 Series Linux Benchmarks

Benchmarks for a future article.

Automated Executive Summary

RTX 3080 had the most wins, coming in first place for 70% of the tests.

Based on the geometric mean of all complete results, the fastest (RTX 3080) was 1.719x the speed of the slowest (RTX 2080). RX 6800 XT - Mesa New was 0.989x the speed of RTX 3080, RX 6800 XT - Mesa was 0.929x the speed of RX 6800 XT - Mesa New, RX 6800 - Mesa New was 0.957x the speed of RX 6800 XT - Mesa, RX 6800 XT - PRO was 0.953x the speed of RX 6800 - Mesa New, TITAN RTX was 0.952x the speed of RX 6800 XT - PRO, RTX 2080 Ti was 0.999x the speed of TITAN RTX, RX 6800 - PRO was 0.93x the speed of RTX 2080 Ti, RX 6800 - Mesa was 0.934x the speed of RX 6800 - PRO, RTX 2080 SUPER was 0.923x the speed of RX 6800 - Mesa, RTX 2080 was 0.909x the speed of RTX 2080 SUPER.

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

Total War: Three Kingdoms (Resolution: 3840 x 2160 - Graphics Preset: Low - Scenario: Battle Benchmark - Total Frame Time) at 336.385x
Total War: Three Kingdoms (Resolution: 3840 x 2160 - Graphics Preset: Medium - Scenario: Battle Benchmark - Total Frame Time) at 118.52x
HITMAN 2 (Resolution: 3840 x 2160 - Quality Level: Low - Total Frame Time) at 19.135x

Unigine Heaven (Resolution: 3840 x 2160 - Mode: Fullscreen - Renderer: OpenGL) at 2.325x
Unigine Valley (Resolution: 3840 x 2160 - Mode: Fullscreen - Renderer: OpenGL) at 2.042x
Basemark GPU (Renderer: Vulkan - Resolution: 3840 x 2160 - Graphics Preset: High) at 1.918x
VkFFT at 1.913x
Unigine Superposition (Resolution: 3840 x 2160 - Mode: Fullscreen - Quality: Low - Renderer: OpenGL) at 1.912x
Strange Brigade (Resolution: 3840 x 2160 - Graphics Setting: High) at 1.903x
Strange Brigade (Resolution: 3840 x 2160 - Graphics Setting: Ultra) at 1.891x.

Test Systems:

RX 6800 - PRO

Processor: AMD Ryzen 9 5950X 16-Core @ 3.40GHz (16 Cores / 32 Threads), Motherboard: ASUS ROG CROSSHAIR VIII HERO (WI-FI) (2311 BIOS), Chipset: AMD Starship/Matisse, Memory: 16GB, Disk: 2000GB Corsair Force MP600 + 2000GB, Graphics: AMD Radeon 16GB (2475/1000MHz), Audio: AMD Device ab28, Monitor: ASUS MG28U, Network: Realtek RTL8125 2.5GbE + Intel I211 + Intel Wi-Fi 6 AX200

OS: Ubuntu 20.04, Kernel: 5.4.0-51-generic (x86_64), Desktop: GNOME Shell 3.36.4, Display Server: X Server 1.20.8, Display Driver: amdgpu 19.1.0, OpenGL: 4.6.14756, Vulkan: 1.2.152, Compiler: GCC 9.3.0, File-System: ext4, Screen Resolution: 3840x2160

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --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++,gm2 --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-9-HskZEa/gcc-9-9.3.0/debian/tmp-nvptx/usr,hsa --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-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 - CPU Microcode: 0xa201009
Graphics Notes: GLAMOR
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs 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 XT - PRO

Processor: AMD Ryzen 9 5950X 16-Core @ 3.40GHz (16 Cores / 32 Threads), Motherboard: ASUS ROG CROSSHAIR VIII HERO (WI-FI) (2311 BIOS), Chipset: AMD Starship/Matisse, Memory: 16GB, Disk: 2000GB Corsair Force MP600 + 2000GB, Graphics: AMD Radeon 16GB (2575/1000MHz), Audio: AMD Device ab28, Monitor: ASUS MG28U, Network: Realtek RTL8125 2.5GbE + Intel I211 + Intel Wi-Fi 6 AX200

OS: Ubuntu 20.04, Kernel: 5.4.0-51-generic (x86_64), Desktop: GNOME Shell 3.36.4, Display Server: X Server 1.20.8, Display Driver: amdgpu 19.1.0, OpenGL: 4.6.14756, Vulkan: 1.2.152, Compiler: GCC 9.3.0, File-System: ext4, Screen Resolution: 3840x2160

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --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++,gm2 --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-9-HskZEa/gcc-9-9.3.0/debian/tmp-nvptx/usr,hsa --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-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 - CPU Microcode: 0xa201009
Graphics Notes: GLAMOR
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs 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 - Mesa

Processor: AMD Ryzen 9 5950X 16-Core @ 3.40GHz (16 Cores / 32 Threads), Motherboard: ASUS ROG CROSSHAIR VIII HERO (WI-FI) (2311 BIOS), Chipset: AMD Starship/Matisse, Memory: 16GB, Disk: 2000GB Corsair Force MP600 + 2000GB, Graphics: AMD SIENNA_CICHLID 16GB (2475/1000MHz), Audio: AMD Device ab28, Monitor: ASUS MG28U, Network: Realtek RTL8125 2.5GbE + Intel I211 + Intel Wi-Fi 6 AX200

OS: Ubuntu 20.04, Kernel: 5.10.0-051000rc3daily20201111-generic (x86_64) 20201110, Desktop: GNOME Shell 3.36.4, Display Server: X Server 1.20.8, Display Driver: modesetting 1.20.8, OpenGL: 4.6 Mesa 20.3.0-devel (git-442f48f 2020-10-15 focal-oibaf-ppa) (LLVM 11.0.0), Vulkan: 1.2.145, Compiler: GCC 9.3.0, File-System: ext4, Screen Resolution: 3840x2160

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --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++,gm2 --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-9-HskZEa/gcc-9-9.3.0/debian/tmp-nvptx/usr,hsa --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-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 - CPU Microcode: 0xa201009
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs 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 XT - Mesa

Processor: AMD Ryzen 9 5950X 16-Core @ 3.40GHz (16 Cores / 32 Threads), Motherboard: ASUS ROG CROSSHAIR VIII HERO (WI-FI) (2311 BIOS), Chipset: AMD Starship/Matisse, Memory: 16GB, Disk: 2000GB Corsair Force MP600 + 2000GB, Graphics: AMD SIENNA_CICHLID 16GB (2575/1000MHz), Audio: AMD Device ab28, Monitor: ASUS MG28U, Network: Realtek RTL8125 2.5GbE + Intel I211 + Intel Wi-Fi 6 AX200

OS: Ubuntu 20.04, Kernel: 5.10.0-051000rc3daily20201111-generic (x86_64) 20201110, Desktop: GNOME Shell 3.36.4, Display Server: X Server 1.20.8, Display Driver: modesetting 1.20.8, OpenGL: 4.6 Mesa 20.3.0-devel (git-442f48f 2020-10-15 focal-oibaf-ppa) (LLVM 11.0.0), Vulkan: 1.2.145, Compiler: GCC 9.3.0, File-System: ext4, Screen Resolution: 3840x2160

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --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++,gm2 --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-9-HskZEa/gcc-9-9.3.0/debian/tmp-nvptx/usr,hsa --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-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 - CPU Microcode: 0xa201009
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs 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 - Mesa New

Processor: AMD Ryzen 9 5950X 16-Core @ 3.40GHz (16 Cores / 32 Threads), Motherboard: ASUS ROG CROSSHAIR VIII HERO (WI-FI) (2311 BIOS), Chipset: AMD Starship/Matisse, Memory: 16GB, Disk: 2000GB Corsair Force MP600 + 2000GB, Graphics: AMD SIENNA_CICHLID 16GB (2475/1000MHz), Audio: AMD Device ab28, Monitor: ASUS MG28U, Network: Realtek RTL8125 2.5GbE + Intel I211 + Intel Wi-Fi 6 AX200

OS: Ubuntu 20.04, Kernel: 5.10.0-051000rc4daily20201119-generic (x86_64) 20201118, Desktop: GNOME Shell 3.36.4, Display Server: X Server 1.20.8, Display Driver: modesetting 1.20.8, OpenGL: 4.6 Mesa 21.0.0-devel (git-745f0b8 2020-11-19 focal-oibaf-ppa) (LLVM 11.0.0), Vulkan: 1.2.145, Compiler: GCC 9.3.0, File-System: ext4, Screen Resolution: 3840x2160

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --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++,gm2 --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-9-HskZEa/gcc-9-9.3.0/debian/tmp-nvptx/usr,hsa --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-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 - CPU Microcode: 0xa201009
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs 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 XT - Mesa New

Processor: AMD Ryzen 9 5950X 16-Core @ 3.40GHz (16 Cores / 32 Threads), Motherboard: ASUS ROG CROSSHAIR VIII HERO (WI-FI) (2311 BIOS), Chipset: AMD Starship/Matisse, Memory: 16GB, Disk: 2000GB Corsair Force MP600 + 2000GB, Graphics: AMD SIENNA_CICHLID 16GB (2575/1000MHz), Audio: AMD Device ab28, Monitor: ASUS MG28U, Network: Realtek RTL8125 2.5GbE + Intel I211 + Intel Wi-Fi 6 AX200

OS: Ubuntu 20.04, Kernel: 5.10.0-051000rc4daily20201119-generic (x86_64) 20201118, Desktop: GNOME Shell 3.36.4, Display Server: X Server 1.20.8, Display Driver: modesetting 1.20.8, OpenGL: 4.6 Mesa 21.0.0-devel (git-745f0b8 2020-11-19 focal-oibaf-ppa) (LLVM 11.0.0), Vulkan: 1.2.145, Compiler: GCC 9.3.0, File-System: ext4, Screen Resolution: 3840x2160

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --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++,gm2 --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-9-HskZEa/gcc-9-9.3.0/debian/tmp-nvptx/usr,hsa --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-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 - CPU Microcode: 0xa201009
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs 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

RTX 2080

Processor: AMD Ryzen 9 5950X 16-Core @ 3.40GHz (16 Cores / 32 Threads), Motherboard: ASUS ROG CROSSHAIR VIII HERO (WI-FI) (2311 BIOS), Chipset: AMD Starship/Matisse, Memory: 16GB, Disk: 2000GB Corsair Force MP600 + 2000GB, Graphics: Zotac NVIDIA GeForce RTX 2080 8GB (630/810MHz), Audio: NVIDIA TU104 HD Audio, Monitor: ASUS MG28U, Network: Realtek RTL8125 2.5GbE + Intel I211 + Intel Wi-Fi 6 AX200

OS: Ubuntu 20.04, Kernel: 5.4.0-51-generic (x86_64), Desktop: GNOME Shell 3.36.4, Display Server: X Server 1.20.8, Display Driver: NVIDIA 455.38, OpenGL: 4.6.0, OpenCL: OpenCL 1.2 CUDA 11.1.110, Vulkan: 1.2.142, Compiler: GCC 9.3.0, File-System: ext4, Screen Resolution: 3840x2160

Environment Notes: RADV_PERFTEST=aco
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --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++,gm2 --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-9-HskZEa/gcc-9-9.3.0/debian/tmp-nvptx/usr,hsa --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-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 - CPU Microcode: 0xa201009
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs 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

RTX 2080 SUPER

Processor: AMD Ryzen 9 5950X 16-Core @ 3.40GHz (16 Cores / 32 Threads), Motherboard: ASUS ROG CROSSHAIR VIII HERO (WI-FI) (2311 BIOS), Chipset: AMD Starship/Matisse, Memory: 16GB, Disk: 2000GB Corsair Force MP600 + 2000GB, Graphics: NVIDIA GeForce RTX 2080 SUPER 8GB (615/810MHz), Audio: NVIDIA TU104 HD Audio, Monitor: ASUS MG28U, Network: Realtek RTL8125 2.5GbE + Intel I211 + Intel Wi-Fi 6 AX200

OS: Ubuntu 20.04, Kernel: 5.4.0-51-generic (x86_64), Desktop: GNOME Shell 3.36.4, Display Server: X Server 1.20.8, Display Driver: NVIDIA 455.38, OpenGL: 4.6.0, OpenCL: OpenCL 1.2 CUDA 11.1.110, Vulkan: 1.2.142, Compiler: GCC

9.3.0, File-System: ext4, Screen Resolution: 3840x2160

Environment Notes: RADV_PERFTEST=aco
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --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++,gm2 --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-9-HskZEa/gcc-9-9.3.0/debian/tmp-nvptx/usr,hsa --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-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 - CPU Microcode: 0xa201009
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs 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

RTX 2080 Ti

Processor: AMD Ryzen 9 5950X 16-Core @ 3.40GHz (16 Cores / 32 Threads), Motherboard: ASUS ROG CROSSHAIR VIII HERO (WI-FI) (2311 BIOS), Chipset: AMD Starship/Matisse, Memory: 16GB, Disk: 2000GB Corsair Force MP600 + 2000GB, Graphics: NVIDIA GeForce RTX 2080 Ti 11GB (1350/7000MHz), Audio: NVIDIA TU102 HD Audio, Monitor: ASUS MG28U, Network: Realtek RTL8125 2.5GbE + Intel I211 + Intel Wi-Fi 6 AX200

OS: Ubuntu 20.04, Kernel: 5.4.0-51-generic (x86_64), Desktop: GNOME Shell 3.36.4, Display Server: X Server 1.20.8, Display Driver: NVIDIA 455.38, OpenGL: 4.6.0, OpenCL: OpenCL 1.2 CUDA 11.1.110, Vulkan: 1.2.142, Compiler: GCC 9.3.0, File-System: ext4, Screen Resolution: 3840x2160

Environment Notes: RADV_PERFTEST=aco
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --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++,gm2 --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-9-HskZEa/gcc-9-9.3.0/debian/tmp-nvptx/usr,hsa --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-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 - CPU Microcode: 0xa201009
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs 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

TITAN RTX

Processor: AMD Ryzen 9 5950X 16-Core @ 3.40GHz (16 Cores / 32 Threads), Motherboard: ASUS ROG CROSSHAIR VIII HERO (WI-FI) (2311 BIOS), Chipset: AMD Starship/Matisse, Memory: 16GB, Disk: 2000GB Corsair Force MP600 + 2000GB, Graphics: NVIDIA TITAN RTX 24GB (1350/7000MHz), Audio: NVIDIA TU102 HD Audio, Monitor: ASUS MG28U, Network: Realtek RTL8125 2.5GbE + Intel I211 + Intel Wi-Fi 6 AX200

OS: Ubuntu 20.04, Kernel: 5.4.0-51-generic (x86_64), Desktop: GNOME Shell 3.36.4, Display Server: X Server 1.20.8, Display Driver: NVIDIA 455.38, OpenGL: 4.6.0, OpenCL: OpenCL 1.2 CUDA 11.1.110, Vulkan: 1.2.142, Compiler: GCC 9.3.0, File-System: ext4, Screen Resolution: 3840x2160

Environment Notes: RADV_PERFTEST=aco
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --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++,gm2 --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-9-HskZEa/gcc-9-9.3.0/debian/tmp-nvptx/usr,hsa --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-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 - CPU Microcode: 0xa201009
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs 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

RTX 3080

Processor: AMD Ryzen 9 5950X 16-Core @ 3.40GHz (16 Cores / 32 Threads), Motherboard: ASUS ROG CROSSHAIR VIII HERO (WI-FI) (2311 BIOS), Chipset: AMD Starship/Matisse, Memory: 16GB, Disk: 2000GB Corsair Force MP600 + 2000GB, Graphics: NVIDIA GeForce RTX 3080 10GB (540/810MHz), Audio: NVIDIA Device 1aef, Monitor: ASUS

Radeon RX 6800 Series Linux Benchmarks

MG28U, Network: Realtek RTL8125 2.5GbE + Intel I211 + Intel Wi-Fi 6 AX200

OS: Ubuntu 20.04, Kernel: 5.4.0-51-generic (x86_64), Desktop: GNOME Shell 3.36.4, Display Server: X Server 1.20.8, Display Driver: NVIDIA 455.38, OpenGL: 4.6.0, OpenCL: OpenCL 1.2 CUDA 11.1.110, Vulkan: 1.2.142, Compiler: GCC 9.3.0, File-System: ext4, Screen Resolution: 3840x2160

Environment Notes: RADV_PERFTEST=aco
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --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++,gm2 --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-9-HskZEa/gcc-9-9.3.0/debian/tmp-nvptx/usr,hsa --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-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 - CPU Microcode: 0xa201009
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs 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 - PRO	RX 6800 XT - PRO	RX 6800 - Mesa	RX 6800 XT - Mesa	RX 6800 - Mesa New	RX 6800 XT - Mesa New	RTX 2080	RTX 2080 SUPER	RTX 2080 Ti	TITAN RTX	RTX 3080
Shadow of the Tomb Raider - 3840 x 2160 - Highest - Off	69.3	78.5	**48.0**	57.1	72.2	81.4	49.7	55.5	68.9	70.1	**89.8**
Normalized	77.17%	87.42%	53.45%	63.59%	80.4%	90.65%	55.35%	61.8%	76.73%	78.06%	100%
Standard Deviation	0.1%	0.1%	0.1%	0.1%	0%	0%	0.2%	0.1%	2.7%	0.1%	0.1%
Shadow of the Tomb Raider - 3840 x 2160 - Low - Off (FPS)	99.2	112.8	80.6	98.0	112.5	129.2	**76.3**	84.9	102.5	106.0	**132.9**
Normalized	74.64%	84.88%	60.65%	73.74%	84.65%	97.22%	57.41%	63.88%	77.13%	79.76%	100%
Standard Deviation	0.3%	0.2%	0.1%	0.4%	0.1%	0.1%	0.1%	0.1%	0.3%	0.1%	0.1%
Shadow of the Tomb Raider - 3840 x 2160 - High - Off (FPS)	75.6	85.4	**54.1**	63.9	79.7	89.8	54.7	60.6	76.0	76.6	**97.4**
Normalized	77.62%	87.68%	55.54%	65.61%	81.83%	92.2%	56.16%	62.22%	78.03%	78.64%	100%
Standard Deviation	0.1%	0.1%	0.3%	0.2%	0.1%	0.1%	0.1%	0.1%	2.5%	0.2%	0.1%
Unigine Heaven - 3840 x 2160 - Fullscreen - OpenGL (FPS)	100.297	**112.930**	63.5870	96.2063	82.3630	96.7520	**48.5670**	53.2420	74.1948	65.7503	91.7529
Normalized	88.81%	100%	56.31%	85.19%	72.93%	85.67%	43.01%	47.15%	65.7%	58.22%	81.25%
Standard Deviation	0.2%	0.2%	0%	0.1%	0.1%	0.1%	0.3%	0.4%	0.2%	0.4%	0.3%
HITMAN 2 - 3840 x 2160 - Low (FPS)			75.74	**91.47**	80.93	91.42		**56.77**	72.15	71.64	91.06
Normalized			82.8%	100%	88.48%	99.95%		62.06%	78.88%	78.32%	99.55%
Standard Deviation			0.1%	0.6%	0.1%	0.2%		0.2%	0.2%	0.4%	0.2%

Radeon RX 6800 Series Linux Benchmarks

Unigine Valley - 3840 x 2160 - Fullscreen - OpenGL (FPS)	85.7705	99.0891	72.8185	**112.804**	95.7828	112.474	**55.2379**	61.3918	78.5576	76.7963	93.4312
Normalized	76.03%	87.84%	64.55%	100%	84.91%	99.71%	48.97%	54.42%	69.64%	68.08%	82.83%
Standard Deviation	0.5%	0.1%	0.1%	0.1%	0.1%	0.1%	0.3%	0.2%	0.1%	0.2%	0.1%
Unigine Superposition - 3840 x 2160 - Fullscreen - Low - OpenGL (FPS)	102.0	121.6	122.2	190.1	161.0	**192.3**	**100.6**	110.0	141.3	139.8	168.1
Normalized	53.04%	63.23%	63.55%	98.86%	83.72%	100%	52.31%	57.2%	73.48%	72.7%	87.42%
Standard Deviation	0.1%	0%	0%	0.5%	0%	0.2%	0.4%	0.1%	0.2%	0.1%	0%
Unigine Superposition - 3840 x 2160 - Fullscreen - Medium - OpenGL (FPS)	49.5	56.7	50.7	78.2	67.9	**78.8**	**42.7**	46.9	60.3	59.4	74.1
Normalized	62.82%	71.95%	64.34%	99.24%	86.17%	100%	54.19%	59.52%	76.52%	75.38%	94.04%
Standard Deviation	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.3%	0.1%	0.2%	0.2%	0.1%
F1 2017 - 3840 x 2160 - Ultra High - Off (FPS)	106	106	110	135	129	135	**91**	101	120	124	**147**
Normalized	72.11%	72.11%	74.83%	91.84%	87.76%	91.84%	61.9%	68.71%	81.63%	84.35%	100%
Standard Deviation		1.4%	0.5%	1.9%	0.8%	2.9%		1%	1%	1.2%	1.2%
F1 2017 - 3840 x 2160 - High - Off (FPS)	124	140	135	168	161	169	**111**	122	147	152	**183**
Normalized	67.76%	76.5%	73.77%	91.8%	87.98%	92.35%	60.66%	66.67%	80.33%	83.06%	100%
Standard Deviation				2.7%		2.4%	1%	0.9%	0.4%	1%	
Batman: Arkham Knight - 3840 x 2160 - Low (FPS)			108.24	130.83	114.54	131.35		**77.85**	104.37	104.58	**137.33**
Normalized			78.82%	95.27%	83.4%	95.65%		56.69%	76%	76.15%	100%
Standard Deviation			0.9%	1%	0.8%	0.8%		1.3%	0.6%	1%	0.5%
Total War: Three Kingdoms - 3840 x 2160 - Low - Battle Benchmark	79.8	79.1	93	132.2	120.3	133.0	**78.3**	85.7	107.8	109.7	**142.7**
Normalized	55.92%	55.43%	65.17%	92.64%	84.3%	93.2%	54.87%	60.06%	75.54%	76.87%	100%
Standard Deviation	2.1%	1.3%	0.6%	0.9%	1%	0.9%	0.7%	0.5%	1.2%	1.2%	0.8%

Radeon RX 6800 Series Linux Benchmarks

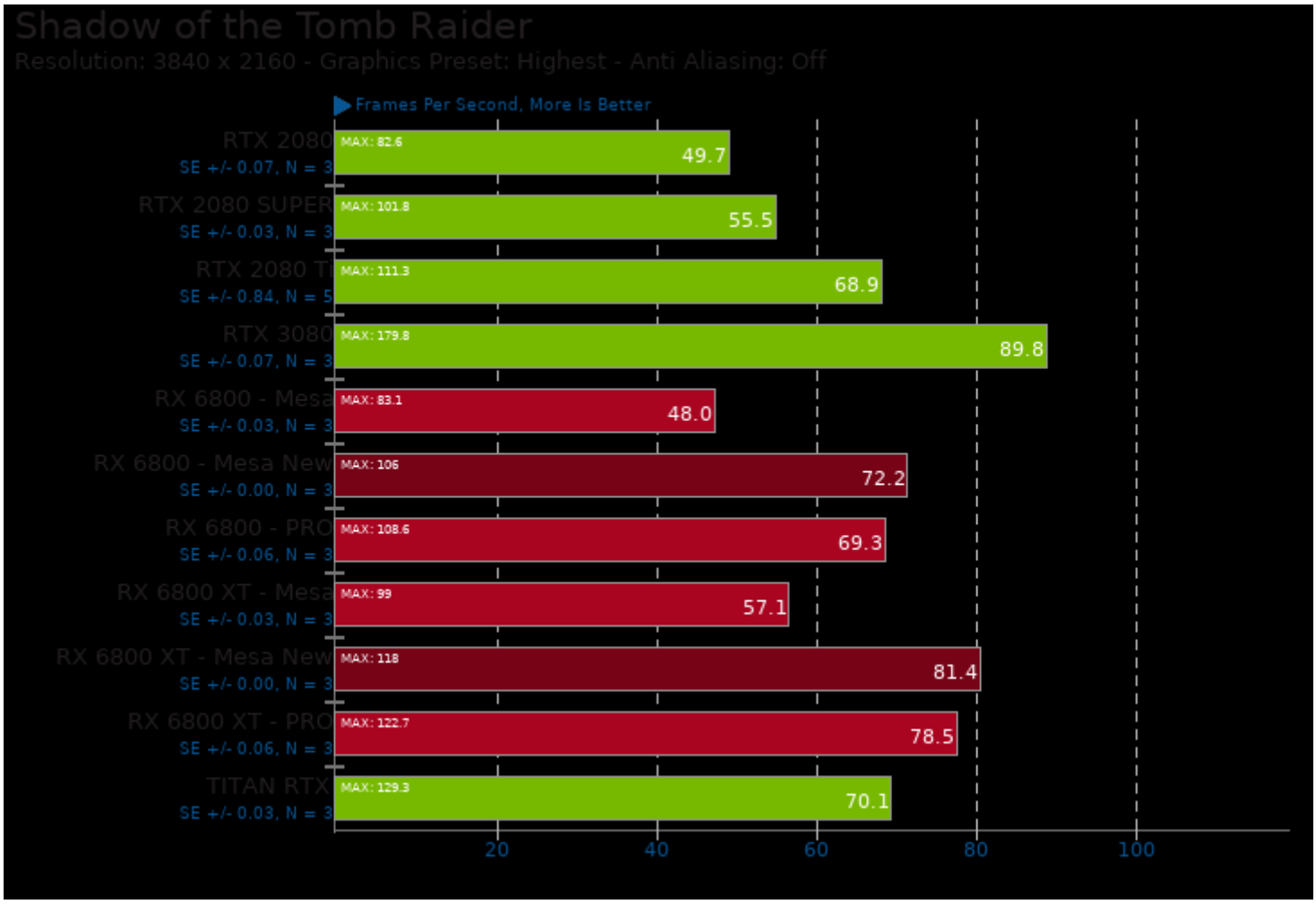
Total War: Three Kingdoms - 3840 x 2160 - Medium - Battle Benchmark (FPS)	56.6	58.0	56.6	80.2	71.8	81.2	**46.3**	51.9	65.2	65.4	**83.6**
Normalized	67.7%	69.38%	67.7%	95.93%	85.89%	97.13%	55.38%	62.08%	77.99%	78.23%	100%
Standard Deviation	0.9%	1.7%	0.5%	0.8%	0.7%	0.6%	0.2%	1.4%	1.4%	0.4%	0.7%
Strange Brigade - 3840 x 2160 - Low (FPS)			153.6	181.7	167.3	180.3	**106.7**	120.2	153.9	156.4	**183.0**
Normalized			83.93%	99.29%	91.42%	98.52%	58.31%	65.68%	84.1%	85.46%	100%
Standard Deviation			0.4%	0.7%	0.4%	1.1%	0.4%	0.8%	0.9%	0.4%	0.1%
Strange Brigade - 3840 x 2160 - Ultra (FPS)			116.0	148.8	129.1	148.6	**87.2**	96.1	122.7	126.0	**164.9**
Normalized			70.35%	90.24%	78.29%	90.12%	52.88%	58.28%	74.41%	76.41%	100%
Standard Deviation			0.4%	0.3%	0.1%	0.3%	1.4%	0.3%	1%	1.1%	0.7%
Strange Brigade - 3840 x 2160 - High (FPS)			121.4	156.8	136.2	156.3	**90.1**	100.5	130.2	131.2	**171.5**
Normalized			70.79%	91.43%	79.42%	91.14%	52.54%	58.6%	75.92%	76.5%	100%
Standard Deviation			0.5%	0.6%	0.2%	0.3%	0.8%	0.6%	1%	1%	0.2%
Strange Brigade - 3840 x 2160 - Medium (FPS)			131.7	168.0	147.2	165.9	**95.6**	107.5	138.6	139.9	**175.1**
Normalized			75.21%	95.95%	84.07%	94.75%	54.6%	61.39%	79.15%	79.9%	100%
Standard Deviation			0.6%	0.3%	0.2%	0.7%	0.5%	1.1%	0.3%	0.2%	0.4%
Basemark GPU - Vulkan - 3840 x 2160 - High (FPS)	137.02	155.83	100.55	147.33	125.66	147.80	**85.03**	94.00	122.82	125.33	**163.11**
Normalized	84%	95.54%	61.65%	90.33%	77.04%	90.61%	52.13%	57.63%	75.3%	76.84%	100%
Standard Deviation	0%	0.1%	0%	0.1%	0.7%	0.1%	0.7%	0.2%	0.2%	0.3%	0.2%
Dota 2 - 3840 x 2160 - Vulkan (FPS)	**114.5**	161.7	164.3	173.3	176.5	174.1	150.9	160.4	166.8	170.9	**184.6**
Normalized	62.03%	87.59%	89%	93.88%	95.61%	94.31%	81.74%	86.89%	90.36%	92.58%	100%
Standard Deviation	0.2%	0.7%	0.9%	2.9%	2.8%	0.6%	2.9%	2.9%	2.9%	2.9%	2.9%
VkFFT (Benchmark	44146	51163	46249	52361	45162	**52386**	**27379**	29238	37640	37440	50303
Normalized	84.27%	97.67%	88.29%	99.95%	86.21%	100%	52.26%	55.81%	71.85%	71.47%	96.02%
Standard Deviation	0.2%	0.1%	0.6%	1.5%	1.5%	0.2%	0.4%	0.1%	0.1%	0.1%	0.3%
Shadow of the Tomb Raider - 3840 x 2160 - Low - Off (FPS/Watt)							0.42	**0.39**	0.44	0.43	**0.47**
Normalized							89.36%	82.98%	93.62%	91.49%	100%
F1 2017 - 3840 x 2160 - Ultra High - Off (FPS/Watt)							0.51	**0.50**	**0.54**	0.52	**0.54**
Normalized							94.44%	92.59%	100%	96.3%	100%

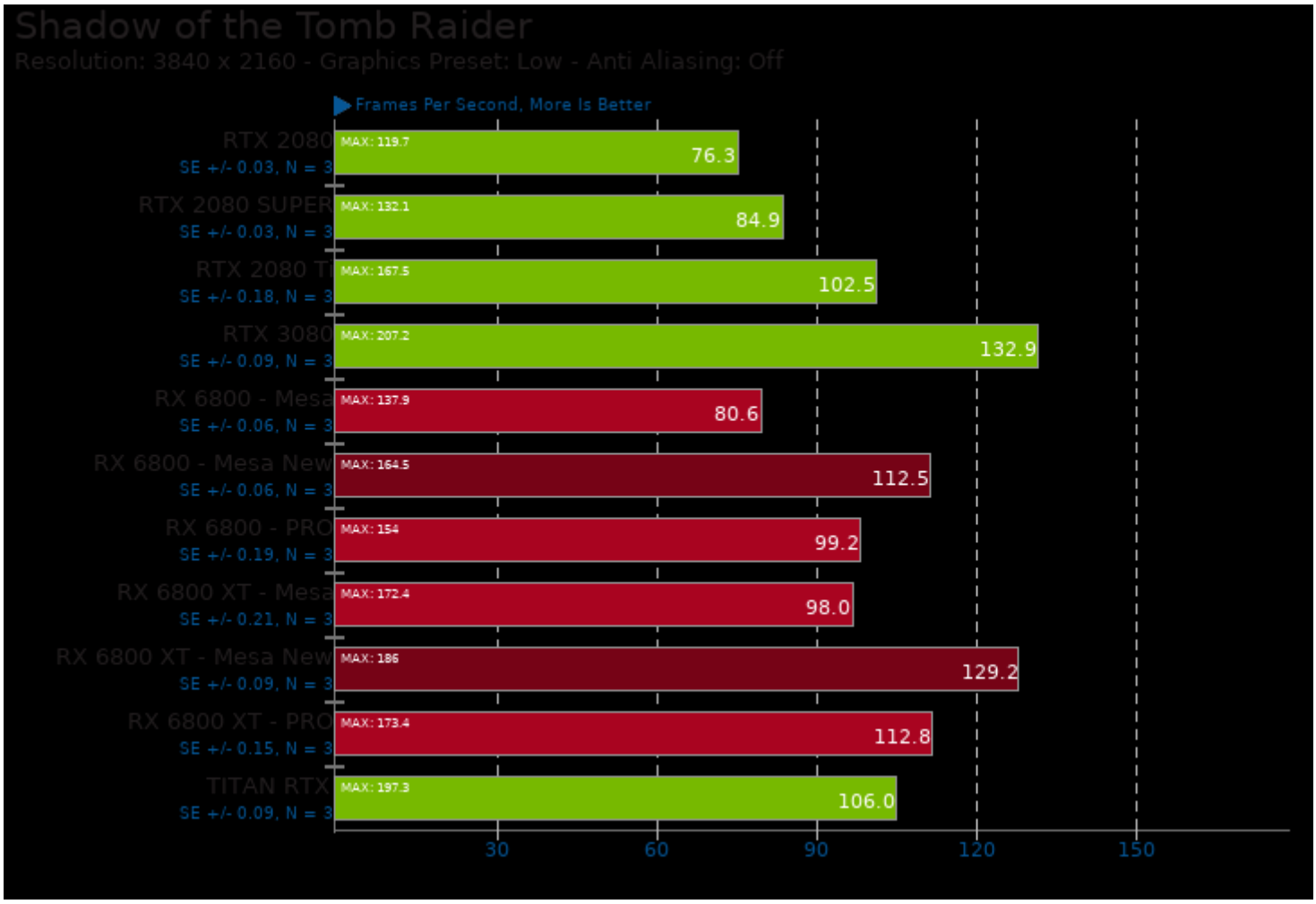
Radeon RX 6800 Series Linux Benchmarks

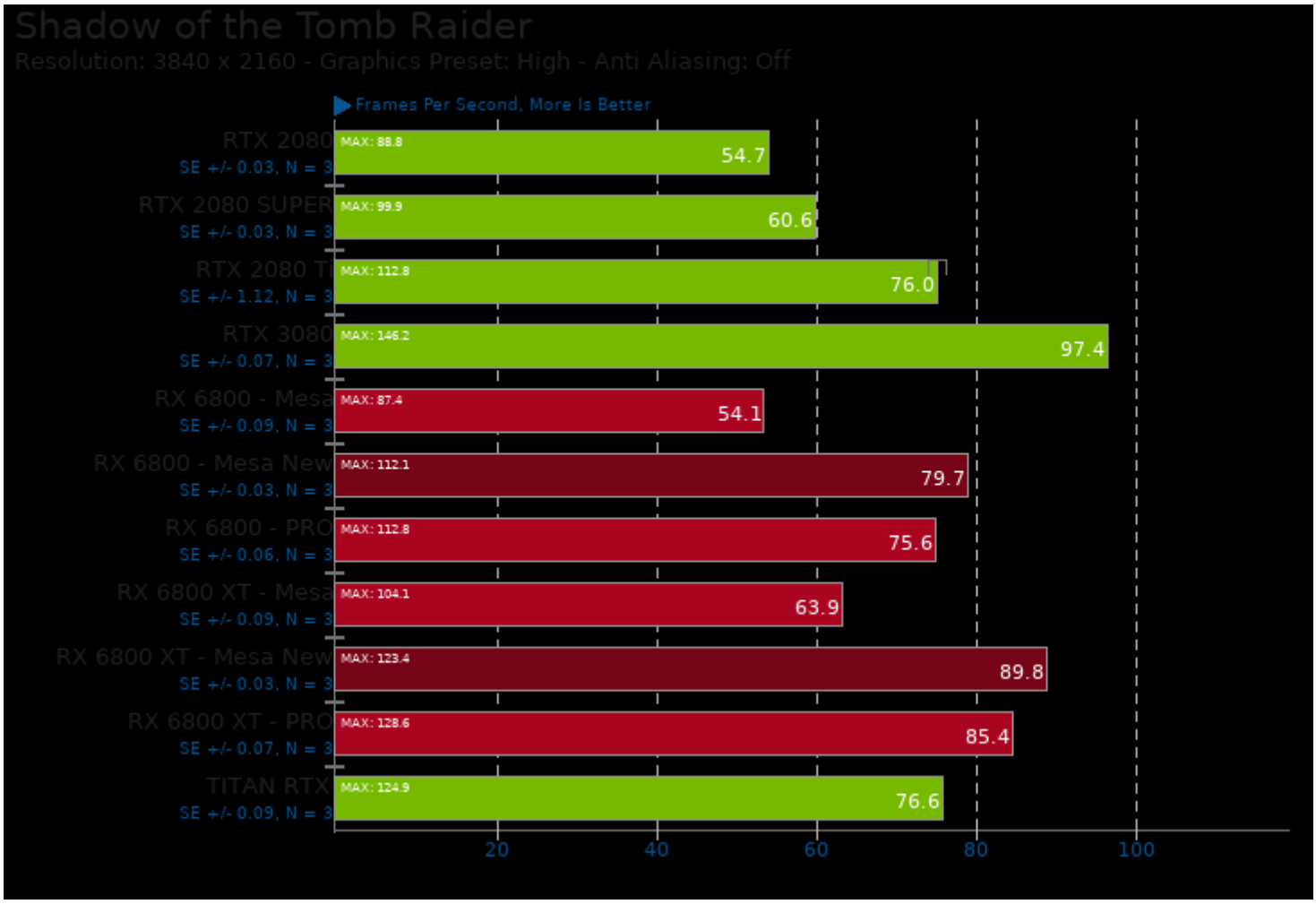
F1 2017 - 3840 x 2160 - High - Off (FPS/Watt)					0.61	**0.60**	**0.67**	0.64	**0.67**
Normalized					91.04%	89.55%	100%	95.52%	100%
Batman: Arkham Knight - 3840 x 2160 - Low (FPS/Watt)			0.72	**1.01**		**0.43**	0.54	0.47	0.54
Normalized			71.29%	100%		42.57%	53.47%	46.53%	53.47%
Strange Brigade - 3840 x 2160 - Ultra (FPS/Watt)			**0.86**	0.85	**0.56**	**0.56**	0.70	0.62	0.70
Normalized			100%	98.84%	65.12%	65.12%	81.4%	72.09%	81.4%
Strange Brigade - 3840 x 2160 - High (FPS/Watt)			**0.89**	**0.89**	**0.57**	0.58	0.71	0.64	0.73
Normalized			100%	100%	64.04%	65.17%	79.78%	71.91%	82.02%
Strange Brigade - 3840 x 2160 - Medium			**0.96**	**0.96**	**0.61**	0.62	0.77	0.68	0.74
Normalized			100%	100%	63.54%	64.58%	80.21%	70.83%	77.08%
Strange Brigade - 3840 x 2160 - Low (FPS/Watt)			**1.13**	1.06	**0.70**	0.73	0.89	0.78	0.94
Normalized			100%	93.81%	61.95%	64.6%	78.76%	69.03%	83.19%
VkFFT (Benchmark	670.80	**717.57**	604.29	717.01	**232.71**	262.02	296.04	236.42	346.08
Normalized	93.48%	100%	84.21%	99.92%	32.43%	36.51%	41.26%	32.95%	48.23%
Basemark GPU - Vulkan - 3840 x 2160 - High (FPS/Watt)	**0.84**	0.76	0.71	0.71	**0.46**	0.48	0.56	0.53	0.62
Normalized	100%	90.48%	84.52%	84.52%	54.76%	57.14%	66.67%	63.1%	73.81%
Unigine Valley - 3840 x 2160 - Fullscreen - OpenGL (FPS/Watt)	0.44	0.41	0.38	**0.46**	0.29	**0.26**	0.31	0.29	0.30
Normalized	95.65%	89.13%	82.61%	100%	63.04%	56.52%	67.39%	63.04%	65.22%

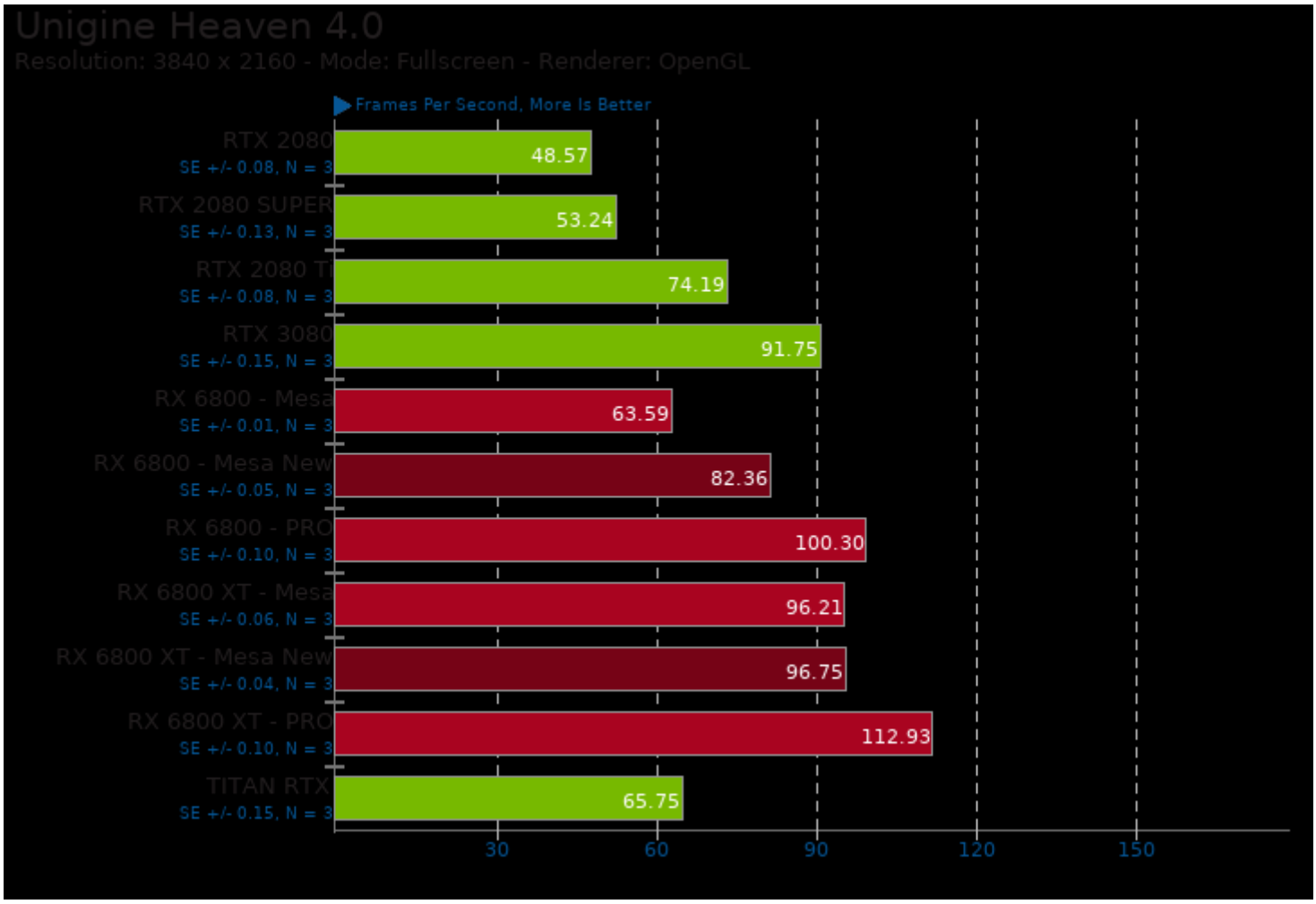
Radeon RX 6800 Series Linux Benchmarks

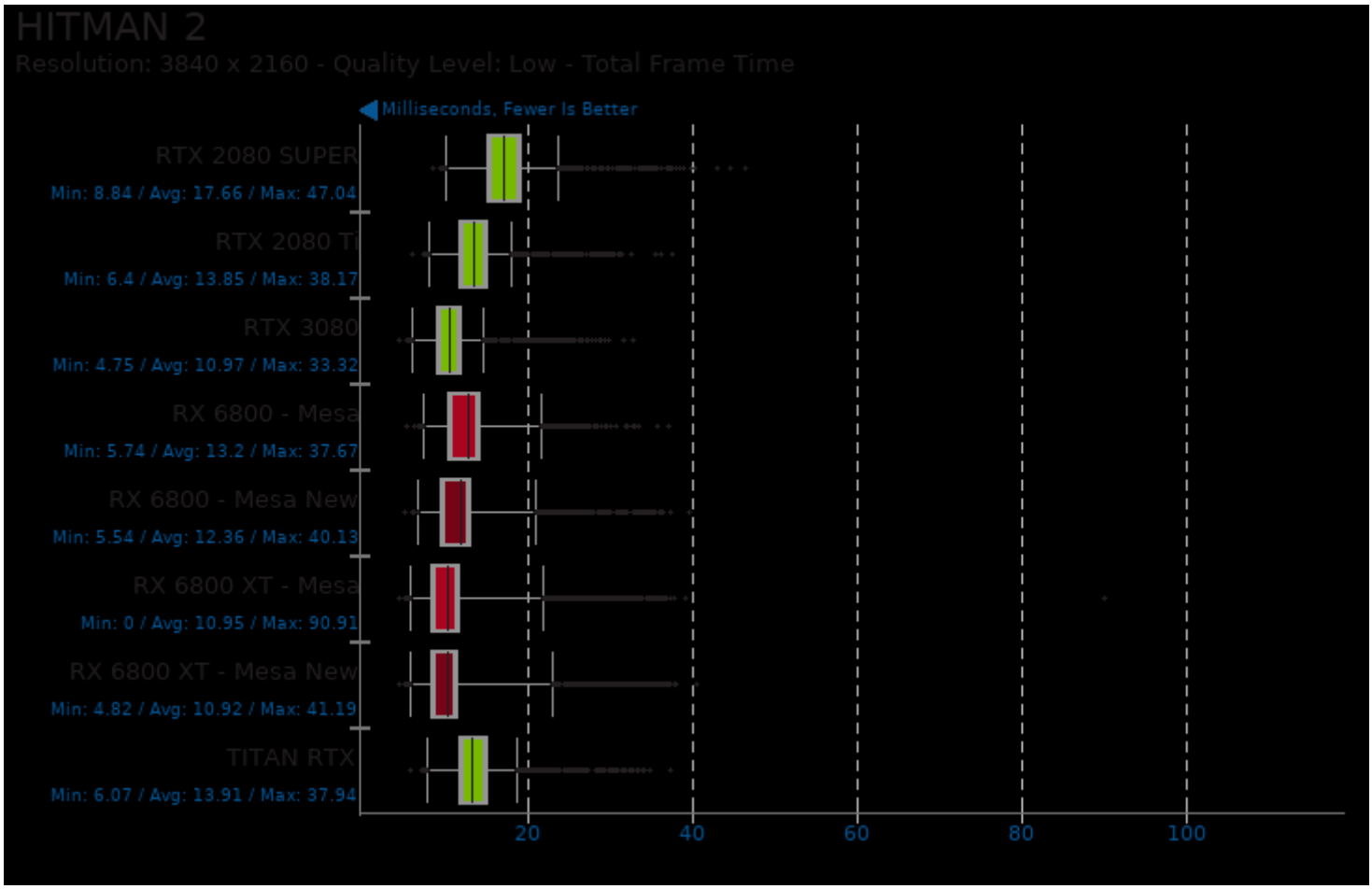
Unigine Superposition - 3840 x 2160 - Fullscreen - Medium - OpenGL (FPS/Watt)	0.26	0.24	0.29	**0.33**			0.23	**0.21**	0.25	0.23	0.25
Normalized	78.79%	72.73%	87.88%	100%			69.7%	63.64%	75.76%	69.7%	75.76%
Unigine Superposition - 3840 x 2160 - Fullscreen - Low - OpenGL (FPS/Watt)	0.60	0.52	0.71	**0.80**			0.54	**0.50**	0.59	0.54	0.57
Normalized	75%	65%	88.75%	100%			67.5%	62.5%	73.75%	67.5%	71.25%
Unigine Heaven - 3840 x 2160 - Fullscreen - OpenGL (FPS/Watt)	**0.51**	0.46	0.35	0.39			0.25	**0.23**	0.30	0.25	0.30
Normalized	100%	90.2%	68.63%	76.47%			49.02%	45.1%	58.82%	49.02%	58.82%
Shadow of the Tomb Raider - 3840 x 2160 - Highest - Off (FPS/Watt)	**0.40**	0.36	0.33	0.28			0.27	**0.25**	0.30	0.28	0.31
Normalized	100%	90%	82.5%	70%			67.5%	62.5%	75%	70%	77.5%
Shadow of the Tomb Raider - 3840 x 2160 - High - Off (FPS/Watt)	**0.44**	0.38	0.36	0.31			0.30	**0.28**	0.34	0.30	0.34
Normalized	100%	86.36%	81.82%	70.45%			68.18%	63.64%	77.27%	68.18%	77.27%
Dota 2 - 3840 x 2160 - Vulkan (FPS/Watt)	1.52	2.19	**2.25**	2.13			1.39	1.51	1.45	1.36	**1.24**
Normalized	67.56%	97.33%	100%	94.67%			61.78%	67.11%	64.44%	60.44%	55.11%
Geometric Mean Of All Test Results - Result Composite - R.R.6.S.L.B	138.212	156.144	129.135	171.177	163.827	184.189	**108.355**	119.158	148.551	148.715	**186.226**
Normalized	74.22%	83.85%	69.34%	91.92%	87.97%	98.91%	58.18%	63.99%	79.77%	79.86%	100%


Shadow of the Tomb Raider
Resolution: 3840 x 2160 - Graphics Preset: Highest - Anti Aliasing: Off
Frames Per Second, More Is Better
RTX 2080
SE +/- 0.07, N = 3
MAX: 82.6
49.7
RTX 2080 SUPER
SE +/- 0.03, N = 3
MAX: 101.8
55.5
RTX 2080 T
SE +/- 0.84, N = 5
MAX: 111.3
68.9
RTX 3080
SE +/- 0.07, N = 3
MAX: 179.8
89.8
RX 6800 - Mesa
SE +/- 0.03, N = 3
MAX: 83.1
48.0
RX 6800 - Mesa New
SE +/- 0.00, N = 3
MAX: 106
72.2
RX 6800 - PRO
SE +/- 0.06, N = 3
MAX: 108.6
69.3
RX 6800 XT - Mesa
SE +/- 0.03, N = 3
MAX: 99
57.1
RX 6800 XT - Mesa New
SE +/- 0.00, N = 3
MAX: 118
81.4
RX 6800 XT - PRO
SE +/- 0.06, N = 3
MAX: 122.7
78.5
TITAN RTX
SE +/- 0.03, N = 3
MAX: 129.3
70.1
20
40
60
80
100

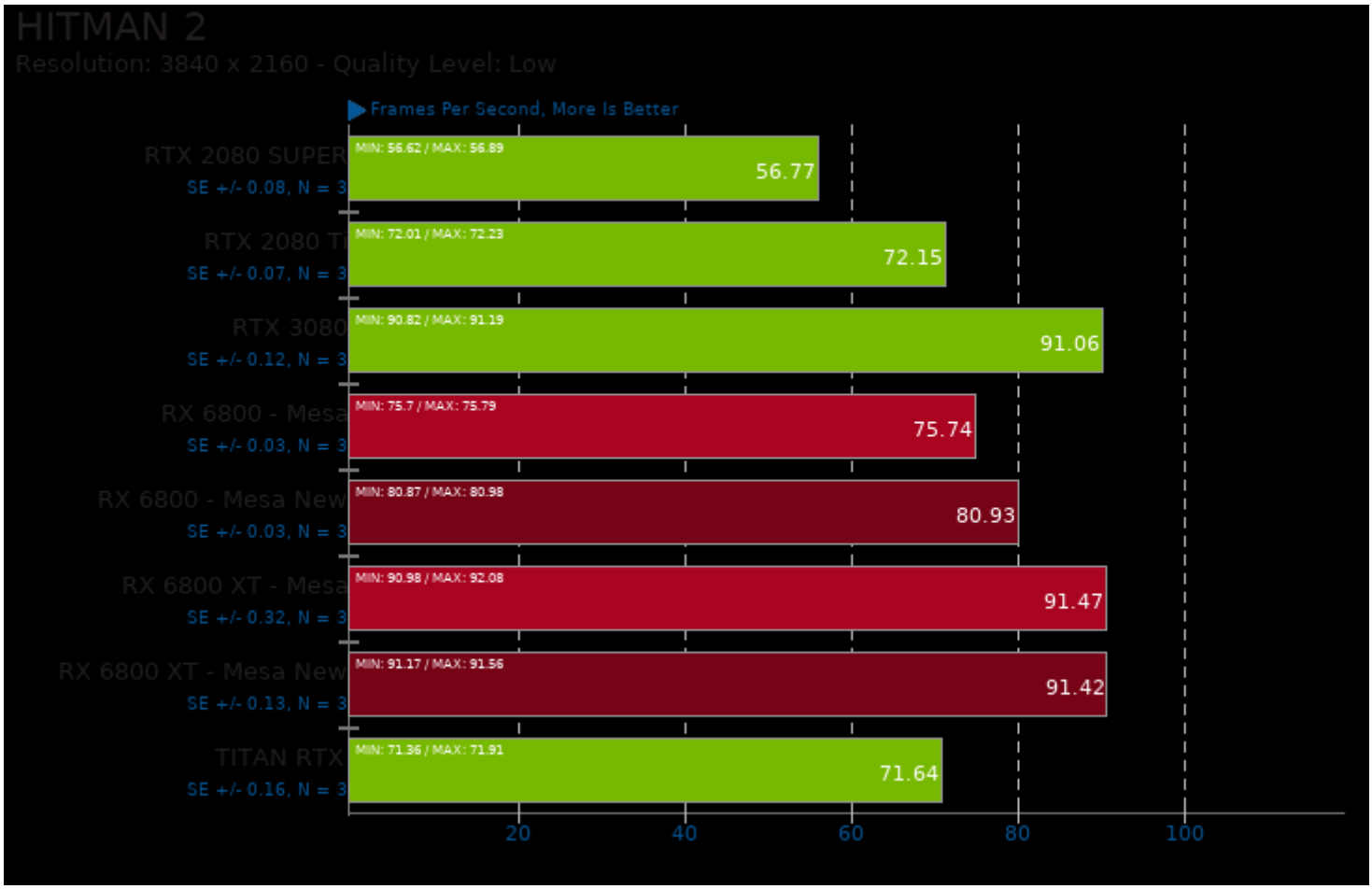

Shadow of the Tomb Raider
Resolution: 3840 x 2160 - Graphics Preset: Low - Anti Aliasing: Off
Frames Per Second, More Is Better
RTX 2080
SE +/- 0.03, N = 3
MAX: 119.7
76.3
RTX 2080 SUPER
SE +/- 0.03, N = 3
MAX: 132.1
84.9
RTX 2080 T
SE +/- 0.18, N = 3
MAX: 167.5
102.5
RTX 3080
SE +/- 0.09, N = 3
MAX: 207.2
132.9
RX 6800 - Mesa
SE +/- 0.06, N = 3
MAX: 137.9
80.6
RX 6800 - Mesa New
SE +/- 0.06, N = 3
MAX: 164.5
112.5
RX 6800 - PRO
SE +/- 0.19, N = 3
MAX: 154
99.2
RX 6800 XT - Mesa
SE +/- 0.21, N = 3
MAX: 172.4
98.0
RX 6800 XT - Mesa New
SE +/- 0.09, N = 3
MAX: 186
129.2
RX 6800 XT - PRO
SE +/- 0.15, N = 3
MAX: 173.4
112.8
TITAN RTX
SE +/- 0.09, N = 3
MAX: 197.3
106.0
30
60
90
120
150

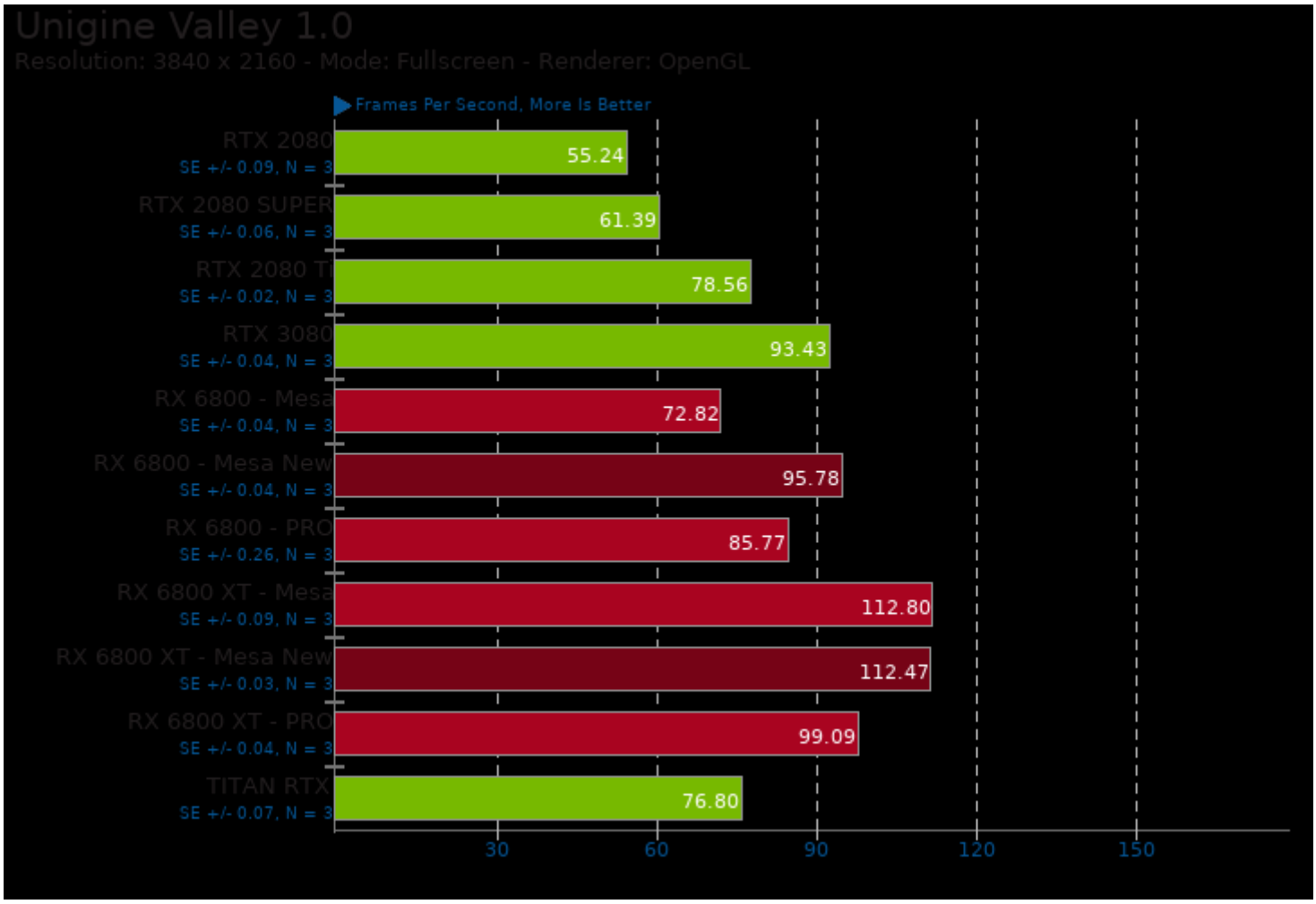

Shadow of the Tomb Raider
Resolution: 3840 x 2160 - Graphics Preset: High - Anti Aliasing: Off
Frames Per Second, More Is Better
RTX 2080
SE +/- 0.03, N = 3
MAX: 88.8
54.7
RTX 2080 SUPER
SE +/- 0.03, N = 3
MAX: 99.9
60.6
RTX 2080 T
SE +/- 1.12, N = 3
MAX: 112.8
76.0
RTX 3080
SE +/- 0.07, N = 3
MAX: 146.2
97.4
RX 6800 - Mesa
SE +/- 0.09, N = 3
MAX: 87.4
54.1
RX 6800 - Mesa New
SE +/- 0.03, N = 3
MAX: 112.1
79.7
RX 6800 - PRO
SE +/- 0.06, N = 3
MAX: 112.8
75.6
RX 6800 XT - Mesa
SE +/- 0.09, N = 3
MAX: 104.1
63.9
RX 6800 XT - Mesa New
SE +/- 0.03, N = 3
MAX: 123.4
89.8
RX 6800 XT - PRO
SE +/- 0.07, N = 3
MAX: 128.6
85.4
TITAN RTX
SE +/- 0.09, N = 3
MAX: 124.9
76.6
20
40
60
80
100

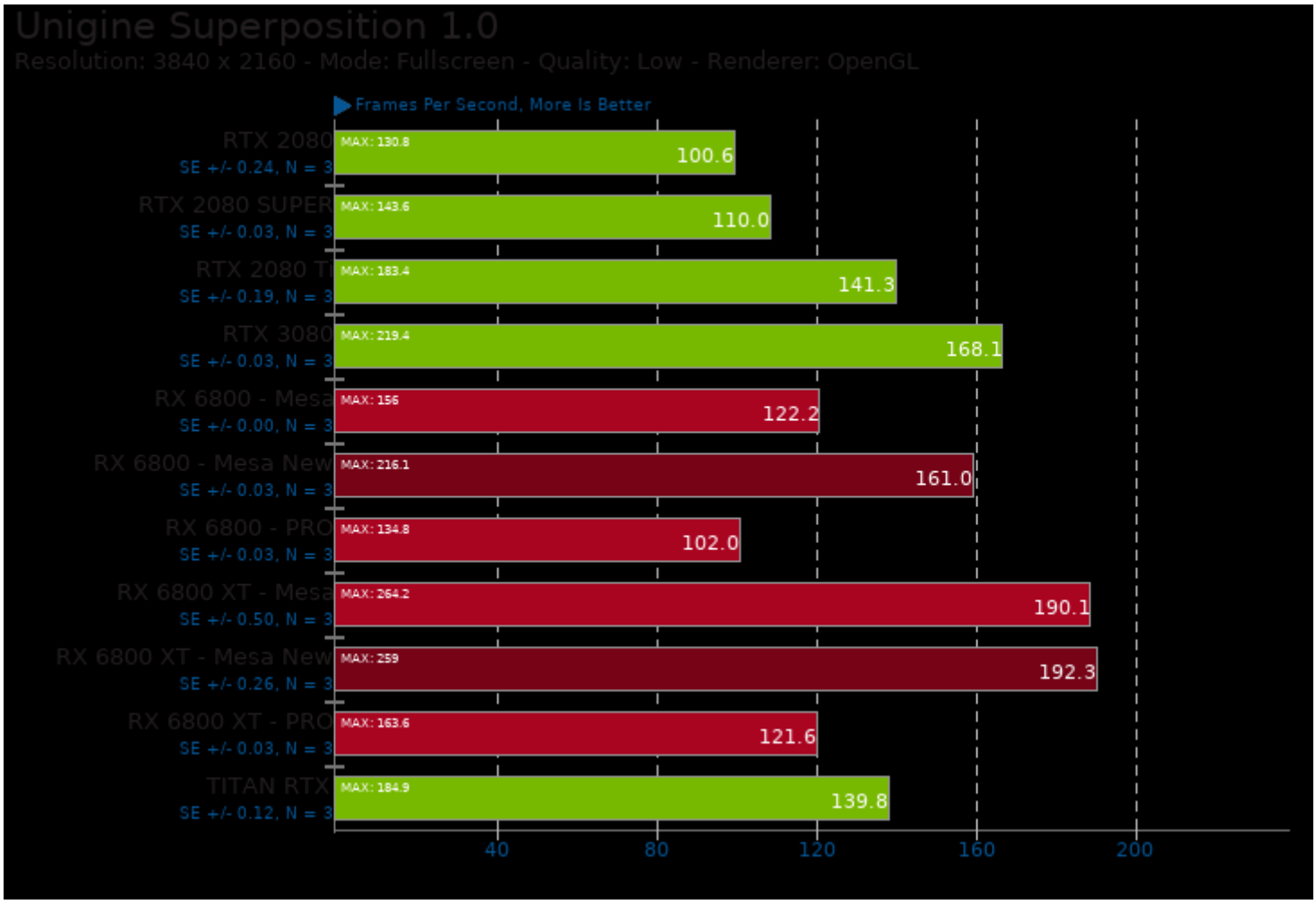

Unigine Heaven 4.0
Resolution: 3840 x 2160 - Mode: Fullscreen - Renderer: OpenGL
Frames Per Second, More Is Better
RTX 2080
SE +/- 0.08, N = 3
48.57
RTX 2080 SUPER
SE +/- 0.13, N = 3
53.24
RTX 2080 T
SE +/- 0.08, N = 3
74.19
RTX 3080
SE +/- 0.15, N = 3
91.75
RX 6800 - Mesa
SE +/- 0.01, N = 3
63.59
RX 6800 - Mesa New
SE +/- 0.05, N = 3
82.36
RX 6800 - PRO
SE +/- 0.10, N = 3
100.30
RX 6800 XT - Mesa
SE +/- 0.06, N = 3
96.21
RX 6800 XT - Mesa New
SE +/- 0.04, N = 3
96.75
RX 6800 XT - PRO
SE +/- 0.10, N = 3
112.93
TITAN RTX
SE +/- 0.15, N = 3
65.75
30
60
90
120
150

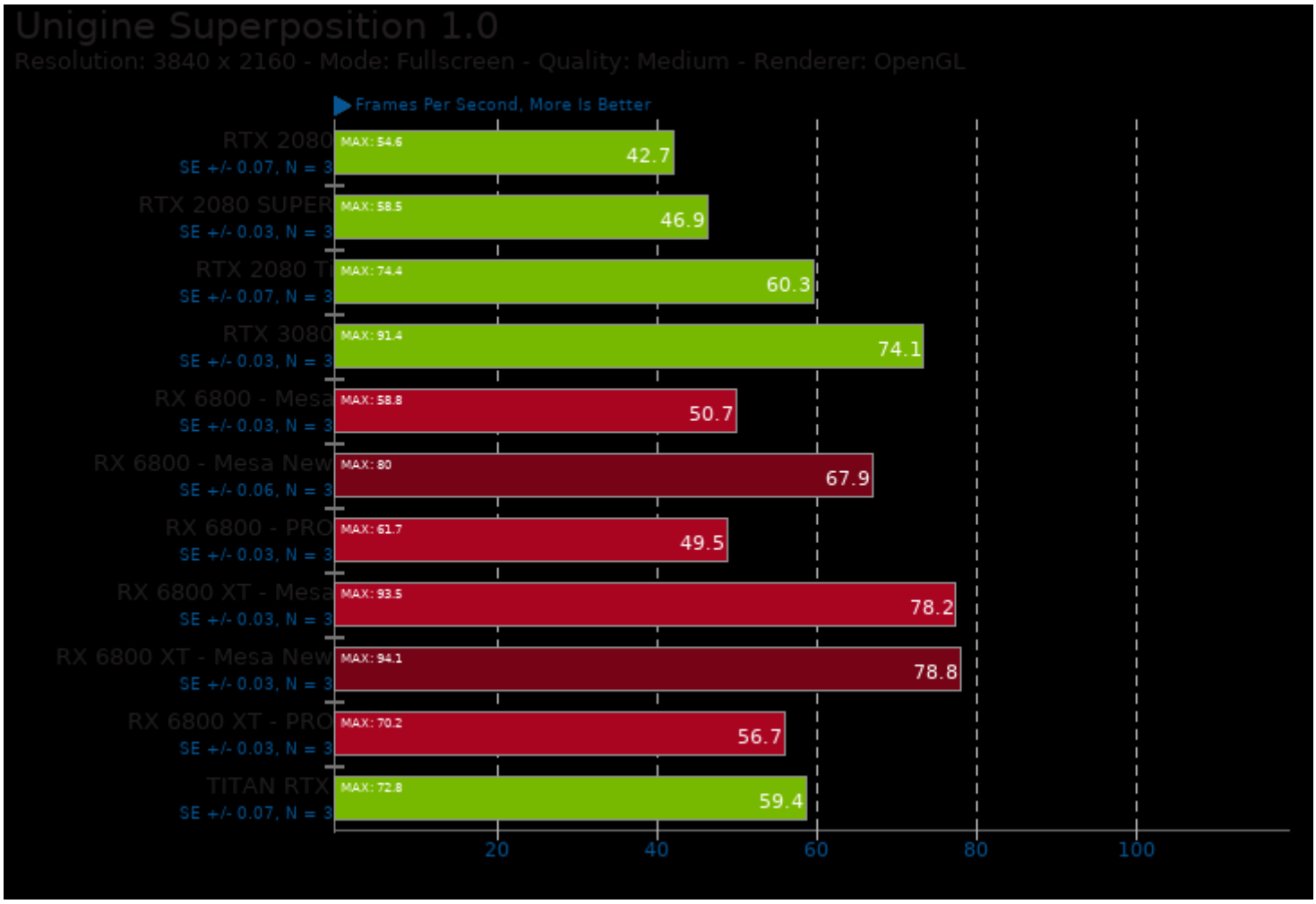

HITMAN 2
Resolution: 3840 x 2160 - Quality Level: Low - Total Frame Time
Milliseconds, Fewer Is Better
RTX 2080 SUPER
Min: 8.84 / Avg: 17.66 / Max: 47.04
RTX 2080 Ti
Min: 6.4 / Avg: 13.85 / Max: 38.17
RTX 3080
Min: 4.75 / Avg: 10.97 / Max: 33.32
RX 6800 - Mesa
Min: 5.74 / Avg: 13.2 / Max: 37.67
RX 6800 - Mesa New
Min: 5.54 / Avg: 12.36 / Max: 40.13
RX 6800 XT - Mesa
Min: 0 / Avg: 10.95 / Max: 90.91
RX 6800 XT - Mesa New
Min: 4.82 / Avg: 10.92 / Max: 41.19
TITAN RTX
Min: 6.07 / Avg: 13.91 / Max: 37.94
20
40
60
80
100

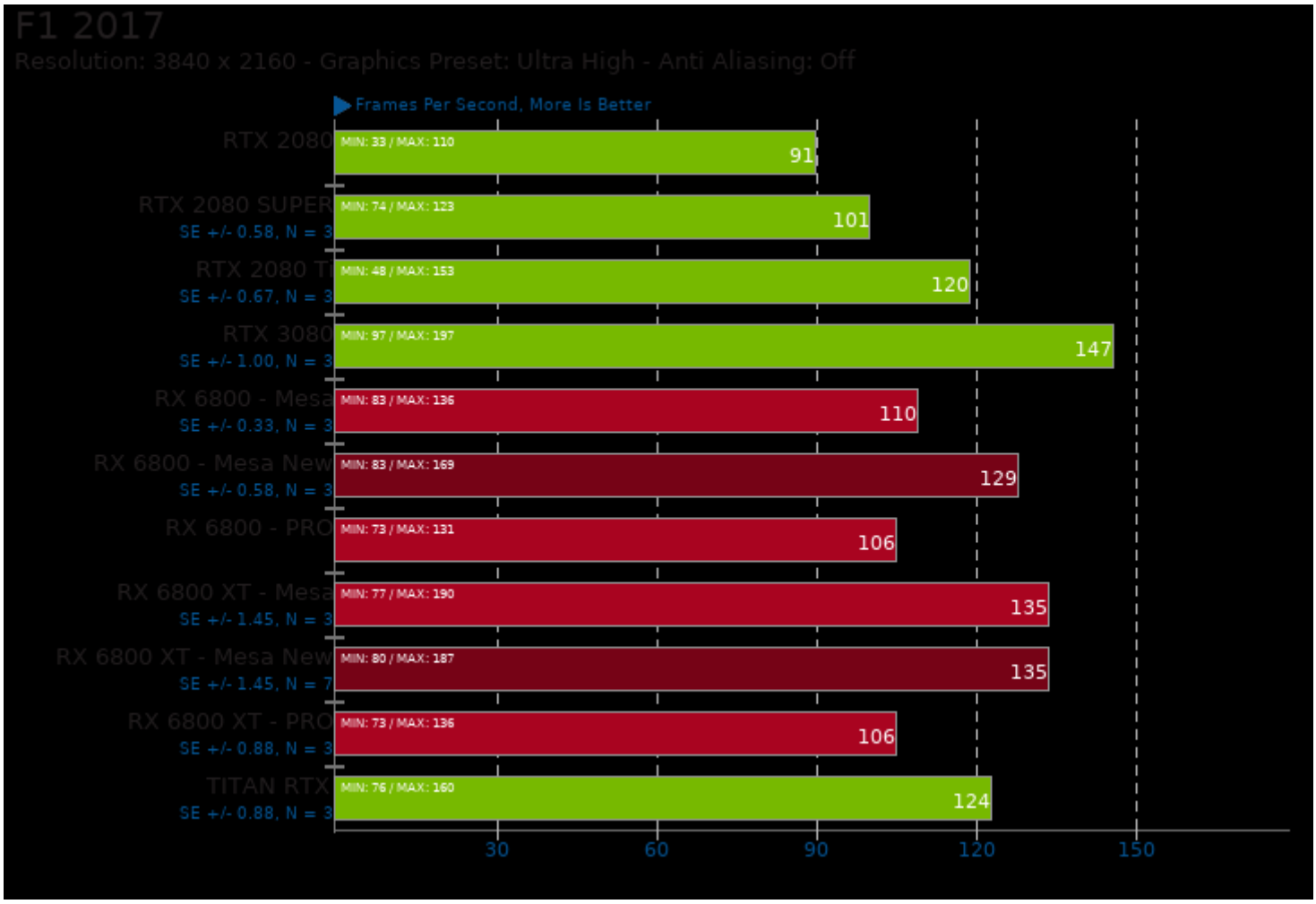
Radeon RX 6800 Series Linux Benchmarks



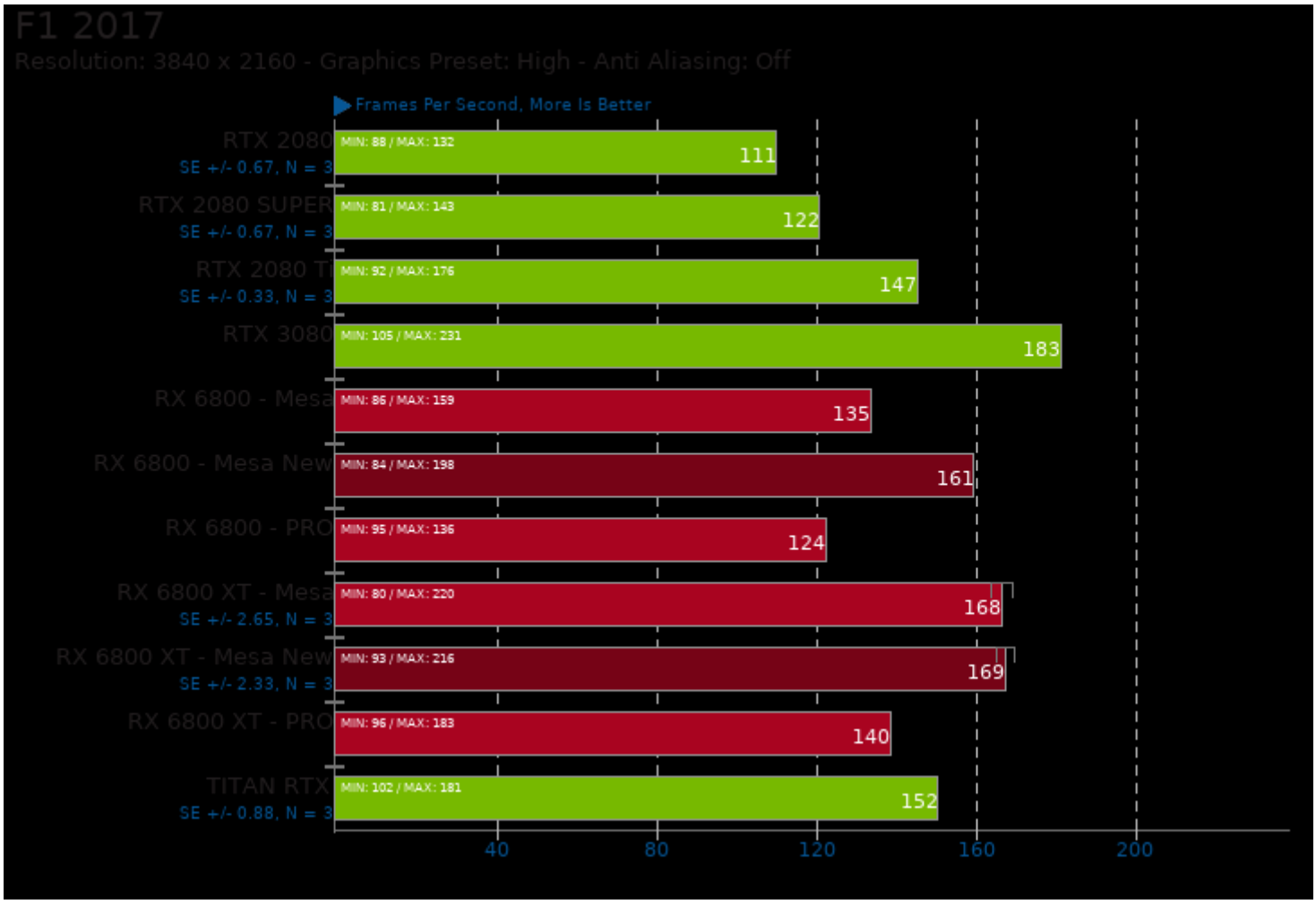

Unigine Valley 1.0
Resolution: 3840 x 2160 - Mode: Fullscreen - Renderer: OpenGL
Frames Per Second, More Is Better
RTX 2080
SE +/- 0.09, N = 3
55.24
RTX 2080 SUPER
SE +/- 0.06, N = 3
61.39
RTX 2080 T
SE +/- 0.02, N = 3
78.56
RTX 3080
SE +/- 0.04, N = 3
93.43
RX 6800 - Mesa
SE +/- 0.04, N = 3
72.82
RX 6800 - Mesa New
SE +/- 0.04, N = 3
95.78
RX 6800 - PRO
SE +/- 0.26, N = 3
85.77
RX 6800 XT - Mesa
SE +/- 0.09, N = 3
112.80
RX 6800 XT - Mesa New
SE +/- 0.03, N = 3
112.47
RX 6800 XT - PRO
SE +/- 0.04, N = 3
99.09
TITAN RTX
SE +/- 0.07, N = 3
76.80
30
60
90
120
150


Unigine Superposition 1.0
Resolution: 3840 x 2160 - Mode: Fullscreen - Quality: Low - Renderer: OpenGL
Frames Per Second, More Is Better
RTX 2080
SE +/- 0.24, N = 3
MAX: 130.8
100.6
RTX 2080 SUPER
SE +/- 0.03, N = 3
MAX: 143.6
110.0
RTX 2080 T
SE +/- 0.19, N = 3
MAX: 183.4
141.3
RTX 3080
SE +/- 0.03, N = 3
MAX: 219.4
168.1
RX 6800 - Mesa
SE +/- 0.00, N = 3
MAX: 156
122.2
RX 6800 - Mesa New
SE +/- 0.03, N = 3
MAX: 216.1
161.0
RX 6800 - PRO
SE +/- 0.03, N = 3
MAX: 134.8
102.0
RX 6800 XT - Mesa
SE +/- 0.50, N = 3
MAX: 264.2
190.1
RX 6800 XT - Mesa New
SE +/- 0.26, N = 3
MAX: 259
192.3
RX 6800 XT - PRO
SE +/- 0.03, N = 3
MAX: 163.6
121.6
TITAN RTX
SE +/- 0.12, N = 3
MAX: 184.9
139.8
40
80
120
160
200

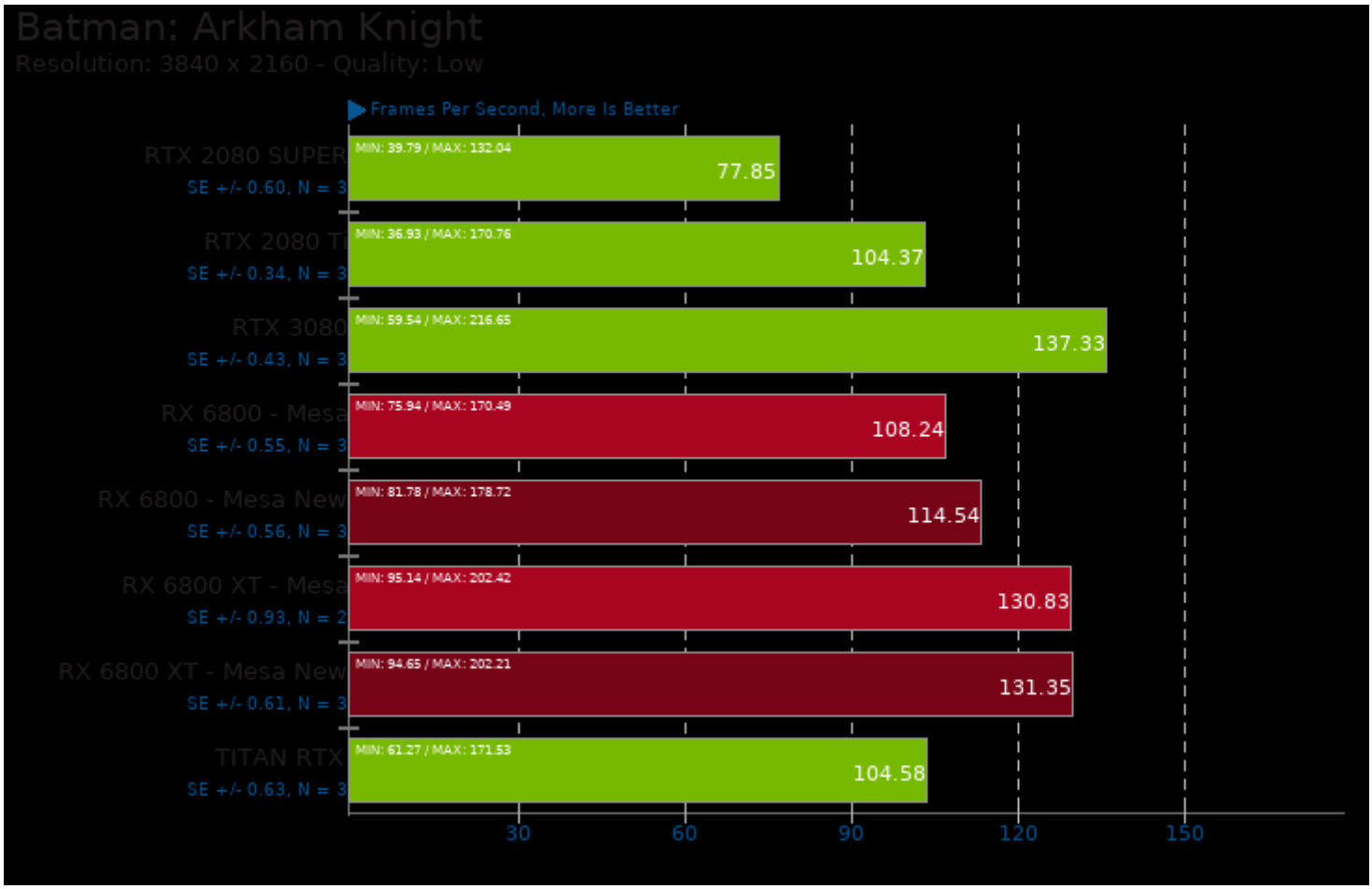

Unigine Superposition 1.0
Resolution: 3840 x 2160 - Mode: Fullscreen - Quality: Medium - Renderer: OpenGL
Frames Per Second, More Is Better
RTX 2080
SE +/- 0.07, N = 3
MAX: 54.6
42.7
RTX 2080 SUPER
SE +/- 0.03, N = 3
MAX: 58.5
46.9
RTX 2080 T
SE +/- 0.07, N = 3
MAX: 74.4
60.3
RTX 3080
SE +/- 0.03, N = 3
MAX: 91.4
74.1
RX 6800 - Mesa
SE +/- 0.03, N = 3
MAX: 58.8
50.7
RX 6800 - Mesa New
SE +/- 0.06, N = 3
MAX: 80
67.9
RX 6800 - PRO
SE +/- 0.03, N = 3
MAX: 61.7
49.5
RX 6800 XT - Mesa
SE +/- 0.03, N = 3
MAX: 93.5
78.2
RX 6800 XT - Mesa New
SE +/- 0.03, N = 3
MAX: 94.1
78.8
RX 6800 XT - PRO
SE +/- 0.03, N = 3
MAX: 70.2
56.7
TITAN RTX
SE +/- 0.07, N = 3
MAX: 72.8
59.4
20
40
60
80
100

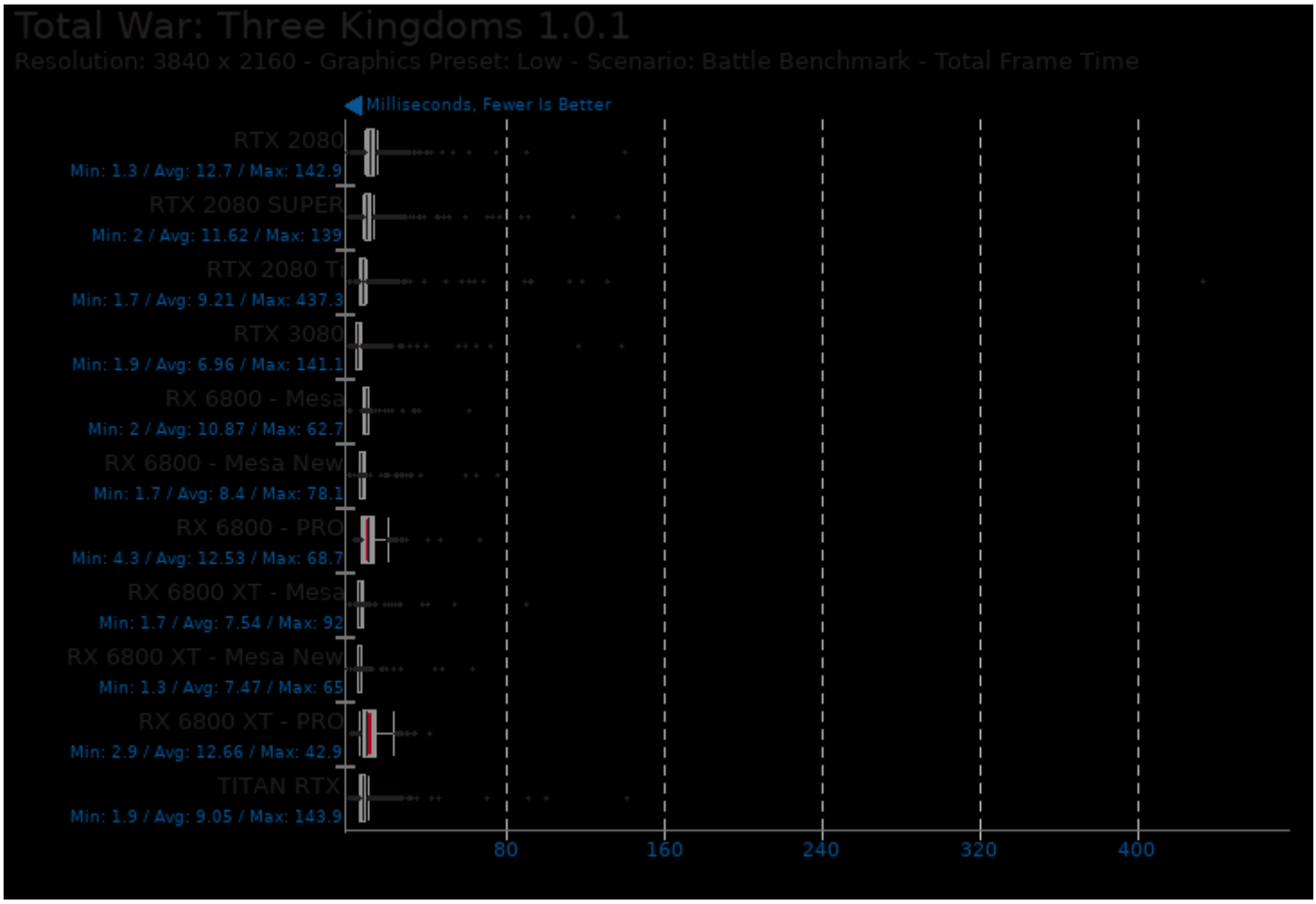

F1 2017
Resolution: 3840 x 2160 - Graphics Preset: Ultra High - Anti Aliasing: Off
Frames Per Second, More Is Better
RTX 2080
MIN: 33 / MAX: 110
91
RTX 2080 SUPER
SE +/- 0.58, N = 3
MIN: 74 / MAX: 123
101
RTX 2080 T
SE +/- 0.67, N = 3
MIN: 48 / MAX: 153
120
RTX 3080
SE +/- 1.00, N = 3
MIN: 97 / MAX: 197
147
RX 6800 - Mesa
SE +/- 0.33, N = 3
MIN: 83 / MAX: 136
110
RX 6800 - Mesa New
SE +/- 0.58, N = 3
MIN: 83 / MAX: 169
129
RX 6800 - PRO
MIN: 73 / MAX: 131
106
RX 6800 XT - Mesa
SE +/- 1.45, N = 3
MIN: 77 / MAX: 190
135
RX 6800 XT - Mesa New
SE +/- 1.45, N = 7
MIN: 80 / MAX: 187
135
RX 6800 XT - PRO
SE +/- 0.88, N = 3
MIN: 73 / MAX: 136
106
TITAN RTX
SE +/- 0.88, N = 3
MIN: 76 / MAX: 160
124
30
60
90
120
150

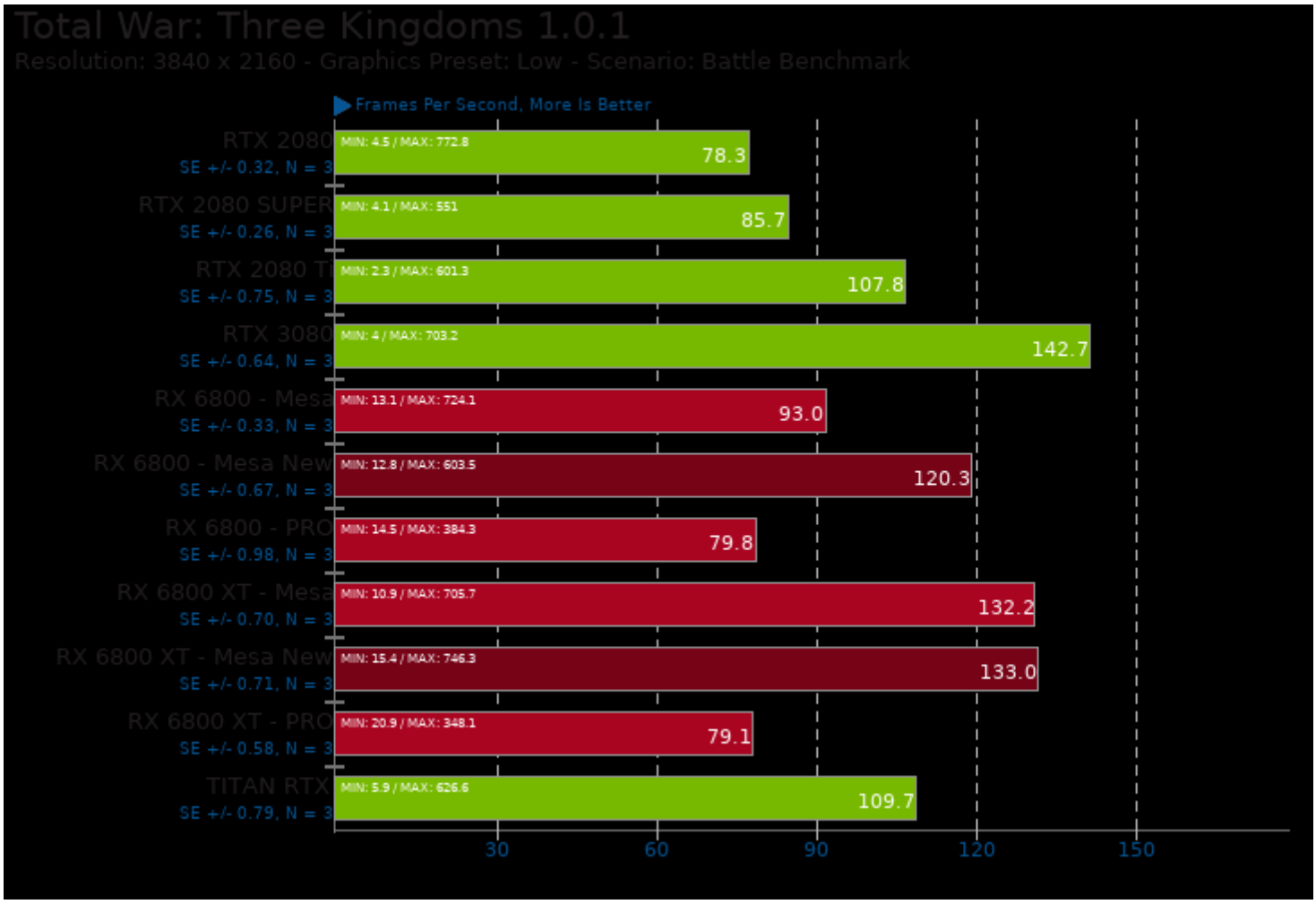
Radeon RX 6800 Series Linux Benchmarks



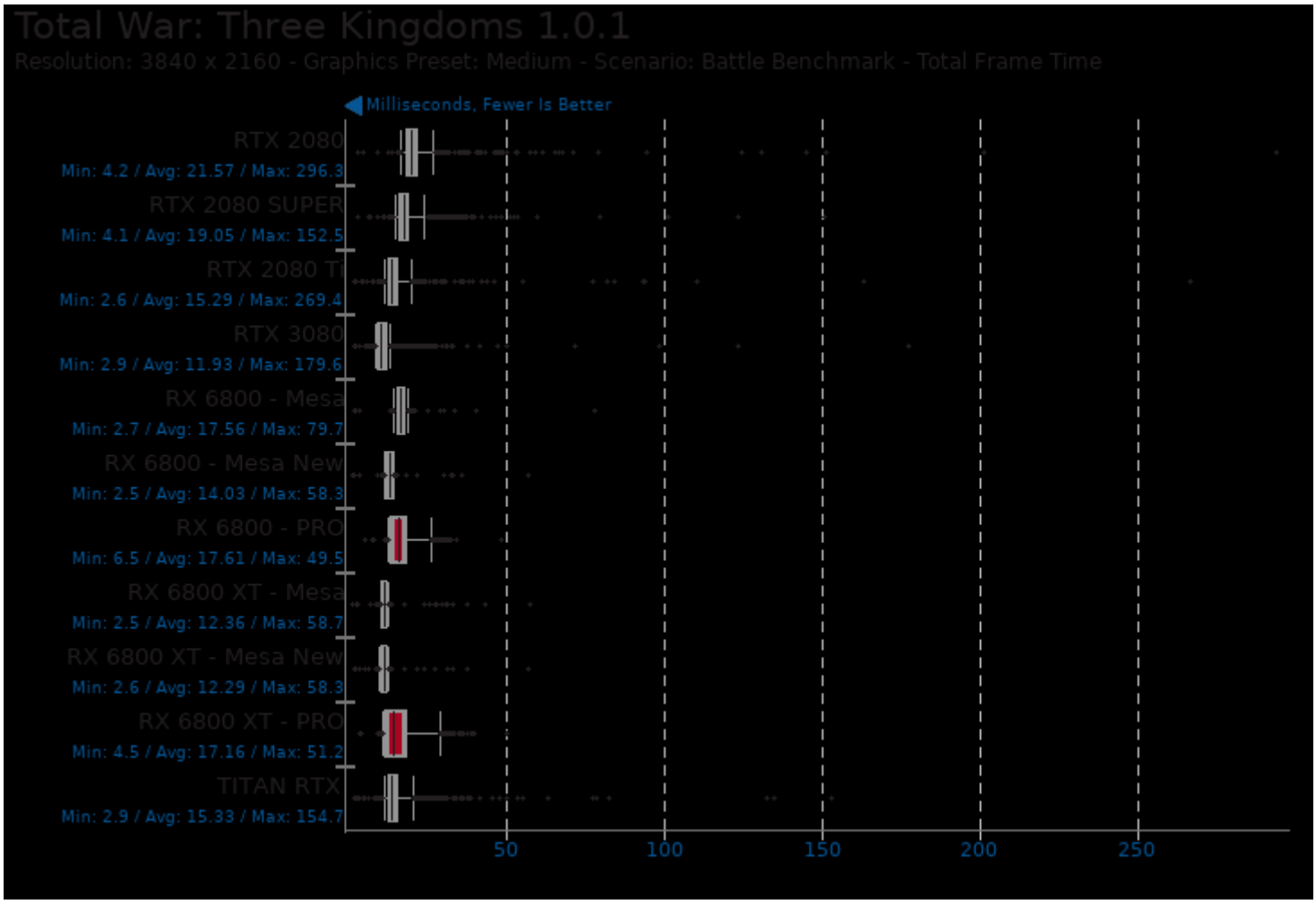
Radeon RX 6800 Series Linux Benchmarks

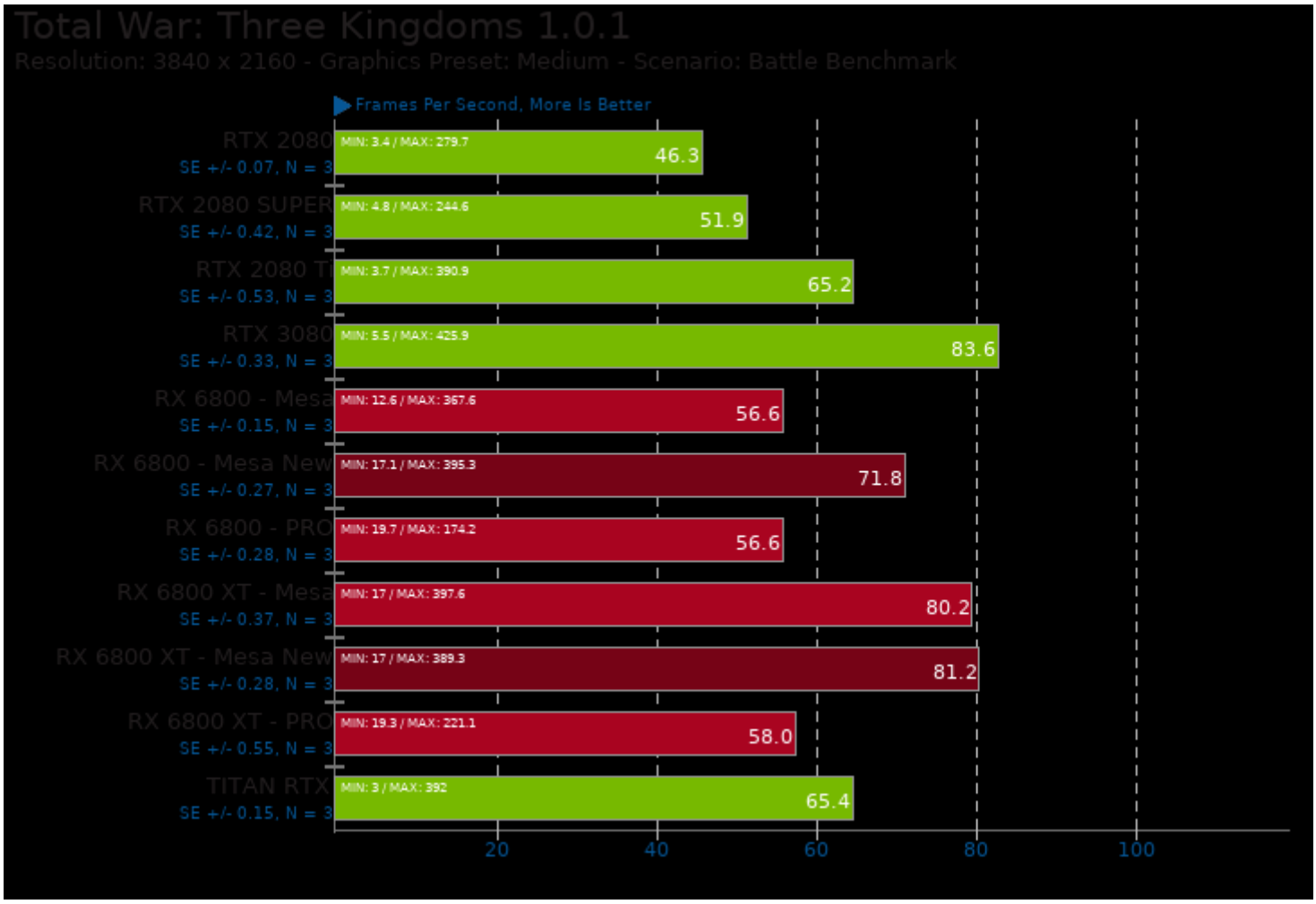


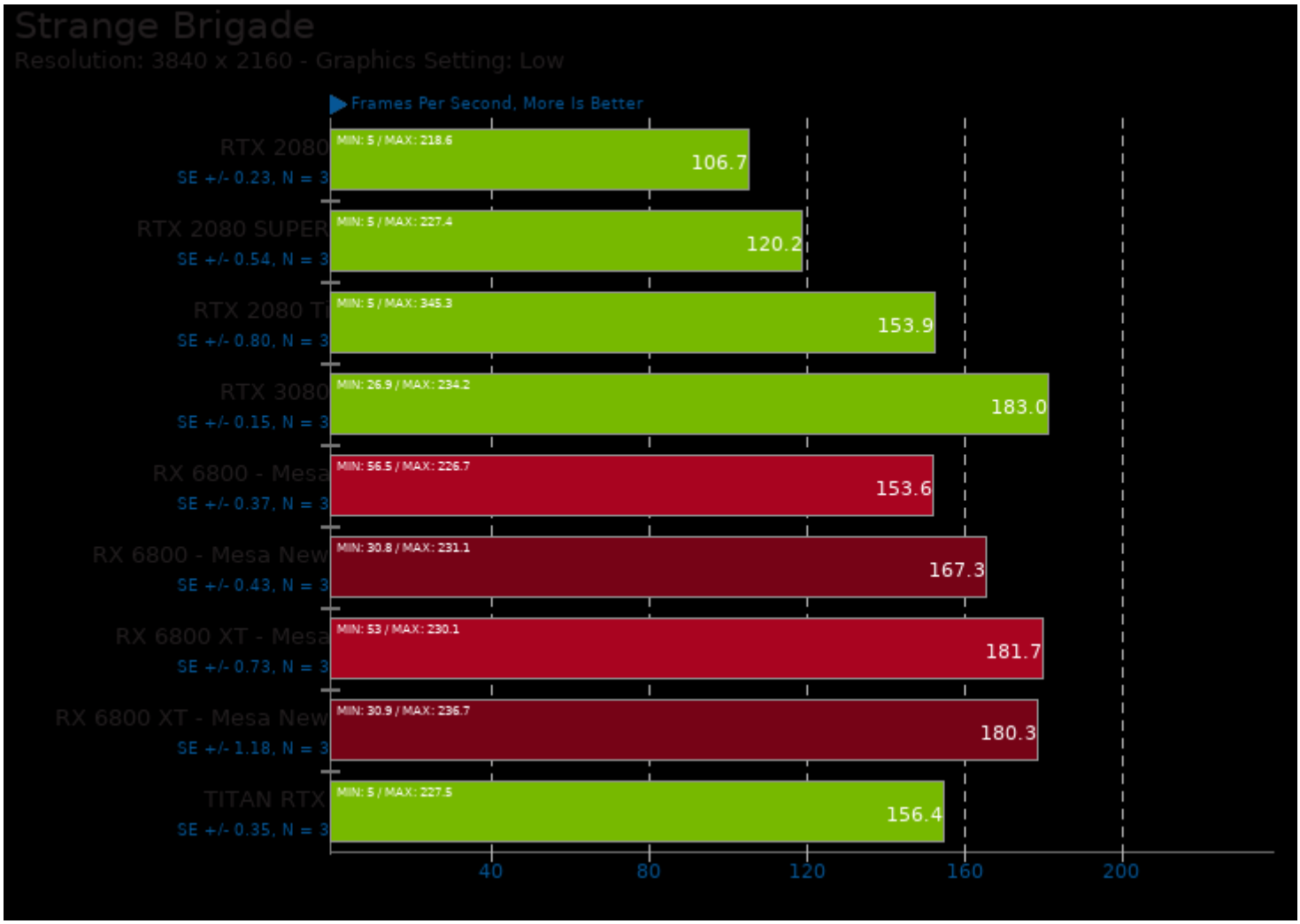

Total War: Three Kingdoms 1.0.1
Resolution: 3840 x 2160 - Graphics Preset: Low - Scenario: Battle Benchmark - Total Frame Time
Milliseconds, Fewer Is Better
RTX 2080
Min: 1.3 / Avg: 12.7 / Max: 142.9
RTX 2080 SUPER
Min: 2 / Avg: 11.62 / Max: 139
RTX 2080 Ti
Min: 1.7 / Avg: 9.21 / Max: 437.3
RTX 3080
Min: 1.9 / Avg: 6.96 / Max: 141.1
RX 6800 - Mesa
Min: 2 / Avg: 10.87 / Max: 62.7
RX 6800 - Mesa New
Min: 1.7 / Avg: 8.4 / Max: 78.1
RX 6800 - PRO
Min: 4.3 / Avg: 12.53 / Max: 68.7
RX 6800 XT - Mesa
Min: 1.7 / Avg: 7.54 / Max: 92
RX 6800 XT - Mesa New
Min: 1.3 / Avg: 7.47 / Max: 65
RX 6800 XT - PRO
Min: 2.9 / Avg: 12.66 / Max: 42.9
TITAN RTX
Min: 1.9 / Avg: 9.05 / Max: 143.9
80
160
240
320
400

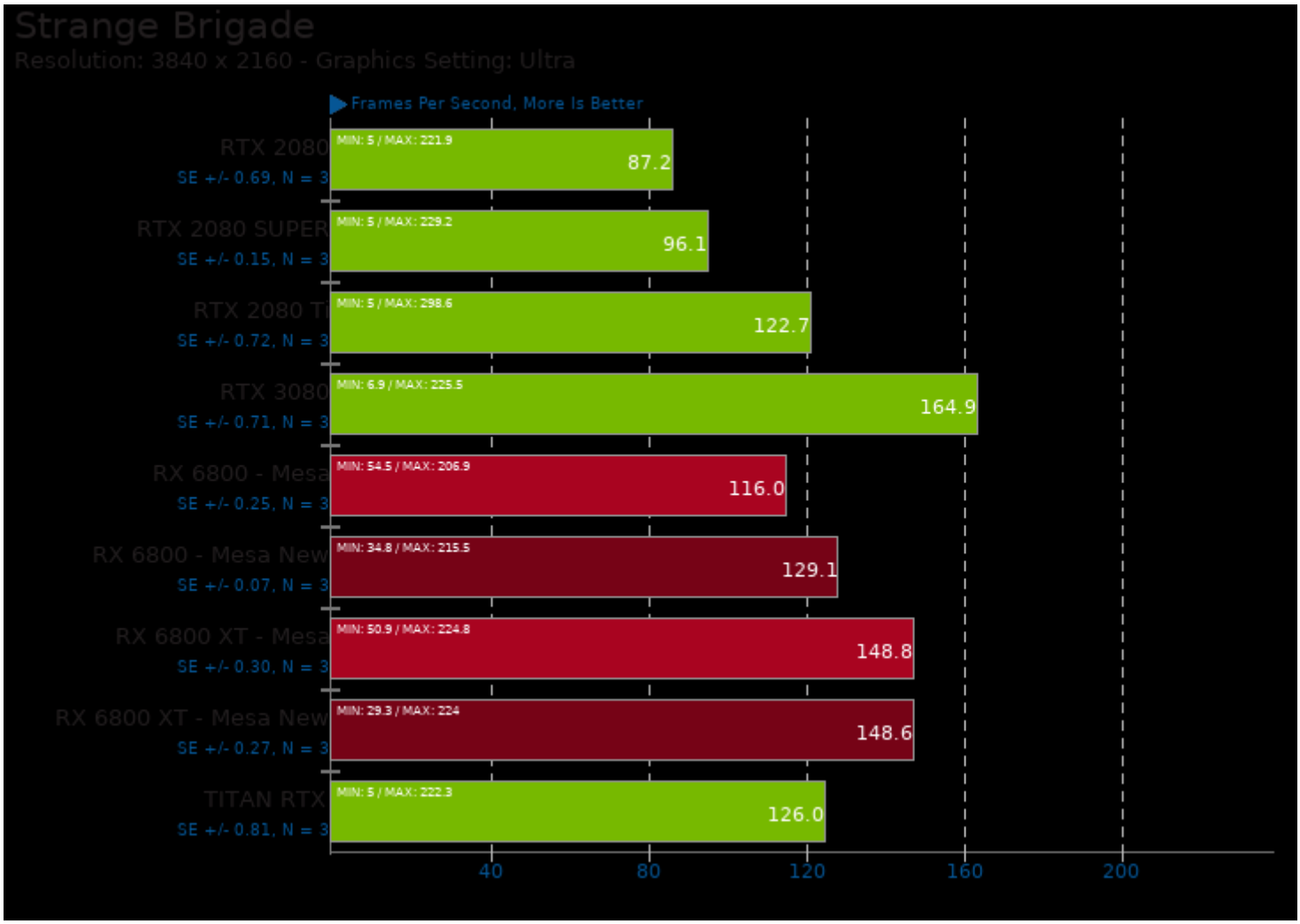

Total War: Three Kingdoms 1.0.1
Resolution: 3840 x 2160 - Graphics Preset: Low - Scenario: Battle Benchmark
Frames Per Second, More Is Better
RTX 2080
SE +/- 0.32, N = 3
MIN: 4.5 / MAX: 772.8
78.3
RTX 2080 SUPER
SE +/- 0.26, N = 3
MIN: 4.1 / MAX: 551
85.7
RTX 2080 T
SE +/- 0.75, N = 3
MIN: 2.3 / MAX: 601.3
107.8
RTX 3080
SE +/- 0.64, N = 3
MIN: 4 / MAX: 703.2
142.7
RX 6800 - Mesa
SE +/- 0.33, N = 3
MIN: 13.1 / MAX: 724.1
93.0
RX 6800 - Mesa New
SE +/- 0.67, N = 3
MIN: 12.8 / MAX: 603.5
120.3
RX 6800 - PRO
SE +/- 0.98, N = 3
MIN: 14.5 / MAX: 384.3
79.8
RX 6800 XT - Mesa
SE +/- 0.70, N = 3
MIN: 10.9 / MAX: 705.7
132.2
RX 6800 XT - Mesa New
SE +/- 0.71, N = 3
MIN: 15.4 / MAX: 746.3
133.0
RX 6800 XT - PRO
SE +/- 0.58, N = 3
MIN: 20.9 / MAX: 348.1
79.1
TITAN RTX
SE +/- 0.79, N = 3
MIN: 5.9 / MAX: 626.6
109.7
30
60
90
120
150

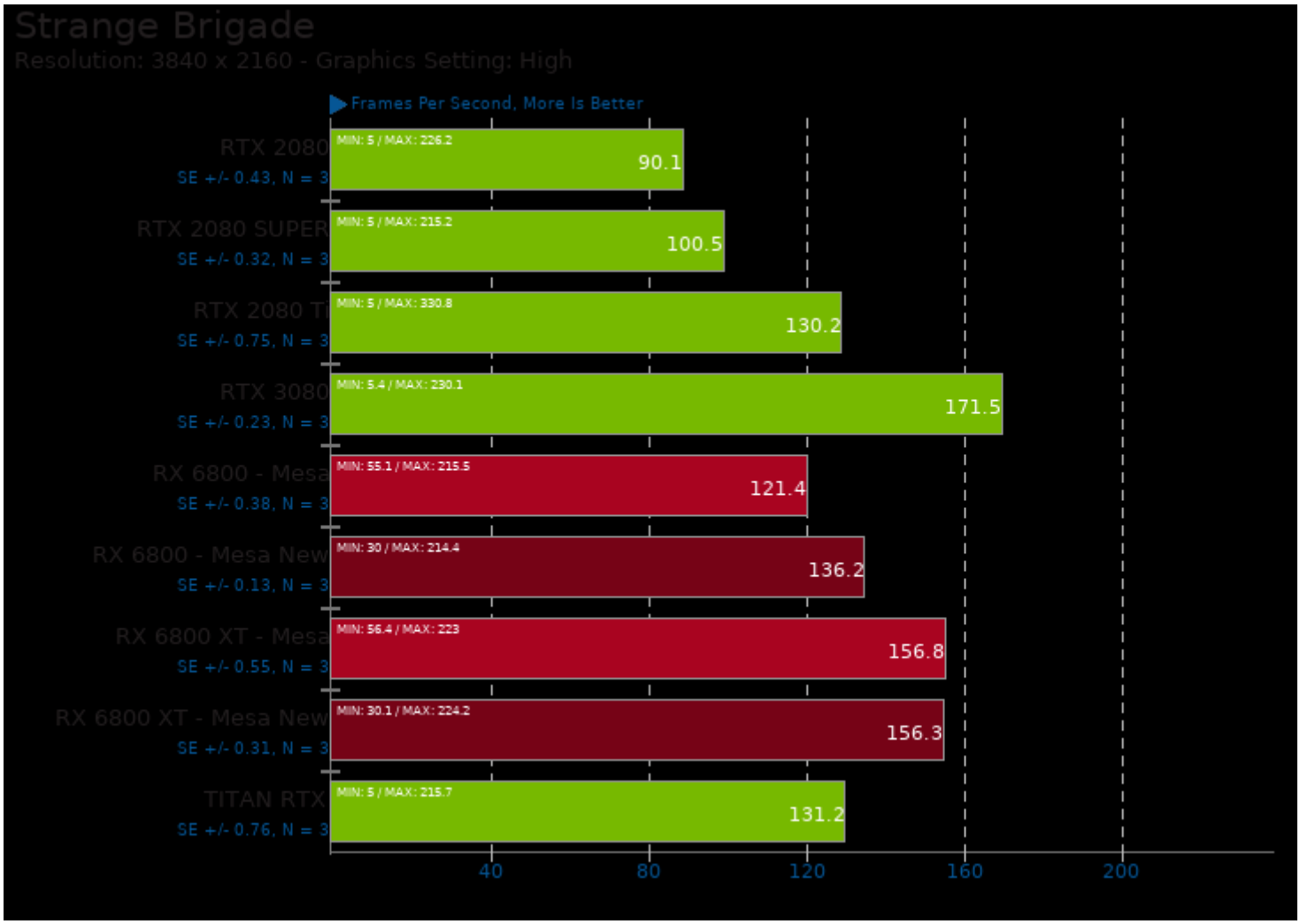
Radeon RX 6800 Series Linux Benchmarks

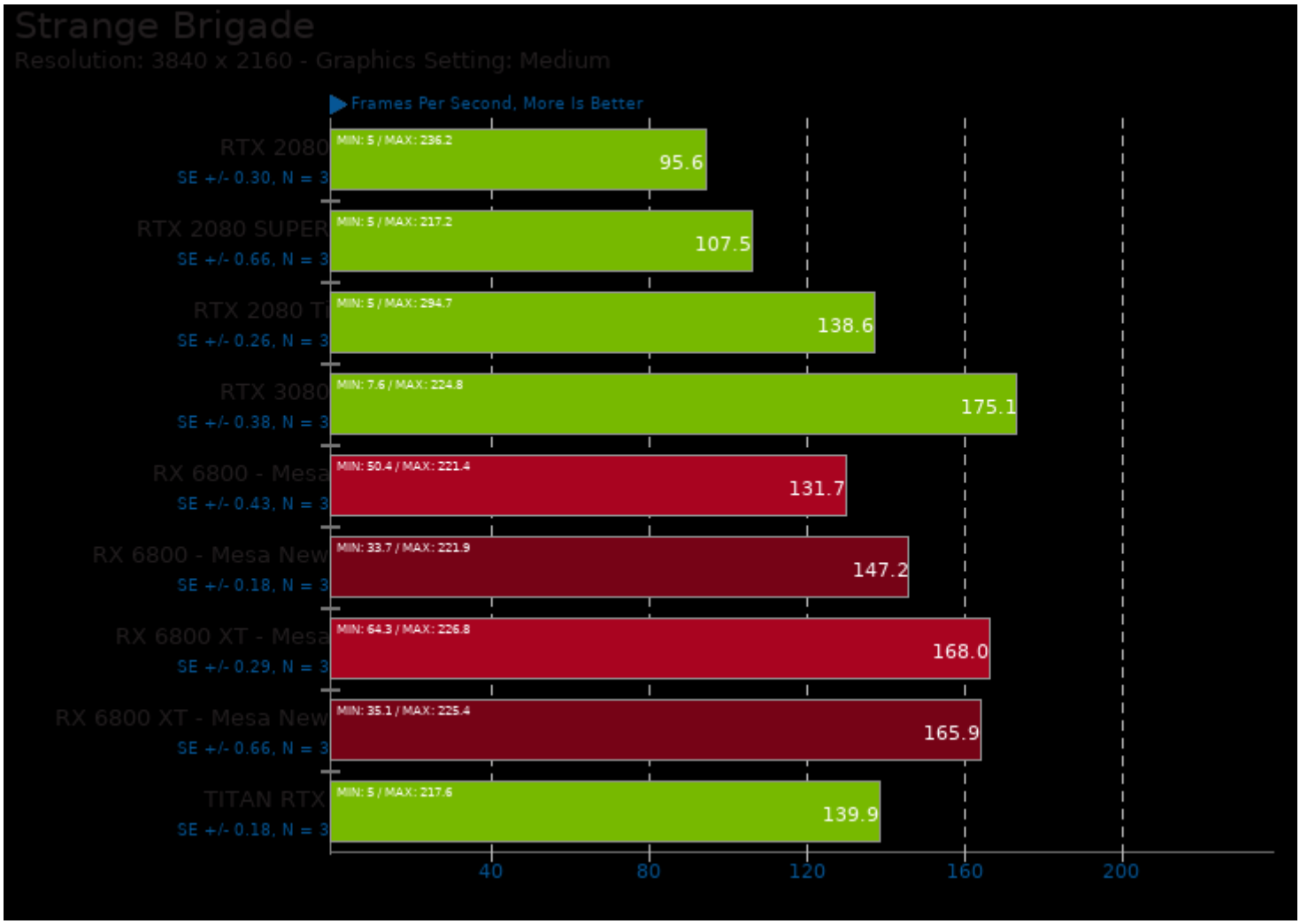


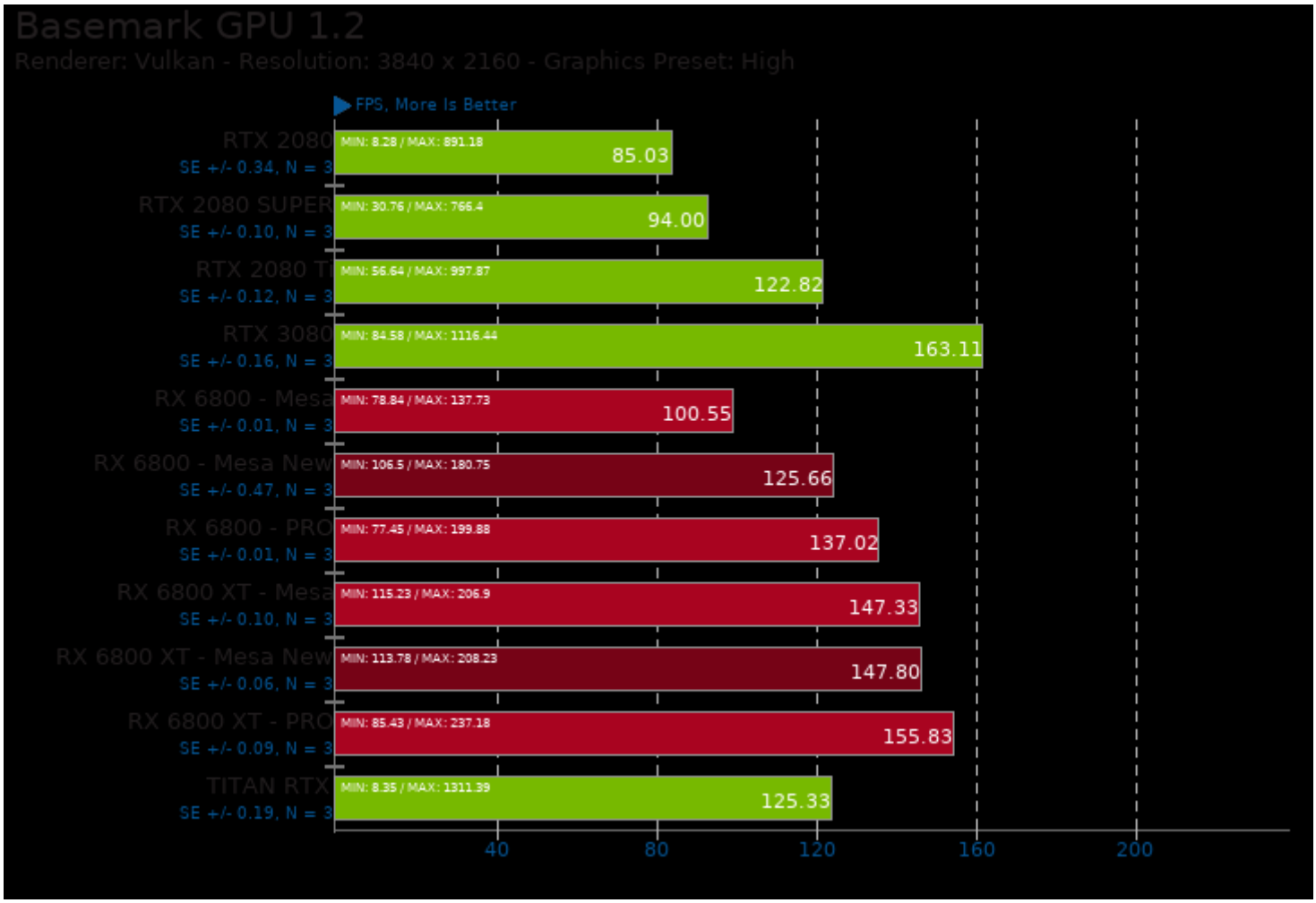

Total War: Three Kingdoms 1.0.1
Resolution: 3840 x 2160 - Graphics Preset: Medium - Scenario: Battle Benchmark
Frames Per Second, More Is Better
RTX 2080
SE +/- 0.07, N = 3
MIN: 3.4 / MAX: 279.7
46.3
RTX 2080 SUPER
SE +/- 0.42, N = 3
MIN: 4.8 / MAX: 244.6
51.9
RTX 2080 T
SE +/- 0.53, N = 3
MIN: 3.7 / MAX: 390.9
65.2
RTX 3080
SE +/- 0.33, N = 3
MIN: 5.5 / MAX: 425.9
83.6
RX 6800 - Mesa
SE +/- 0.15, N = 3
MIN: 12.6 / MAX: 367.6
56.6
RX 6800 - Mesa New
SE +/- 0.27, N = 3
MIN: 17.1 / MAX: 395.3
71.8
RX 6800 - PRO
SE +/- 0.28, N = 3
MIN: 19.7 / MAX: 174.2
56.6
RX 6800 XT - Mesa
SE +/- 0.37, N = 3
MIN: 17 / MAX: 397.6
80.2
RX 6800 XT - Mesa New
SE +/- 0.28, N = 3
MIN: 17 / MAX: 389.3
81.2
RX 6800 XT - PRO
SE +/- 0.55, N = 3
MIN: 19.3 / MAX: 221.1
58.0
TITAN RTX
SE +/- 0.15, N = 3
MIN: 3 / MAX: 392
65.4
20
40
60
80
100


Strange Brigade
Resolution: 3840 x 2160 - Graphics Setting: Low
Frames Per Second, More Is Better
RTX 2080
SE +/- 0.23, N = 3
MIN: 5 / MAX: 218.6
106.7
RTX 2080 SUPER
SE +/- 0.54, N = 3
MIN: 5 / MAX: 227.4
120.2
RTX 2080 Ti
SE +/- 0.80, N = 3
MIN: 5 / MAX: 345.3
153.9
RTX 3080
SE +/- 0.15, N = 3
MIN: 26.9 / MAX: 234.2
183.0
RX 6800 - Mesa
SE +/- 0.37, N = 3
MIN: 56.5 / MAX: 226.7
153.6
RX 6800 - Mesa New
SE +/- 0.43, N = 3
MIN: 30.8 / MAX: 231.1
167.3
RX 6800 XT - Mesa
SE +/- 0.73, N = 3
MIN: 53 / MAX: 230.1
181.7
RX 6800 XT - Mesa New
SE +/- 1.18, N = 3
MIN: 30.9 / MAX: 236.7
180.3
TITAN RTX
SE +/- 0.35, N = 3
MIN: 5 / MAX: 227.5
156.4
40
80
120
160
200

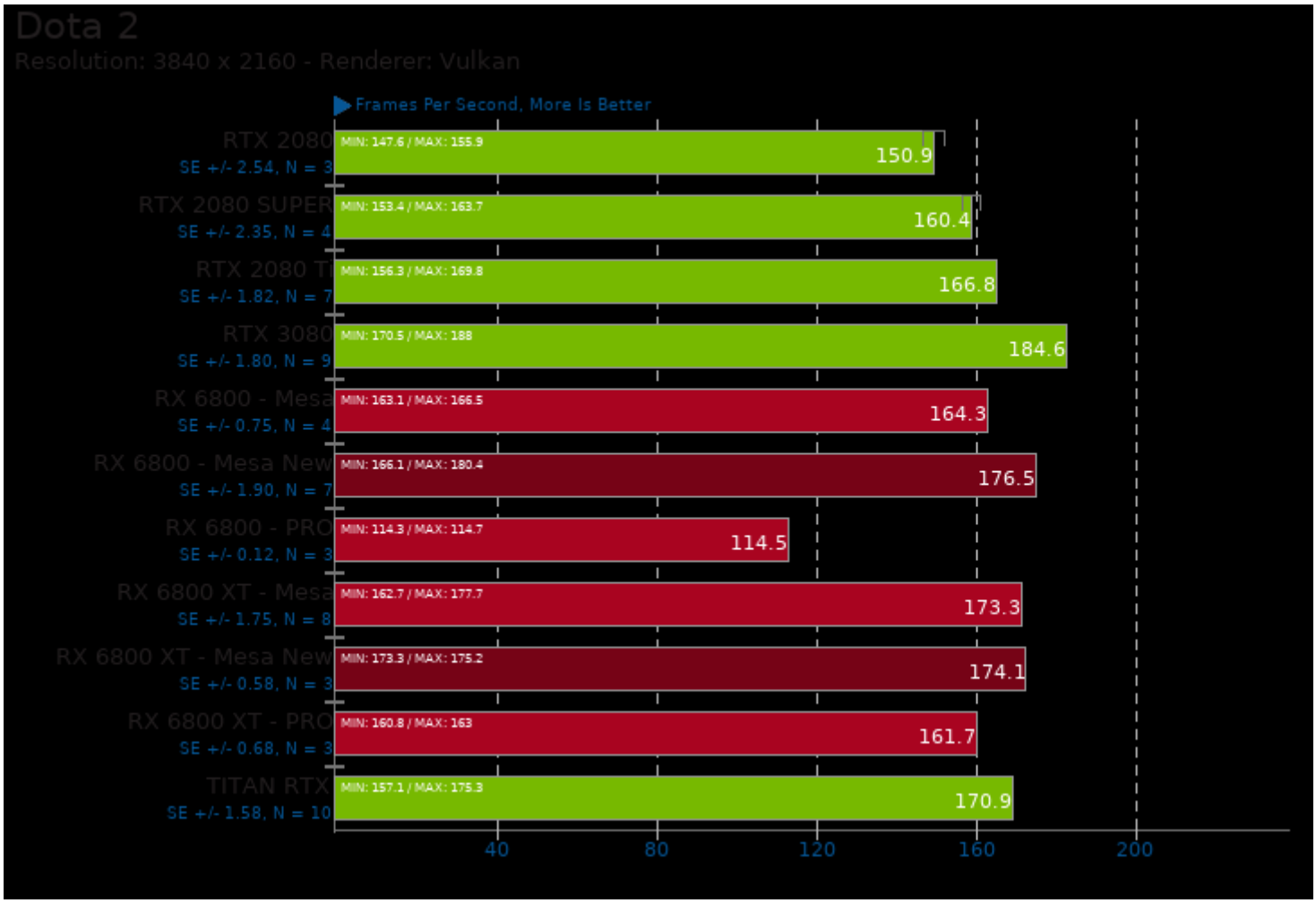

Strange Brigade
Resolution: 3840 x 2160 - Graphics Setting: Ultra
Frames Per Second, More Is Better
RTX 2080
SE +/- 0.69, N = 3
MIN: 5 / MAX: 221.9
87.2
RTX 2080 SUPER
SE +/- 0.15, N = 3
MIN: 5 / MAX: 229.2
96.1
RTX 2080 T
SE +/- 0.72, N = 3
MIN: 5 / MAX: 298.6
122.7
RTX 3080
SE +/- 0.71, N = 3
MIN: 6.9 / MAX: 225.5
164.9
RX 6800 - Mesa
SE +/- 0.25, N = 3
MIN: 54.5 / MAX: 206.9
116.0
RX 6800 - Mesa New
SE +/- 0.07, N = 3
MIN: 34.8 / MAX: 215.5
129.1
RX 6800 XT - Mesa
SE +/- 0.30, N = 3
MIN: 50.9 / MAX: 224.8
148.8
RX 6800 XT - Mesa New
SE +/- 0.27, N = 3
MIN: 29.3 / MAX: 224
148.6
TITAN RTX
SE +/- 0.81, N = 3
MIN: 5 / MAX: 222.3
126.0
40
80
120
160
200

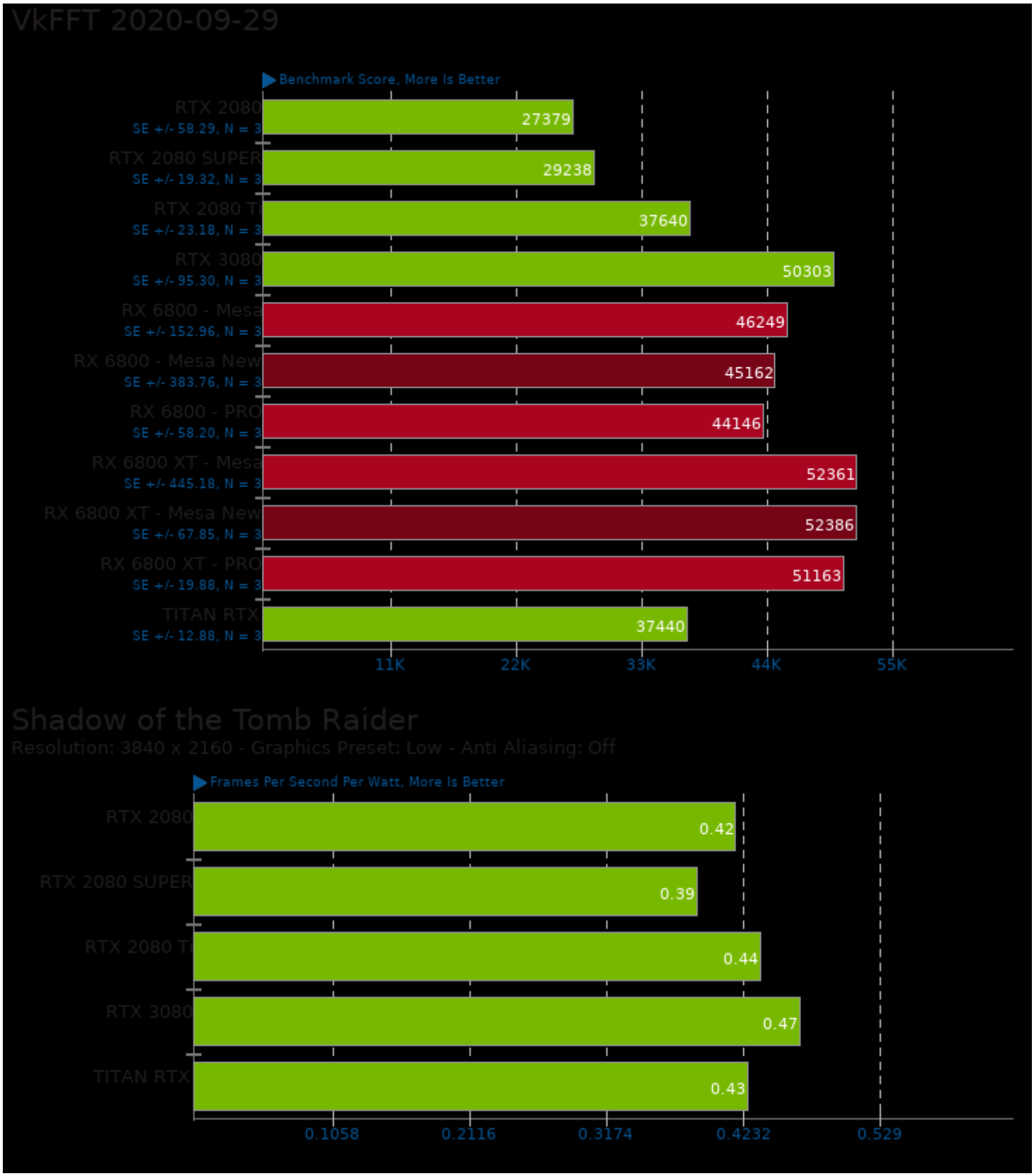

Strange Brigade
Resolution: 3840 x 2160 - Graphics Setting: High
Frames Per Second, More Is Better
RTX 2080
SE +/- 0.43, N = 3
MIN: 5 / MAX: 226.2
90.1
RTX 2080 SUPER
SE +/- 0.32, N = 3
MIN: 5 / MAX: 215.2
100.5
RTX 2080 T
SE +/- 0.75, N = 3
MIN: 5 / MAX: 330.8
130.2
RTX 3080
SE +/- 0.23, N = 3
MIN: 5.4 / MAX: 230.1
171.5
RX 6800 - Mesa
SE +/- 0.38, N = 3
MIN: 55.1 / MAX: 215.5
121.4
RX 6800 - Mesa New
SE +/- 0.13, N = 3
MIN: 30 / MAX: 214.4
136.2
RX 6800 XT - Mesa
SE +/- 0.55, N = 3
MIN: 56.4 / MAX: 223
156.8
RX 6800 XT - Mesa New
SE +/- 0.31, N = 3
MIN: 30.1 / MAX: 224.2
156.3
TITAN RTX
SE +/- 0.76, N = 3
MIN: 5 / MAX: 215.7
131.2
40
80
120
160
200


Strange Brigade
Resolution: 3840 x 2160 - Graphics Setting: Medium
Frames Per Second, More Is Better
RTX 2080
SE +/- 0.30, N = 3
MIN: 5 / MAX: 236.2
95.6
RTX 2080 SUPER
SE +/- 0.66, N = 3
MIN: 5 / MAX: 217.2
107.5
RTX 2080 Ti
SE +/- 0.26, N = 3
MIN: 5 / MAX: 294.7
138.6
RTX 3080
SE +/- 0.38, N = 3
MIN: 7.6 / MAX: 224.8
175.1
RX 6800 - Mesa
SE +/- 0.43, N = 3
MIN: 50.4 / MAX: 221.4
131.7
RX 6800 - Mesa New
SE +/- 0.18, N = 3
MIN: 33.7 / MAX: 221.9
147.2
RX 6800 XT - Mesa
SE +/- 0.29, N = 3
MIN: 64.3 / MAX: 226.8
168.0
RX 6800 XT - Mesa New
SE +/- 0.66, N = 3
MIN: 35.1 / MAX: 225.4
165.9
TITAN RTX
SE +/- 0.18, N = 3
MIN: 5 / MAX: 217.6
139.9
40
80
120
160
200

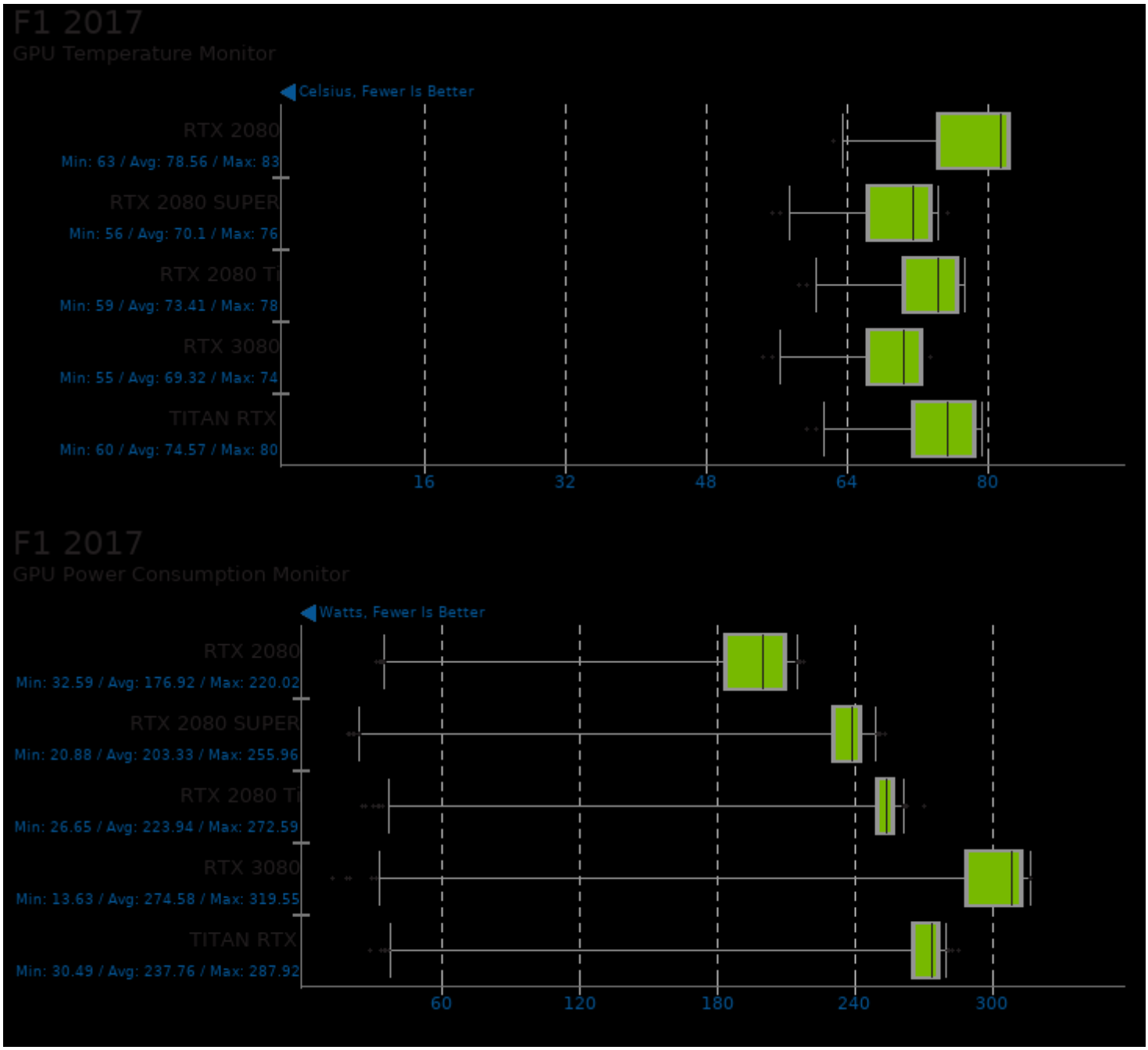

Basemark GPU 1.2
Renderer: Vulkan - Resolution: 3840 x 2160 - Graphics Preset: High
FPS, More Is Better
RTX 2080
SE +/- 0.34, N = 3
MIN: 8.28 / MAX: 891.18
85.03
RTX 2080 SUPER
SE +/- 0.10, N = 3
MIN: 30.76 / MAX: 766.4
94.00
RTX 2080 T
SE +/- 0.12, N = 3
MIN: 56.64 / MAX: 997.87
122.82
RTX 3080
SE +/- 0.16, N = 3
MIN: 84.58 / MAX: 1116.44
163.11
RX 6800 - Mesa
SE +/- 0.01, N = 3
MIN: 78.84 / MAX: 137.73
100.55
RX 6800 - Mesa New
SE +/- 0.47, N = 3
MIN: 106.5 / MAX: 180.75
125.66
RX 6800 - PRO
SE +/- 0.01, N = 3
MIN: 77.45 / MAX: 199.88
137.02
RX 6800 XT - Mesa
SE +/- 0.10, N = 3
MIN: 115.23 / MAX: 206.9
147.33
RX 6800 XT - Mesa New
SE +/- 0.06, N = 3
MIN: 113.78 / MAX: 208.23
147.80
RX 6800 XT - PRO
SE +/- 0.09, N = 3
MIN: 85.43 / MAX: 237.18
155.83
TITAN RTX
SE +/- 0.19, N = 3
MIN: 8.35 / MAX: 1311.39
125.33
40
80
120
160
200

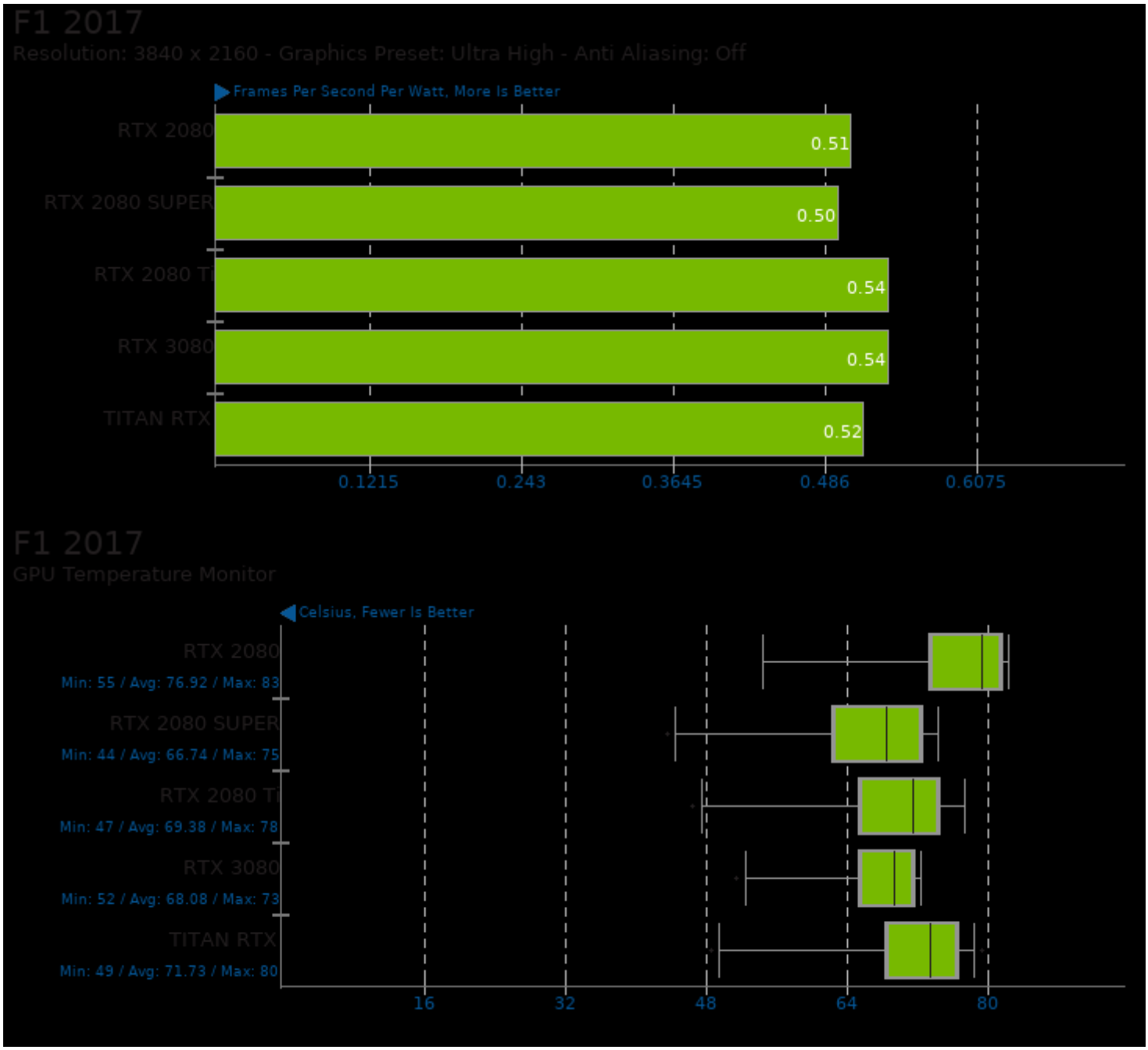
Radeon RX 6800 Series Linux Benchmarks

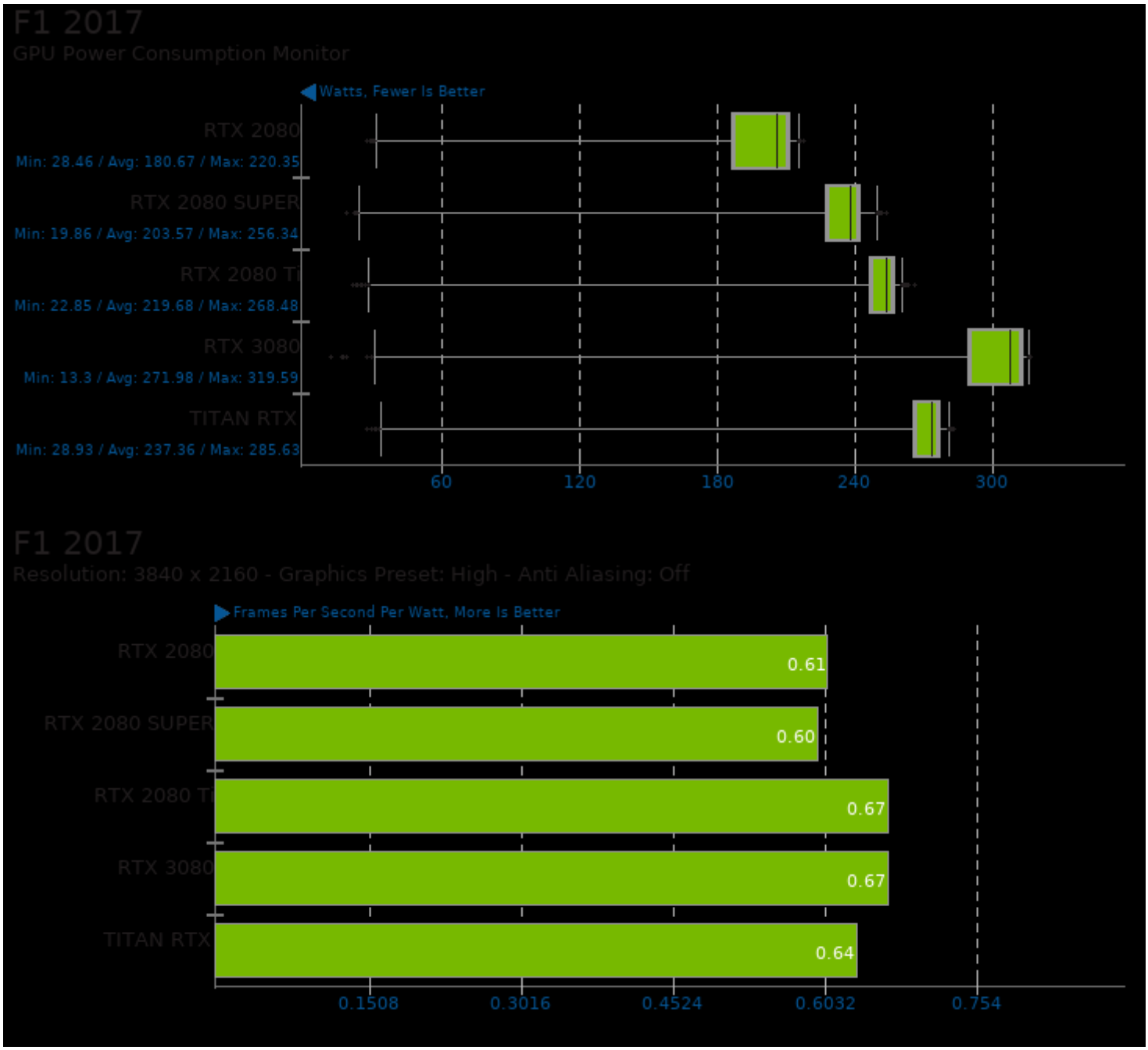


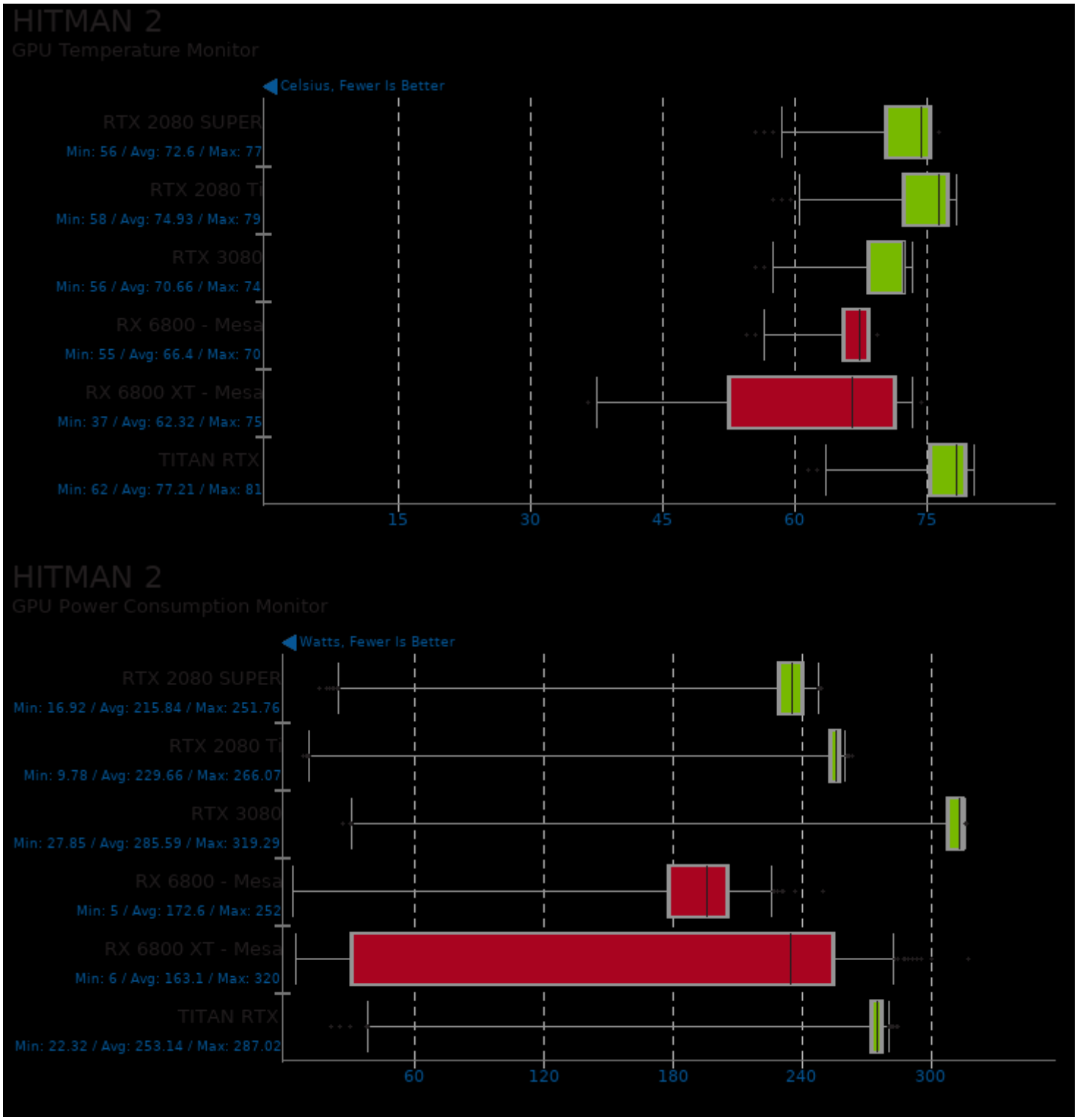

VkFFT 2020-09-29
Benchmark Score, More Is Better
RTX 2080
SE +/- 58.29, N = 3
27379
RTX 2080 SUPER
SE +/- 19.32, N = 3
29238
RTX 2080 Ti
SE +/- 23.18, N = 3
37640
RTX 3080
SE +/- 95.30, N = 3
50303
RX 6800 - Mesa
SE +/- 152.96, N = 3
46249
RX 6800 - Mesa New
SE +/- 383.76, N = 3
45162
RX 6800 - PRO
SE +/- 58.20, N = 3
44146
RX 6800 XT - Mesa
SE +/- 445.18, N = 3
52361
RX 6800 XT - Mesa New
SE +/- 67.85, N = 3
52386
RX 6800 XT - PRO
SE +/- 19.88, N = 3
51163
TITAN RTX
SE +/- 12.88, N = 3
37440
11K
22K
33K
44K
55K
Shadow of the Tomb Raider
Resolution: 3840 x 2160 - Graphics Preset: Low - Anti Aliasing: Off
Frames Per Second Per Watt, More Is Better
RTX 2080
0.42
RTX 2080 SUPER
0.39
RTX 2080 Ti
0.44
RTX 3080
0.47
TITAN RTX
0.43
0.1058
0.2116
0.3174
0.4232
0.529

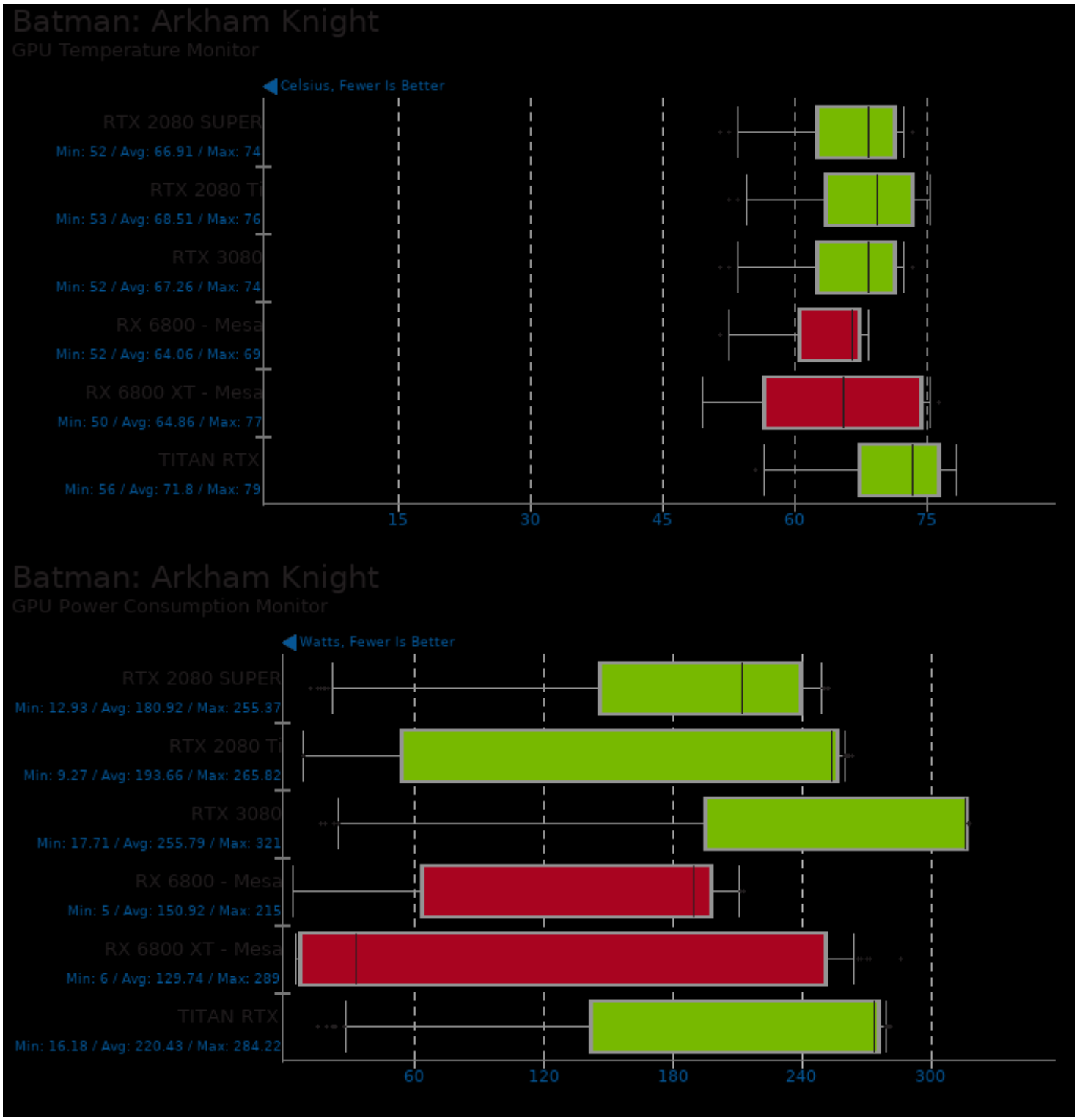
Radeon RX 6800 Series Linux Benchmarks




F1 2017
Resolution: 3840 x 2160 - Graphics Preset: Ultra High - Anti Aliasing: Off
Frames Per Second Per Watt, More Is Better
RTX 2080
0.51
RTX 2080 SUPER
0.50
RTX 2080 Ti
0.54
RTX 3080
0.54
TITAN RTX
0.52
0.1215
0.243
0.3645
0.486
0.6075
F1 2017
GPU Temperature Monitor
Celsius, Fewer Is Better
RTX 2080
Min: 55 / Avg: 76.92 / Max: 83
RTX 2080 SUPER
Min: 44 / Avg: 66.74 / Max: 75
RTX 2080 Ti
Min: 47 / Avg: 69.38 / Max: 78
RTX 3080
Min: 52 / Avg: 68.08 / Max: 73
TITAN RTX
Min: 49 / Avg: 71.73 / Max: 80
16
32
48
64
80

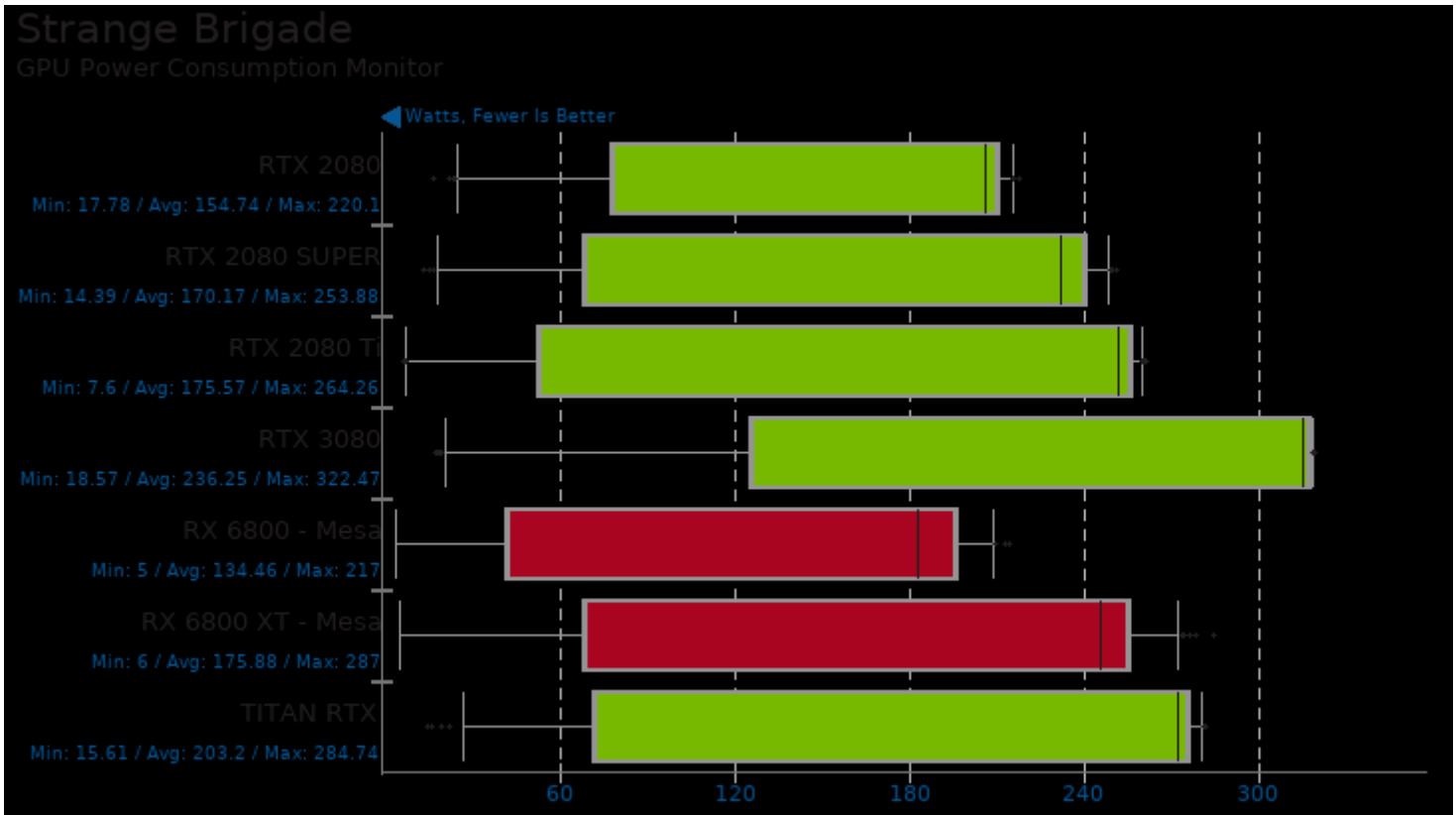

F1 2017
GPU Power Consumption Monitor
Watts, Fewer Is Better
RTX 2080
Min: 28.46 / Avg: 180.67 / Max: 220.35
RTX 2080 SUPER
Min: 19.86 / Avg: 203.57 / Max: 256.34
RTX 2080 Ti
Min: 22.85 / Avg: 219.68 / Max: 268.48
RTX 3080
Min: 13.3 / Avg: 271.98 / Max: 319.59
TITAN RTX
Min: 28.93 / Avg: 237.36 / Max: 285.63
60
120
180
240
300
F1 2017
Resolution: 3840 x 2160 - Graphics Preset: High - Anti Aliasing: Off
Frames Per Second Per Watt, More Is Better
RTX 2080
0.61
RTX 2080 SUPER
0.60
RTX 2080 Ti
0.67
RTX 3080
0.67
TITAN RTX
0.64
0.1508
0.3016
0.4524
0.6032
0.754

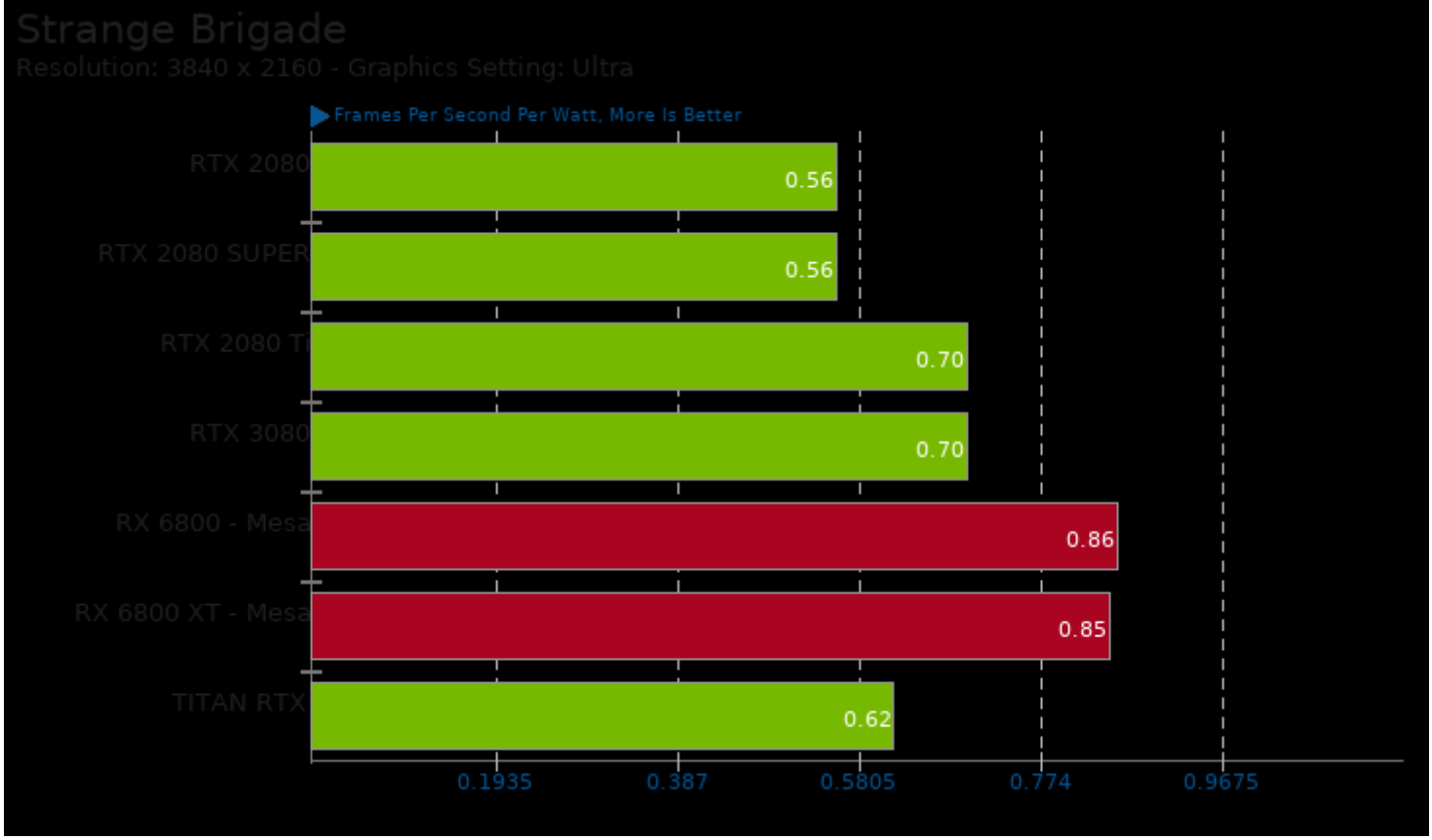

HITMAN 2
GPU Temperature Monitor
Celsius, Fewer Is Better
RTX 2080 SUPER
Min: 56 / Avg: 72.6 / Max: 77
RTX 2080 Ti
Min: 58 / Avg: 74.93 / Max: 79
RTX 3080
Min: 56 / Avg: 70.66 / Max: 74
RX 6800 - Mesa
Min: 55 / Avg: 66.4 / Max: 70
RX 6800 XT - Mesa
Min: 37 / Avg: 62.32 / Max: 75
TITAN RTX
Min: 62 / Avg: 77.21 / Max: 81
15
30
45
60
75
HITMAN 2
GPU Power Consumption Monitor
Watts, Fewer Is Better
RTX 2080 SUPER
Min: 16.92 / Avg: 215.84 / Max: 251.76
RTX 2080 Ti
Min: 9.78 / Avg: 229.66 / Max: 266.07
RTX 3080
Min: 27.85 / Avg: 285.59 / Max: 319.29
RX 6800 - Mesa
Min: 5 / Avg: 172.6 / Max: 252
RX 6800 XT - Mesa
Min: 6 / Avg: 163.1 / Max: 320
TITAN RTX
Min: 22.32 / Avg: 253.14 / Max: 287.02
60
120
180
240
300

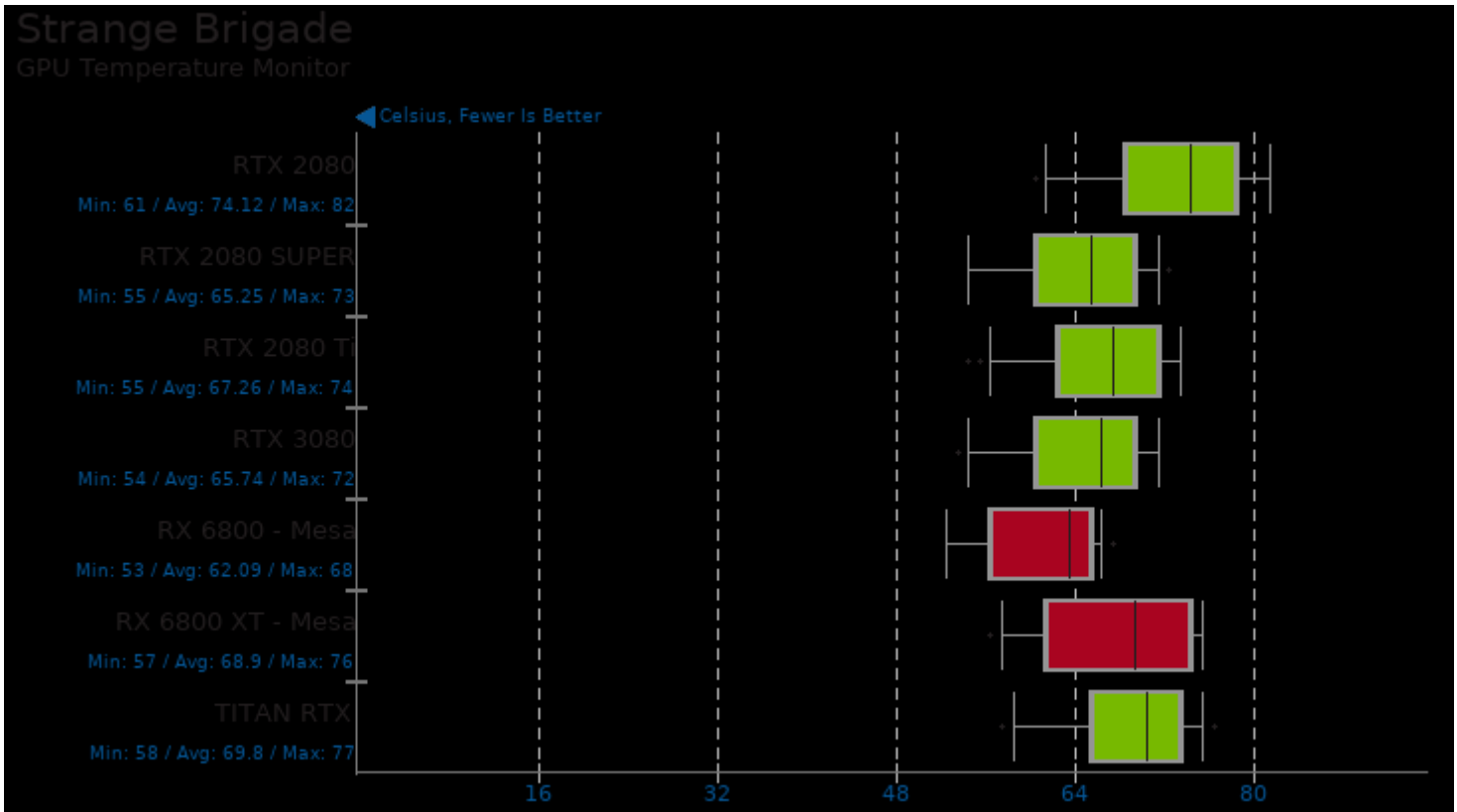

Batman: Arkham Knight
GPU Temperature Monitor
Celsius, Fewer Is Better
RTX 2080 SUPER
Min: 52 / Avg: 66.91 / Max: 74
RTX 2080 Ti
Min: 53 / Avg: 68.51 / Max: 76
RTX 3080
Min: 52 / Avg: 67.26 / Max: 74
RX 6800 - Mesa
Min: 52 / Avg: 64.06 / Max: 69
RX 6800 XT - Mesa
Min: 50 / Avg: 64.86 / Max: 77
TITAN RTX
Min: 56 / Avg: 71.8 / Max: 79
15
30
45
60
75
Batman: Arkham Knight
GPU Power Consumption Monitor
Watts, Fewer Is Better
RTX 2080 SUPER
Min: 12.93 / Avg: 180.92 / Max: 255.37
RTX 2080 Ti
Min: 9.27 / Avg: 193.66 / Max: 265.82
RTX 3080
Min: 17.71 / Avg: 255.79 / Max: 321
RX 6800 - Mesa
Min: 5 / Avg: 150.92 / Max: 215
RX 6800 XT - Mesa
Min: 6 / Avg: 129.74 / Max: 289
TITAN RTX
Min: 16.18 / Avg: 220.43 / Max: 284.22
60
120
180
240
300

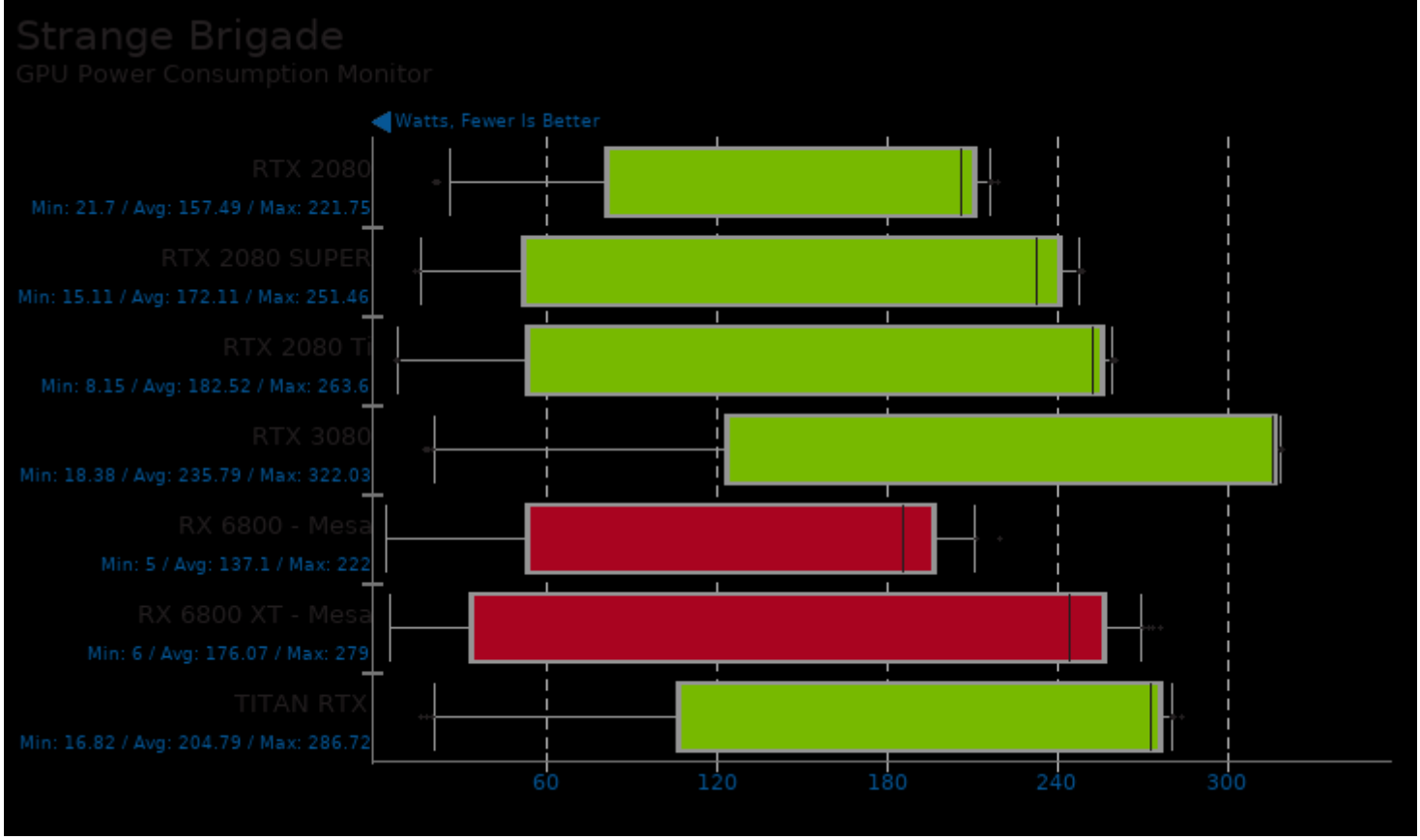
Radeon RX 6800 Series Linux Benchmarks

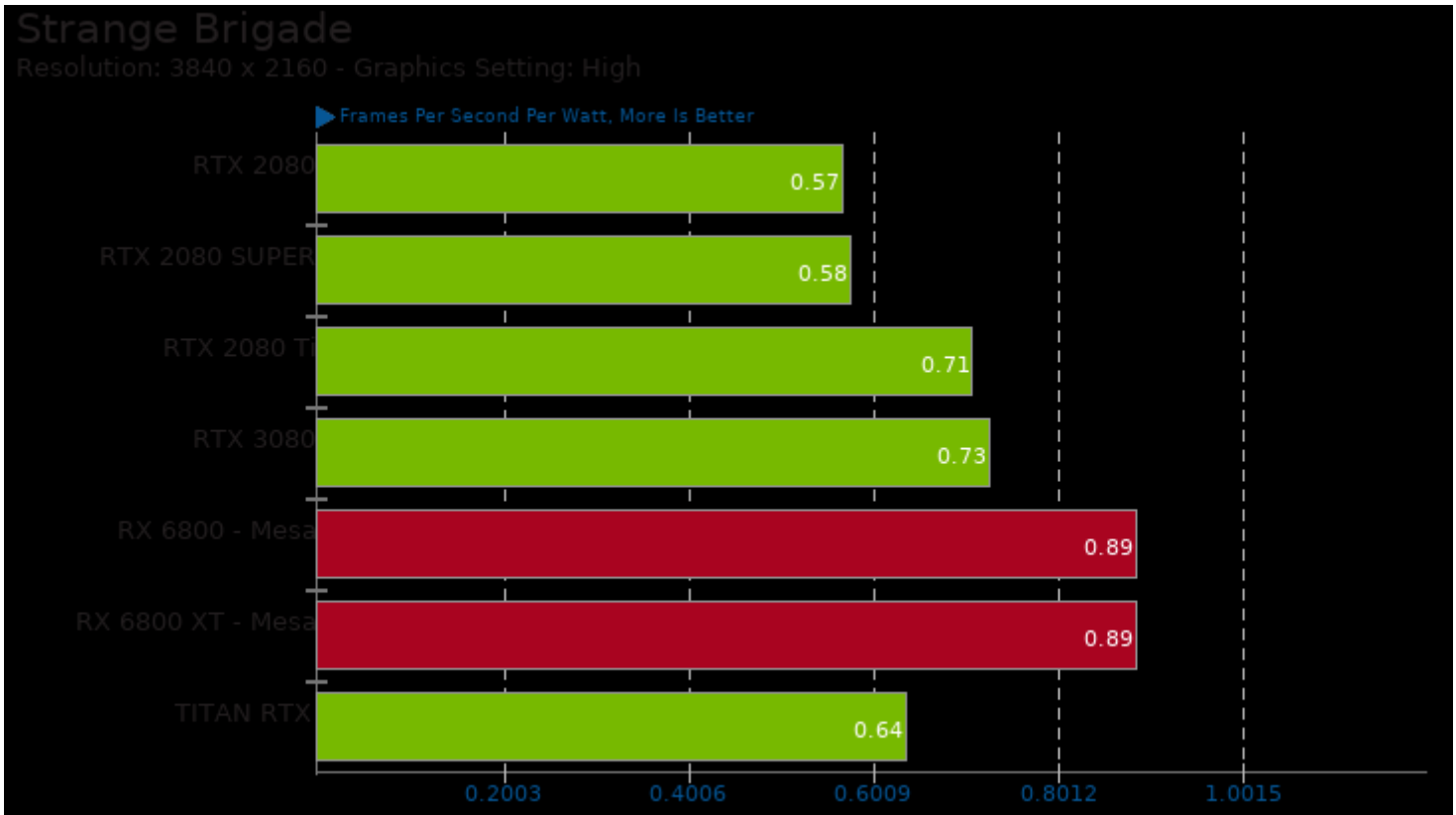


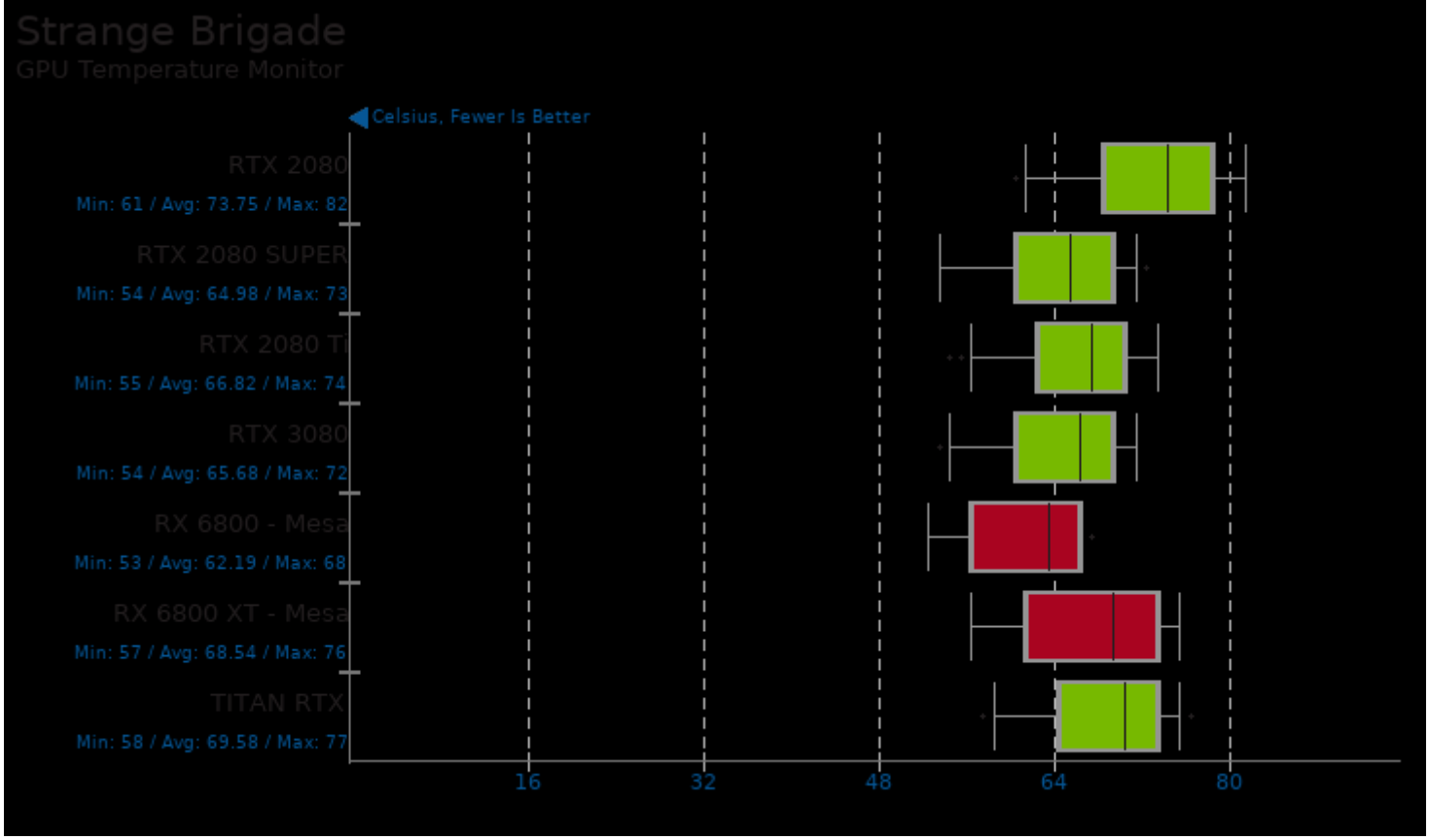

Strange Brigade
GPU Power Consumption Monitor
Watts, Fewer Is Better
RTX 2080
Min: 17.78 / Avg: 154.74 / Max: 220.1
RTX 2080 SUPER
Min: 14.39 / Avg: 170.17 / Max: 253.88
RTX 2080 Ti
Min: 7.6 / Avg: 175.57 / Max: 264.26
RTX 3080
Min: 18.57 / Avg: 236.25 / Max: 322.47
RX 6800 - Mesa
Min: 5 / Avg: 134.46 / Max: 217
RX 6800 XT - Mesa
Min: 6 / Avg: 175.88 / Max: 287
TITAN RTX
Min: 15.61 / Avg: 203.2 / Max: 284.74
60
120
180
240
300

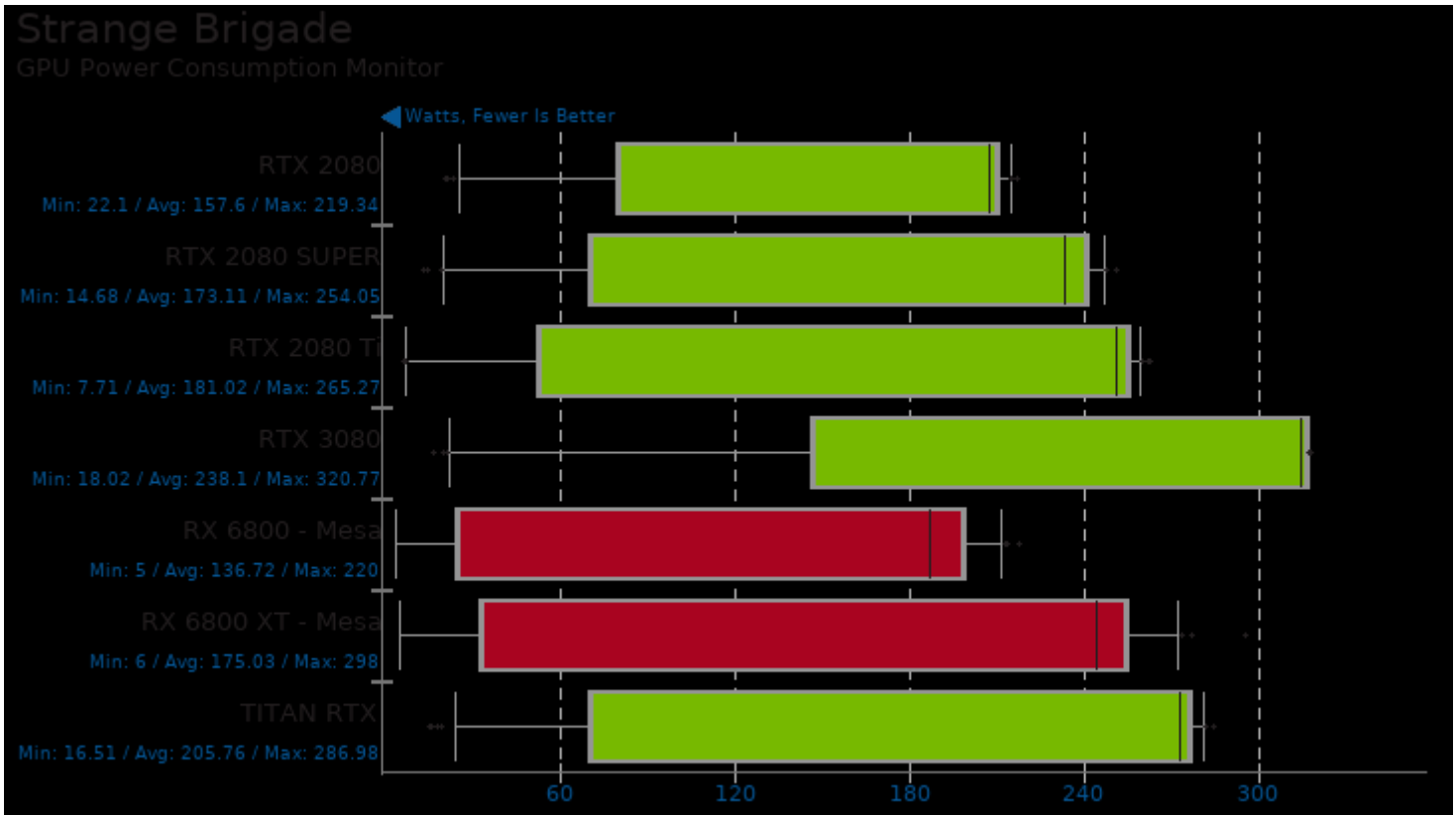

Strange Brigade
Resolution: 3840 x 2160 - Graphics Setting: Ultra
Frames Per Second Per Watt, More Is Better
RTX 2080
0.56
RTX 2080 SUPER
0.56
RTX 2080 Ti
0.70
RTX 3080
0.70
RX 6800 - Mesa
0.86
RX 6800 XT - Mesa
0.85
TITAN RTX
0.62
0.1935
0.387
0.5805
0.774
0.9675

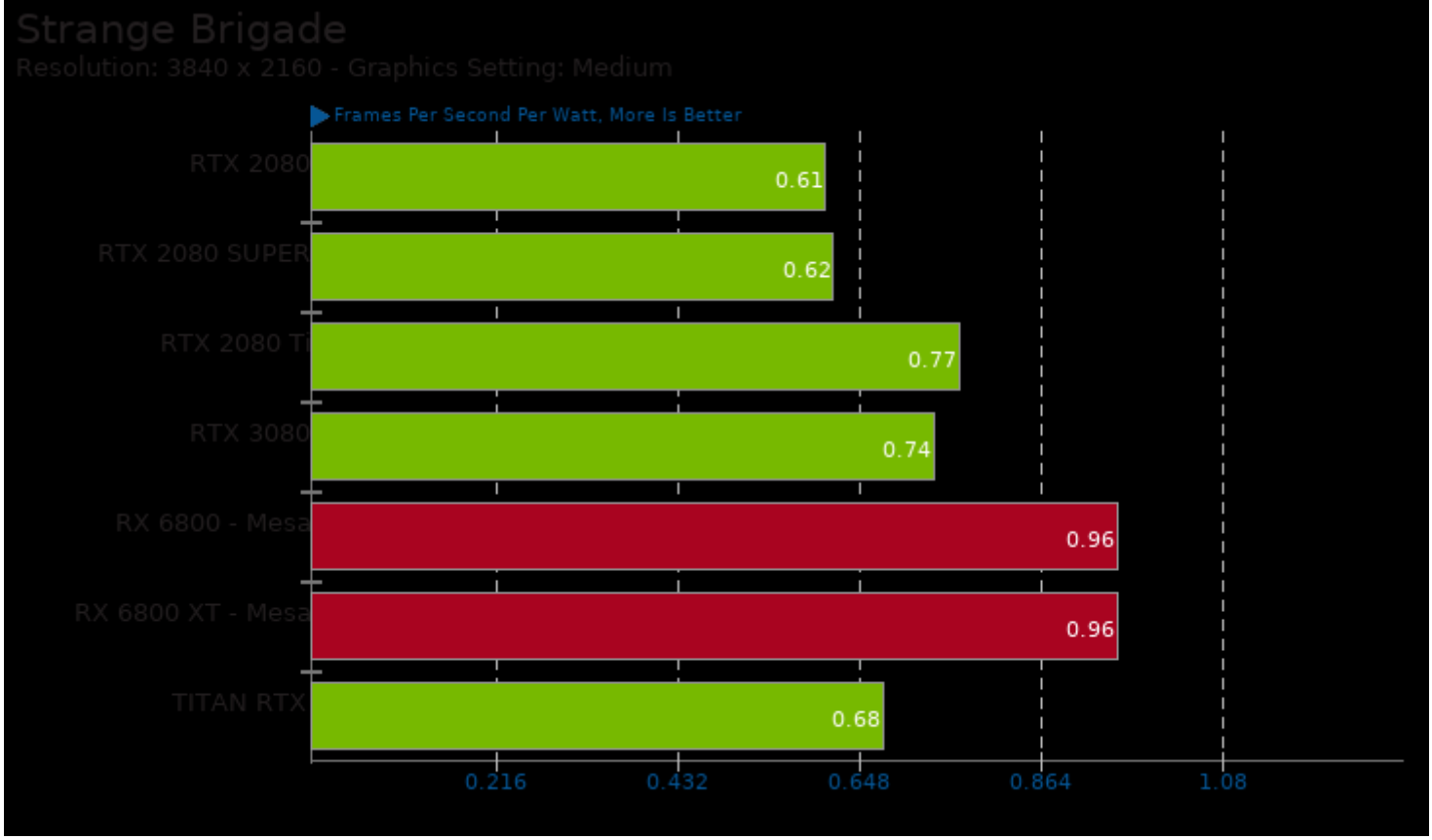

Strange Brigade
GPU Temperature Monitor
Celsius, Fewer Is Better
RTX 2080
Min: 61 / Avg: 74.12 / Max: 82
RTX 2080 SUPER
Min: 55 / Avg: 65.25 / Max: 73
RTX 2080 Ti
Min: 55 / Avg: 67.26 / Max: 74
RTX 3080
Min: 54 / Avg: 65.74 / Max: 72
RX 6800 - Mesa
Min: 53 / Avg: 62.09 / Max: 68
RX 6800 XT - Mesa
Min: 57 / Avg: 68.9 / Max: 76
TITAN RTX
Min: 58 / Avg: 69.8 / Max: 77
16
32
48
64
80

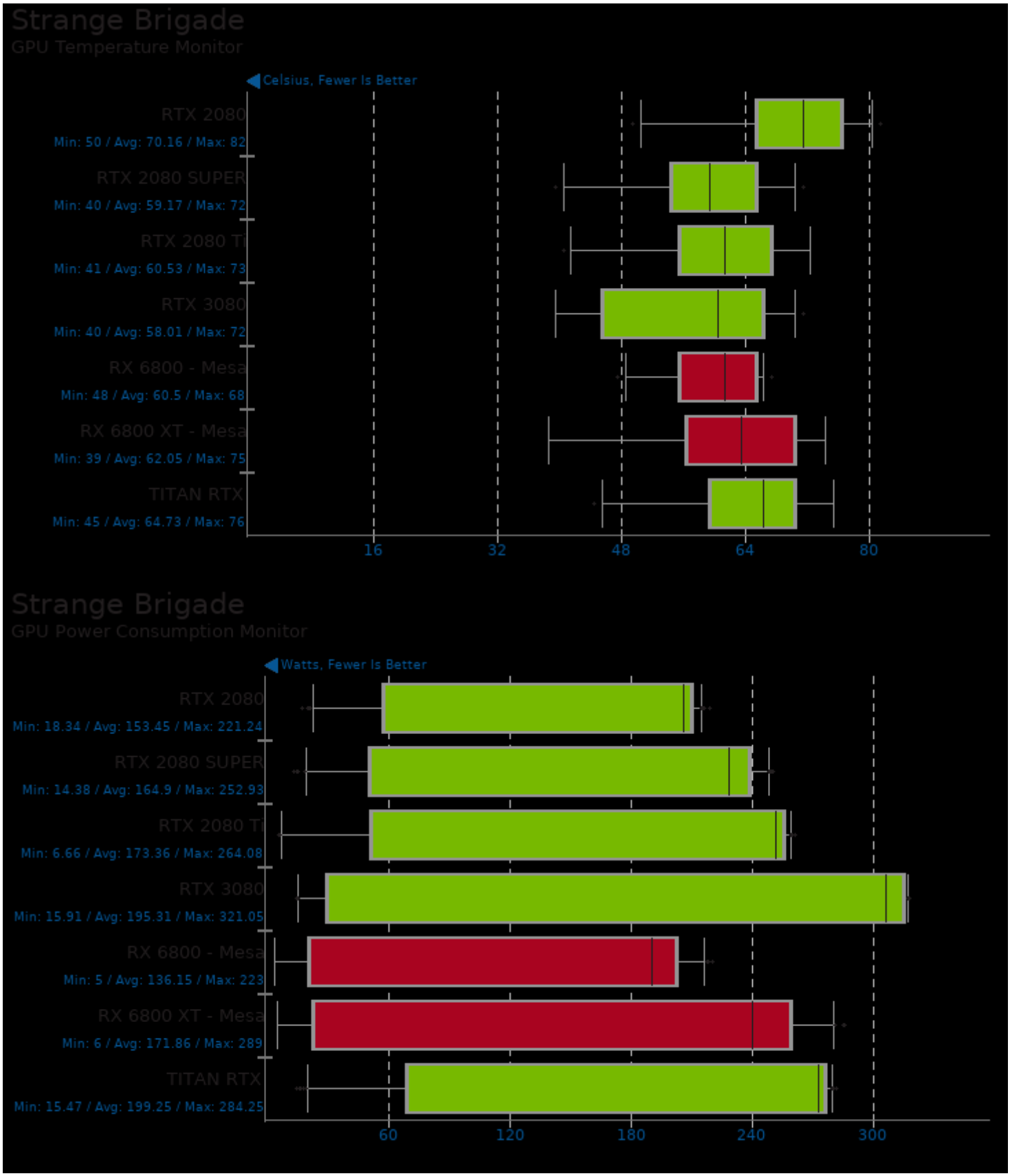

Strange Brigade
GPU Power Consumption Monitor
Watts, Fewer Is Better
RTX 2080
Min: 21.7 / Avg: 157.49 / Max: 221.75
RTX 2080 SUPER
Min: 15.11 / Avg: 172.11 / Max: 251.46
RTX 2080 Ti
Min: 8.15 / Avg: 182.52 / Max: 263.6
RTX 3080
Min: 18.38 / Avg: 235.79 / Max: 322.03
RX 6800 - Mesa
Min: 5 / Avg: 137.1 / Max: 222
RX 6800 XT - Mesa
Min: 6 / Avg: 176.07 / Max: 279
TITAN RTX
Min: 16.82 / Avg: 204.79 / Max: 286.72
60
120
180
240
300

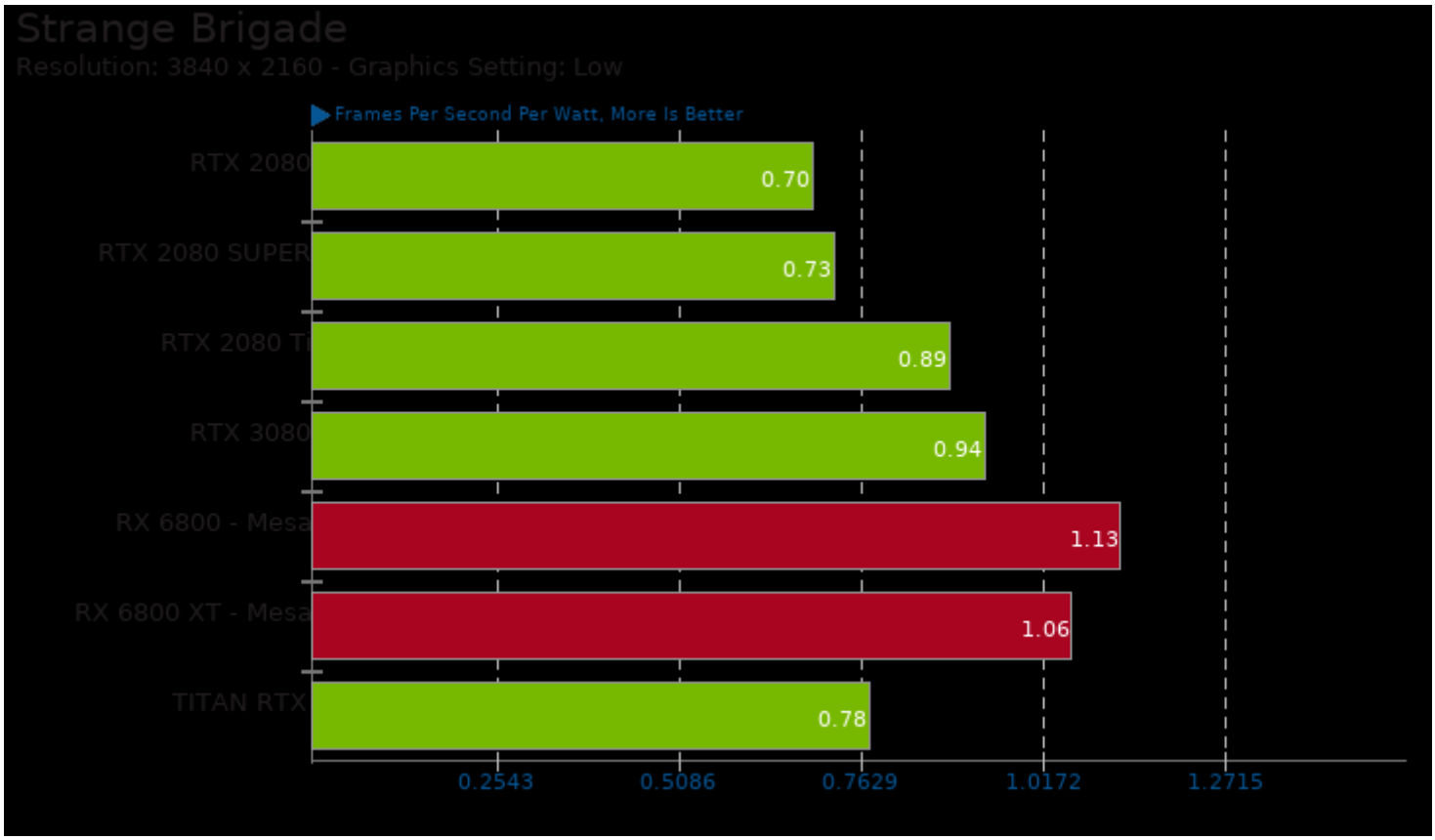

Strange Brigade
Resolution: 3840 x 2160 - Graphics Setting: High
Frames Per Second Per Watt, More Is Better
RTX 2080
0.57
RTX 2080 SUPER
0.58
RTX 2080 Ti
0.71
RTX 3080
0.73
RX 6800 - Mesa
0.89
RX 6800 XT - Mesa
0.89
TITAN RTX
0.64
0.2003
0.4006
0.6009
0.8012
1.0015

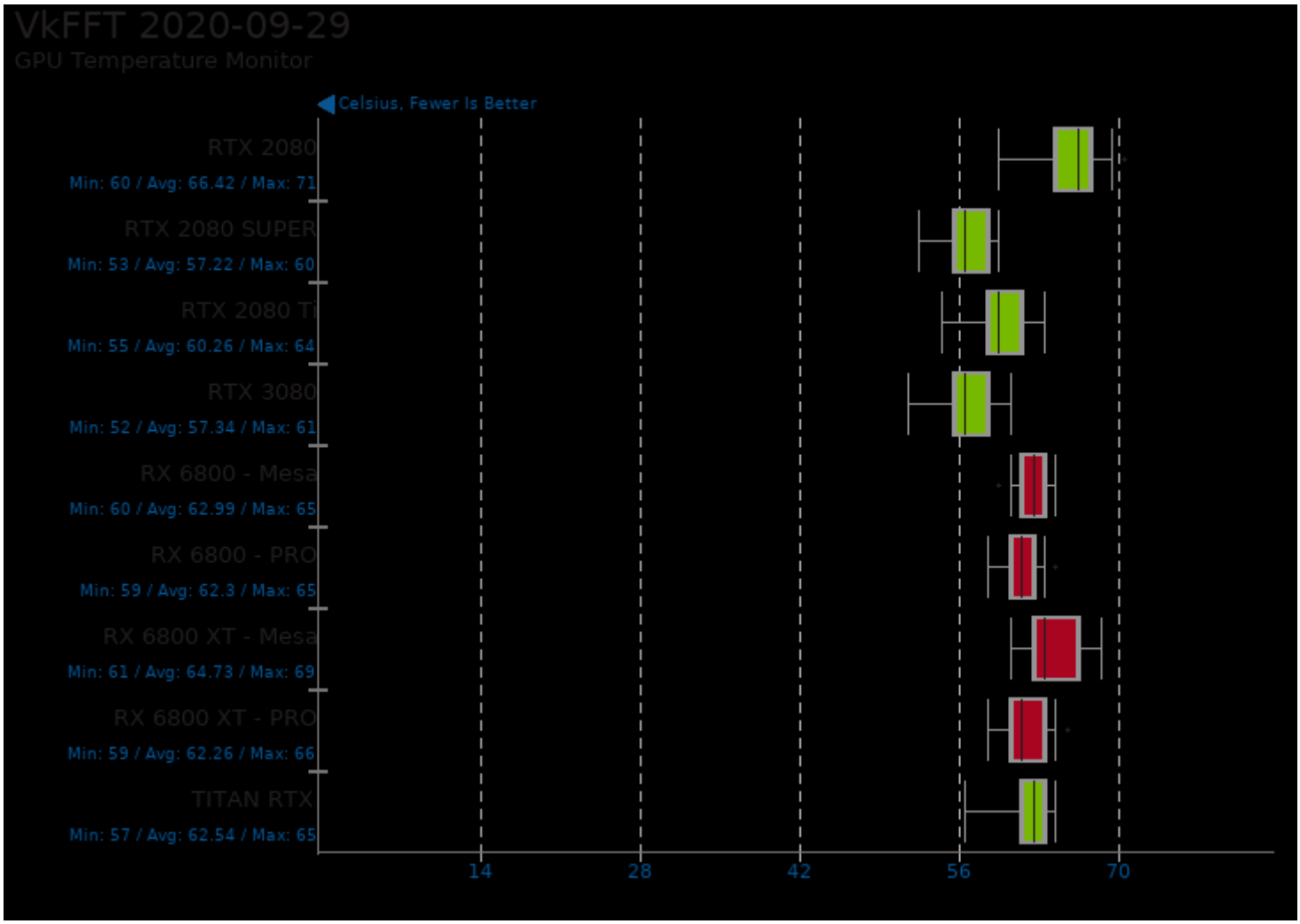

Strange Brigade
GPU Temperature Monitor
Celsius, Fewer Is Better
RTX 2080
Min: 61 / Avg: 73.75 / Max: 82
RTX 2080 SUPER
Min: 54 / Avg: 64.98 / Max: 73
RTX 2080 Ti
Min: 55 / Avg: 66.82 / Max: 74
RTX 3080
Min: 54 / Avg: 65.68 / Max: 72
RX 6800 - Mesa
Min: 53 / Avg: 62.19 / Max: 68
RX 6800 XT - Mesa
Min: 57 / Avg: 68.54 / Max: 76
TITAN RTX
Min: 58 / Avg: 69.58 / Max: 77
16
32
48
64
80

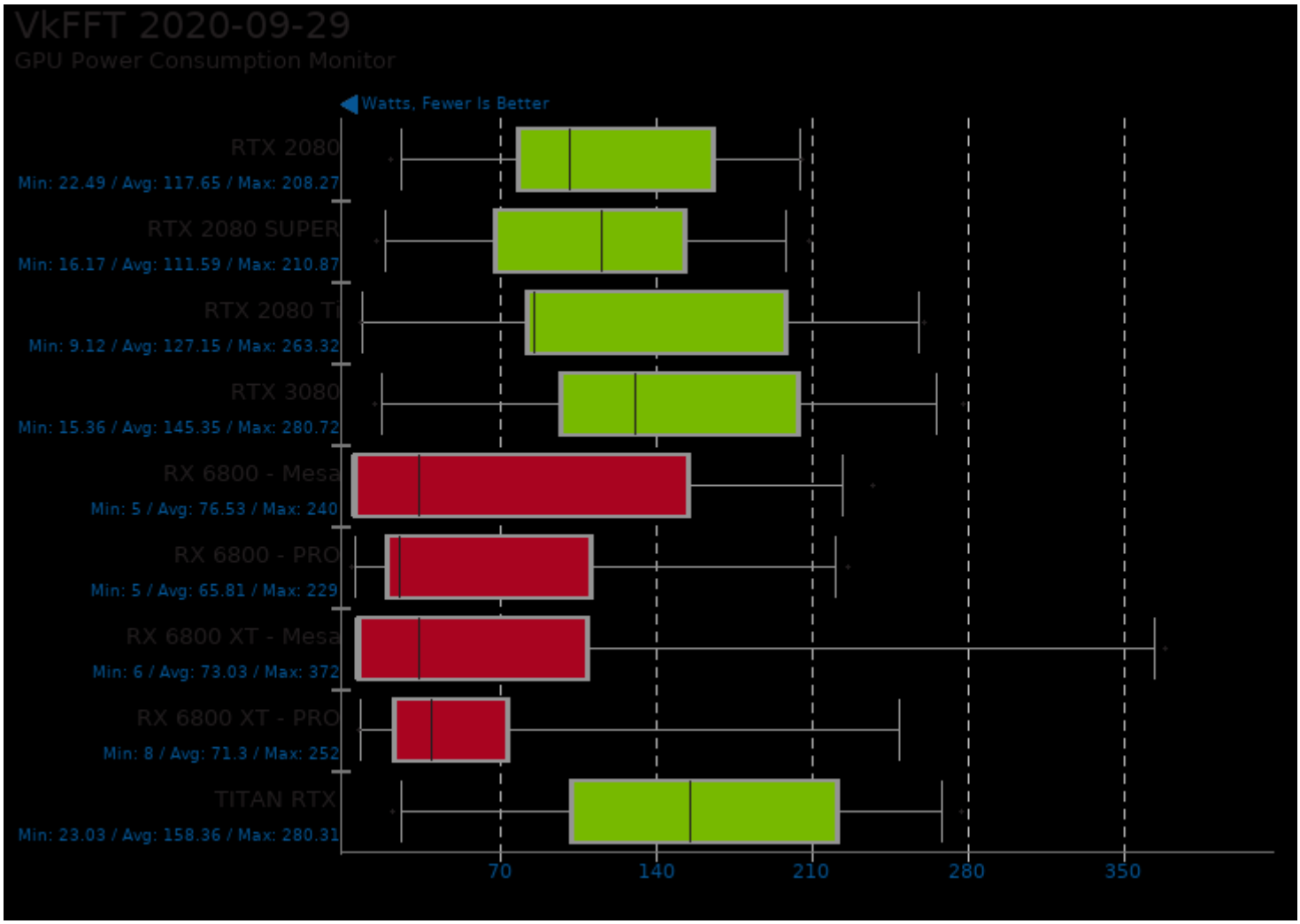

Strange Brigade
GPU Power Consumption Monitor
Watts, Fewer Is Better
RTX 2080
Min: 22.1 / Avg: 157.6 / Max: 219.34
RTX 2080 SUPER
Min: 14.68 / Avg: 173.11 / Max: 254.05
RTX 2080 Ti
Min: 7.71 / Avg: 181.02 / Max: 265.27
RTX 3080
Min: 18.02 / Avg: 238.1 / Max: 320.77
RX 6800 - Mesa
Min: 5 / Avg: 136.72 / Max: 220
RX 6800 XT - Mesa
Min: 6 / Avg: 175.03 / Max: 298
TITAN RTX
Min: 16.51 / Avg: 205.76 / Max: 286.98
60
120
180
240
300


Strange Brigade
Resolution: 3840 x 2160 - Graphics Setting: Medium
Frames Per Second Per Watt, More Is Better
RTX 2080
0.61
RTX 2080 SUPER
0.62
RTX 2080 Ti
0.77
RTX 3080
0.74
RX 6800 - Mesa
0.96
RX 6800 XT - Mesa
0.96
TITAN RTX
0.68
0.216
0.432
0.648
0.864
1.08

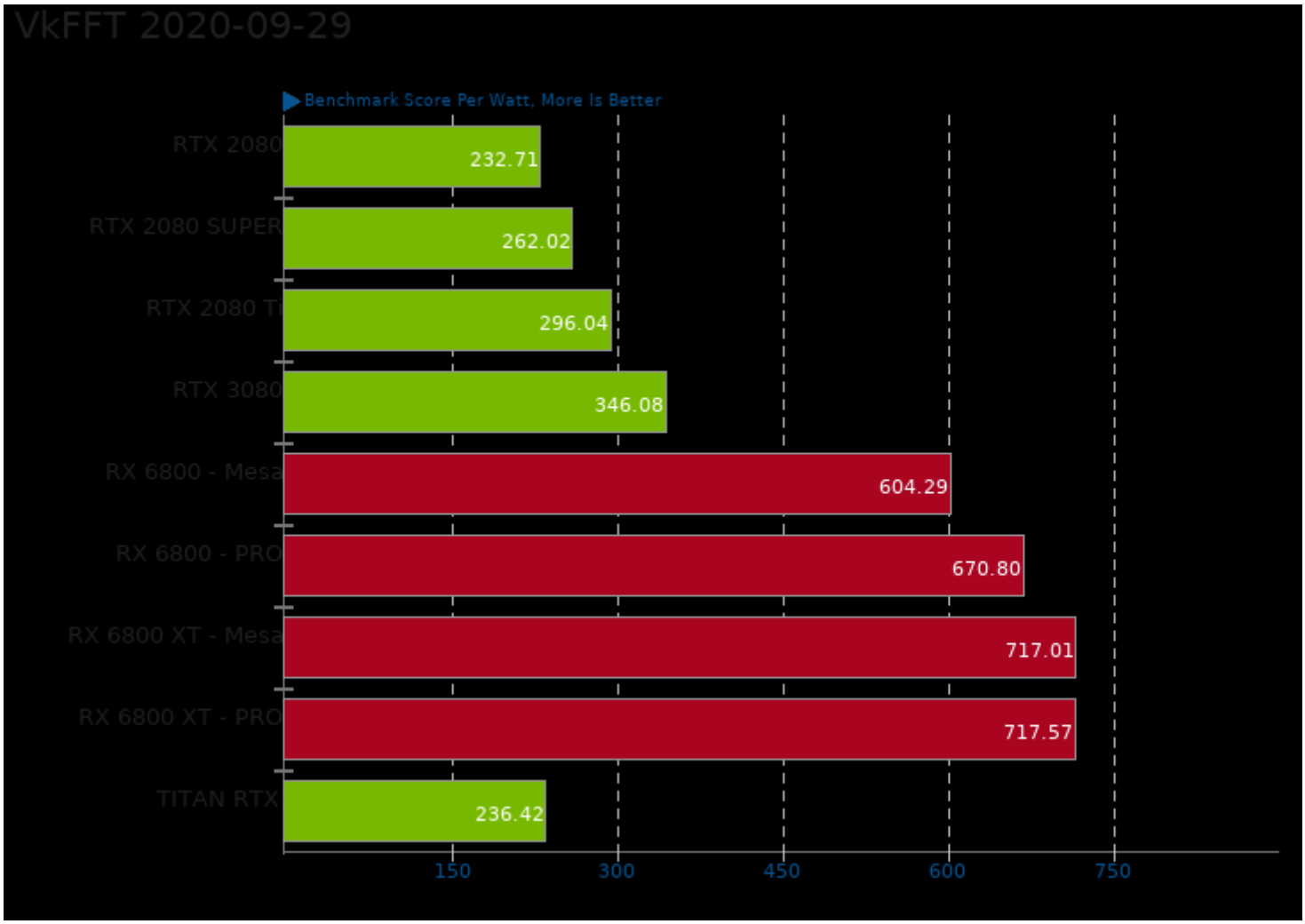

Strange Brigade
GPU Temperature Monitor
Celsius, Fewer Is Better
RTX 2080
Min: 50 / Avg: 70.16 / Max: 82
RTX 2080 SUPER
Min: 40 / Avg: 59.17 / Max: 72
RTX 2080 Ti
Min: 41 / Avg: 60.53 / Max: 73
RTX 3080
Min: 40 / Avg: 58.01 / Max: 72
RX 6800 - Mesa
Min: 48 / Avg: 60.5 / Max: 68
RX 6800 XT - Mesa
Min: 39 / Avg: 62.05 / Max: 75
TITAN RTX
Min: 45 / Avg: 64.73 / Max: 76
16
32
48
64
80
Strange Brigade
GPU Power Consumption Monitor
Watts, Fewer Is Better
RTX 2080
Min: 18.34 / Avg: 153.45 / Max: 221.24
RTX 2080 SUPER
Min: 14.38 / Avg: 164.9 / Max: 252.93
RTX 2080 Ti
Min: 6.66 / Avg: 173.36 / Max: 264.08
RTX 3080
Min: 15.91 / Avg: 195.31 / Max: 321.05
RX 6800 - Mesa
Min: 5 / Avg: 136.15 / Max: 223
RX 6800 XT - Mesa
Min: 6 / Avg: 171.86 / Max: 289
TITAN RTX
Min: 15.47 / Avg: 199.25 / Max: 284.25
60
120
180
240
300

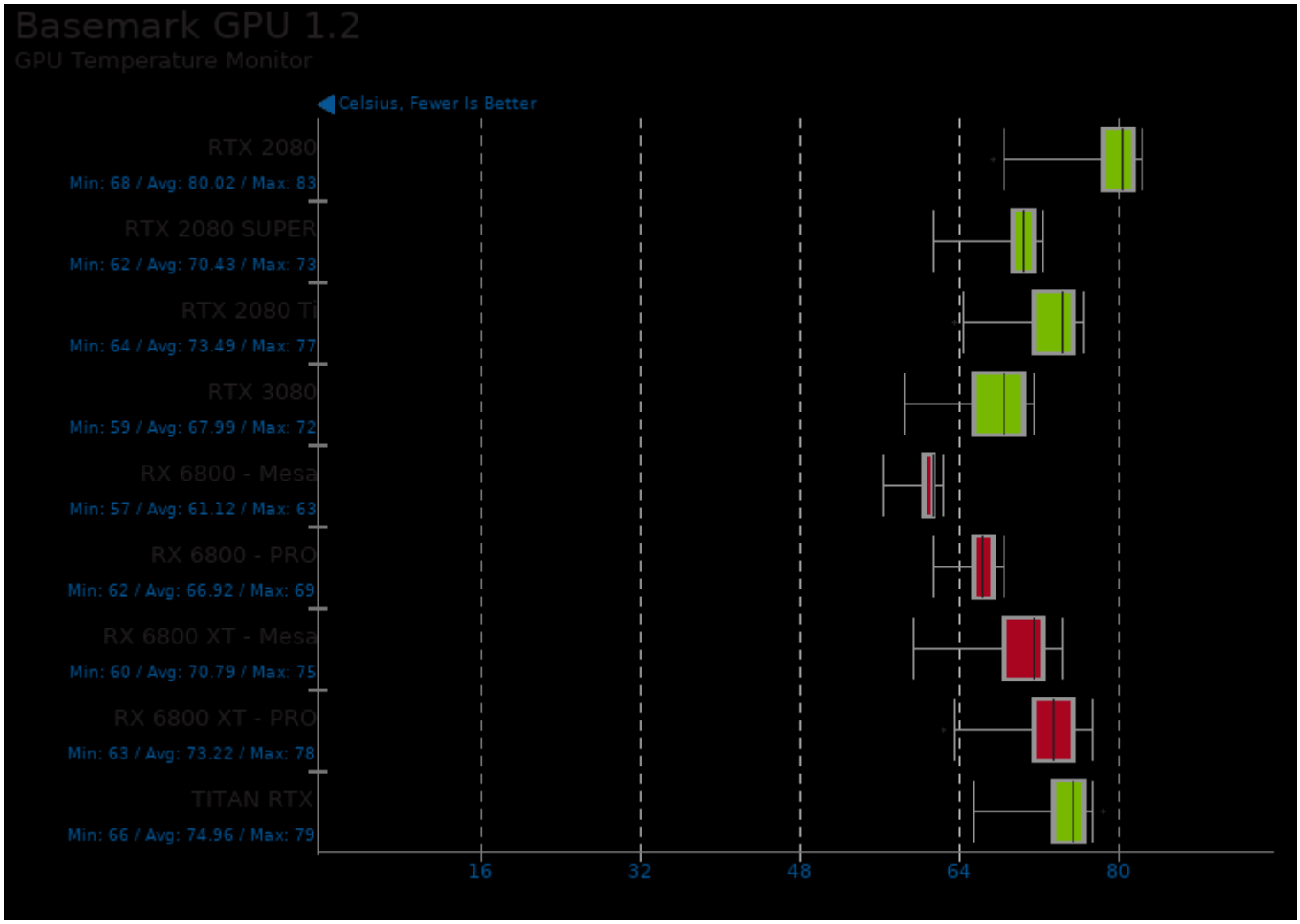

Strange Brigade
Resolution: 3840 x 2160 - Graphics Setting: Low
Frames Per Second Per Watt, More Is Better
RTX 2080
0.70
RTX 2080 SUPER
0.73
RTX 2080 Ti
0.89
RTX 3080
0.94
RX 6800 - Mesa
1.13
RX 6800 XT - Mesa
1.06
TITAN RTX
0.78
0.2543
0.5086
0.7629
1.0172
1.2715

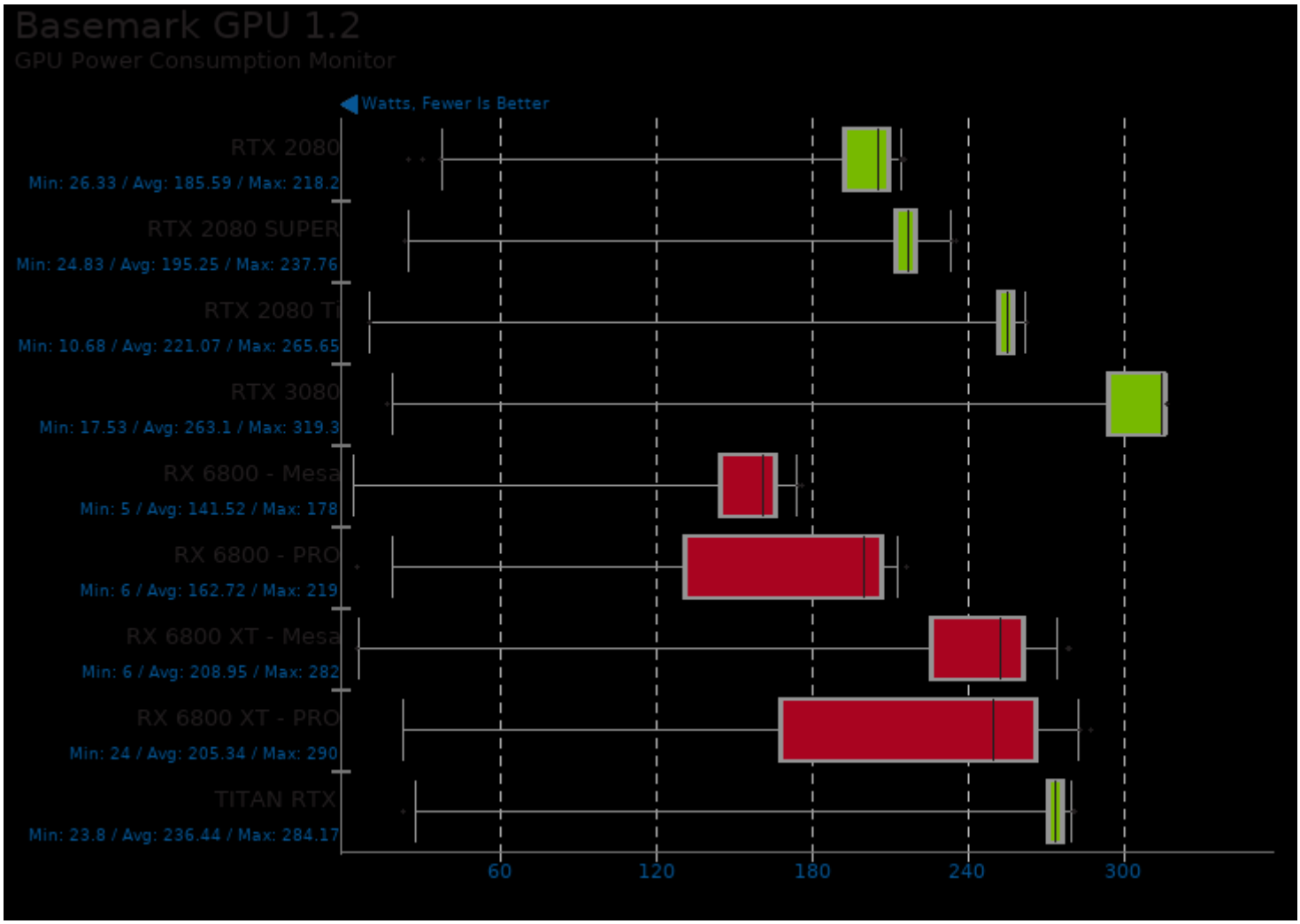

VkFFT 2020-09-29
GPU Temperature Monitor
Celsius, Fewer Is Better
RTX 2080
Min: 60 / Avg: 66.42 / Max: 71
RTX 2080 SUPER
Min: 53 / Avg: 57.22 / Max: 60
RTX 2080 Ti
Min: 55 / Avg: 60.26 / Max: 64
RTX 3080
Min: 52 / Avg: 57.34 / Max: 61
RX 6800 - Mesa
Min: 60 / Avg: 62.99 / Max: 65
RX 6800 - PRO
Min: 59 / Avg: 62.3 / Max: 65
RX 6800 XT - Mesa
Min: 61 / Avg: 64.73 / Max: 69
RX 6800 XT - PRO
Min: 59 / Avg: 62.26 / Max: 66
TITAN RTX
Min: 57 / Avg: 62.54 / Max: 65
14
28
42
56
70

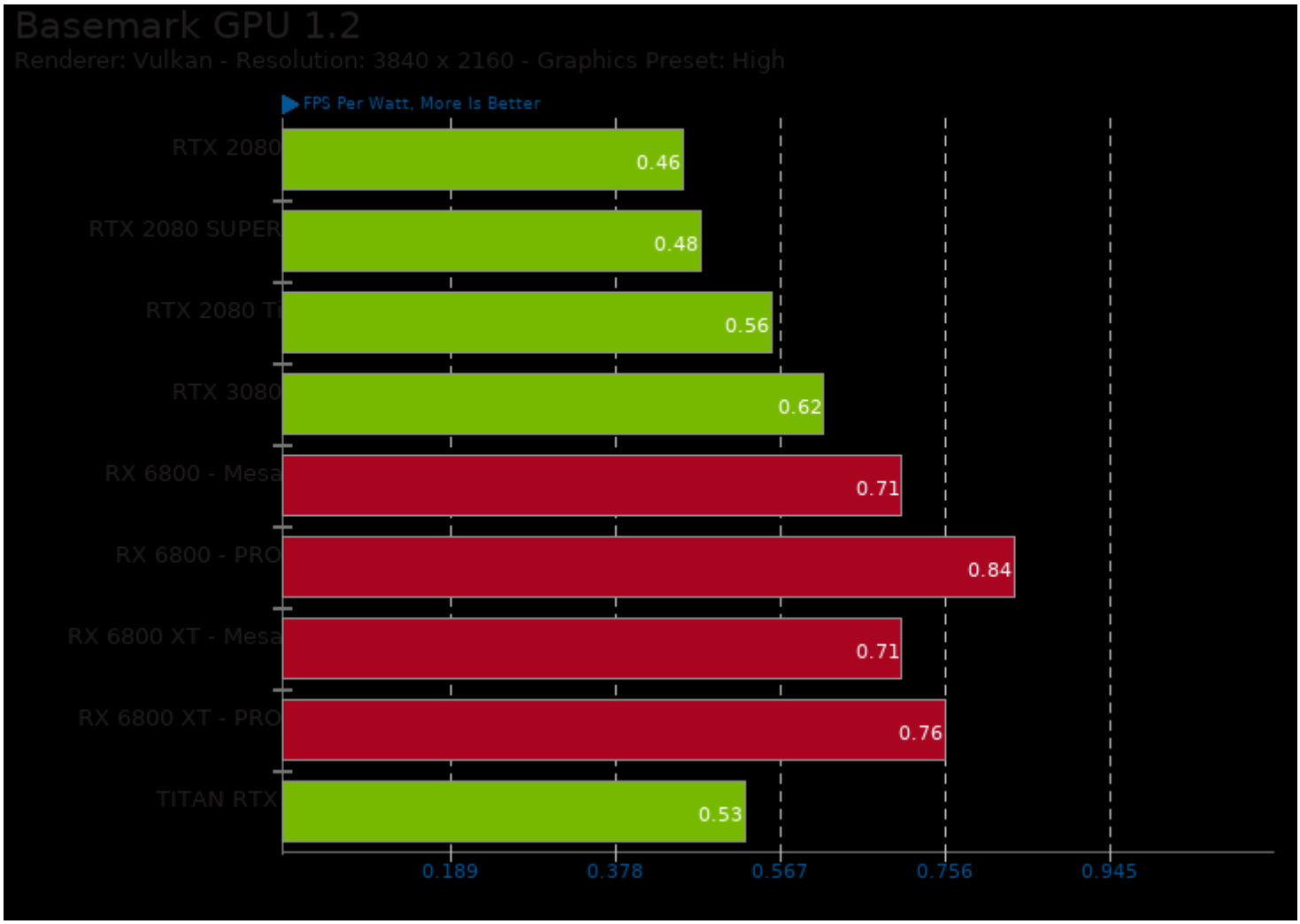

VkFFT 2020-09-29
GPU Power Consumption Monitor
Watts, Fewer Is Better
RTX 2080
Min: 22.49 / Avg: 117.65 / Max: 208.27
RTX 2080 SUPER
Min: 16.17 / Avg: 111.59 / Max: 210.87
RTX 2080 Ti
Min: 9.12 / Avg: 127.15 / Max: 263.32
RTX 3080
Min: 15.36 / Avg: 145.35 / Max: 280.72
RX 6800 - Mesa
Min: 5 / Avg: 76.53 / Max: 240
RX 6800 - PRO
Min: 5 / Avg: 65.81 / Max: 229
RX 6800 XT - Mesa
Min: 6 / Avg: 73.03 / Max: 372
RX 6800 XT - PRO
Min: 8 / Avg: 71.3 / Max: 252
TITAN RTX
Min: 23.03 / Avg: 158.36 / Max: 280.31
70
140
210
280
350

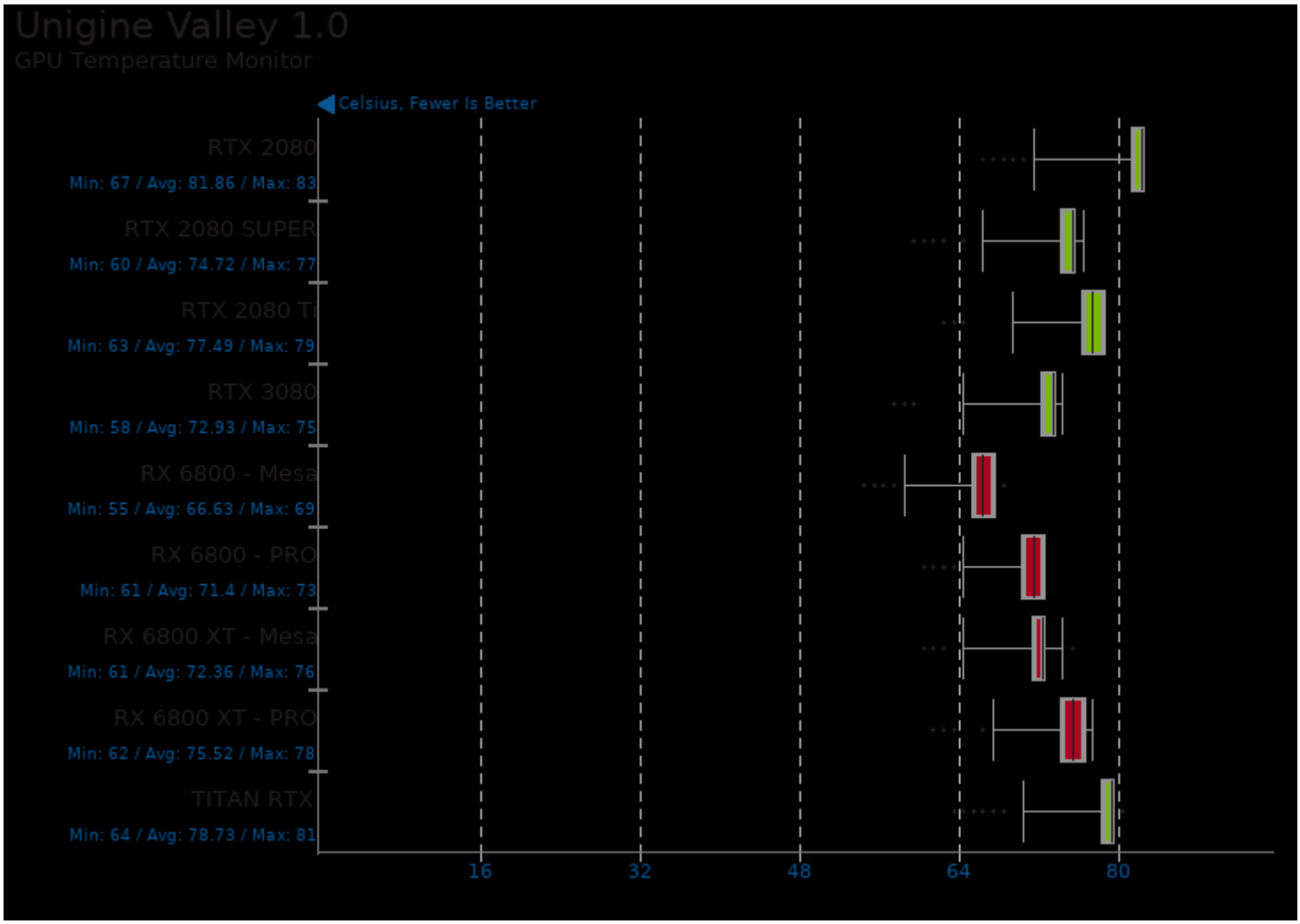
Radeon RX 6800 Series Linux Benchmarks

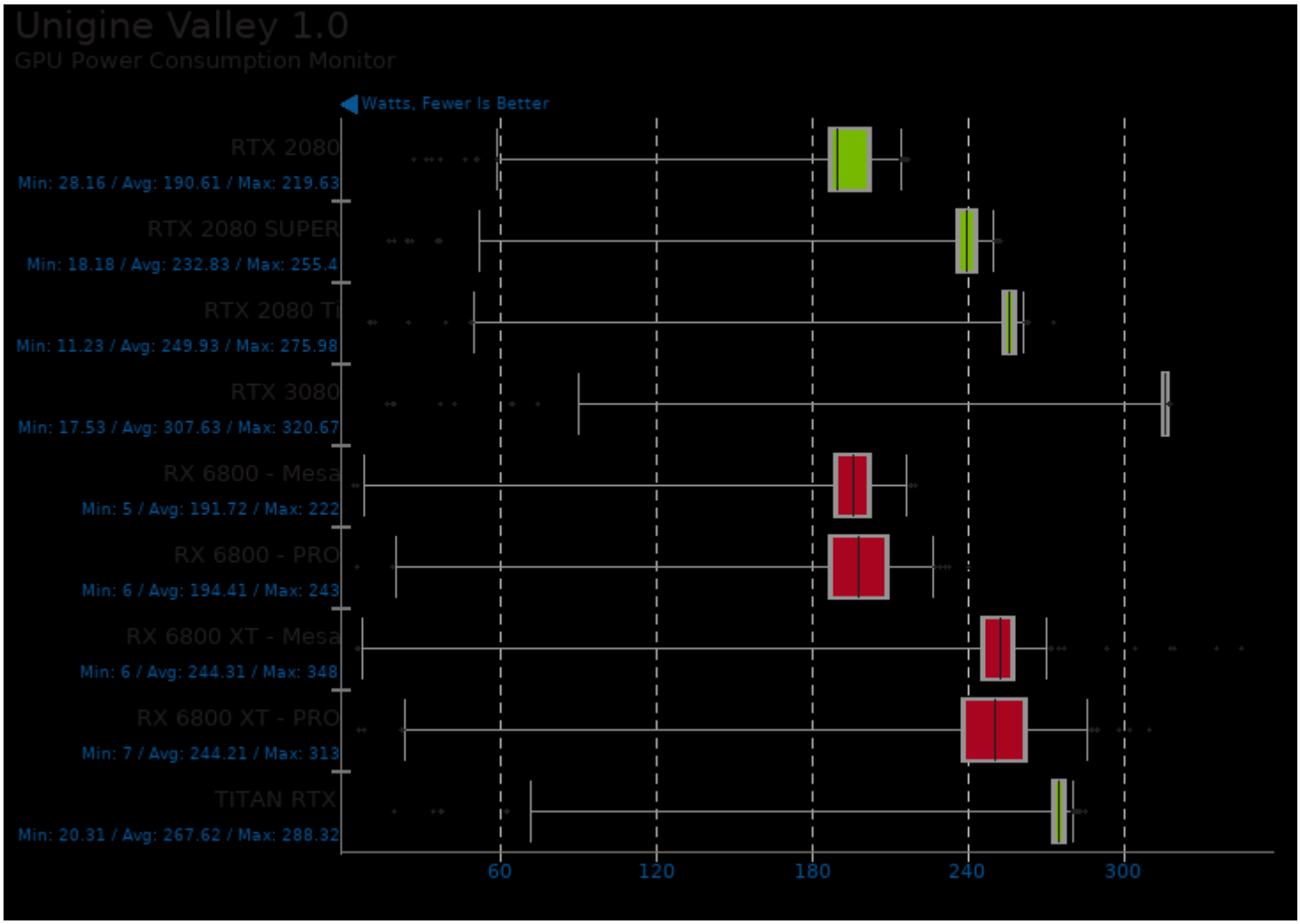


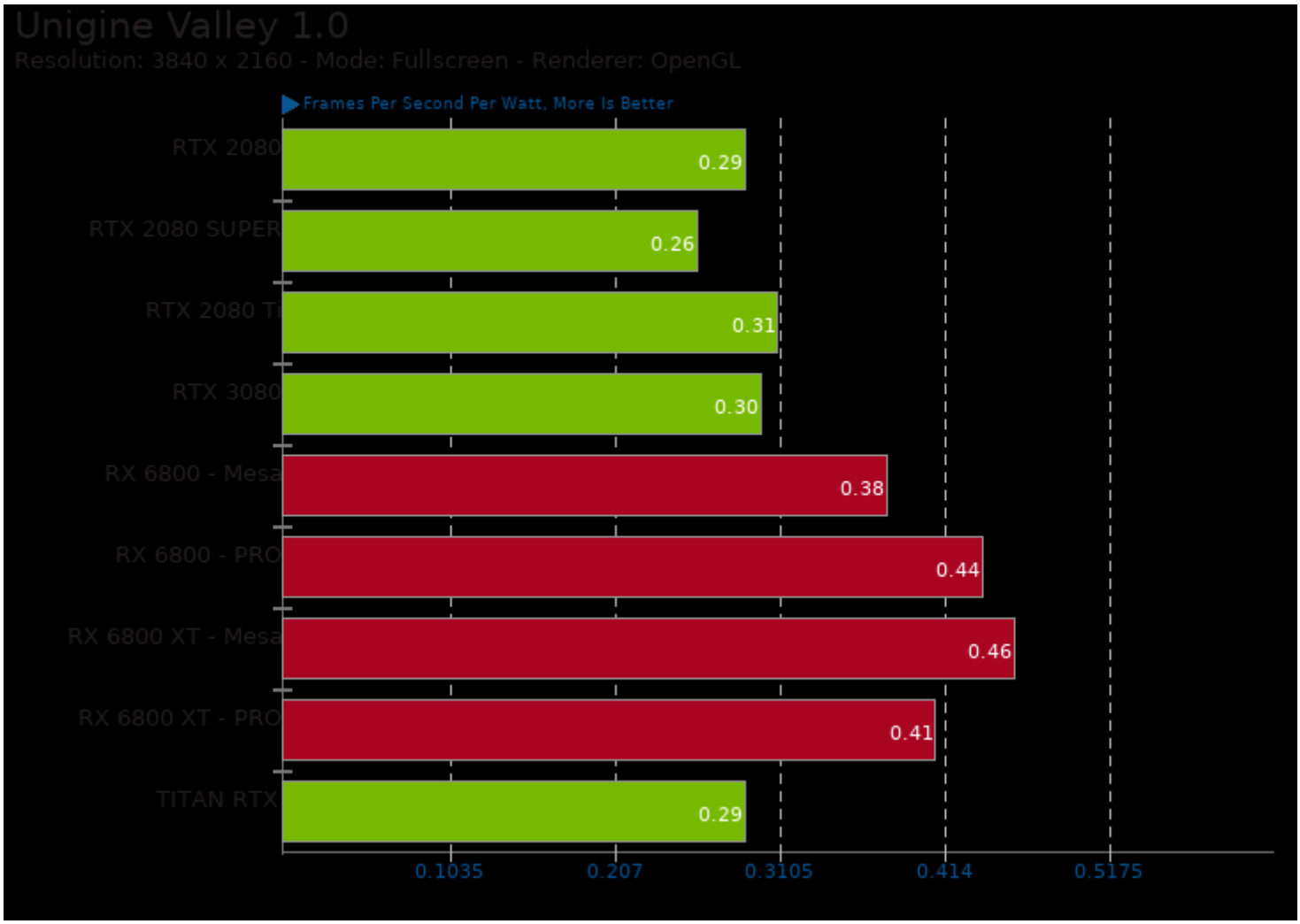

Basemark GPU 1.2
GPU Temperature Monitor
Celsius, Fewer Is Better
RTX 2080
Min: 68 / Avg: 80.02 / Max: 83
RTX 2080 SUPER
Min: 62 / Avg: 70.43 / Max: 73
RTX 2080 Ti
Min: 64 / Avg: 73.49 / Max: 77
RTX 3080
Min: 59 / Avg: 67.99 / Max: 72
RX 6800 - Mesa
Min: 57 / Avg: 61.12 / Max: 63
RX 6800 - PRO
Min: 62 / Avg: 66.92 / Max: 69
RX 6800 XT - Mesa
Min: 60 / Avg: 70.79 / Max: 75
RX 6800 XT - PRO
Min: 63 / Avg: 73.22 / Max: 78
TITAN RTX
Min: 66 / Avg: 74.96 / Max: 79
16
32
48
64
80

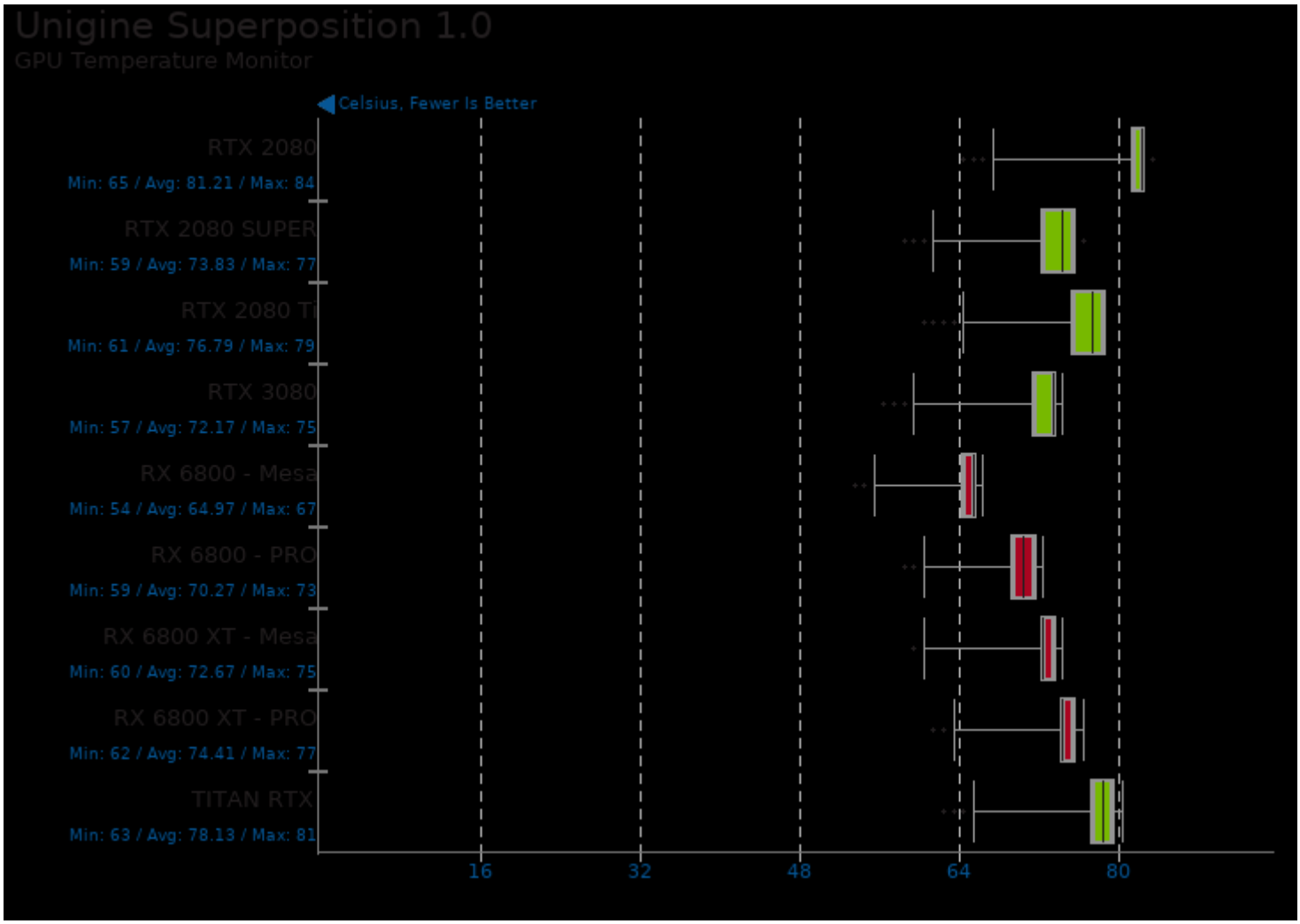

Basemark GPU 1.2
GPU Power Consumption Monitor
Watts, Fewer Is Better
RTX 2080
Min: 26.33 / Avg: 185.59 / Max: 218.2
RTX 2080 SUPER
Min: 24.83 / Avg: 195.25 / Max: 237.76
RTX 2080 Ti
Min: 10.68 / Avg: 221.07 / Max: 265.65
RTX 3080
Min: 17.53 / Avg: 263.1 / Max: 319.3
RX 6800 - Mesa
Min: 5 / Avg: 141.52 / Max: 178
RX 6800 - PRO
Min: 6 / Avg: 162.72 / Max: 219
RX 6800 XT - Mesa
Min: 6 / Avg: 208.95 / Max: 282
RX 6800 XT - PRO
Min: 24 / Avg: 205.34 / Max: 290
TITAN RTX
Min: 23.8 / Avg: 236.44 / Max: 284.17
60
120
180
240
300

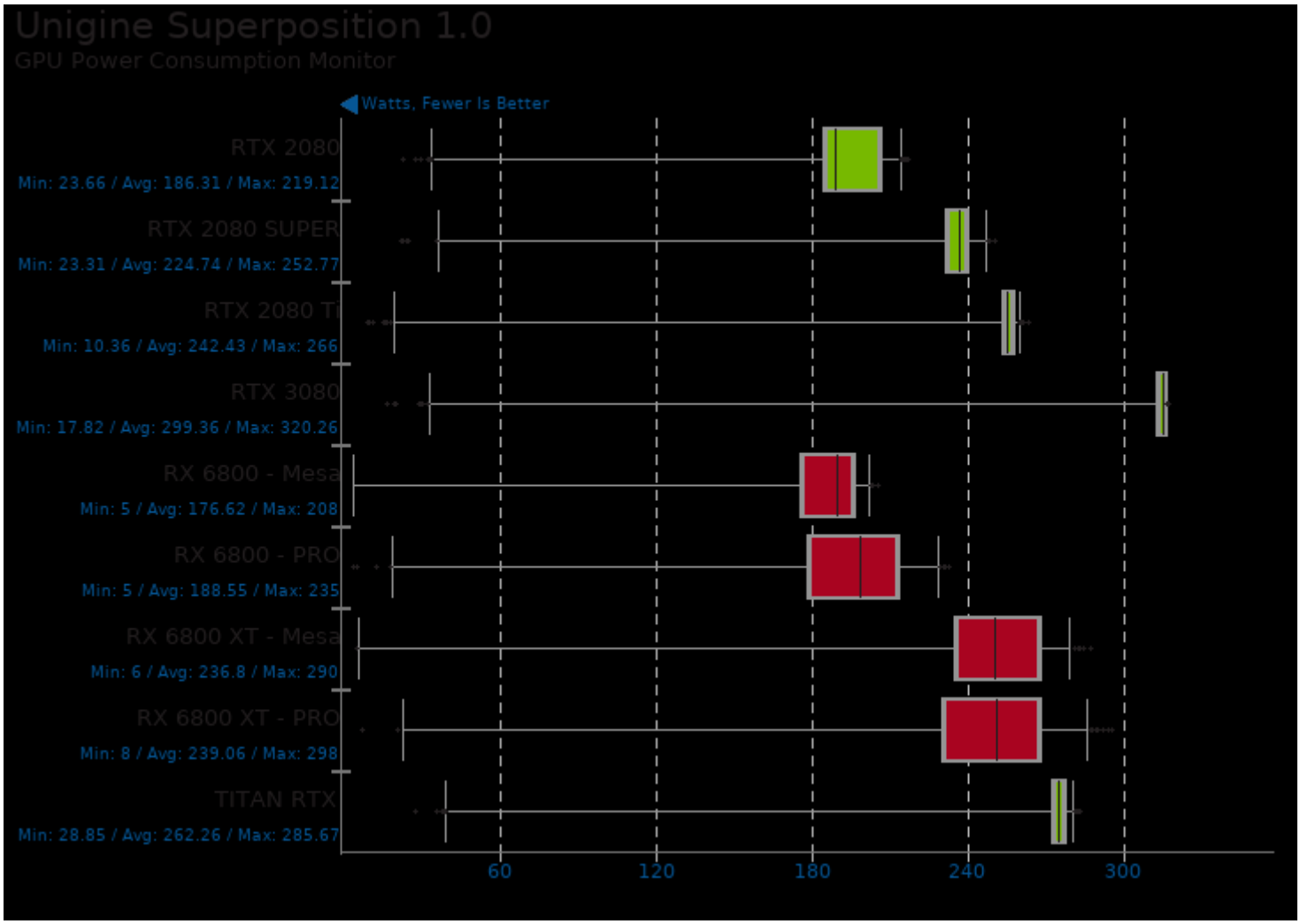

Basemark GPU 1.2
Renderer: Vulkan - Resolution: 3840 x 2160 - Graphics Preset: High
FPS Per Watt, More Is Better
RTX 2080
0.46
RTX 2080 SUPER
0.48
RTX 2080 Ti
0.56
RTX 3080
0.62
RX 6800 - Mesa
0.71
RX 6800 - PRO
0.84
RX 6800 XT - Mesa
0.71
RX 6800 XT - PRO
0.76
TITAN RTX
0.53
0.189
0.378
0.567
0.756
0.945

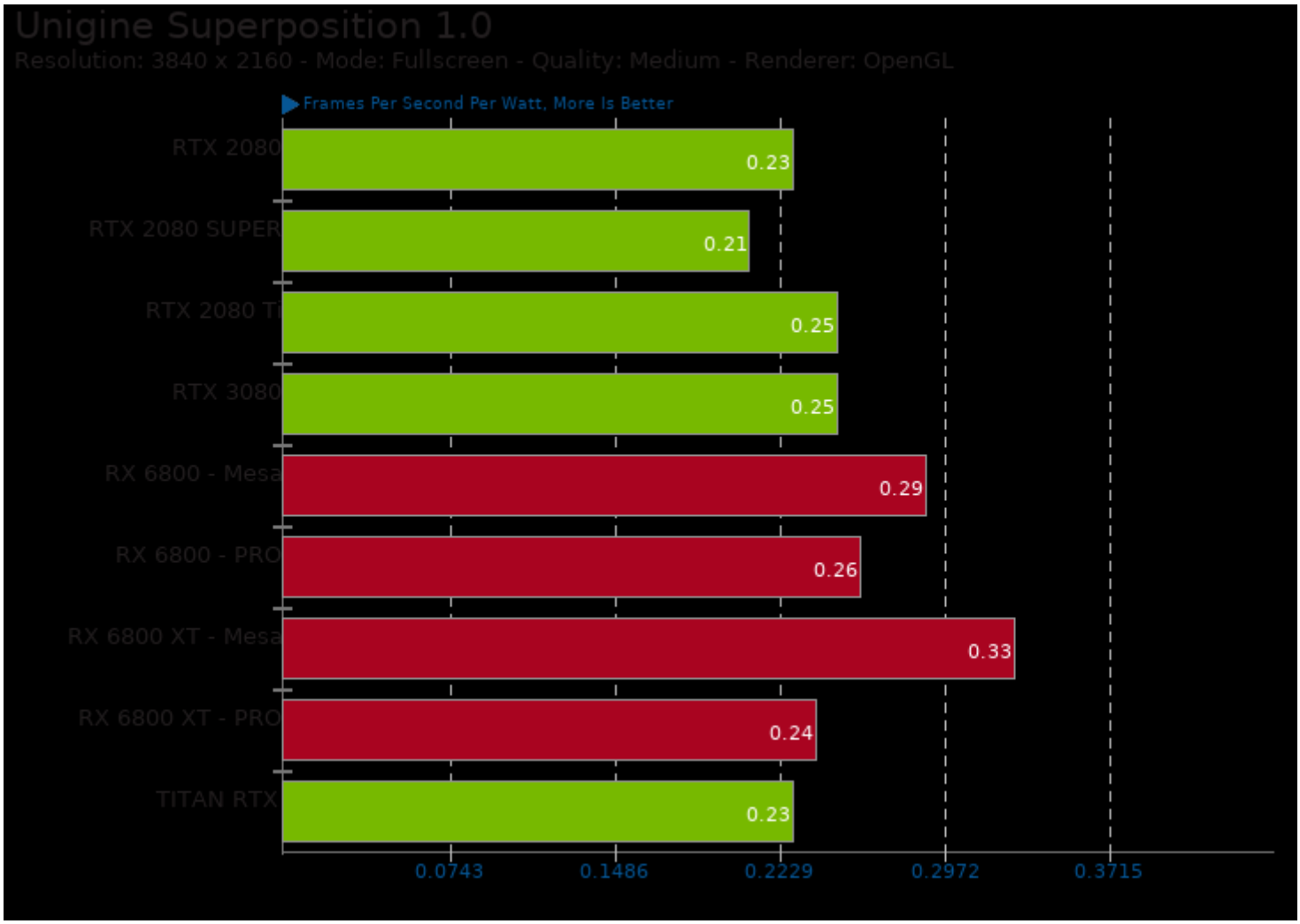

Unigine Valley 1.0
GPU Temperature Monitor
Celsius, Fewer Is Better
RTX 2080
Min: 67 / Avg: 81.86 / Max: 83
RTX 2080 SUPER
Min: 60 / Avg: 74.72 / Max: 77
RTX 2080 Ti
Min: 63 / Avg: 77.49 / Max: 79
RTX 3080
Min: 58 / Avg: 72.93 / Max: 75
RX 6800 - Mesa
Min: 55 / Avg: 66.63 / Max: 69
RX 6800 - PRO
Min: 61 / Avg: 71.4 / Max: 73
RX 6800 XT - Mesa
Min: 61 / Avg: 72.36 / Max: 76
RX 6800 XT - PRO
Min: 62 / Avg: 75.52 / Max: 78
TITAN RTX
Min: 64 / Avg: 78.73 / Max: 81
16
32
48
64
80


Unigine Valley 1.0
GPU Power Consumption Monitor
Watts, Fewer Is Better
RTX 2080
Min: 28.16 / Avg: 190.61 / Max: 219.63
RTX 2080 SUPER
Min: 18.18 / Avg: 232.83 / Max: 255.4
RTX 2080 Ti
Min: 11.23 / Avg: 249.93 / Max: 275.98
RTX 3080
Min: 17.53 / Avg: 307.63 / Max: 320.67
RX 6800 - Mesa
Min: 5 / Avg: 191.72 / Max: 222
RX 6800 - PRO
Min: 6 / Avg: 194.41 / Max: 243
RX 6800 XT - Mesa
Min: 6 / Avg: 244.31 / Max: 348
RX 6800 XT - PRO
Min: 7 / Avg: 244.21 / Max: 313
TITAN RTX
Min: 20.31 / Avg: 267.62 / Max: 288.32
60
120
180
240
300

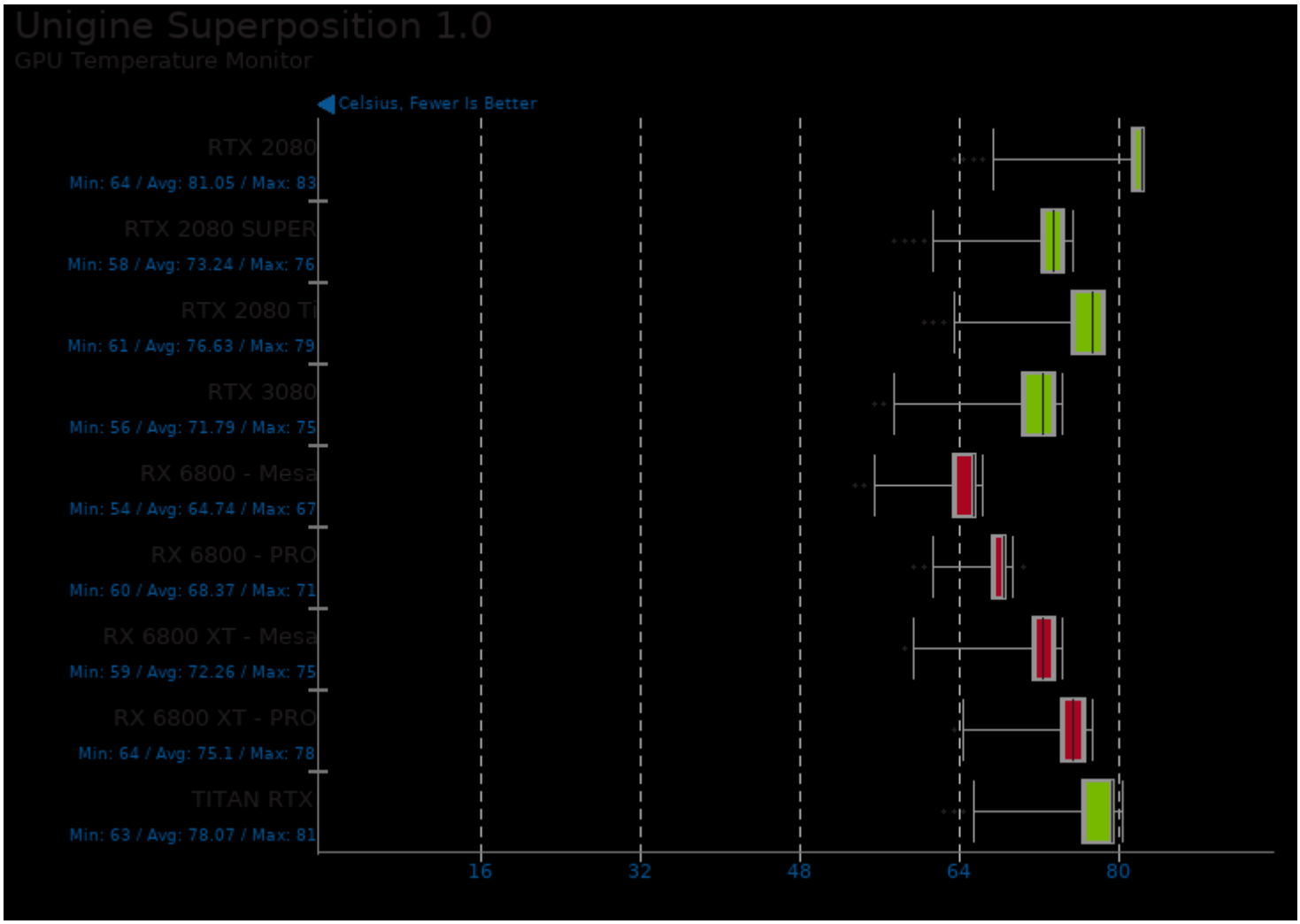

Unigine Valley 1.0
Resolution: 3840 x 2160 - Mode: Fullscreen - Renderer: OpenGL
Frames Per Second Per Watt, More Is Better
RTX 2080
0.29
RTX 2080 SUPER
0.26
RTX 2080 Ti
0.31
RTX 3080
0.30
RX 6800 - Mesa
0.38
RX 6800 - PRO
0.44
RX 6800 XT - Mesa
0.46
RX 6800 XT - PRO
0.41
TITAN RTX
0.29
0.1035
0.207
0.3105
0.414
0.5175

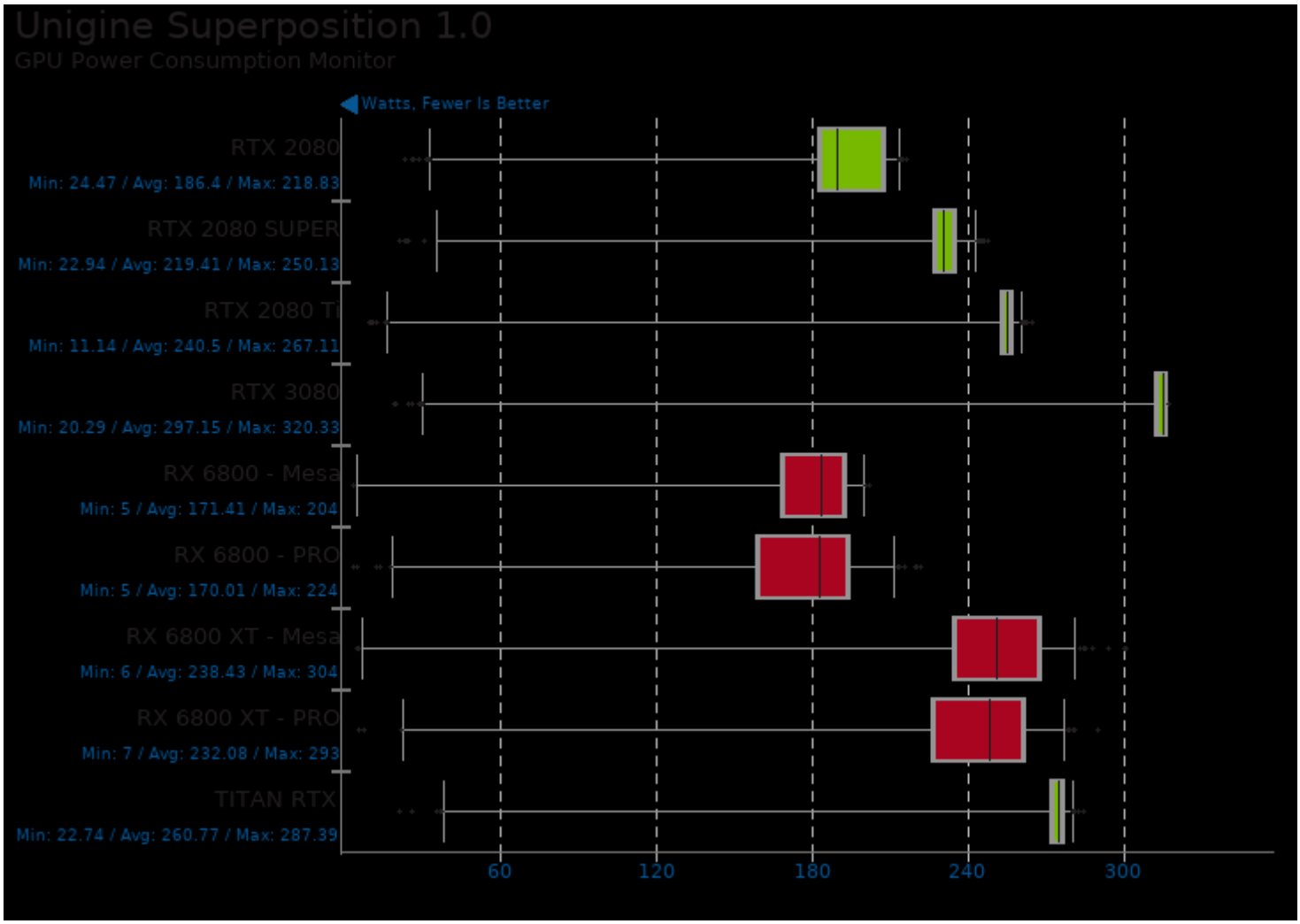

Unigine Superposition 1.0
GPU Temperature Monitor
Celsius, Fewer Is Better
RTX 2080
Min: 65 / Avg: 81.21 / Max: 84
RTX 2080 SUPER
Min: 59 / Avg: 73.83 / Max: 77
RTX 2080 Ti
Min: 61 / Avg: 76.79 / Max: 79
RTX 3080
Min: 57 / Avg: 72.17 / Max: 75
RX 6800 - Mesa
Min: 54 / Avg: 64.97 / Max: 67
RX 6800 - PRO
Min: 59 / Avg: 70.27 / Max: 73
RX 6800 XT - Mesa
Min: 60 / Avg: 72.67 / Max: 75
RX 6800 XT - PRO
Min: 62 / Avg: 74.41 / Max: 77
TITAN RTX
Min: 63 / Avg: 78.13 / Max: 81
16
32
48
64
80

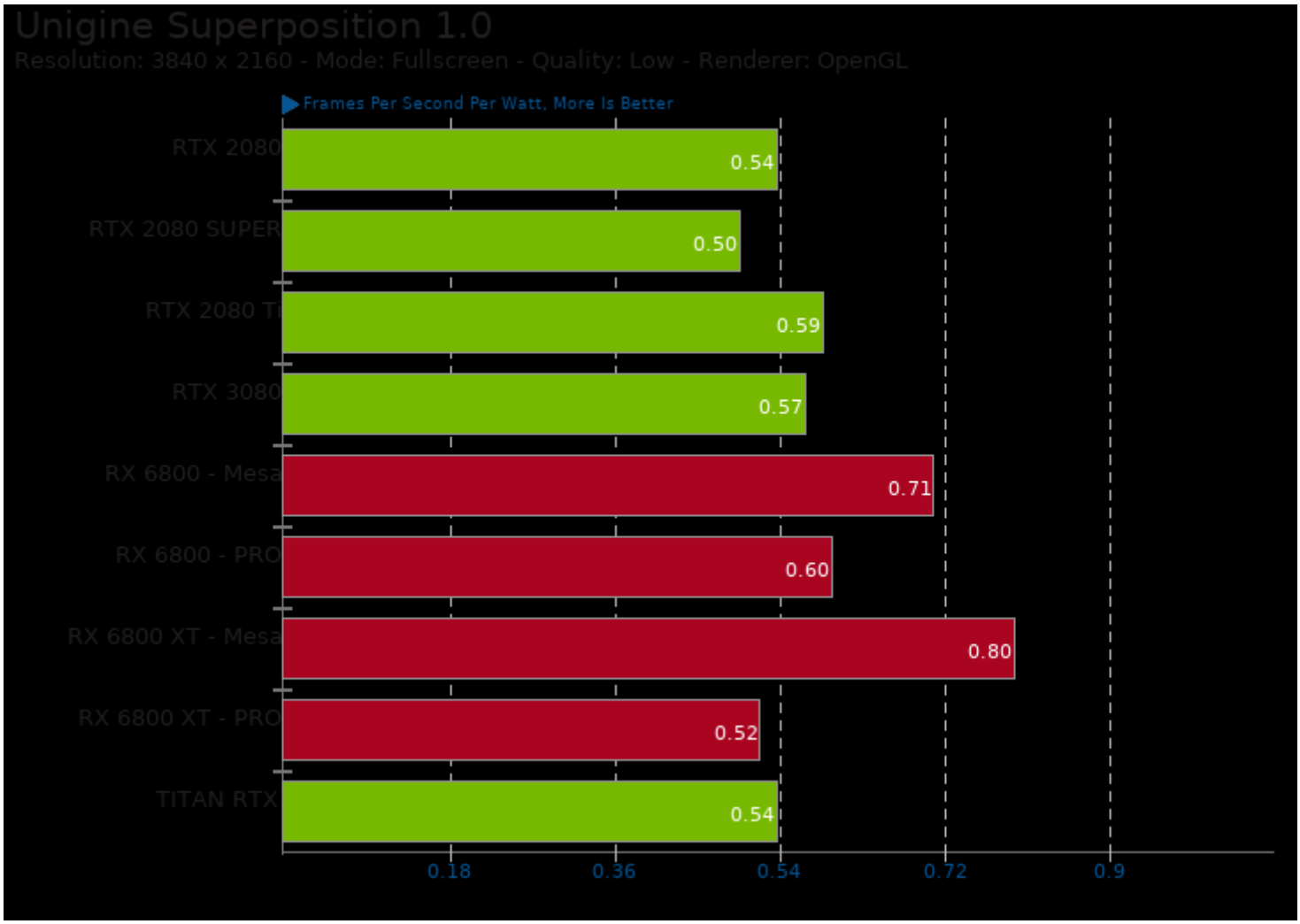

Unigine Superposition 1.0
GPU Power Consumption Monitor
Watts, Fewer Is Better
RTX 2080
Min: 23.66 / Avg: 186.31 / Max: 219.12
RTX 2080 SUPER
Min: 23.31 / Avg: 224.74 / Max: 252.77
RTX 2080 Ti
Min: 10.36 / Avg: 242.43 / Max: 266
RTX 3080
Min: 17.82 / Avg: 299.36 / Max: 320.26
RX 6800 - Mesa
Min: 5 / Avg: 176.62 / Max: 208
RX 6800 - PRO
Min: 5 / Avg: 188.55 / Max: 235
RX 6800 XT - Mesa
Min: 6 / Avg: 236.8 / Max: 290
RX 6800 XT - PRO
Min: 8 / Avg: 239.06 / Max: 298
TITAN RTX
Min: 28.85 / Avg: 262.26 / Max: 285.67
60
120
180
240
300

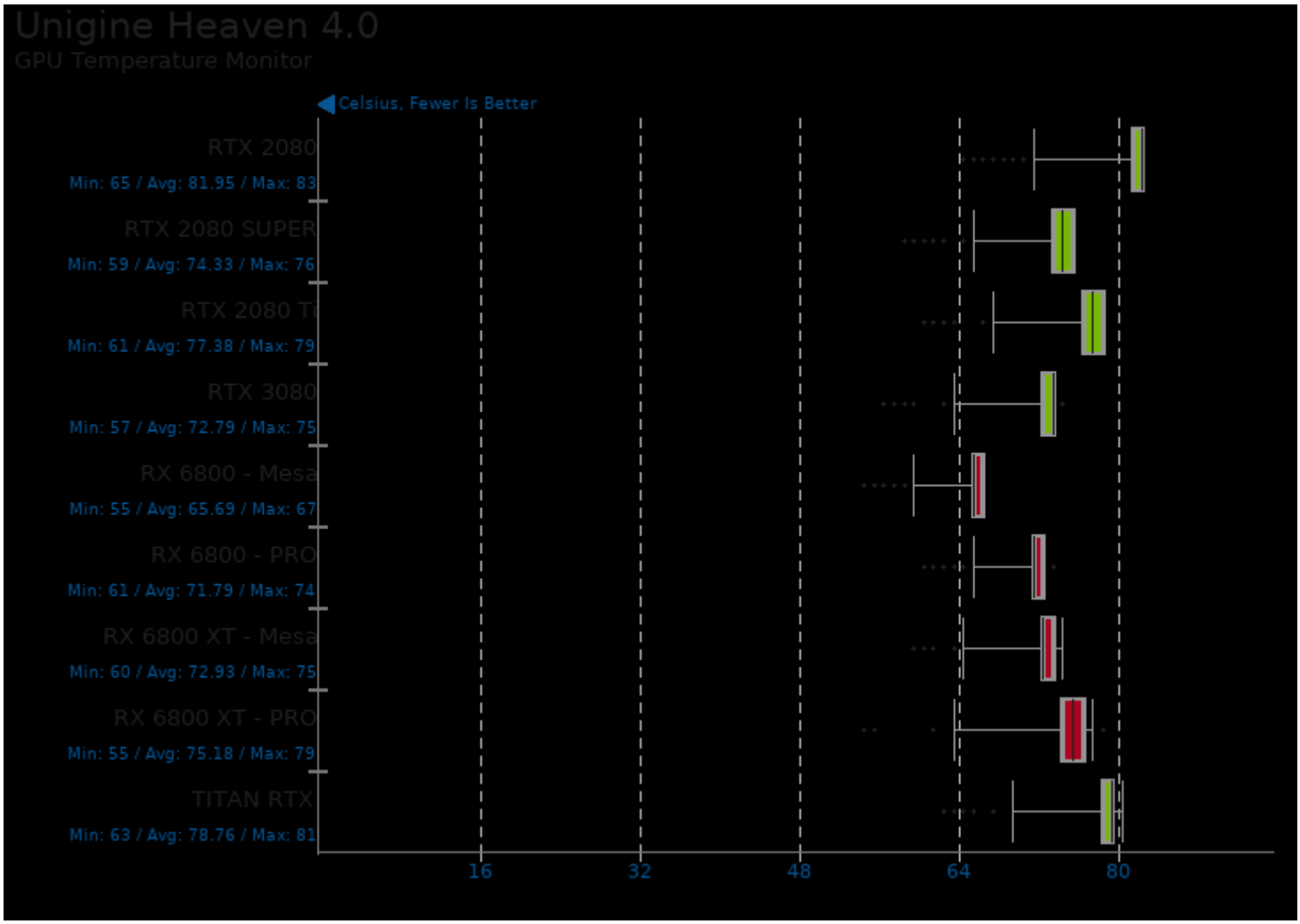

Unigine Superposition 1.0
Resolution: 3840 x 2160 - Mode: Fullscreen - Quality: Medium - Renderer: OpenGL
Frames Per Second Per Watt, More Is Better
RTX 2080
0.23
RTX 2080 SUPER
0.21
RTX 2080 Ti
0.25
RTX 3080
0.25
RX 6800 - Mesa
0.29
RX 6800 - PRO
0.26
RX 6800 XT - Mesa
0.33
RX 6800 XT - PRO
0.24
TITAN RTX
0.23
0.0743
0.1486
0.2229
0.2972
0.3715

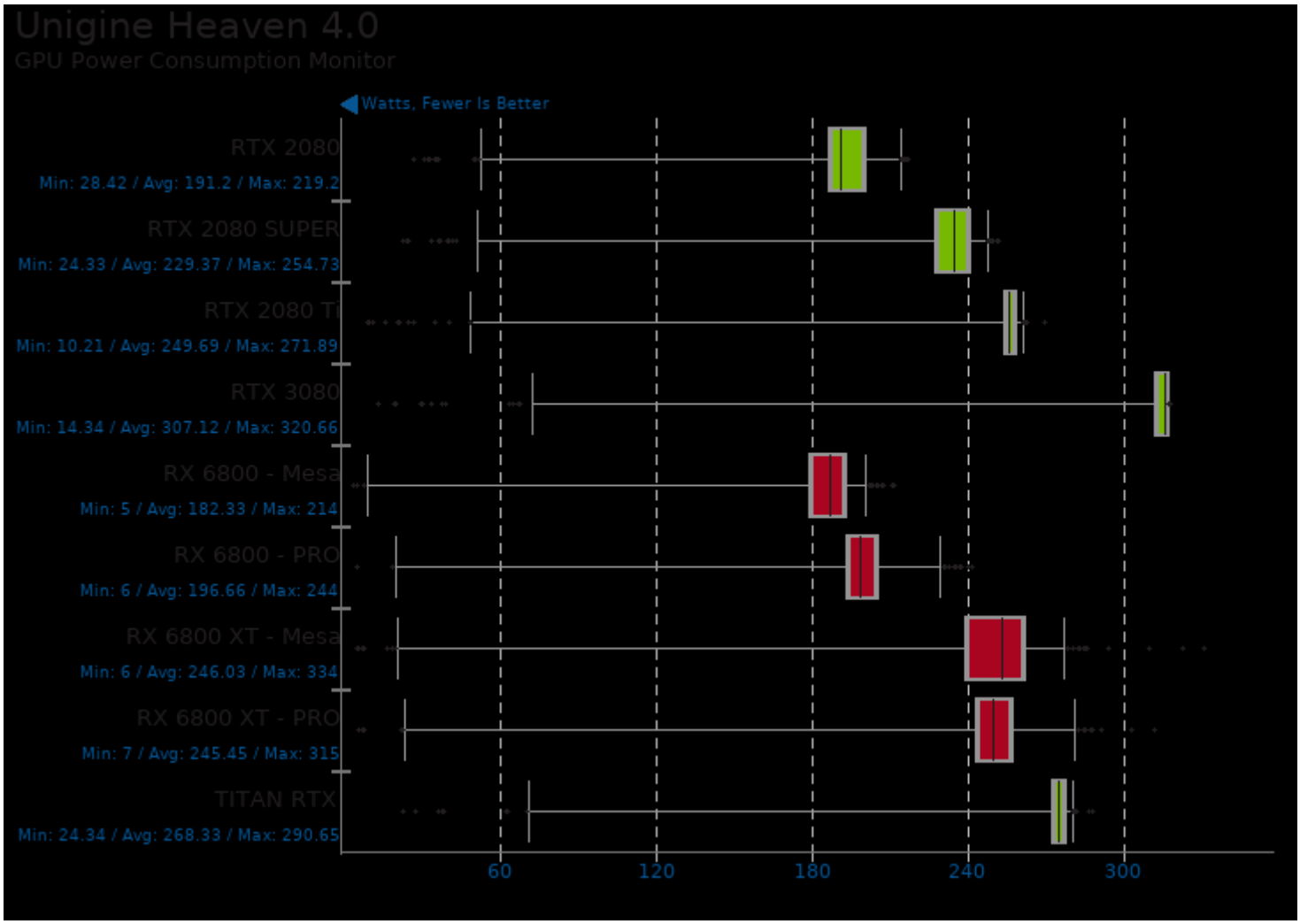
Radeon RX 6800 Series Linux Benchmarks



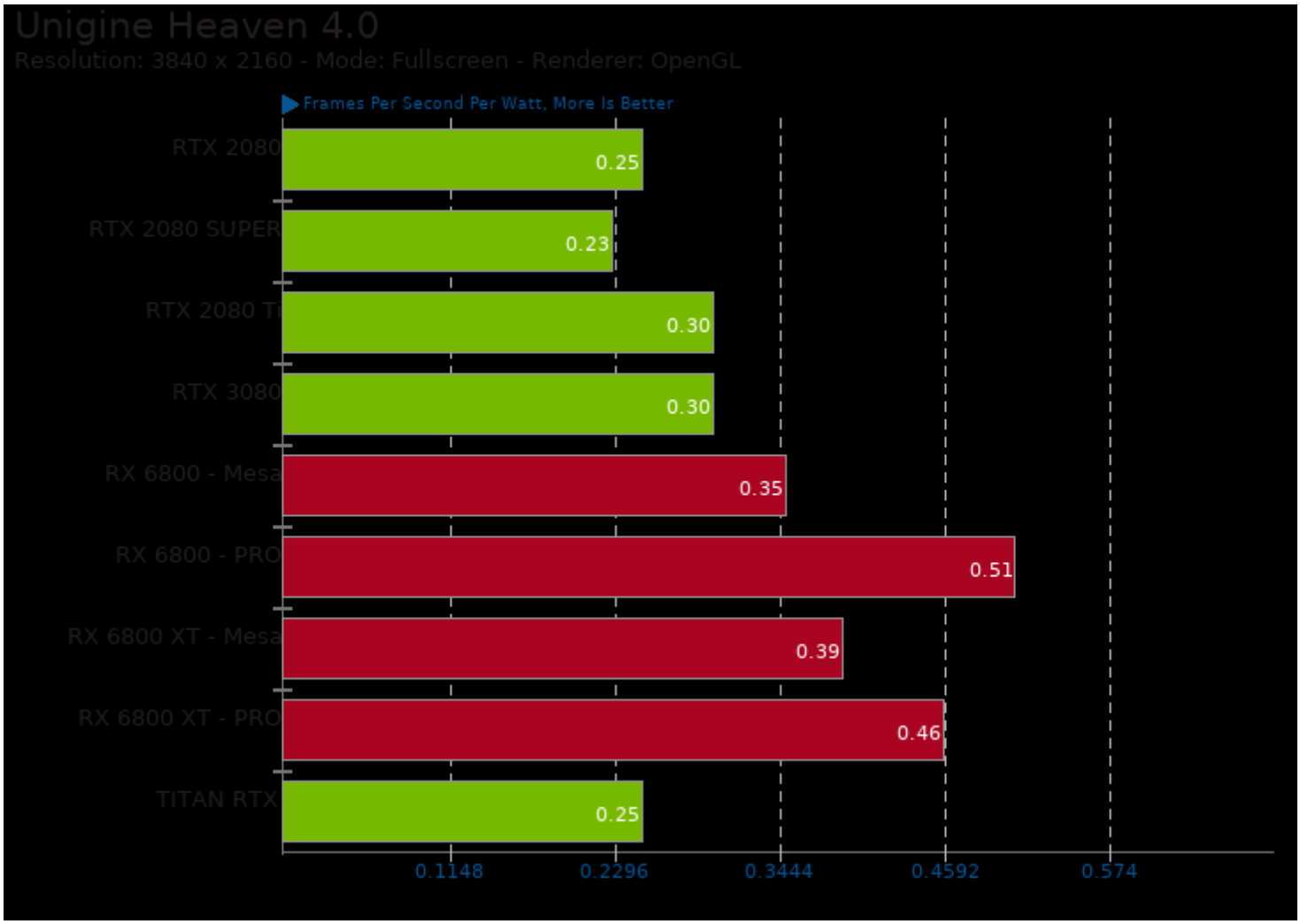

Unigine Superposition 1.0
GPU Power Consumption Monitor
Watts, Fewer Is Better
RTX 2080
Min: 24.47 / Avg: 186.4 / Max: 218.83
RTX 2080 SUPER
Min: 22.94 / Avg: 219.41 / Max: 250.13
RTX 2080 Ti
Min: 11.14 / Avg: 240.5 / Max: 267.11
RTX 3080
Min: 20.29 / Avg: 297.15 / Max: 320.33
RX 6800 - Mesa
Min: 5 / Avg: 171.41 / Max: 204
RX 6800 - PRO
Min: 5 / Avg: 170.01 / Max: 224
RX 6800 XT - Mesa
Min: 6 / Avg: 238.43 / Max: 304
RX 6800 XT - PRO
Min: 7 / Avg: 232.08 / Max: 293
TITAN RTX
Min: 22.74 / Avg: 260.77 / Max: 287.39
60
120
180
240
300

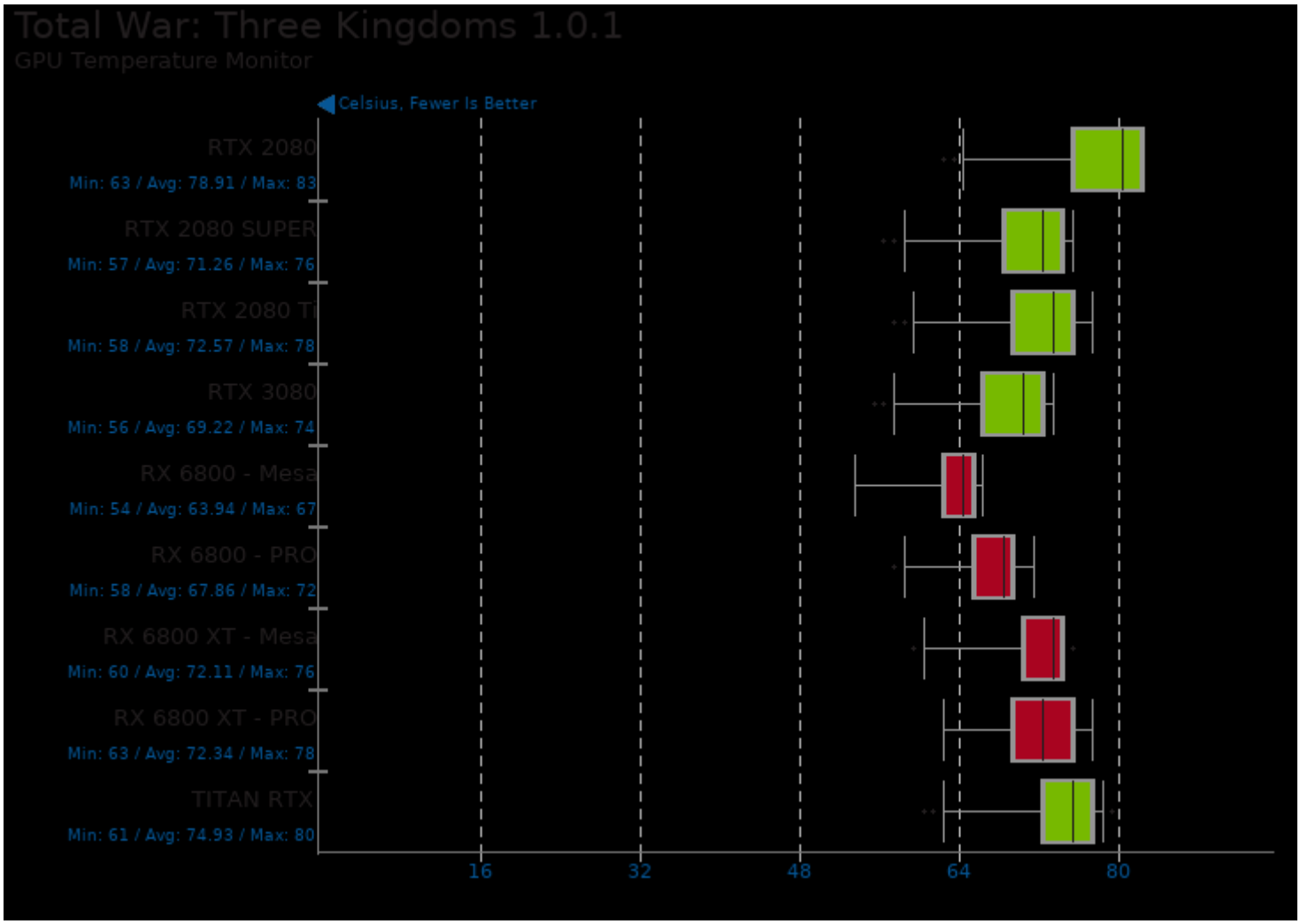

Unigine Superposition 1.0
Resolution: 3840 x 2160 - Mode: Fullscreen - Quality: Low - Renderer: OpenGL
Frames Per Second Per Watt, More Is Better
RTX 2080
0.54
RTX 2080 SUPER
0.50
RTX 2080 Ti
0.59
RTX 3080
0.57
RX 6800 - Mesa
0.71
RX 6800 - PRO
0.60
RX 6800 XT - Mesa
0.80
RX 6800 XT - PRO
0.52
TITAN RTX
0.54
0.18
0.36
0.54
0.72
0.9

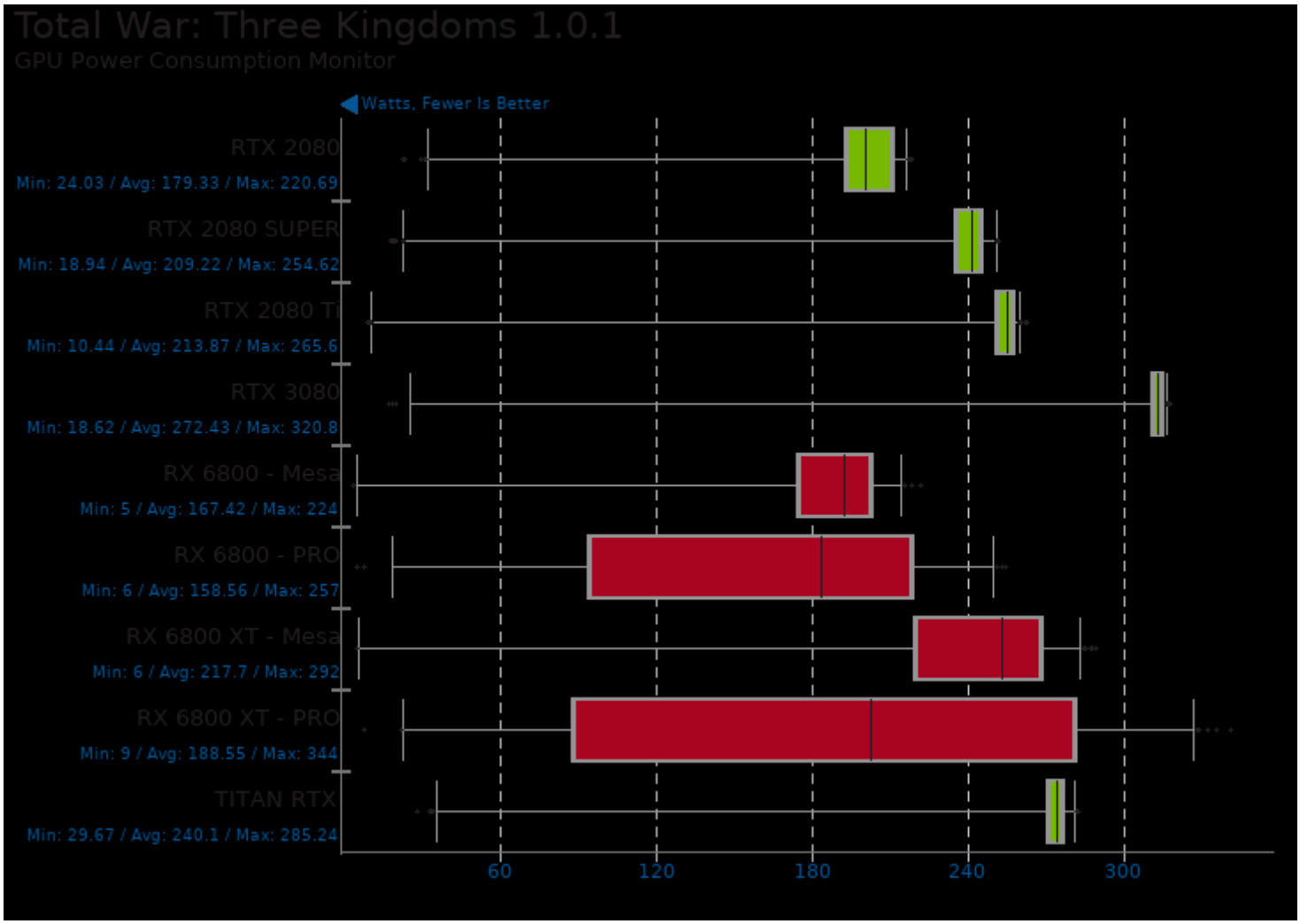

Unigine Heaven 4.0
GPU Temperature Monitor
Celsius, Fewer Is Better
RTX 2080
Min: 65 / Avg: 81.95 / Max: 83
RTX 2080 SUPER
Min: 59 / Avg: 74.33 / Max: 76
RTX 2080 Ti
Min: 61 / Avg: 77.38 / Max: 79
RTX 3080
Min: 57 / Avg: 72.79 / Max: 75
RX 6800 - Mesa
Min: 55 / Avg: 65.69 / Max: 67
RX 6800 - PRO
Min: 61 / Avg: 71.79 / Max: 74
RX 6800 XT - Mesa
Min: 60 / Avg: 72.93 / Max: 75
RX 6800 XT - PRO
Min: 55 / Avg: 75.18 / Max: 79
TITAN RTX
Min: 63 / Avg: 78.76 / Max: 81
16
32
48
64
80

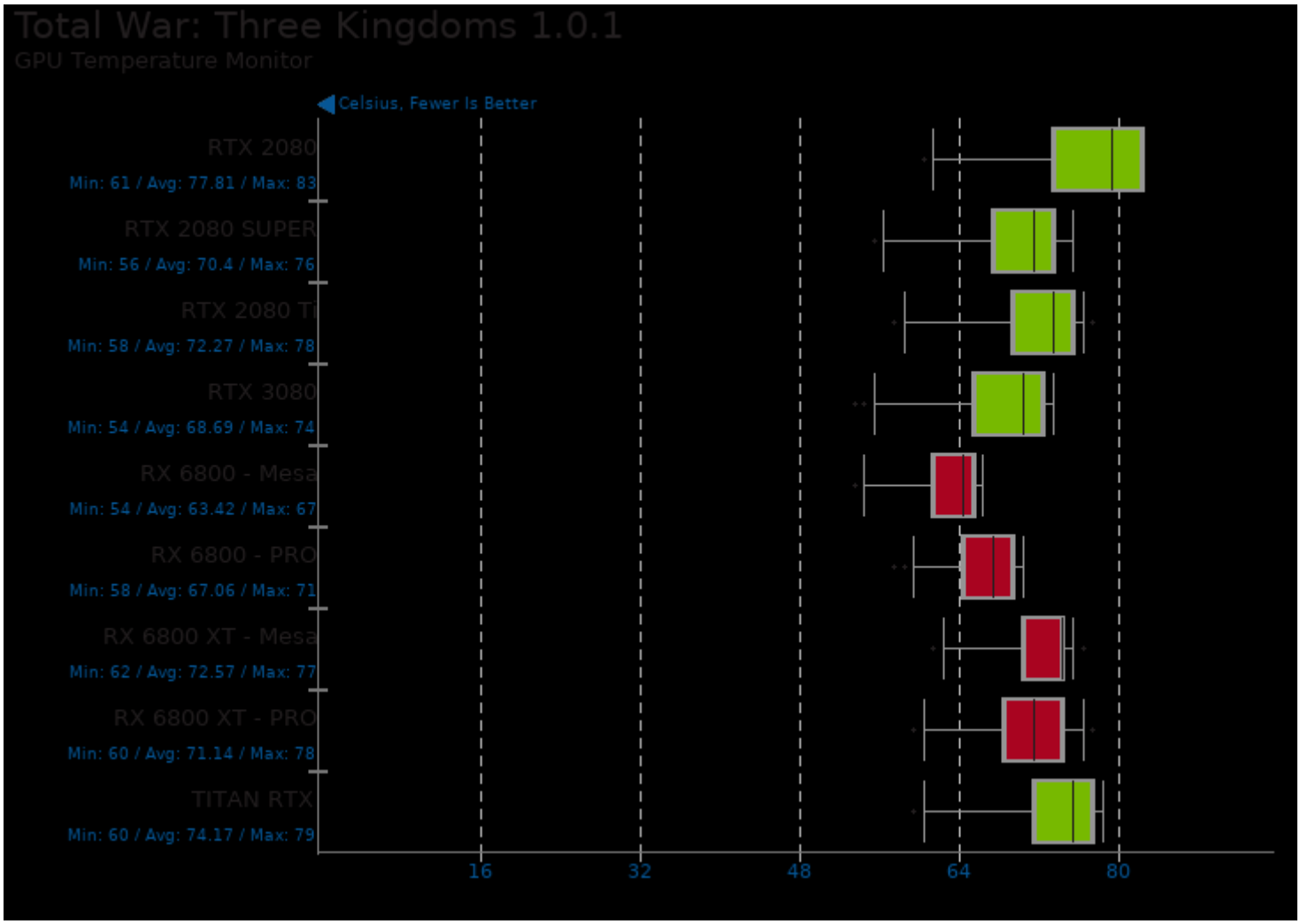

Unigine Heaven 4.0
GPU Power Consumption Monitor
Watts, Fewer Is Better
RTX 2080
Min: 28.42 / Avg: 191.2 / Max: 219.2
RTX 2080 SUPER
Min: 24.33 / Avg: 229.37 / Max: 254.73
RTX 2080 Ti
Min: 10.21 / Avg: 249.69 / Max: 271.89
RTX 3080
Min: 14.34 / Avg: 307.12 / Max: 320.66
RX 6800 - Mesa
Min: 5 / Avg: 182.33 / Max: 214
RX 6800 - PRO
Min: 6 / Avg: 196.66 / Max: 244
RX 6800 XT - Mesa
Min: 6 / Avg: 246.03 / Max: 334
RX 6800 XT - PRO
Min: 7 / Avg: 245.45 / Max: 315
TITAN RTX
Min: 24.34 / Avg: 268.33 / Max: 290.65
60
120
180
240
300

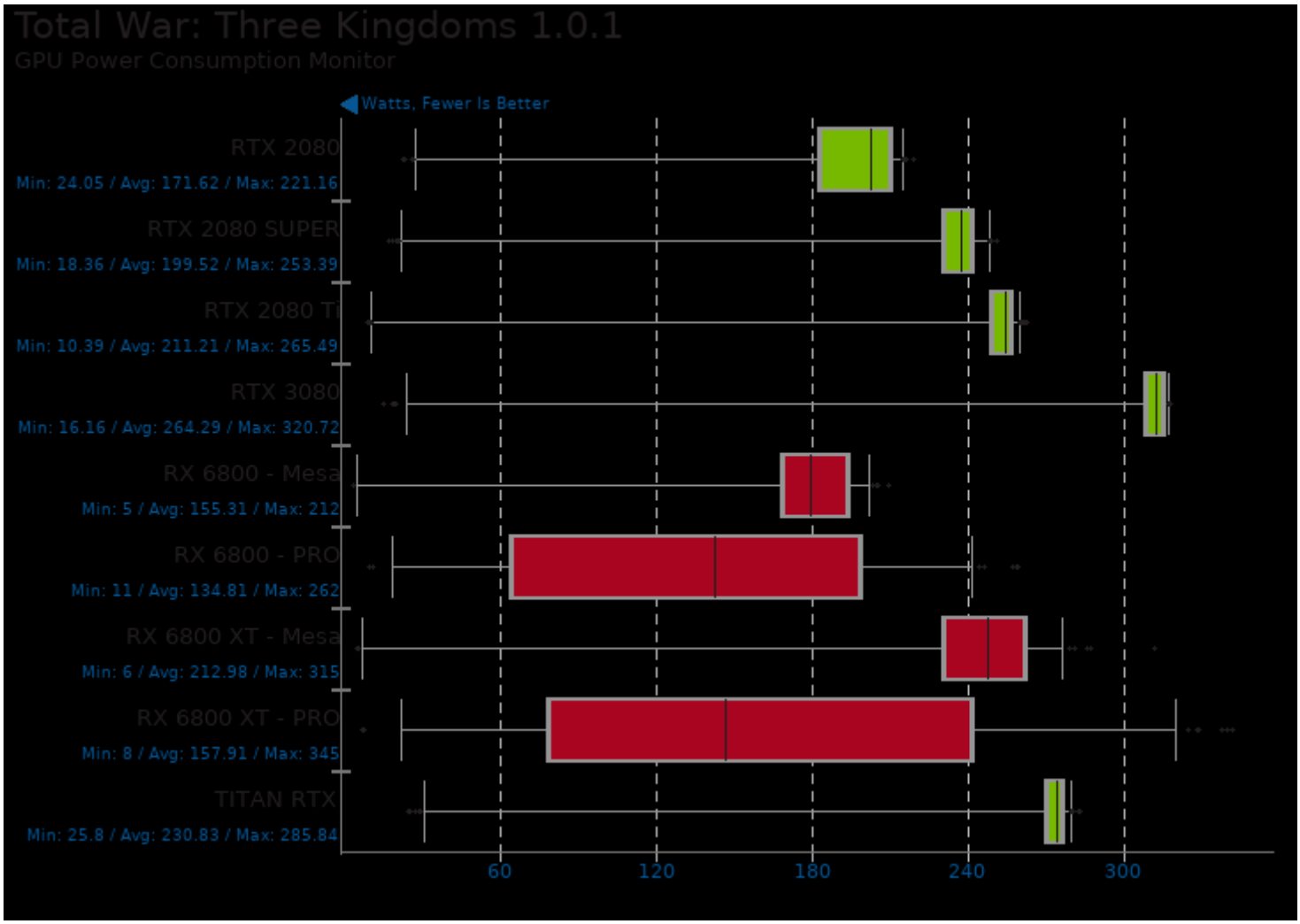
Radeon RX 6800 Series Linux Benchmarks

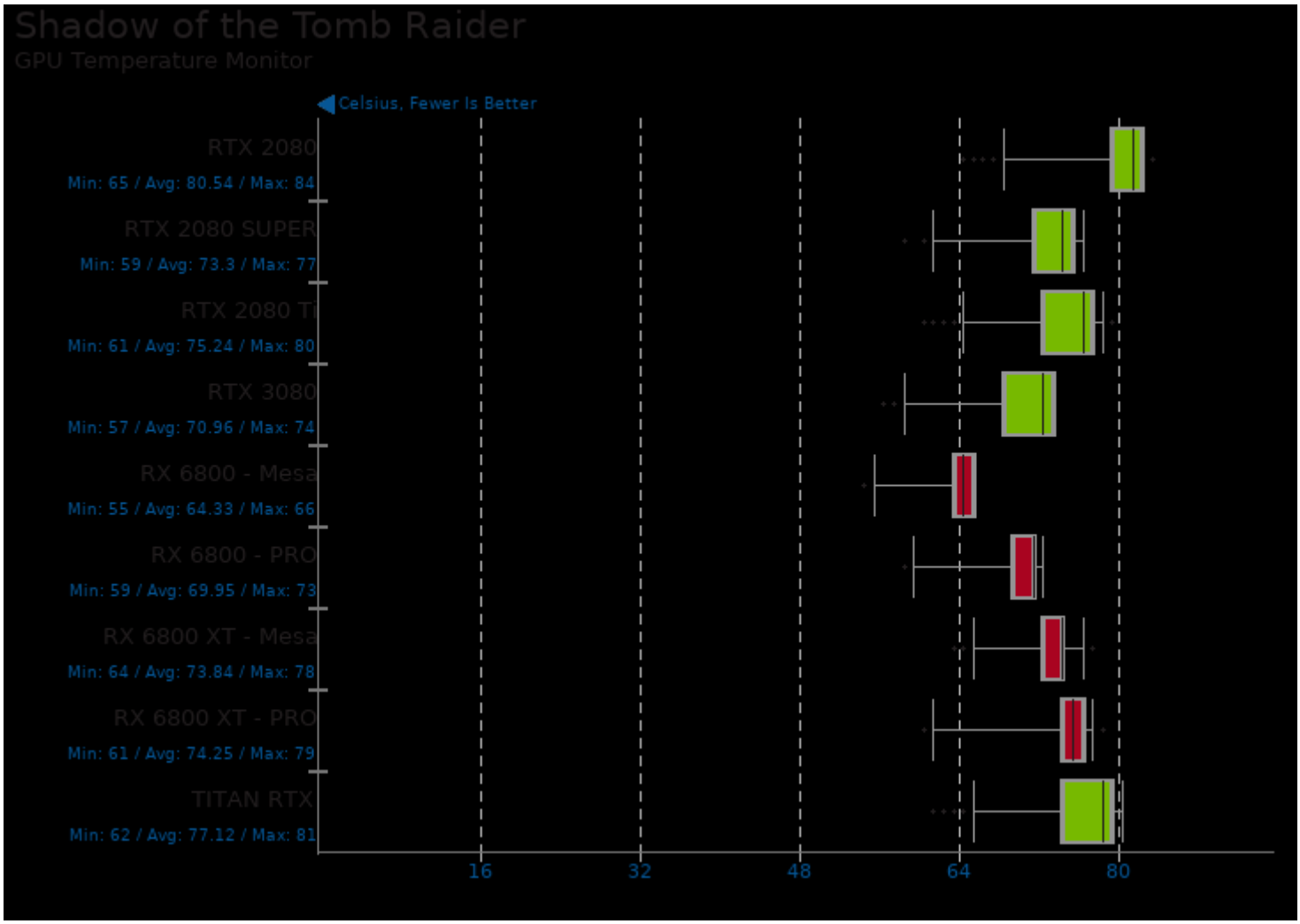


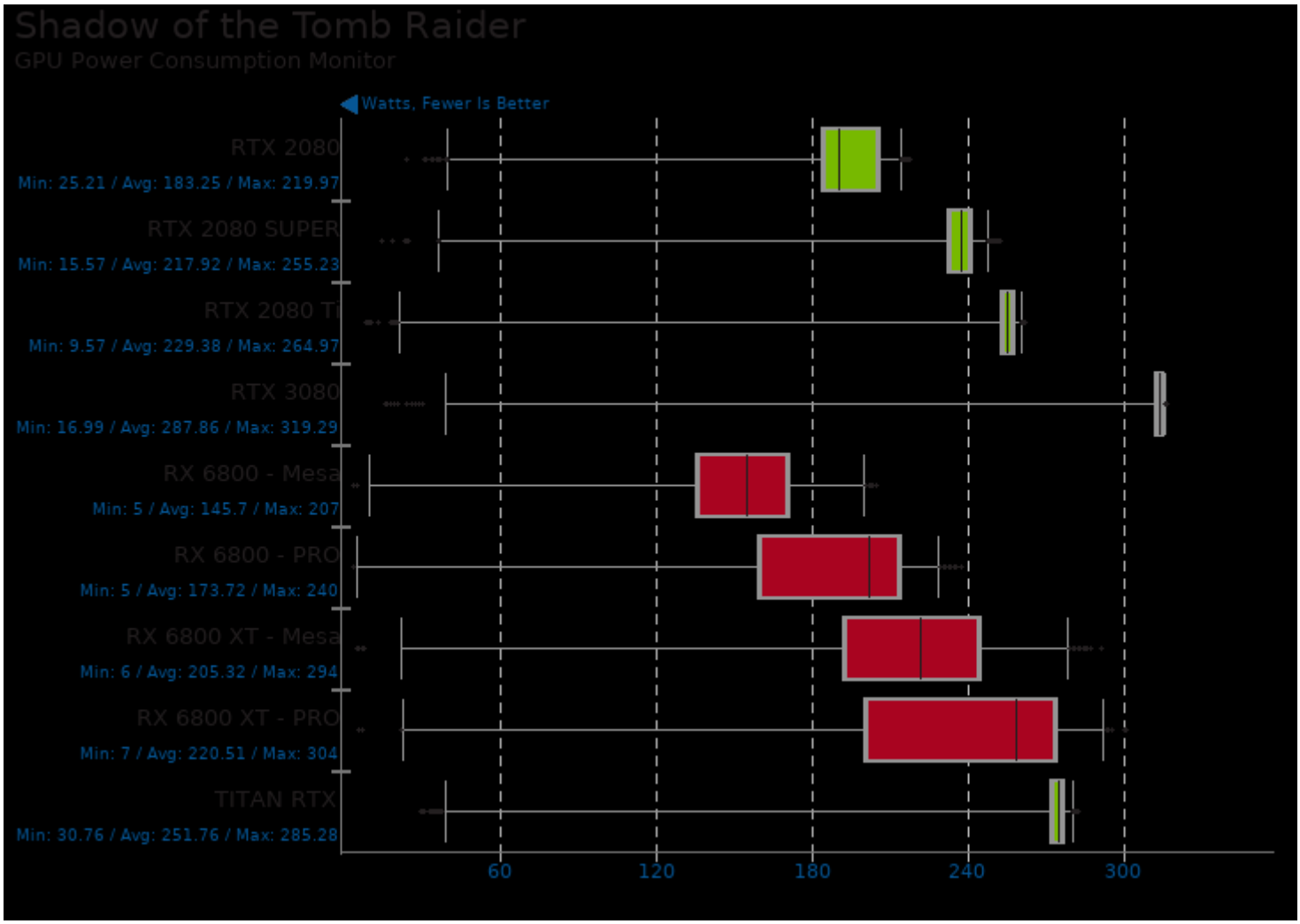

Total War: Three Kingdoms 1.0.1
GPU Temperature Monitor
Celsius, Fewer Is Better
RTX 2080
Min: 63 / Avg: 78.91 / Max: 83
RTX 2080 SUPER
Min: 57 / Avg: 71.26 / Max: 76
RTX 2080 Ti
Min: 58 / Avg: 72.57 / Max: 78
RTX 3080
Min: 56 / Avg: 69.22 / Max: 74
RX 6800 - Mesa
Min: 54 / Avg: 63.94 / Max: 67
RX 6800 - PRO
Min: 58 / Avg: 67.86 / Max: 72
RX 6800 XT - Mesa
Min: 60 / Avg: 72.11 / Max: 76
RX 6800 XT - PRO
Min: 63 / Avg: 72.34 / Max: 78
TITAN RTX
Min: 61 / Avg: 74.93 / Max: 80
16
32
48
64
80

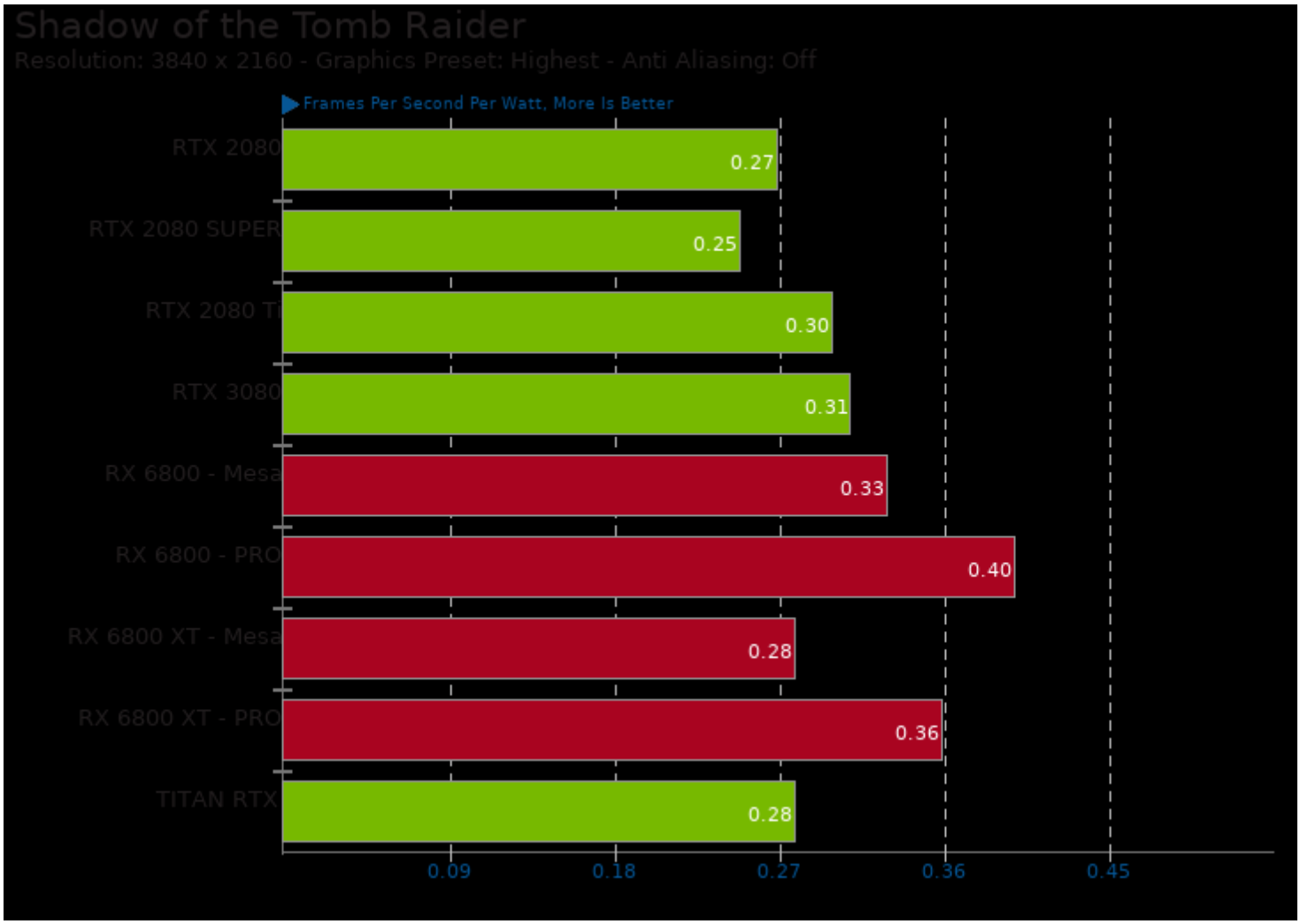

Total War: Three Kingdoms 1.0.1
GPU Power Consumption Monitor
Watts, Fewer Is Better
RTX 2080
Min: 24.03 / Avg: 179.33 / Max: 220.69
RTX 2080 SUPER
Min: 18.94 / Avg: 209.22 / Max: 254.62
RTX 2080 Ti
Min: 10.44 / Avg: 213.87 / Max: 265.6
RTX 3080
Min: 18.62 / Avg: 272.43 / Max: 320.8
RX 6800 - Mesa
Min: 5 / Avg: 167.42 / Max: 224
RX 6800 - PRO
Min: 6 / Avg: 158.56 / Max: 257
RX 6800 XT - Mesa
Min: 6 / Avg: 217.7 / Max: 292
RX 6800 XT - PRO
Min: 9 / Avg: 188.55 / Max: 344
TITAN RTX
Min: 29.67 / Avg: 240.1 / Max: 285.24
60
120
180
240
300

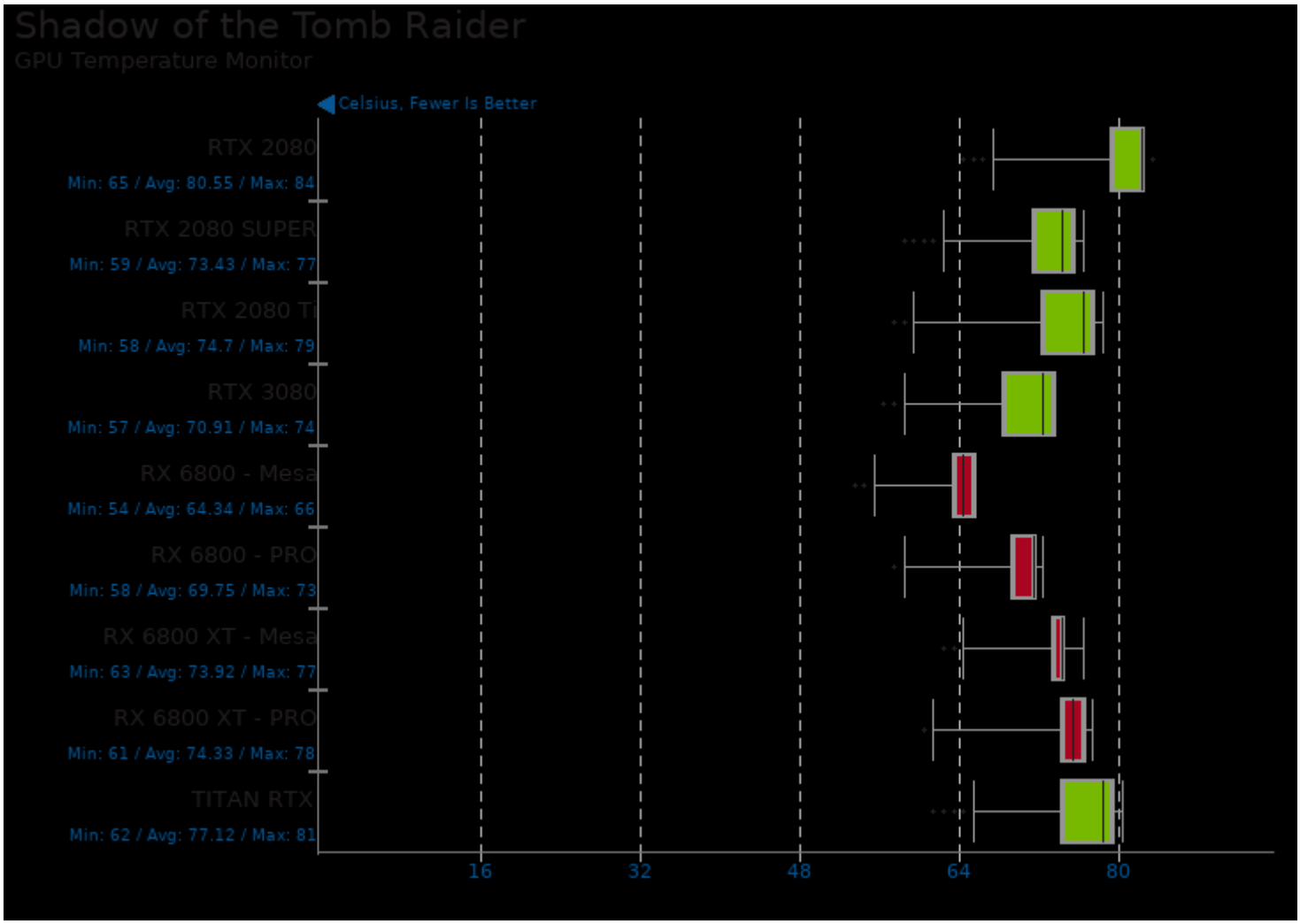

Total War: Three Kingdoms 1.0.1
GPU Temperature Monitor
Celsius, Fewer Is Better
RTX 2080
Min: 61 / Avg: 77.81 / Max: 83
RTX 2080 SUPER
Min: 56 / Avg: 70.4 / Max: 76
RTX 2080 Ti
Min: 58 / Avg: 72.27 / Max: 78
RTX 3080
Min: 54 / Avg: 68.69 / Max: 74
RX 6800 - Mesa
Min: 54 / Avg: 63.42 / Max: 67
RX 6800 - PRO
Min: 58 / Avg: 67.06 / Max: 71
RX 6800 XT - Mesa
Min: 62 / Avg: 72.57 / Max: 77
RX 6800 XT - PRO
Min: 60 / Avg: 71.14 / Max: 78
TITAN RTX
Min: 60 / Avg: 74.17 / Max: 79
16
32
48
64
80

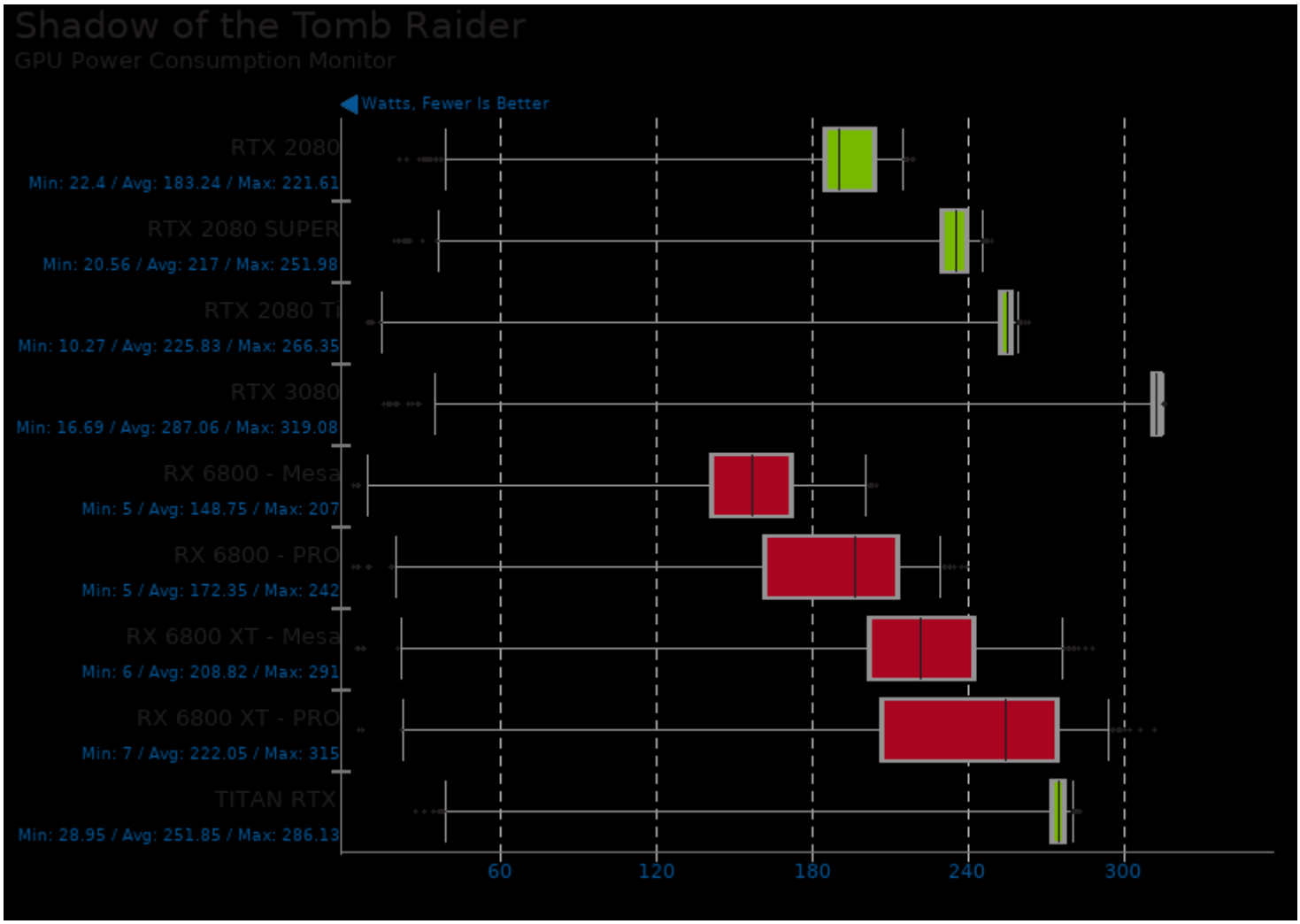

Total War: Three Kingdoms 1.0.1
GPU Power Consumption Monitor
Watts, Fewer Is Better
RTX 2080
Min: 24.05 / Avg: 171.62 / Max: 221.16
RTX 2080 SUPER
Min: 18.36 / Avg: 199.52 / Max: 253.39
RTX 2080 Ti
Min: 10.39 / Avg: 211.21 / Max: 265.49
RTX 3080
Min: 16.16 / Avg: 264.29 / Max: 320.72
RX 6800 - Mesa
Min: 5 / Avg: 155.31 / Max: 212
RX 6800 - PRO
Min: 11 / Avg: 134.81 / Max: 262
RX 6800 XT - Mesa
Min: 6 / Avg: 212.98 / Max: 315
RX 6800 XT - PRO
Min: 8 / Avg: 157.91 / Max: 345
TITAN RTX
Min: 25.8 / Avg: 230.83 / Max: 285.84
60
120
180
240
300

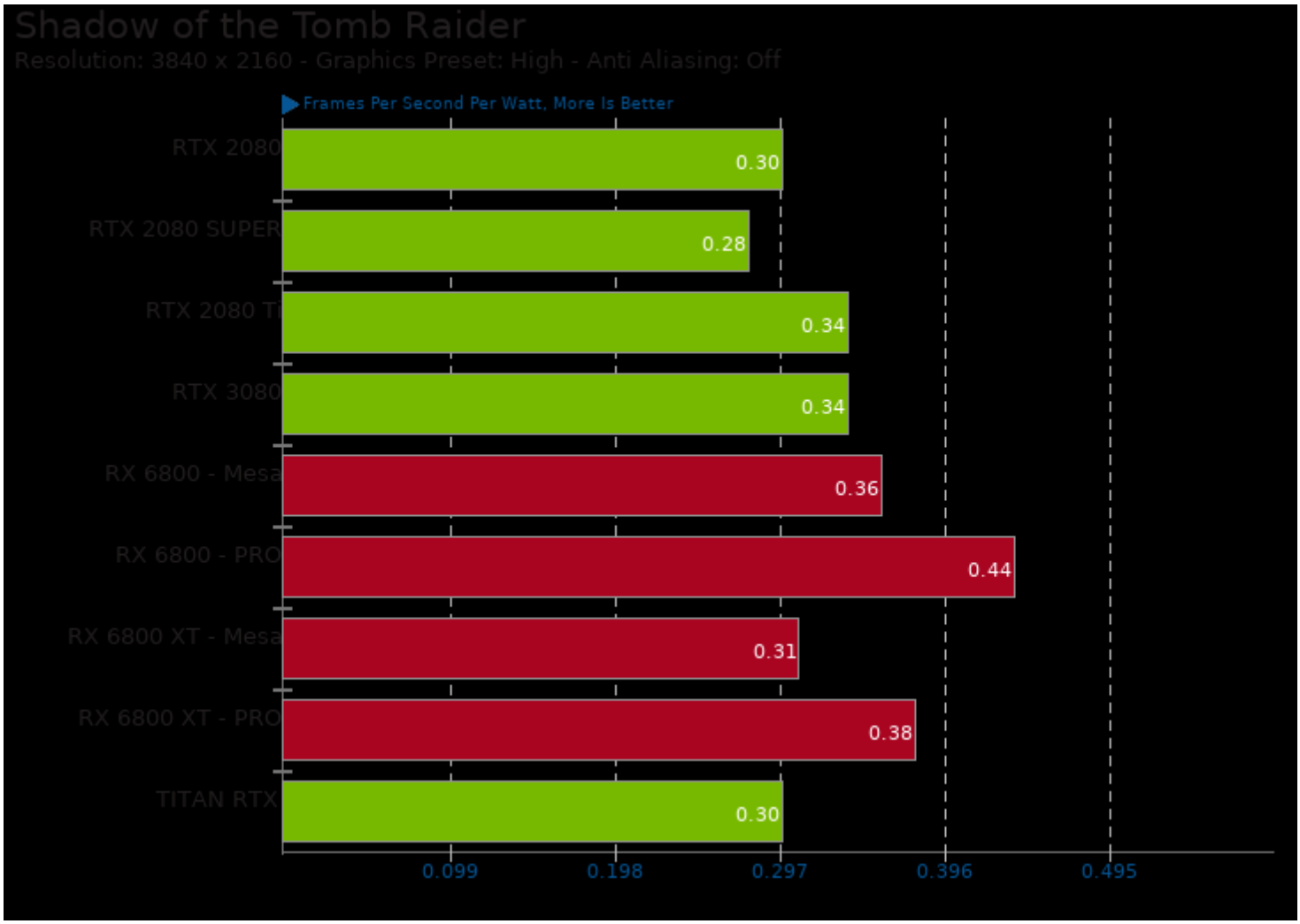

Shadow of the Tomb Raider
GPU Temperature Monitor
Celsius, Fewer Is Better
RTX 2080
Min: 65 / Avg: 80.54 / Max: 84
RTX 2080 SUPER
Min: 59 / Avg: 73.3 / Max: 77
RTX 2080 Ti
Min: 61 / Avg: 75.24 / Max: 80
RTX 3080
Min: 57 / Avg: 70.96 / Max: 74
RX 6800 - Mesa
Min: 55 / Avg: 64.33 / Max: 66
RX 6800 - PRO
Min: 59 / Avg: 69.95 / Max: 73
RX 6800 XT - Mesa
Min: 64 / Avg: 73.84 / Max: 78
RX 6800 XT - PRO
Min: 61 / Avg: 74.25 / Max: 79
TITAN RTX
Min: 62 / Avg: 77.12 / Max: 81
16
32
48
64
80

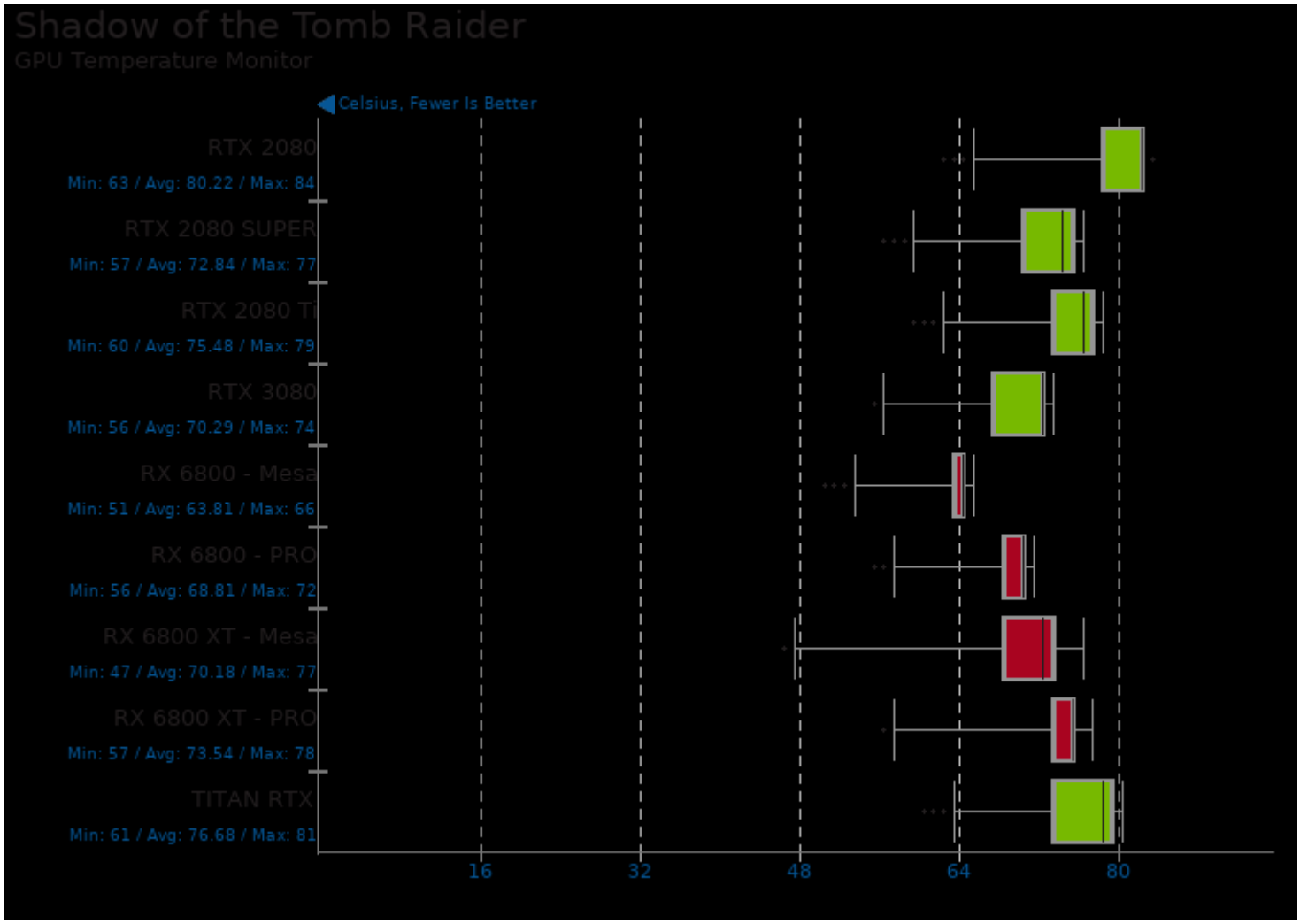

Shadow of the Tomb Raider
GPU Power Consumption Monitor
Watts, Fewer Is Better
RTX 2080
Min: 25.21 / Avg: 183.25 / Max: 219.97
RTX 2080 SUPER
Min: 15.57 / Avg: 217.92 / Max: 255.23
RTX 2080 Ti
Min: 9.57 / Avg: 229.38 / Max: 264.97
RTX 3080
Min: 16.99 / Avg: 287.86 / Max: 319.29
RX 6800 - Mesa
Min: 5 / Avg: 145.7 / Max: 207
RX 6800 - PRO
Min: 5 / Avg: 173.72 / Max: 240
RX 6800 XT - Mesa
Min: 6 / Avg: 205.32 / Max: 294
RX 6800 XT - PRO
Min: 7 / Avg: 220.51 / Max: 304
TITAN RTX
Min: 30.76 / Avg: 251.76 / Max: 285.28
60
120
180
240
300

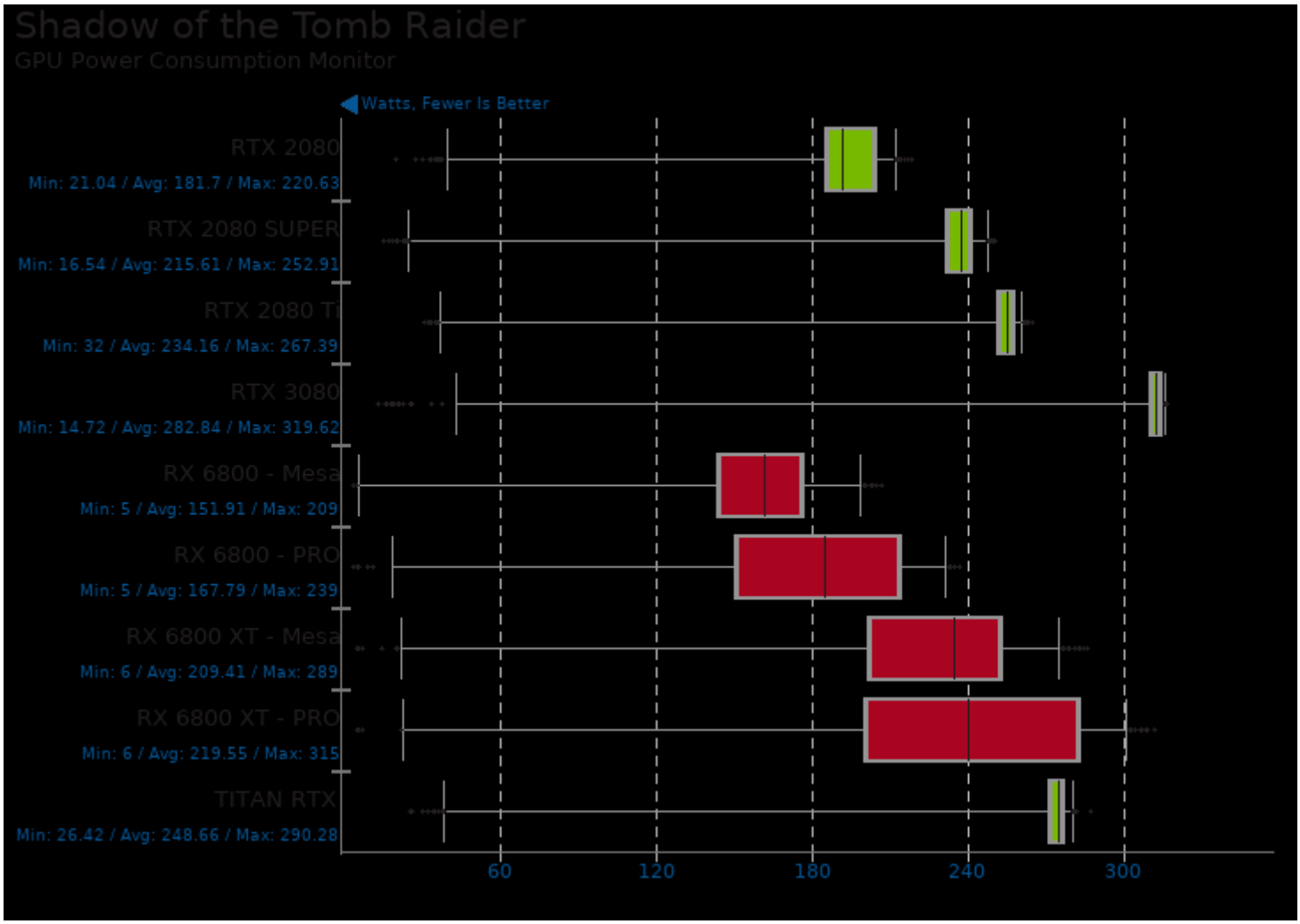

Shadow of the Tomb Raider
Resolution: 3840 x 2160 - Graphics Preset: Highest - Anti Aliasing: Off
Frames Per Second Per Watt, More Is Better
RTX 2080
0.27
RTX 2080 SUPER
0.25
RTX 2080 Ti
0.30
RTX 3080
0.31
RX 6800 - Mesa
0.33
RX 6800 - PRO
0.40
RX 6800 XT - Mesa
0.28
RX 6800 XT - PRO
0.36
TITAN RTX
0.28
0.09
0.18
0.27
0.36
0.45


Shadow of the Tomb Raider
GPU Temperature Monitor
Celsius, Fewer Is Better
RTX 2080
Min: 65 / Avg: 80.55 / Max: 84
RTX 2080 SUPER
Min: 59 / Avg: 73.43 / Max: 77
RTX 2080 Ti
Min: 58 / Avg: 74.7 / Max: 79
RTX 3080
Min: 57 / Avg: 70.91 / Max: 74
RX 6800 - Mesa
Min: 54 / Avg: 64.34 / Max: 66
RX 6800 - PRO
Min: 58 / Avg: 69.75 / Max: 73
RX 6800 XT - Mesa
Min: 63 / Avg: 73.92 / Max: 77
RX 6800 XT - PRO
Min: 61 / Avg: 74.33 / Max: 78
TITAN RTX
Min: 62 / Avg: 77.12 / Max: 81
16
32
48
64
80

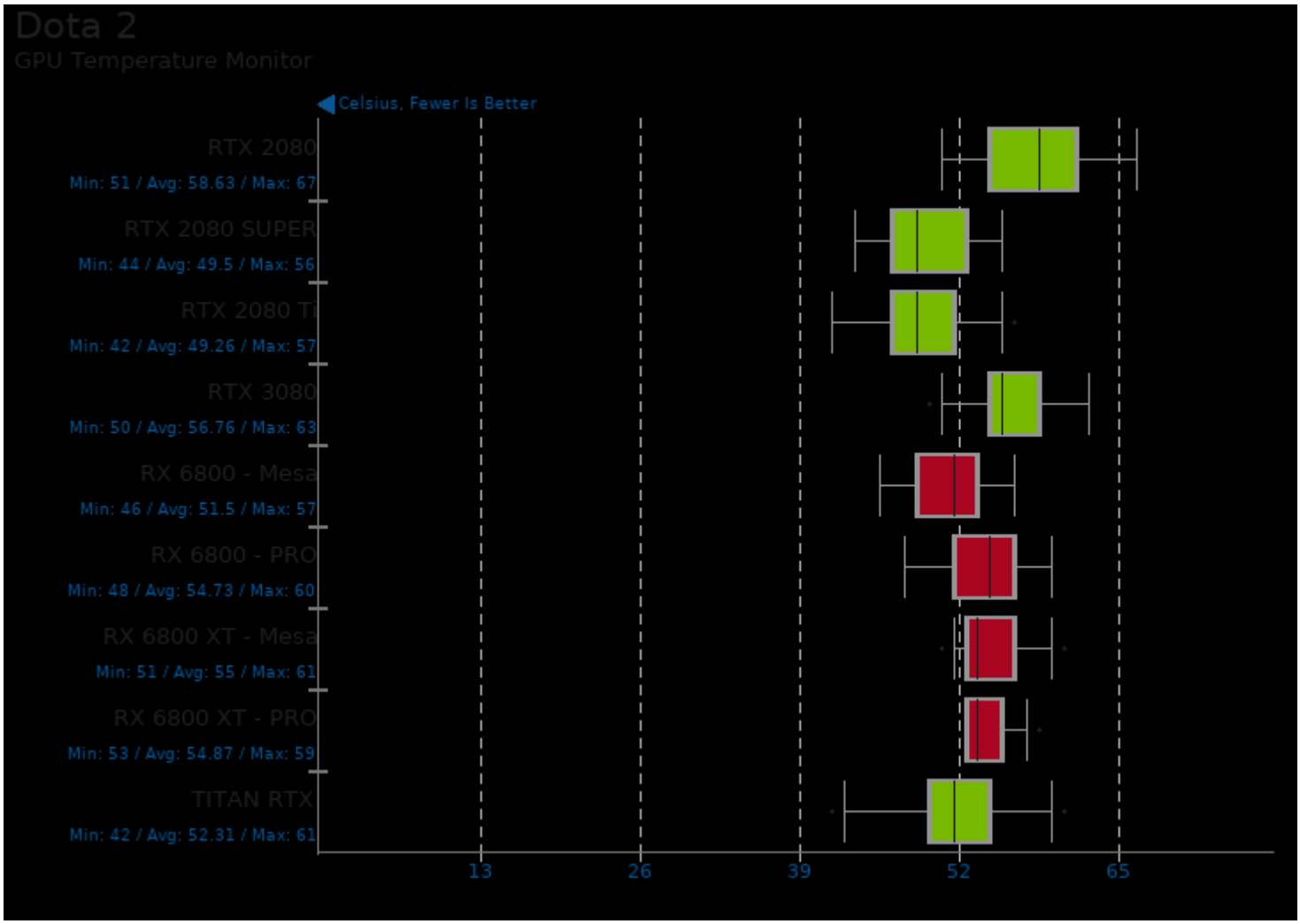

Shadow of the Tomb Raider
GPU Power Consumption Monitor
Watts, Fewer Is Better
RTX 2080
Min: 22.4 / Avg: 183.24 / Max: 221.61
RTX 2080 SUPER
Min: 20.56 / Avg: 217 / Max: 251.98
RTX 2080 Ti
Min: 10.27 / Avg: 225.83 / Max: 266.35
RTX 3080
Min: 16.69 / Avg: 287.06 / Max: 319.08
RX 6800 - Mesa
Min: 5 / Avg: 148.75 / Max: 207
RX 6800 - PRO
Min: 5 / Avg: 172.35 / Max: 242
RX 6800 XT - Mesa
Min: 6 / Avg: 208.82 / Max: 291
RX 6800 XT - PRO
Min: 7 / Avg: 222.05 / Max: 315
TITAN RTX
Min: 28.95 / Avg: 251.85 / Max: 286.13
60
120
180
240
300

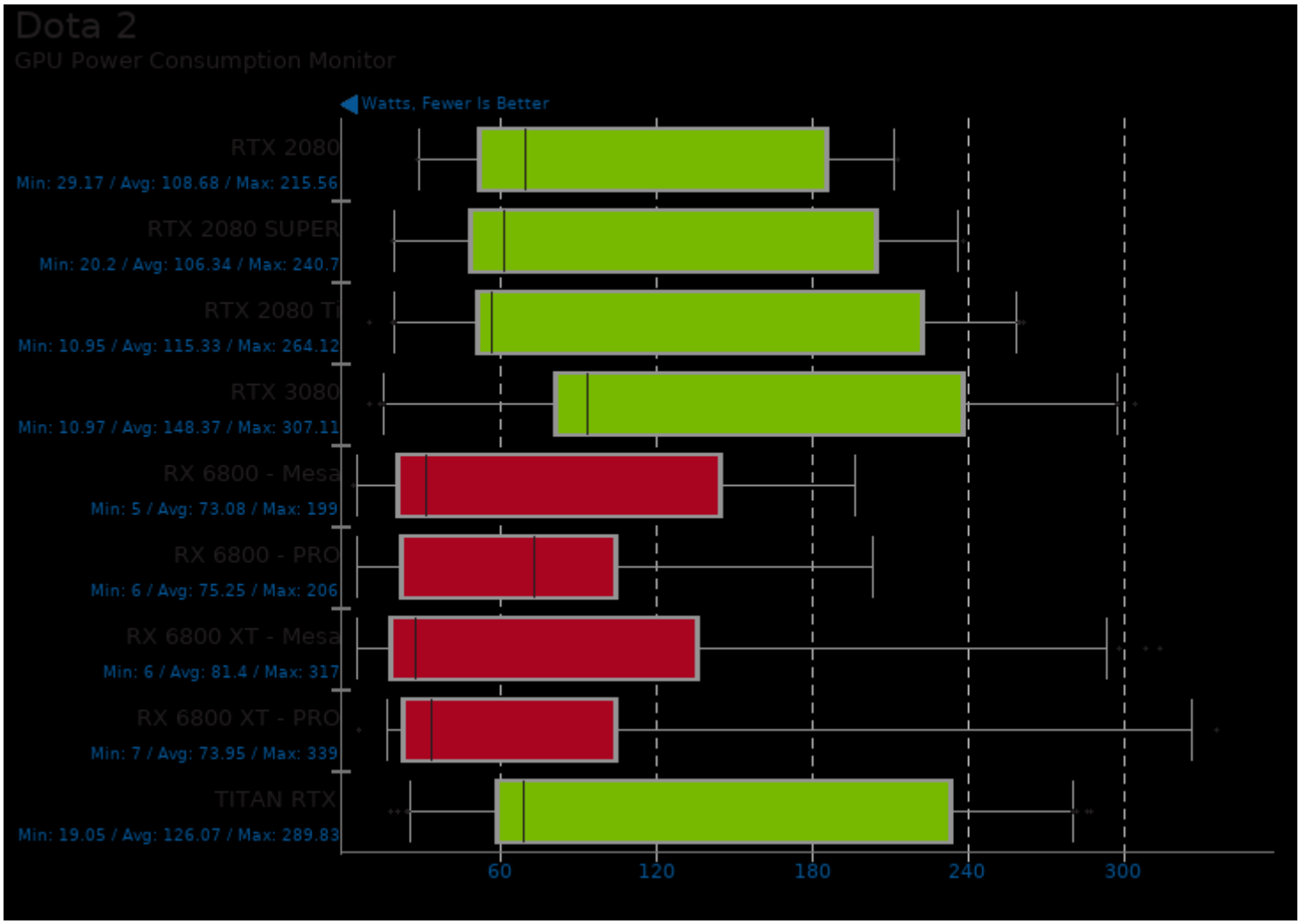

Shadow of the Tomb Raider
Resolution: 3840 x 2160 - Graphics Preset: High - Anti Aliasing: Off
Frames Per Second Per Watt, More Is Better
RTX 2080
0.30
RTX 2080 SUPER
0.28
RTX 2080 Ti
0.34
RTX 3080
0.34
RX 6800 - Mesa
0.36
RX 6800 - PRO
0.44
RX 6800 XT - Mesa
0.31
RX 6800 XT - PRO
0.38
TITAN RTX
0.30
0.099
0.198
0.297
0.396
0.495

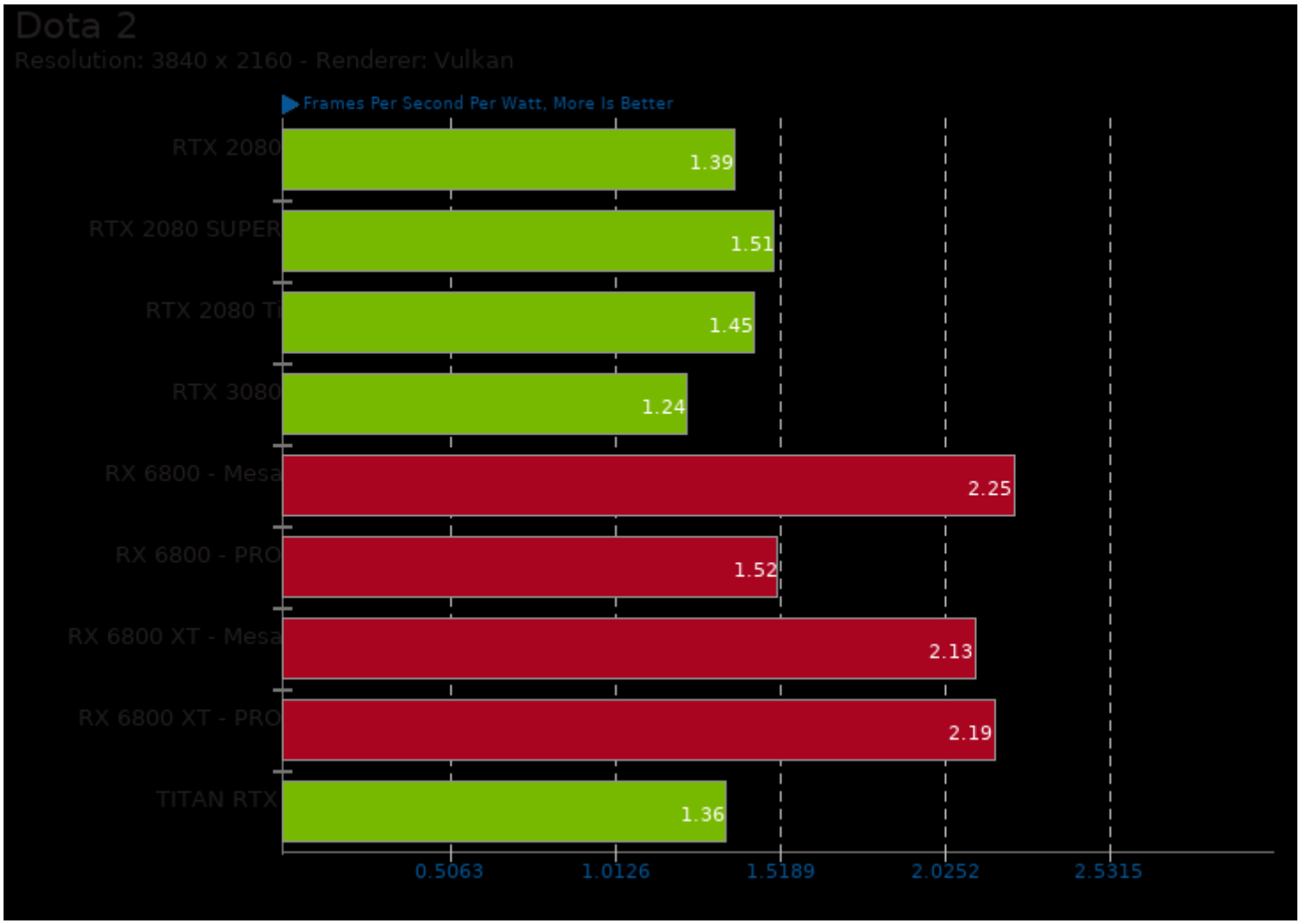

Shadow of the Tomb Raider
GPU Temperature Monitor
Celsius, Fewer Is Better
RTX 2080
Min: 63 / Avg: 80.22 / Max: 84
RTX 2080 SUPER
Min: 57 / Avg: 72.84 / Max: 77
RTX 2080 Ti
Min: 60 / Avg: 75.48 / Max: 79
RTX 3080
Min: 56 / Avg: 70.29 / Max: 74
RX 6800 - Mesa
Min: 51 / Avg: 63.81 / Max: 66
RX 6800 - PRO
Min: 56 / Avg: 68.81 / Max: 72
RX 6800 XT - Mesa
Min: 47 / Avg: 70.18 / Max: 77
RX 6800 XT - PRO
Min: 57 / Avg: 73.54 / Max: 78
TITAN RTX
Min: 61 / Avg: 76.68 / Max: 81
16
32
48
64
80


Shadow of the Tomb Raider
GPU Power Consumption Monitor
Watts, Fewer Is Better
RTX 2080
Min: 21.04 / Avg: 181.7 / Max: 220.63
RTX 2080 SUPER
Min: 16.54 / Avg: 215.61 / Max: 252.91
RTX 2080 Ti
Min: 32 / Avg: 234.16 / Max: 267.39
RTX 3080
Min: 14.72 / Avg: 282.84 / Max: 319.62
RX 6800 - Mesa
Min: 5 / Avg: 151.91 / Max: 209
RX 6800 - PRO
Min: 5 / Avg: 167.79 / Max: 239
RX 6800 XT - Mesa
Min: 6 / Avg: 209.41 / Max: 289
RX 6800 XT - PRO
Min: 6 / Avg: 219.55 / Max: 315
TITAN RTX
Min: 26.42 / Avg: 248.66 / Max: 290.28
60
120
180
240
300

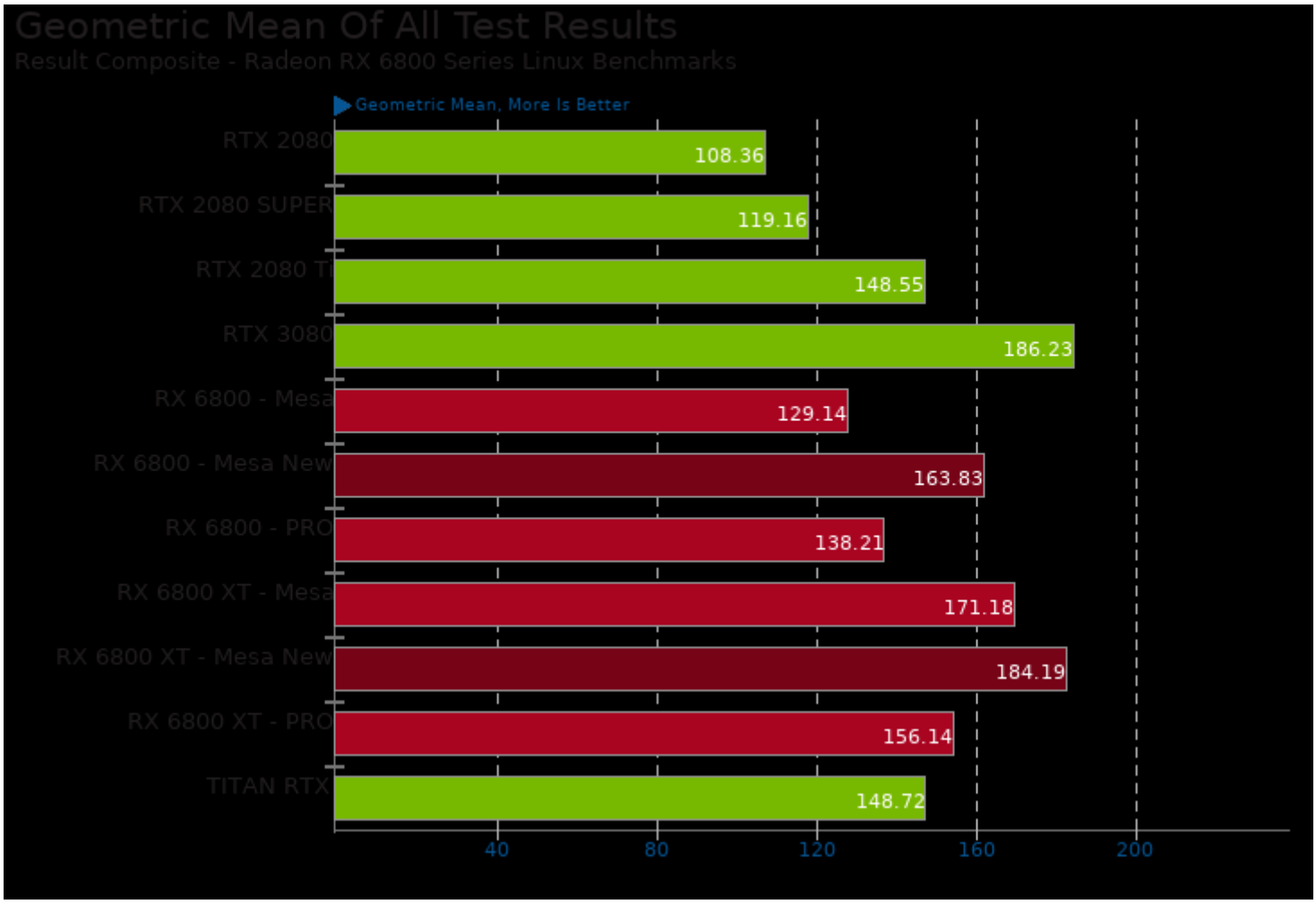
Radeon RX 6800 Series Linux Benchmarks



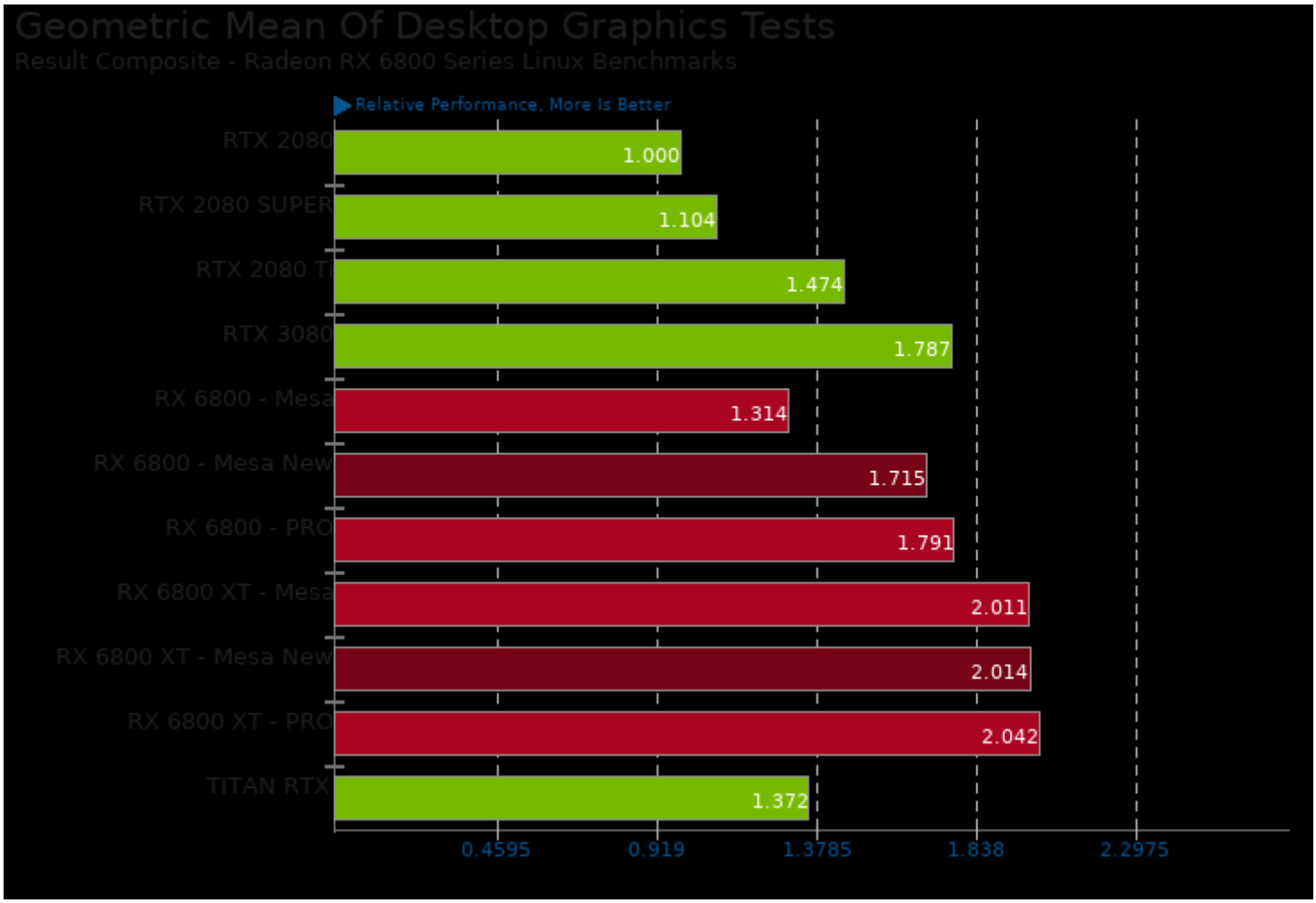

Dota 2
GPU Power Consumption Monitor
Watts, Fewer Is Better
RTX 2080
Min: 29.17 / Avg: 108.68 / Max: 215.56
RTX 2080 SUPER
Min: 20.2 / Avg: 106.34 / Max: 240.7
RTX 2080 Ti
Min: 10.95 / Avg: 115.33 / Max: 264.12
RTX 3080
Min: 10.97 / Avg: 148.37 / Max: 307.11
RX 6800 - Mesa
Min: 5 / Avg: 73.08 / Max: 199
RX 6800 - PRO
Min: 6 / Avg: 75.25 / Max: 206
RX 6800 XT - Mesa
Min: 6 / Avg: 81.4 / Max: 317
RX 6800 XT - PRO
Min: 7 / Avg: 73.95 / Max: 339
TITAN RTX
Min: 19.05 / Avg: 126.07 / Max: 289.83
60
120
180
240
300


Dota 2
Resolution: 3840 x 2160 - Renderer: Vulkan
Frames Per Second Per Watt, More Is Better
RTX 2080
1.39
RTX 2080 SUPER
1.51
RTX 2080 Ti
1.45
RTX 3080
1.24
RX 6800 - Mesa
2.25
RX 6800 - PRO
1.52
RX 6800 XT - Mesa
2.13
RX 6800 XT - PRO
2.19
TITAN RTX
1.36
0.5063
1.0126
1.5189
2.0252
2.5315

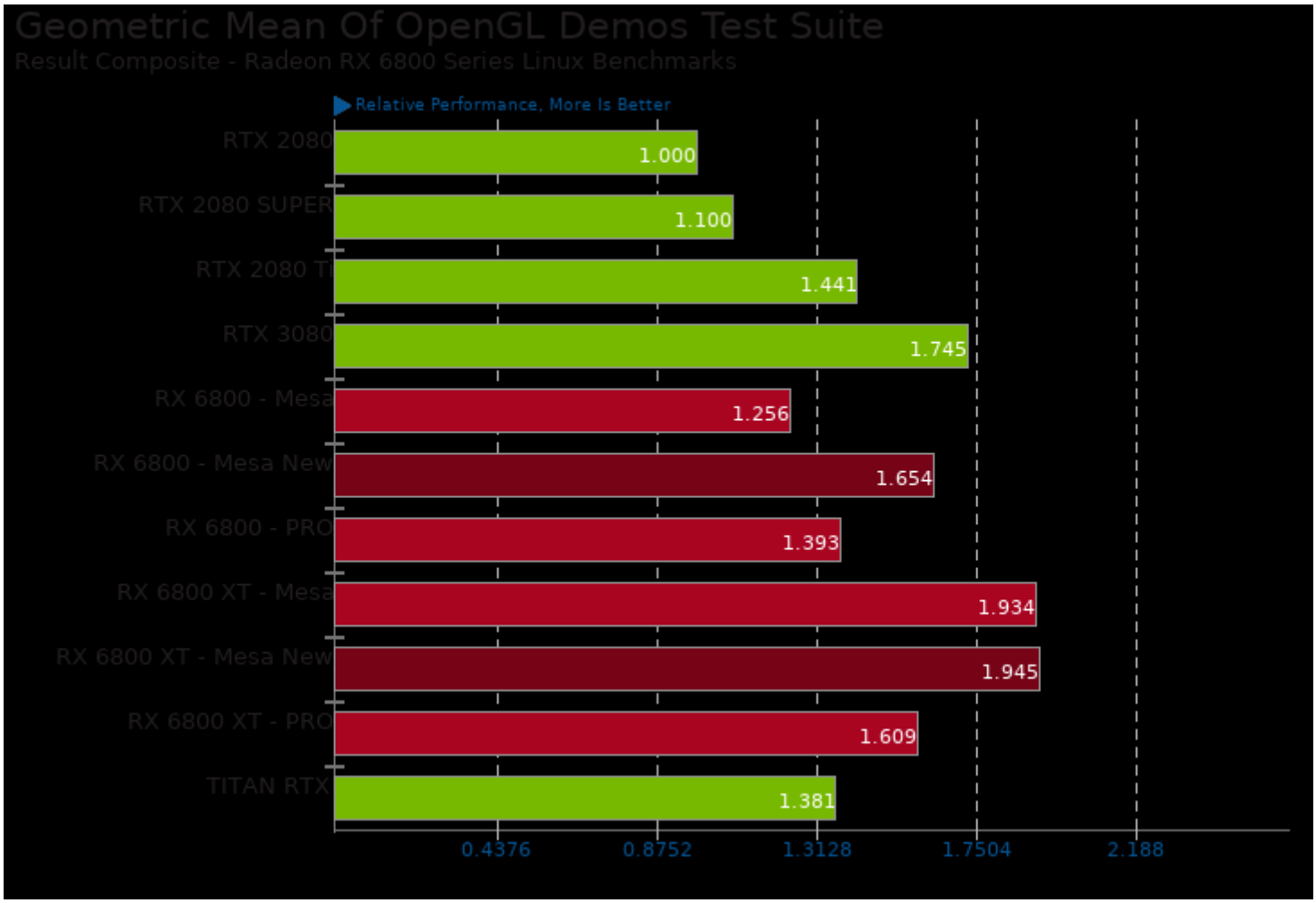
Radeon RX 6800 Series Linux Benchmarks



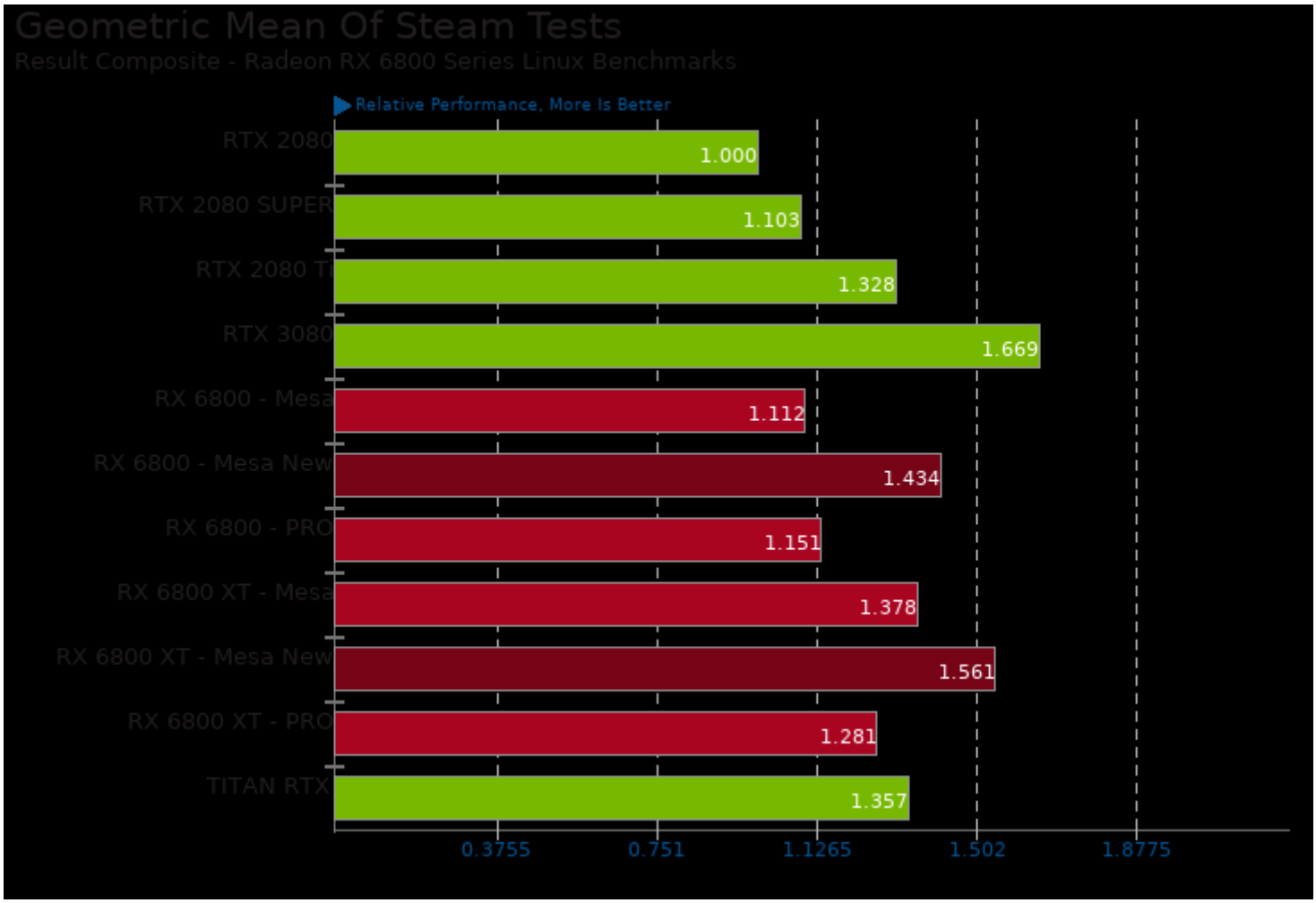
These geometric means are based upon test groupings / test suites for this result file.



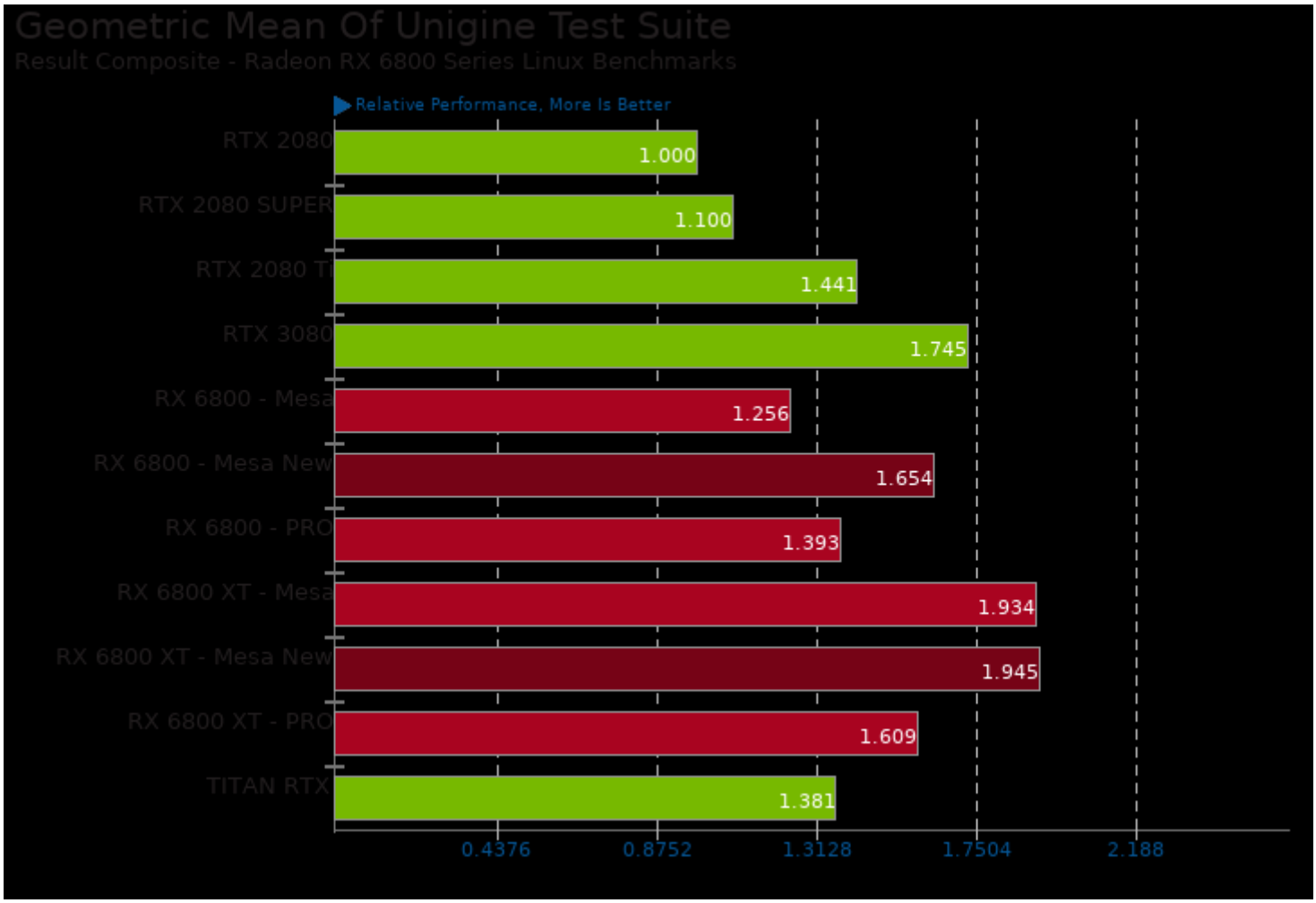
Geometric mean based upon tests: pts/unigine-valley and pts/unigine-heaven



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



Geometric mean based upon tests: pts/batman-knight, pts/dota2, pts/f12017, pts/hitman2, pts/shadowofthetombraider, pts/strange-brigade and pts/twtk



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 Thursday, 28 March 2024 06:03.