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Radeon vs. NVIDIA March 2021 Linux Gaming

Benchmarks by Michael Larabel for a future article.

Automated Executive Summary

RX 6800 XT had the most wins, coming in first place for 64% of the tests.

Based on the geometric mean of all complete results, the fastest (RX 6800 XT) was 2.159x the speed of the slowest (RX Vega 56).

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

HITMAN (Resolution: 3840 x 2160 - Quality Level: Medium - Total Frame Time) at 82.728x
HITMAN (Resolution: 2560 x 1440 - Quality Level: Ultra - Total Frame Time) at 46.505x
Unigine Heaven (Resolution: 3840 x 2160 - Mode: Fullscreen - Renderer: OpenGL) at 3.284x
Unigine Heaven (Resolution: 2560 x 1440 - Mode: Fullscreen - Renderer: OpenGL) at 3.011x
Unigine Superposition (Resolution: 2560 x 1440 - Mode: Fullscreen - Quality: High - Renderer: OpenGL) at 2.934x
Unigine Superposition (Resolution: 3840 x 2160 - Mode: Fullscreen - Quality: Low - Renderer: OpenGL) at 2.917x
The Talos Principle (Renderer: Vulkan - Resolution: 3840 x 2160) at 2.742x
Tesseract (Resolution: 3840 x 2160) at 2.669x
Rise of the Tomb Raider (Resolution: 2560 x 1440 - Graphics Preset: Very High - Anti Aliasing: FXAA - Scene: Spine Of The Mountain) at 2.622x

Rise of the Tomb Raider (Resolution: 3840 x 2160 - Graphics Preset: Medium - Anti Aliasing: Off - Scene: Spine Of The Mountain) at 2.617x.

Test Systems:

RTX 2060 SUPER

Processor: AMD Ryzen 9 5950X 16-Core @ 3.40GHz (16 Cores / 32 Threads), Motherboard: ASUS ROG CROSSHAIR VIII HERO (WI-FI) (3204 BIOS), Chipset: AMD Starship/Matisse, Memory: 32GB, Disk: 2000GB Corsair Force MP600 + 2000GB, Graphics: NVIDIA GeForce RTX 2060 SUPER 8GB, Audio: NVIDIA TU106 HD Audio, Monitor: ASUS MG28U, Network: Realtek RTL8125 2.5GbE + Intel I211 + Intel Wi-Fi 6 AX200

OS: Ubuntu 20.10, Kernel: 5.8.0-44-generic (x86_64), Desktop: GNOME Shell 3.38.2, Display Server: X Server 1.20.9, Display Driver: NVIDIA 460.39, OpenGL: 4.6.0, OpenCL: OpenCL 1.2 CUDA 11.2.136, Vulkan: 1.2.155, Compiler: GCC 10.2.0, File-System: ext4, Screen Resolution: 3840x2160

Kernel Notes: Transparent Huge Pages: madvise
Processor Notes: Scaling Governor: acpi-cpufreq performance (Boost: Enabled) - 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 2070 SUPER

Processor: AMD Ryzen 9 5950X 16-Core @ 3.40GHz (16 Cores / 32 Threads), Motherboard: ASUS ROG CROSSHAIR VIII HERO (WI-FI) (3204 BIOS), Chipset: AMD Starship/Matisse, Memory: 32GB, Disk: 2000GB Corsair Force MP600 + 2000GB, Graphics: NVIDIA GeForce RTX 2070 SUPER 8GB, Audio: NVIDIA TU104 HD Audio, Monitor: ASUS MG28U, Network: Realtek RTL8125 2.5GbE + Intel I211 + Intel Wi-Fi 6 AX200

OS: Ubuntu 20.10, Kernel: 5.8.0-44-generic (x86_64), Desktop: GNOME Shell 3.38.2, Display Server: X Server 1.20.9, Display Driver: NVIDIA 460.39, OpenGL: 4.6.0, OpenCL: OpenCL 1.2 CUDA 11.2.136, Vulkan: 1.2.155, Compiler: GCC 10.2.0, File-System: ext4, Screen Resolution: 3840x2160

Kernel Notes: Transparent Huge Pages: madvise
Processor Notes: Scaling Governor: acpi-cpufreq performance (Boost: Enabled) - CPU Microcode: 0xa201009
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RTX 2080 SUPER

Processor: AMD Ryzen 9 5950X 16-Core @ 3.40GHz (16 Cores / 32 Threads), Motherboard: ASUS ROG CROSSHAIR VIII HERO (WI-FI) (3204 BIOS), Chipset: AMD Starship/Matisse, Memory: 32GB, Disk: 2000GB Corsair Force MP600 + 2000GB, Graphics: NVIDIA GeForce RTX 2080 SUPER 8GB, Audio: NVIDIA TU104 HD Audio, Monitor: ASUS MG28U, Network: Realtek RTL8125 2.5GbE + Intel I211 + Intel Wi-Fi 6 AX200

OS: Ubuntu 20.10, Kernel: 5.8.0-44-generic (x86_64), Desktop: GNOME Shell 3.38.2, Display Server: X Server 1.20.9, Display Driver: NVIDIA 460.39, OpenGL: 4.6.0, OpenCL: OpenCL 1.2 CUDA 11.2.136, Vulkan: 1.2.155, Compiler: GCC 10.2.0, File-System: ext4, Screen Resolution: 3840x2160

Kernel Notes: Transparent Huge Pages: madvise
Processor Notes: Scaling Governor: acpi-cpufreq performance (Boost: Enabled) - 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) (3204 BIOS), Chipset: AMD Starship/Matisse, Memory: 32GB, Disk: 2000GB Corsair Force MP600 + 2000GB, Graphics: NVIDIA GeForce RTX 2080 Ti 11GB, Audio: NVIDIA TU102 HD Audio, Monitor: ASUS MG28U, Network: Realtek RTL8125 2.5GbE + Intel I211 + Intel Wi-Fi 6 AX200

OS: Ubuntu 20.10, Kernel: 5.8.0-44-generic (x86_64), Desktop: GNOME Shell 3.38.2, Display Server: X Server 1.20.9, Display Driver: NVIDIA 460.39, OpenGL: 4.6.0, OpenCL: OpenCL 1.2 CUDA 11.2.136, Vulkan: 1.2.155, Compiler: GCC 10.2.0, File-System: ext4, Screen Resolution: 3840x2160

Kernel Notes: Transparent Huge Pages: madvise
Processor Notes: Scaling Governor: acpi-cpufreq performance (Boost: Enabled) - 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) (3204 BIOS), Chipset: AMD Starship/Matisse, Memory: 32GB, Disk: 2000GB Corsair Force MP600 + 2000GB, Graphics: NVIDIA TITAN RTX 24GB, Audio: NVIDIA TU102 HD Audio, Monitor: ASUS MG28U, Network: Realtek RTL8125 2.5GbE + Intel I211 + Intel Wi-Fi 6 AX200

OS: Ubuntu 20.10, Kernel: 5.8.0-44-generic (x86_64), Desktop: GNOME Shell 3.38.2, Display Server: X Server 1.20.9, Display Driver: NVIDIA 460.39, OpenGL: 4.6.0, OpenCL: OpenCL 1.2 CUDA 11.2.136, Vulkan: 1.2.155, Compiler: GCC 10.2.0, File-System: ext4, Screen Resolution: 3840x2160

Kernel Notes: Transparent Huge Pages: madvise
Processor Notes: Scaling Governor: acpi-cpufreq performance (Boost: Enabled) - 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 3060 Ti

Processor: AMD Ryzen 9 5950X 16-Core @ 3.40GHz (16 Cores / 32 Threads), Motherboard: ASUS ROG CROSSHAIR VIII HERO (WI-FI) (3204 BIOS), Chipset: AMD Starship/Matisse, Memory: 32GB, Disk: 2000GB Corsair Force MP600 + 2000GB, Graphics: NVIDIA GeForce RTX 3060 Ti 8GB, Audio: NVIDIA Device 228b, Monitor: ASUS MG28U, Network: Realtek RTL8125 2.5GbE + Intel I211 + Intel Wi-Fi 6 AX200

OS: Ubuntu 20.10, Kernel: 5.8.0-44-generic (x86_64), Desktop: GNOME Shell 3.38.2, Display Server: X Server 1.20.9, Display Driver: NVIDIA 460.39, OpenGL: 4.6.0, OpenCL: OpenCL 1.2 CUDA 11.2.136, Vulkan: 1.2.155, Compiler: GCC 10.2.0, File-System: ext4, Screen Resolution: 3840x2160

Kernel Notes: Transparent Huge Pages: madvise
Processor Notes: Scaling Governor: acpi-cpufreq performance (Boost: Enabled) - 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) (3204 BIOS), Chipset: AMD Starship/Matisse, Memory: 32GB, Disk: 2000GB Corsair Force MP600 + 2000GB, Graphics: NVIDIA GeForce RTX 3080 10GB, Audio: NVIDIA Device 1aef, Monitor: ASUS MG28U, Network: Realtek RTL8125 2.5GbE + Intel I211 + Intel Wi-Fi 6 AX200

OS: Ubuntu 20.10, Kernel: 5.8.0-44-generic (x86_64), Desktop: GNOME Shell 3.38.2, Display Server: X Server 1.20.9, Display Driver: NVIDIA 460.39, OpenGL: 4.6.0, OpenCL: OpenCL 1.2 CUDA 11.2.136, Vulkan: 1.2.155, Compiler: GCC 10.2.0, File-System: ext4, Screen Resolution: 3840x2160

Kernel Notes: Transparent Huge Pages: madvise
Processor Notes: Scaling Governor: acpi-cpufreq performance (Boost: Enabled) - 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 Vega 56

Processor: AMD Ryzen 9 5950X 16-Core @ 3.40GHz (16 Cores / 32 Threads), Motherboard: ASUS ROG CROSSHAIR VIII HERO (WI-FI) (3204 BIOS), Chipset: AMD Starship/Matisse, Memory: 32GB, Disk: 2000GB Corsair Force MP600 + 2000GB, Graphics: AMD Radeon RX 56/64 8GB (1590/800MHz), Audio: AMD Vega 10 HDMI Audio, Monitor: ASUS MG28U, Network: Realtek RTL8125 2.5GbE + Intel I211 + Intel Wi-Fi 6 AX200

OS: Ubuntu 20.10, Kernel: 5.12.0-051200rc2daily20210308-generic (x86_64) 20210307, Desktop: GNOME Shell 3.38.2, Display Server: X Server 1.20.9, OpenGL: 4.6 Mesa 21.1.0-devel (git-cbd5d82 2021-03-10 groovy-oibaf-ppa) (LLVM 11.0.1), Vulkan: 1.2.168, Compiler: GCC 10.2.0, File-System: ext4, Screen Resolution: 3840x2160

Kernel Notes: Transparent Huge Pages: madvise
Processor Notes: Scaling Governor: acpi-cpufreq performance (Boost: Enabled) - 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

Radeon VII

Processor: AMD Ryzen 9 5950X 16-Core @ 3.40GHz (16 Cores / 32 Threads), Motherboard: ASUS ROG CROSSHAIR VIII HERO (WI-FI) (3204 BIOS), Chipset: AMD Starship/Matisse, Memory: 32GB, Disk: 2000GB Corsair Force MP600 + 2000GB, Graphics: AMD Radeon VII 16GB (1801/1000MHz), Audio: AMD Vega 20 HDMI Audio, Monitor: ASUS MG28U, Network: Realtek RTL8125 2.5GbE + Intel I211 + Intel Wi-Fi 6 AX200

OS: Ubuntu 20.10, Kernel: 5.12.0-051200rc2daily20210308-generic (x86_64) 20210307, Desktop: GNOME Shell 3.38.2, Display Server: X Server 1.20.9, OpenGL: 4.6 Mesa 21.1.0-devel (git-cbd5d82 2021-03-10 groovy-oibaf-ppa) (LLVM 11.0.1), Vulkan: 1.2.168, Compiler: GCC 10.2.0, File-System: ext4, Screen Resolution: 3840x2160

Kernel Notes: Transparent Huge Pages: madvise
Processor Notes: Scaling Governor: acpi-cpufreq performance (Boost: Enabled) - 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 5700 XT

Processor: AMD Ryzen 9 5950X 16-Core @ 3.40GHz (16 Cores / 32 Threads), Motherboard: ASUS ROG CROSSHAIR VIII HERO (WI-FI) (3204 BIOS), Chipset: AMD Starship/Matisse, Memory: 32GB, Disk: 2000GB Corsair Force MP600 + 2000GB, Graphics: AMD Radeon RX 5600 OEM/5600 XT / 5700/5700 8GB (2100/875MHz), Audio: AMD Navi 10 HDMI Audio, Monitor: ASUS MG28U, Network: Realtek RTL8125 2.5GbE + Intel I211 + Intel Wi-Fi 6 AX200

OS: Ubuntu 20.10, Kernel: 5.12.0-051200rc2daily20210308-generic (x86_64) 20210307, Desktop: GNOME Shell 3.38.2, Display Server: X Server 1.20.9, OpenGL: 4.6 Mesa 21.1.0-devel (git-71e8141 2021-03-09 groovy-oibaf-ppa) (LLVM 11.0.1), Vulkan: 1.2.168, Compiler: GCC 10.2.0, File-System: ext4, Screen Resolution: 3840x2160

Kernel Notes: Transparent Huge Pages: madvise
Processor Notes: Scaling Governor: acpi-cpufreq performance (Boost: Enabled) - 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

Processor: AMD Ryzen 9 5950X 16-Core @ 3.40GHz (16 Cores / 32 Threads), Motherboard: ASUS ROG CROSSHAIR VIII HERO (WI-FI) (3204 BIOS), Chipset: AMD Starship/Matisse, Memory: 32GB, Disk: 2000GB Corsair Force MP600 + 2000GB, Graphics: AMD Radeon RX 6800 16GB (2475/1000MHz), Audio: AMD Device ab28, Monitor: ASUS MG28U, Network: Realtek RTL8125 2.5GbE + Intel I211 + Intel Wi-Fi 6 AX200

OS: Ubuntu 20.10, Kernel: 5.12.0-051200rc2daily20210308-generic (x86_64) 20210307, Desktop: GNOME Shell 3.38.2, Display Server: X Server 1.20.9, OpenGL: 4.6 Mesa 21.1.0-devel (git-71e8141 2021-03-09 groovy-oibaf-ppa) (LLVM 11.0.1), Vulkan: 1.2.168, Compiler: GCC 10.2.0, File-System: ext4, Screen Resolution: 3840x2160

Kernel Notes: Transparent Huge Pages: madvise
Processor Notes: Scaling Governor: acpi-cpufreq performance (Boost: Enabled) - 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

Processor: AMD Ryzen 9 5950X 16-Core @ 3.40GHz (16 Cores / 32 Threads), Motherboard: ASUS ROG CROSSHAIR VIII HERO (WI-FI) (3204 BIOS), Chipset: AMD Starship/Matisse, Memory: 32GB, Disk: 2000GB Corsair Force MP600 + 2000GB, Graphics: AMD Radeon RX 6800 XT 16GB (2575/1000MHz), Audio: AMD Device ab28, Monitor: ASUS MG28U, Network: Realtek RTL8125 2.5GbE + Intel I211 + Intel Wi-Fi 6 AX200

OS: Ubuntu 20.10, Kernel: 5.12.0-051200rc2daily20210308-generic (x86_64) 20210307, Desktop: GNOME Shell 3.38.2, Display Server: X Server 1.20.9, OpenGL: 4.6 Mesa 21.1.0-devel (git-71e8141 2021-03-09 groovy-oibaf-ppa) (LLVM 11.0.1), Vulkan: 1.2.168, Compiler: GCC 10.2.0, File-System: ext4, Screen Resolution: 3840x2160

Kernel Notes: Transparent Huge Pages: madvise
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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 2060 SUPER	RTX 2070 SUPER	RTX 2080 SUPER	RTX 2080 Ti	TITAN RTX	RTX 3060 Ti	RTX 3080	RX Vega 56	Radeon VII	RX 5700 XT	RX 6800	RX 6800 XT

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Unigine Heaven - 3840 x 2160 - Fullscreen - OpenGL (FPS)	41.4668	49.3502	56.4170	74.1992	70.1697	56.5396	90.9540	**29.1059**	43.3945	39.2335	81.7964	**95.5709**
Normalized	43.39%	51.64%	59.03%	77.64%	73.42%	59.16%	95.17%	30.45%	45.41%	41.05%	85.59%	100%
Standard Deviation	0.2%	0.1%	0.1%	0.2%	0.4%	0.2%	0%	0.1%	0.2%	0.1%	0.1%	0%
Unigine Heaven - 2560 x 1440 - Fullscreen - OpenGL (FPS)	100.879	121.921	139.122	166.005	176.563	132.995	201.379	**72.0495**	106.478	96.2150	187.001	**216.959**
Normalized	46.5%	56.2%	64.12%	76.51%	81.38%	61.3%	92.82%	33.21%	49.08%	44.35%	86.19%	100%
Standard Deviation	0.1%	0.1%	0%	0.6%	0.1%	0.1%	0.1%	0.1%	0%	0.1%	0.1%	0.1%
Unigine Superposition - 2560 x 1440 - Fullscreen - High - OpenGL (FPS)	50.7	60.6	68.4	82.4	86.2	67.9	100.2	**36.2**	53.0	52.1	91.3	**106.2**
Normalized	47.74%	57.06%	64.41%	77.59%	81.17%	63.94%	94.35%	34.09%	49.91%	49.06%	85.97%	100%
Standard Deviation	0%	0.2%	0.1%	0.2%	0.1%	0.1%	0.1%	0.2%	0.1%	0%	0.1%	0.1%
Unigine Superposition - 3840 x 2160 - Fullscreen - Low - OpenGL (FPS)	86.5	102.6	116.0	141.8	148.8	115.3	166.8	**65**	92.0	97.7	157.8	**189.6**
Normalized	45.62%	54.11%	61.18%	74.79%	78.48%	60.81%	87.97%	34.28%	48.52%	51.53%	83.23%	100%
Standard Deviation	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%		0.1%	0%	0.1%	0.1%
The Talos Principle - Vulkan - 3840 x 2160 (FPS)	83.1	96.8	109.9	133.1	142.5	120.5	166.8	**73.9**	116.7	102.4	169.9	**202.6**
Normalized	41.02%	47.78%	54.24%	65.7%	70.34%	59.48%	82.33%	36.48%	57.6%	50.54%	83.86%	100%
Standard Deviation	0.9%	1.7%	1.2%	1.8%	1.2%	0.8%	1.5%	0.2%	0.4%	0.6%	0.6%	0.1%
Tesseract - 3840 x 2160 (FPS)	320.2597	356.9668	397.0156	423.6161	459.4923	419.0193	532.2610	**314.1810**	490.3853	434.3837	751.2190	**838.6098**
Normalized	38.19%	42.57%	47.34%	50.51%	54.79%	49.97%	63.47%	37.46%	58.48%	51.8%	89.58%	100%
Standard Deviation	1.3%	0.2%	1%	1.7%	1.2%	1.1%	1.7%	0.8%	1.3%	0.6%	1.6%	1.2%
Rise of the Tomb Raider - 2560 x 1440 - Very High - FXAA - S.O.T.M (FPS)	123.5	143.4	162.4	196.4	206.3	161.5	229.5	**101.4**	149.1	140.1	226.2	**265.9**
Normalized	46.45%	53.93%	61.08%	73.86%	77.59%	60.74%	86.31%	38.13%	56.07%	52.69%	85.07%	100%
Standard Deviation	0.7%	0.8%	0.3%	1.7%	0.8%	0.7%	0.5%	0.9%	1.4%	0.9%	1%	0.5%

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Rise of the Tomb Raider - 3840 x 2160 - Medium - Off - S.O.T.M (FPS)	80.0	95.2	107.2	131.6	137.9	111.6	161.5	69.2	105.4	91.8	154.1	181.1
Normalized	44.17%	52.57%	59.19%	72.67%	76.15%	61.62%	89.18%	38.21%	58.2%	50.69%	85.09%	100%
Standard Deviation	1.3%	1.5%	0.6%	0.3%	0.3%	0.6%	0.8%	0.2%	0.2%	0.5%	0.3%	0.2%
HITMAN - 3840 x 2160 - Medium (FPS)	46.90	54.60	61.89	76.35	80.20	74.66	103.24	56.12	82.19	76.66	112.15	121.6
Normalized	38.57%	44.9%	50.9%	62.79%	65.95%	61.4%	84.9%	46.15%	67.59%	63.04%	92.23%	100%
Standard Deviation	0.3%	0.1%	0%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.4%	0.3%
Rise of the Tomb Raider - 3840 x 2160 - Medium - Off - Geothermal Valley (FPS)	66.1	78.8	89.1	107.2	114.6	89.3	132.9	51.7	79.6	69.4	111.6	133.4
Normalized	49.55%	59.07%	66.79%	80.36%	85.91%	66.94%	99.63%	38.76%	59.67%	52.02%	83.66%	100%
Standard Deviation	0.1%	0.2%	0.3%	0.4%	0.5%	0.1%	0.2%	0.2%	0.2%	0.1%	0.2%	0.2%
Rise of the Tomb Raider - 3840 x 2160 - Medium - Off - Prophets Tomb (FPS)	60.8	72.5	82.5	101.3	105.7	81.9	122.0	48.7	73.4	65.4	105.6	124.1
Normalized	48.99%	58.42%	66.48%	81.63%	85.17%	66%	98.31%	39.24%	59.15%	52.7%	85.09%	100%
Standard Deviation	0.2%	0.3%	0.5%	0.5%	0.4%	0.1%	0%	0.1%	0.1%	0.1%	0.1%	0.1%
Shadow of the Tomb Raider - 2560 x 1440 - Highest - SMAA (FPS)	77.4	91.7	103.3	123.6	128.2	105.0	151.4	64.4	96.1	87.7	140.0	160.7
Normalized	48.16%	57.06%	64.28%	76.91%	79.78%	65.34%	94.21%	40.07%	59.8%	54.57%	87.12%	100%
Standard Deviation	0.1%	0.1%	0%	0.1%	0.1%	0.1%	0%	0.1%	0.1%	0.1%	0.1%	0.1%
Shadow of the Tomb Raider - 3840 x 2160 - Medium - Off (FPS)	48.7	58.0	66.1	80.6	84.1	67.3	101.1	40.8	63.4	55	85.9	97.4
Normalized	48.17%	57.37%	65.38%	79.72%	83.18%	66.57%	100%	40.36%	62.71%	54.4%	84.97%	96.34%
Standard Deviation	0.1%	0.1%	0%	0%	0.1%	0.1%	0.1%	0.1%	0.1%		0.1%	0.1%
Rise of the Tomb Raider - 2560 x 1440 - Very High - FXAA - Prophets Tomb	98.9	117.1	132.5	158.6	166.3	129.9	185.6	76.6	110.0	105.0	158.5	187.6
Normalized	52.72%	62.42%	70.63%	84.54%	88.65%	69.24%	98.93%	40.83%	58.64%	55.97%	84.49%	100%
Standard Deviation	0.2%	0.2%	0.1%	0.4%	0.1%	0.2%	0.3%	0.1%	0.1%	0.2%	0.3%	0.1%

Radeon vs. NVIDIA March 2021 Linux Gaming

Deus Ex: Mankind Divided - 3840 x 2160 - Low Quality	43.3	51.2	56.5	67.6	70.8	59.5	78.0	41.7	62.2	54.3	90.0	98.3
Normalized	44.05%	52.09%	57.48%	68.77%	72.02%	60.53%	79.35%	42.42%	63.28%	55.24%	91.56%	100%
Standard Deviation	0.9%	0.7%	0.2%	1.1%	0.8%	0.2%	0.4%	0.1%	0.1%	0.2%	1.6%	0.9%
Dawn of War III - 3840 x 2160 - Ultra - Vulkan (FPS)	49.1737 38	59.2644 16	68.0699 21	77.5575 20	86.5128 17	72.3517 84	95.4938 79	41.5597 61	62.6276 39	53.9361 42	91.2061 95	96.9247 84
Normalized	50.73%	61.14%	70.23%	80.02%	89.26%	74.65%	98.52%	42.88%	64.61%	55.65%	94.1%	100%
Standard Deviation	0.4%	0.8%	0.8%	0.2%	0.5%	0.4%	0.9%	1%	0.4%	0.5%	0.6%	1.6%
Rise of the Tomb Raider - 2560 x 1440 - Very High - FXAA - Geothermal Valley (FPS)	94.4	112.3	127.5	144.6	154.4	120.8	164.5	71.7	105.2	98.9	147.5	156.5
Normalized	57.39%	68.27%	77.51%	87.9%	93.86%	73.43%	100%	43.59%	63.95%	60.12%	89.67%	95.14%
Standard Deviation	0.1%	0.3%	0.3%	4.2%	1.9%	0.6%	2.7%	0.1%	0.6%	0.4%	0.9%	0.5%
Dawn of War III - 3840 x 2160 - High - Vulkan (FPS)	54.1670 99	65.3967 13	74.8977 05	83.0504 45	92.0778 89	79.3041 94	99.4624 53	45.0881 19	68.1052 32	58.3056 72	94.8502 78	98.6071 47
Normalized	54.46%	65.75%	75.3%	83.5%	92.58%	79.73%	100%	45.33%	68.47%	58.62%	95.36%	99.14%
Standard Deviation	0.2%	0.4%	0.4%	0.9%	0.5%	0.5%	0.6%	0.7%	0.6%	0.4%	0.8%	0.4%
Xonotic - 3840 x 2160 - Ultimate (FPS)	208.065 5234	235.870 6662	265.299 9938	273.072 4888	331.365 6357	239.227 6814	338.347 3697	306.271 4986	402.533 5189	378.941 2907	428.032 4164	423.934 8447
Normalized	48.61%	55.11%	61.98%	63.8%	77.42%	55.89%	79.05%	71.55%	94.04%	88.53%	100%	99.04%
Standard Deviation	0.3%	0.1%	0.4%	8.5%	0.2%	0.2%	0.5%	0.6%	0.6%	0.7%	2.5%	0.5%
F1 2017 - 3840 x 2160 - Medium - Off (FPS)	105	124	140	148	166	143	172	91	135	127	170	165
Normalized	61.05%	72.09%	81.4%	86.05%	96.51%	83.14%	100%	52.91%	78.49%	73.84%	98.84%	95.93%
Standard Deviation	2%	0.5%	0.8%	1.6%	0.9%	1.2%	1%		0.4%		2.4%	2.5%
HITMAN - 2560 x 1440 - Ultra	71.12	79.28	86.51	92.86	100.23	96.46	110.09	83.77	101.96	100.63	118.59	118.70
Normalized	59.92%	66.79%	72.88%	78.23%	84.44%	81.26%	92.75%	70.57%	85.9%	84.78%	99.91%	100%
Standard Deviation	0.3%	0.3%	0.2%	0.3%	0.5%	0.4%	0.6%	0.9%	0.3%	0.6%	1.3%	1.7%
Dota 2 - 3840 x 2160 - Vulkan (FPS)	130.0	147.8	161.5	155.9	178.7	160.2	177.3	107.8	134.5	130.5	136.1	134.5
Normalized	72.75%	82.71%	90.37%	87.24%	100%	89.65%	99.22%	60.32%	75.27%	73.03%	76.16%	75.27%
Standard Deviation	2.4%	2.3%	2.5%	1.6%	2.3%	0.8%	2.4%	1.1%	1.4%	2.1%	2.3%	0.8%

Radeon vs. NVIDIA March 2021 Linux Gaming

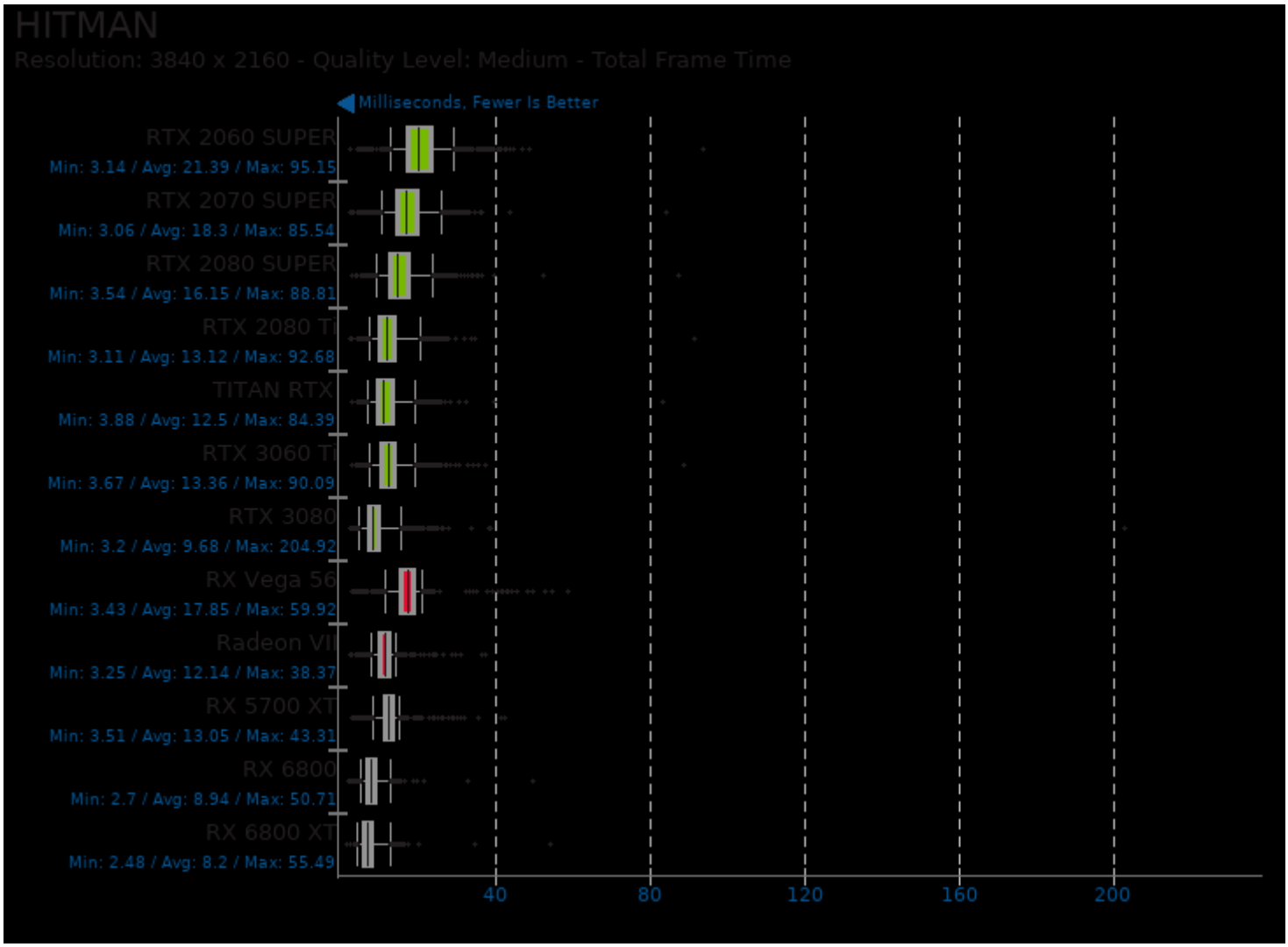
Deus Ex: Mankind Divided - 2560 x 1440 - High Quality	55.8	64.4	70.5	76.8	83.9	73.4	**87.0**	**55.7**	78.7	72.2	85.5	81.8
Normalized	64.14%	74.02%	81.03%	88.28%	96.44%	84.37%	100%	64.02%	90.46%	82.99%	98.28%	94.02%
Standard Deviation	0.1%	0.2%	0.3%	1.3%	0.4%	0.1%	0.3%	0.5%	2.3%	0.3%	1.7%	0.4%
F1 2017 - 2560 x 1440 - Ultra High - Off (FPS)	123	138	147	130	**154**	147	**154**	**106**	128	128	132	126
Normalized	79.87%	89.61%	95.45%	84.42%	100%	95.45%	100%	68.83%	83.12%	83.12%	85.71%	81.82%
Standard Deviation	0.8%	0.4%	1%	3.2%	2.3%	1.7%	2.7%		0.9%	0.8%	1.3%	
Dawn of War III - 2560 x 1440 - Ultra - Vulkan (FPS)	91.1914 24	98.3354 42	100.026 711	99.7613 68	106.733 154	101.965 154	**109.443 171**	**85.1762 85**	103.453 036	101.549 736	108.984 856	107.339 472
Normalized	83.32%	89.85%	91.4%	91.15%	97.52%	93.17%	100%	77.83%	94.53%	92.79%	99.58%	98.08%
Standard Deviation	0.4%	1%	2%	1%	1.7%	1.1%	1.7%	0.4%	1.5%	0.3%	1.8%	1.4%
Unigine Superposition - 2560 x 1440 - Fullscreen - High - OpenGL (FPS/Watt)	0.32	0.33	0.32	0.36	0.35	0.39	0.35	**0.24**	0.26	0.31	**0.49**	0.45
Normalized	65.31%	67.35%	65.31%	73.47%	71.43%	79.59%	71.43%	48.98%	53.06%	63.27%	100%	91.84%
Unigine Heaven - 2560 x 1440 - Fullscreen - OpenGL (FPS/Watt)	0.61	0.60	0.59	0.68	0.66	0.70	0.66	**0.45**	0.53	0.56	**0.96**	0.89
Normalized	63.54%	62.5%	61.46%	70.83%	68.75%	72.92%	68.75%	46.88%	55.21%	58.33%	100%	92.71%
Shadow of the Tomb Raider - 2560 x 1440 - Highest - SMAA (FPS/Watt)	0.50	0.49	0.49	0.54	0.52	0.59	0.54	**0.44**	0.56	0.54	**0.80**	0.71
Normalized	62.5%	61.25%	61.25%	67.5%	65%	73.75%	67.5%	55%	70%	67.5%	100%	88.75%
Rise of the Tomb Raider - 2560 x 1440 - Very High - FXAA - Geothermal Valley	0.69	0.69	0.70	0.72	0.70	0.79	0.67	**0.53**	0.67	0.65	**0.92**	0.76
Normalized	75%	75%	76.09%	78.26%	76.09%	85.87%	72.83%	57.61%	72.83%	70.65%	100%	82.61%
Dawn of War III - 2560 x 1440 - Ultra - Vulkan (FPS/Watt)	0.87	0.84	0.84	0.77	0.76	0.96	**0.71**	0.94	1.06	0.96	**1.52**	1.31
Normalized	57.24%	55.26%	55.26%	50.66%	50%	63.16%	46.71%	61.84%	69.74%	63.16%	100%	86.18%

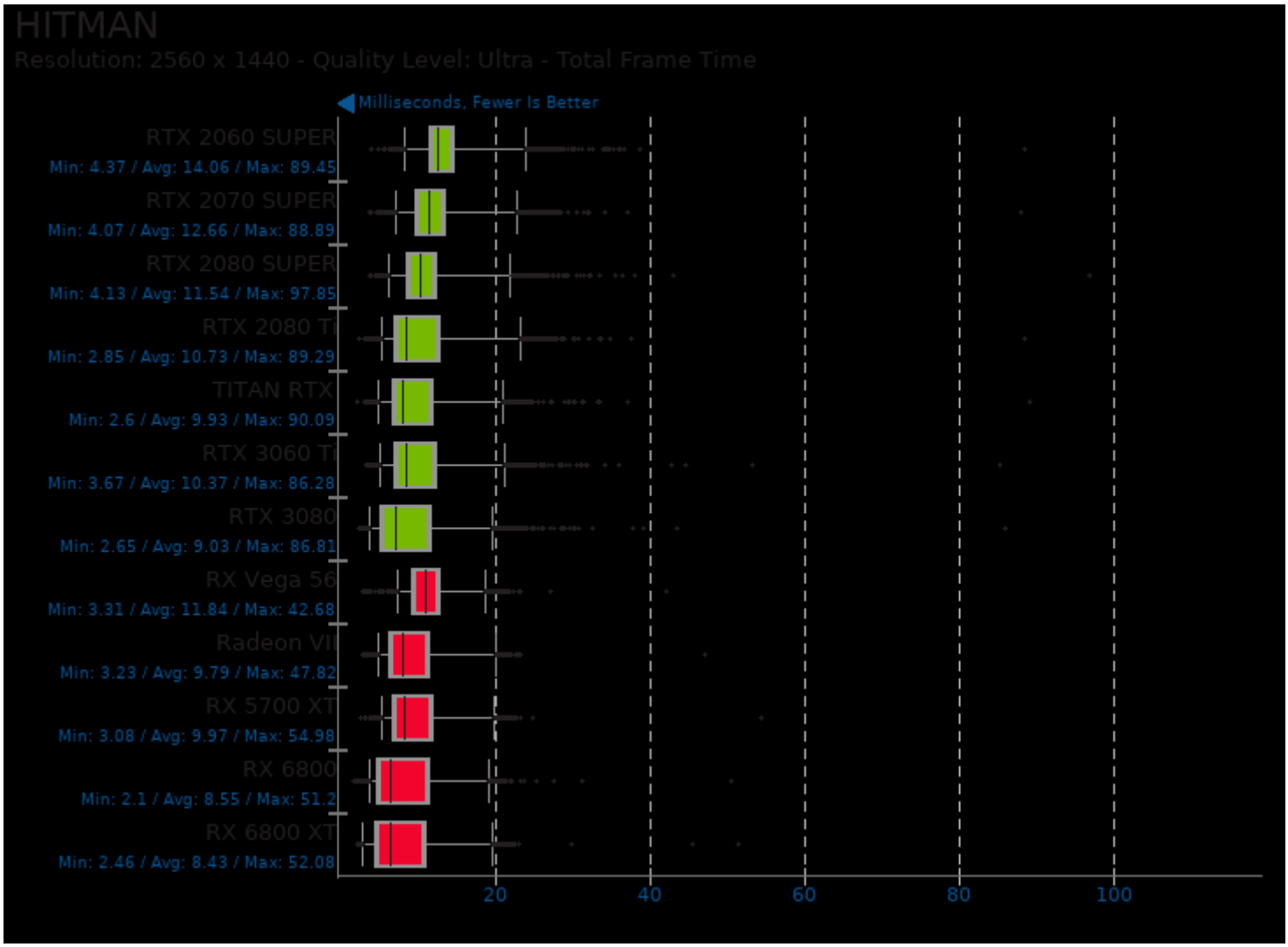
Radeon vs. NVIDIA March 2021 Linux Gaming

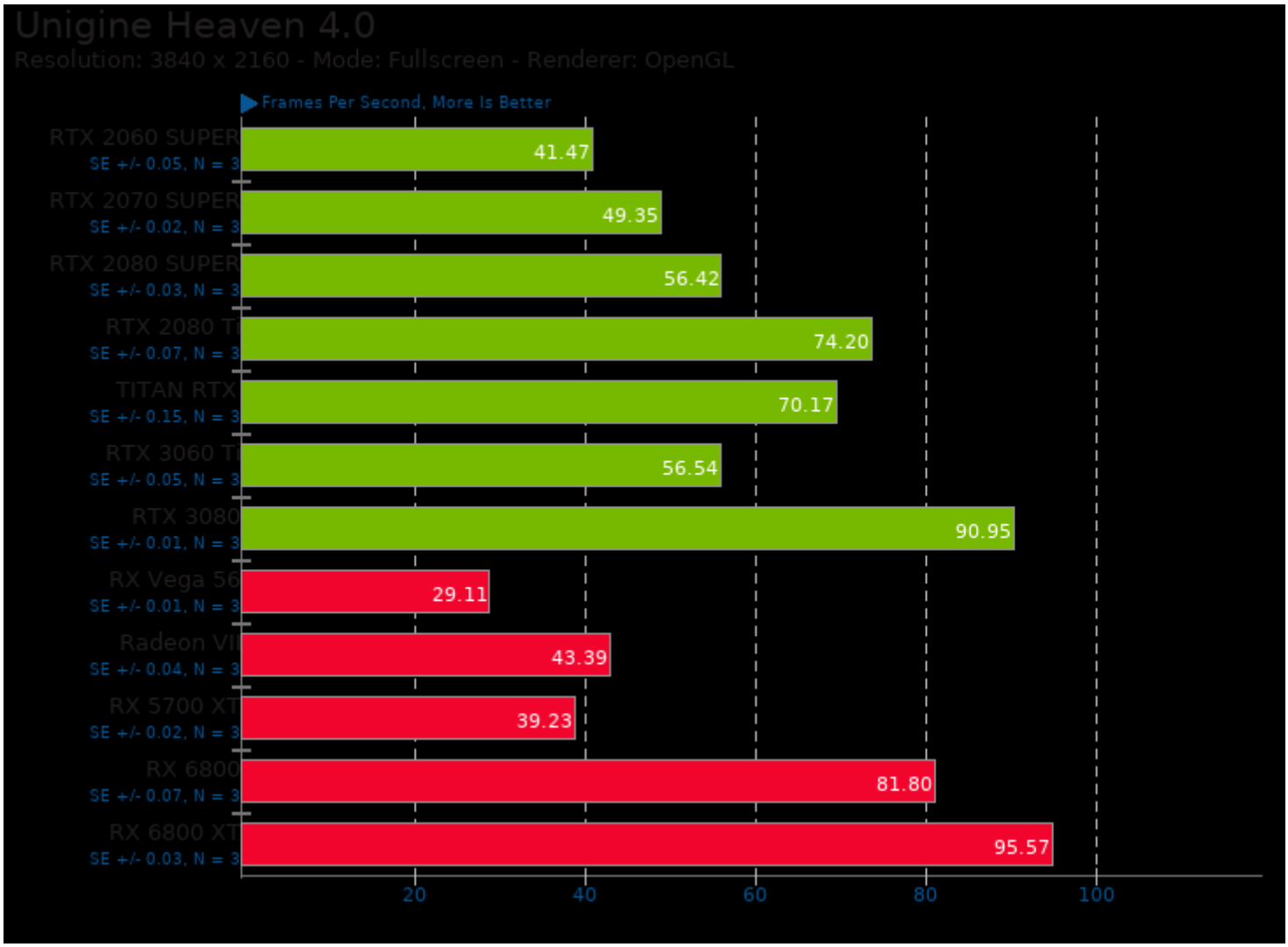
Deus Ex: Mankind Divided - 2560 x 1440 - High Quality (FPS/Watt)	0.40	0.43	0.44	0.41	0.39	0.49	**0.38**	0.41	0.50	0.49	**0.73**	0.60
Normalized	54.79%	58.9%	60.27%	56.16%	53.42%	67.12%	52.05%	56.16%	68.49%	67.12%	100%	82.19%
Xonotic - 3840 x 2160 - Ultimate (FPS/Watt)	**1.49**	1.61	1.71	1.53	1.60	1.71	**1.49**	2.39	2.90	2.99	**4.52**	4.00
Normalized	32.96%	35.62%	37.83%	33.85%	35.4%	37.83%	32.96%	52.88%	64.16%	66.15%	100%	88.5%
Unigine Superposition - 3840 x 2160 - Fullscreen - Low - OpenGL (FPS/Watt)	0.54	0.53	0.53	0.61	0.58	0.65	0.59	**0.42**	0.48	0.58	**0.84**	0.79
Normalized	64.29%	63.1%	63.1%	72.62%	69.05%	77.38%	70.24%	50%	57.14%	69.05%	100%	94.05%
Unigine Heaven - 3840 x 2160 - Fullscreen - OpenGL (FPS/Watt)	0.25	0.24	0.24	0.30	0.26	0.30	0.30	**0.18**	0.21	0.23	**0.42**	0.39
Normalized	59.52%	57.14%	57.14%	71.43%	61.9%	71.43%	71.43%	42.86%	50%	54.76%	100%	92.86%
Tesseract - 3840 x 2160 (FPS/Watt)	2.27	2.28	2.40	2.23	**2.13**	2.70	2.18	2.29	2.52	2.80	**4.37**	3.79
Normalized	51.95%	52.17%	54.92%	51.03%	48.74%	61.78%	49.89%	52.4%	57.67%	64.07%	100%	86.73%
The Talos Principle - Vulkan - 3840 x 2160 (FPS/Watt)	**0.68**	0.71	0.75	0.84	0.82	0.95	0.85	0.73	0.90	0.88	**1.37**	1.25
Normalized	49.64%	51.82%	54.74%	61.31%	59.85%	69.34%	62.04%	53.28%	65.69%	64.23%	100%	91.24%
Shadow of the Tomb Raider - 3840 x 2160 - Medium - Off (FPS/Watt)	0.31	0.30	0.30	0.35	0.34	0.37	0.35	**0.27**	0.34	0.34	**0.48**	0.42
Normalized	64.58%	62.5%	62.5%	72.92%	70.83%	77.08%	72.92%	56.25%	70.83%	70.83%	100%	87.5%
Rise of the Tomb Raider - 3840 x 2160 - Medium - Off - Geothermal Valley	0.47	0.47	0.46	0.51	0.51	0.56	0.52	**0.37**	0.44	0.45	**0.65**	0.62
Normalized	72.31%	72.31%	70.77%	78.46%	78.46%	86.15%	80%	56.92%	67.69%	69.23%	100%	95.38%

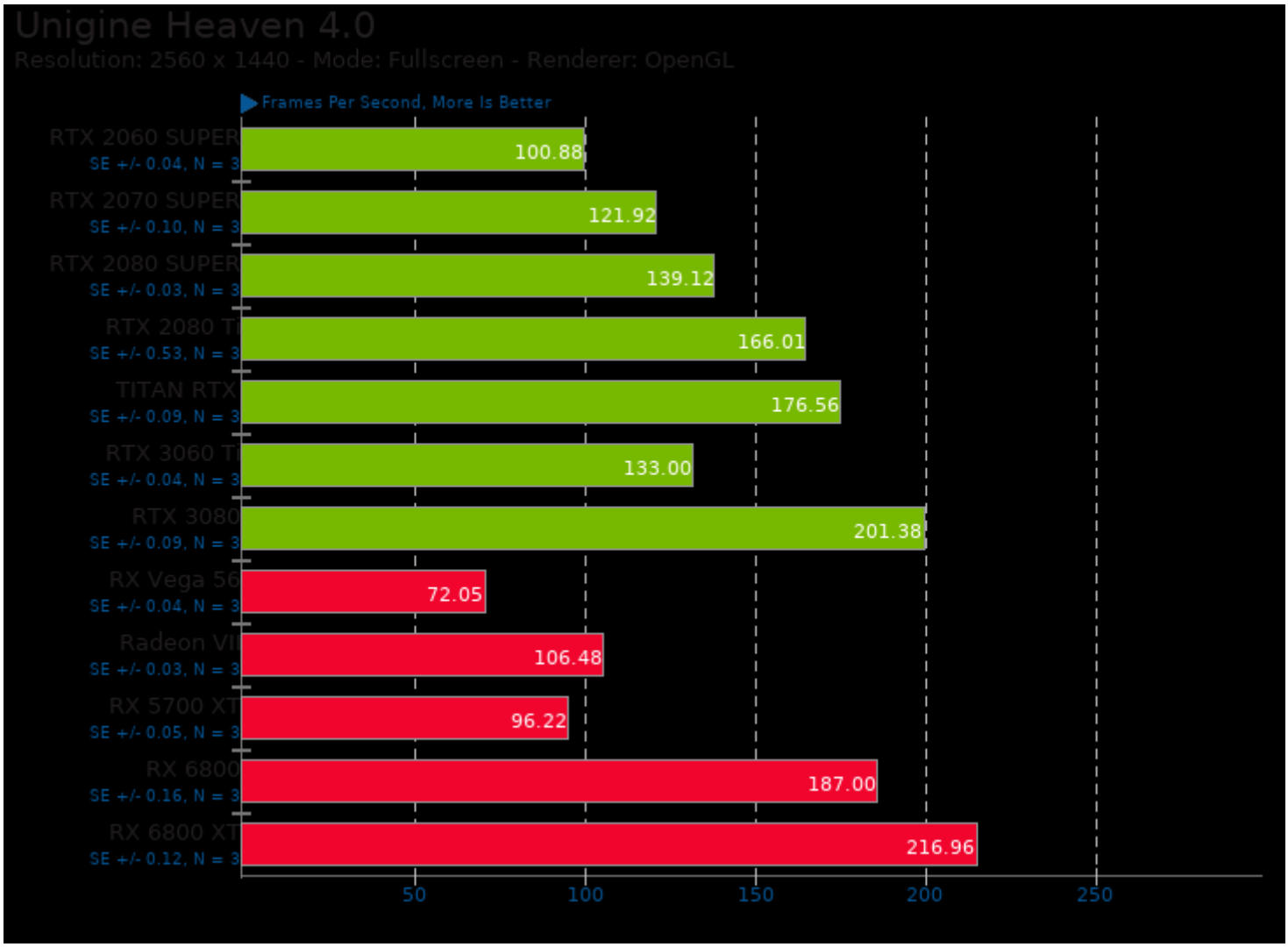
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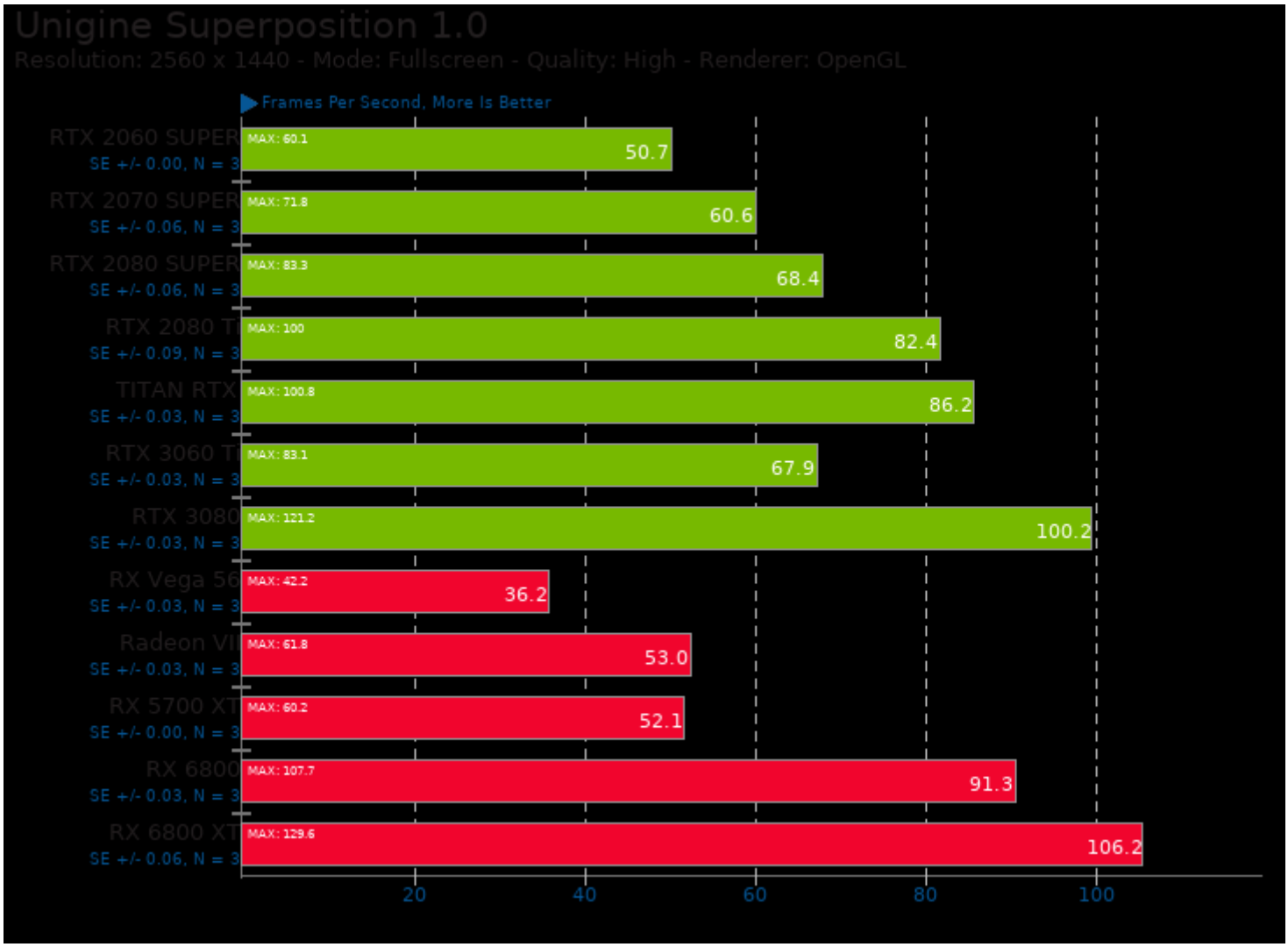
Dawn of War III - 3840 x 2160 - Ultra - Vulkan (FPS/Watt)	0.46	0.46	0.47	0.52	0.51	0.61	0.50	**0.41**	0.50	0.47	**0.76**	0.66
Normalized	60.53%	60.53%	61.84%	68.42%	67.11%	80.26%	65.79%	53.95%	65.79%	61.84%	100%	86.84%
Dawn of War III - 3840 x 2160 - High - Vulkan (FPS/Watt)	0.50	0.51	0.52	0.56	0.54	0.67	0.54	**0.45**	0.54	0.53	**0.78**	0.69
Normalized	64.1%	65.38%	66.67%	71.79%	69.23%	85.9%	69.23%	57.69%	69.23%	67.95%	100%	88.46%
Dota 2 - 3840 x 2160 - Vulkan (FPS/Watt)	1.39	1.44	1.48	1.36	1.40	1.88	**1.28**	1.35	1.58	1.49	**2.10**	1.71
Normalized	66.19%	68.57%	70.48%	64.76%	66.67%	89.52%	60.95%	64.29%	75.24%	70.95%	100%	81.43%
Deus Ex: Mankind Divided - 3840 x 2160 - Low Quality (FPS/Watt)	0.50	0.33	0.34	0.33	0.54	0.38	**0.32**	0.35	0.41	0.40	**0.61**	0.48
Normalized	81.97%	54.1%	55.74%	54.1%	88.52%	62.3%	52.46%	57.38%	67.21%	65.57%	100%	78.69%

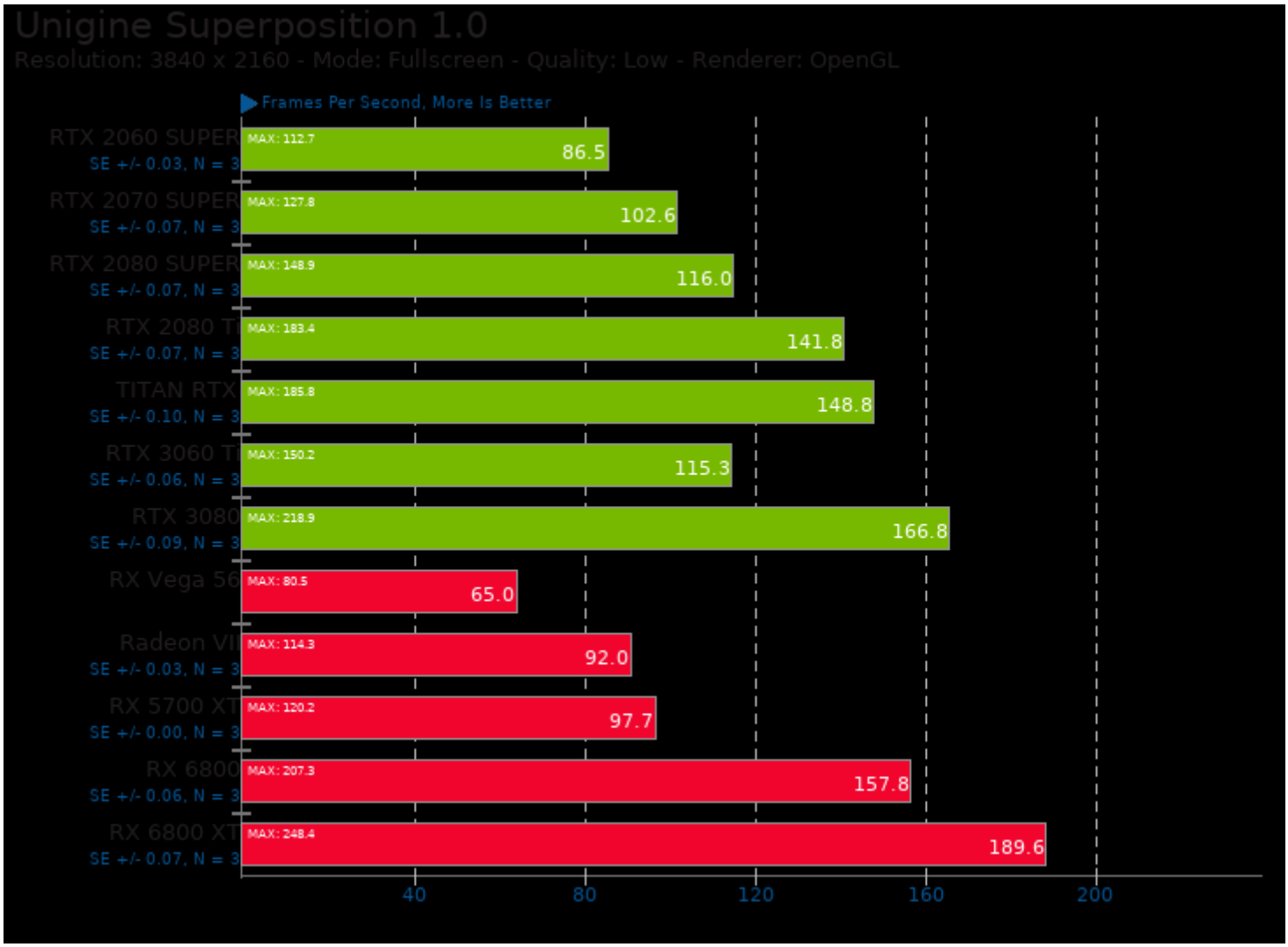

HITMAN
Resolution: 3840 x 2160 - Quality Level: Medium - Total Frame Time
Milliseconds, Fewer Is Better
RTX 2060 SUPER
Min: 3.14 / Avg: 21.39 / Max: 95.15
RTX 2070 SUPER
Min: 3.06 / Avg: 18.3 / Max: 85.54
RTX 2080 SUPER
Min: 3.54 / Avg: 16.15 / Max: 88.81
RTX 2080 Ti
Min: 3.11 / Avg: 13.12 / Max: 92.68
TITAN RTX
Min: 3.88 / Avg: 12.5 / Max: 84.39
RTX 3060 Ti
Min: 3.67 / Avg: 13.36 / Max: 90.09
RTX 3080
Min: 3.2 / Avg: 9.68 / Max: 204.92
RX Vega 56
Min: 3.43 / Avg: 17.85 / Max: 59.92
Radeon VII
Min: 3.25 / Avg: 12.14 / Max: 38.37
RX 5700 XT
Min: 3.51 / Avg: 13.05 / Max: 43.31
RX 6800
Min: 2.7 / Avg: 8.94 / Max: 50.71
RX 6800 XT
Min: 2.48 / Avg: 8.2 / Max: 55.49
40
80
120
160
200

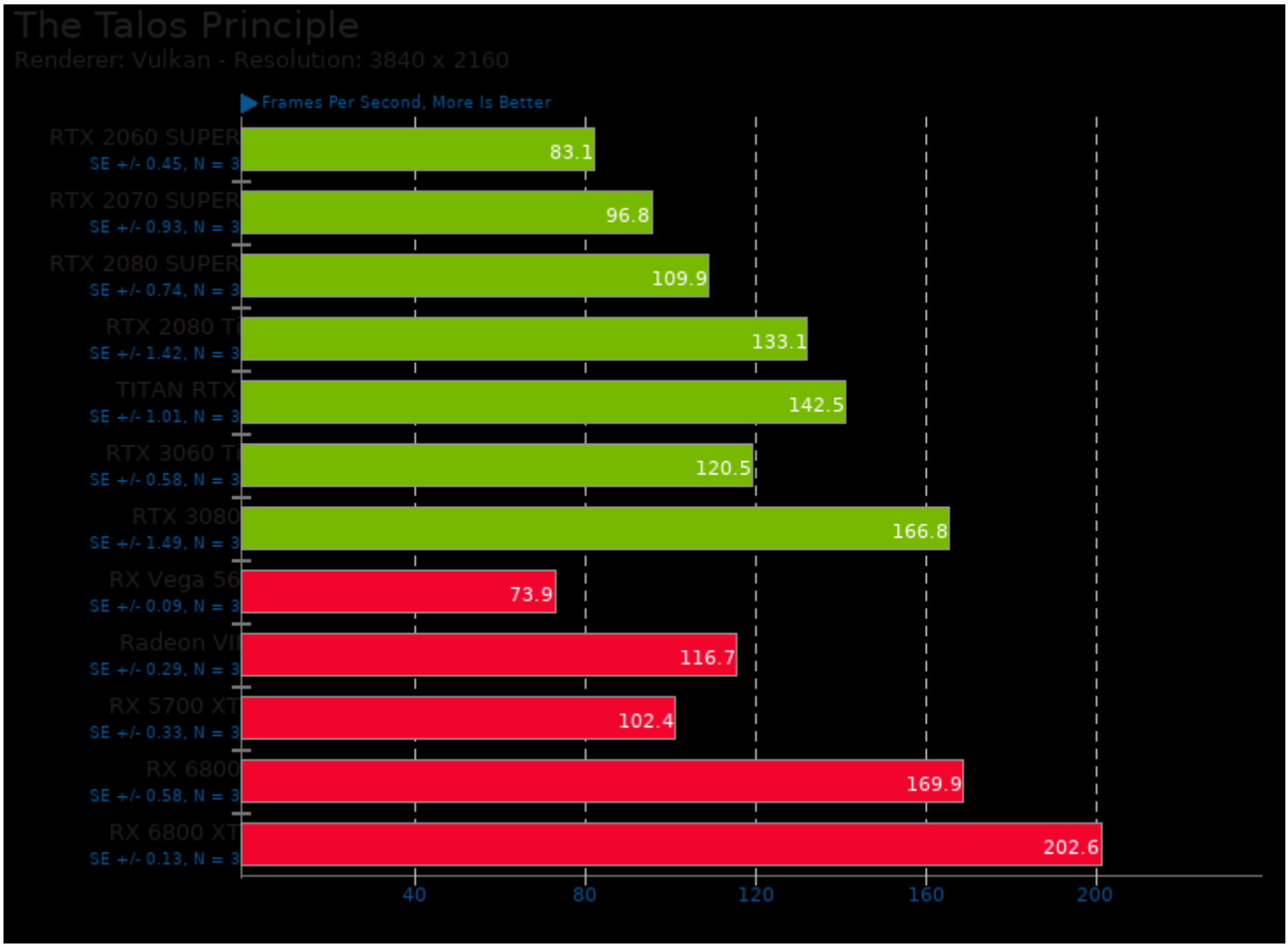

HITMAN
Resolution: 2560 x 1440 - Quality Level: Ultra - Total Frame Time
Milliseconds, Fewer Is Better
RTX 2060 SUPER
Min: 4.37 / Avg: 14.06 / Max: 89.45
RTX 2070 SUPER
Min: 4.07 / Avg: 12.66 / Max: 88.89
RTX 2080 SUPER
Min: 4.13 / Avg: 11.54 / Max: 97.85
RTX 2080 Ti
Min: 2.85 / Avg: 10.73 / Max: 89.29
TITAN RTX
Min: 2.6 / Avg: 9.93 / Max: 90.09
RTX 3060 Ti
Min: 3.67 / Avg: 10.37 / Max: 86.28
RTX 3080
Min: 2.65 / Avg: 9.03 / Max: 86.81
RX Vega 56
Min: 3.31 / Avg: 11.84 / Max: 42.68
Radeon VII
Min: 3.23 / Avg: 9.79 / Max: 47.82
RX 5700 XT
Min: 3.08 / Avg: 9.97 / Max: 54.98
RX 6800
Min: 2.1 / Avg: 8.55 / Max: 51.2
RX 6800 XT
Min: 2.46 / Avg: 8.43 / Max: 52.08
20
40
60
80
100

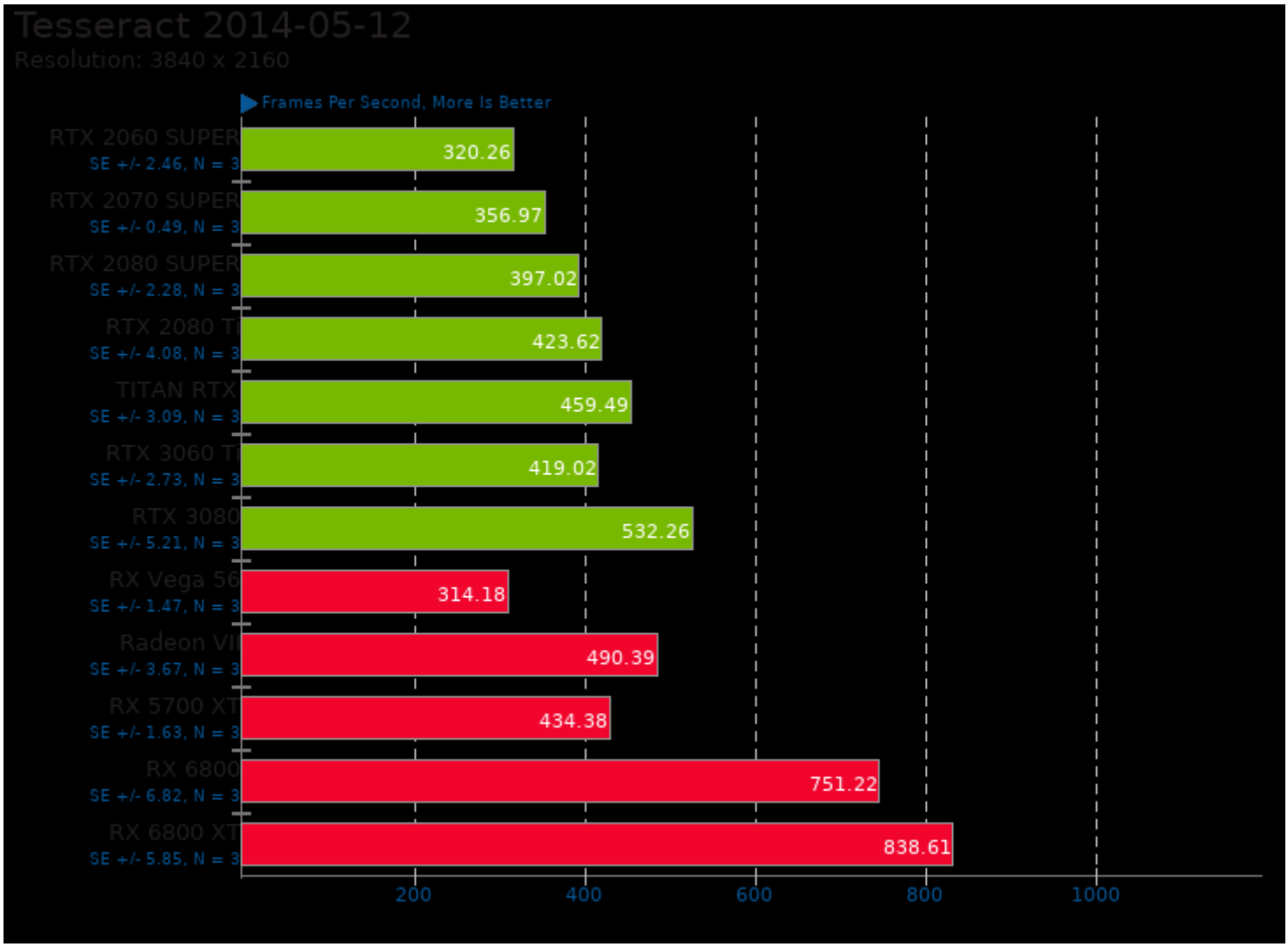

Unigine Heaven 4.0
Resolution: 3840 x 2160 - Mode: Fullscreen - Renderer: OpenGL
Frames Per Second, More Is Better
RTX 2060 SUPER
SE +/- 0.05, N = 3
41.47
RTX 2070 SUPER
SE +/- 0.02, N = 3
49.35
RTX 2080 SUPER
SE +/- 0.03, N = 3
56.42
RTX 2080 Ti
SE +/- 0.07, N = 3
74.20
TITAN RTX
SE +/- 0.15, N = 3
70.17
RTX 3060 Ti
SE +/- 0.05, N = 3
56.54
RTX 3080
SE +/- 0.01, N = 3
90.95
RX Vega 56
SE +/- 0.01, N = 3
29.11
Radeon VII
SE +/- 0.04, N = 3
43.39
RX 5700 XT
SE +/- 0.02, N = 3
39.23
RX 6800
SE +/- 0.07, N = 3
81.80
RX 6800 XT
SE +/- 0.03, N = 3
95.57
20
40
60
80
100

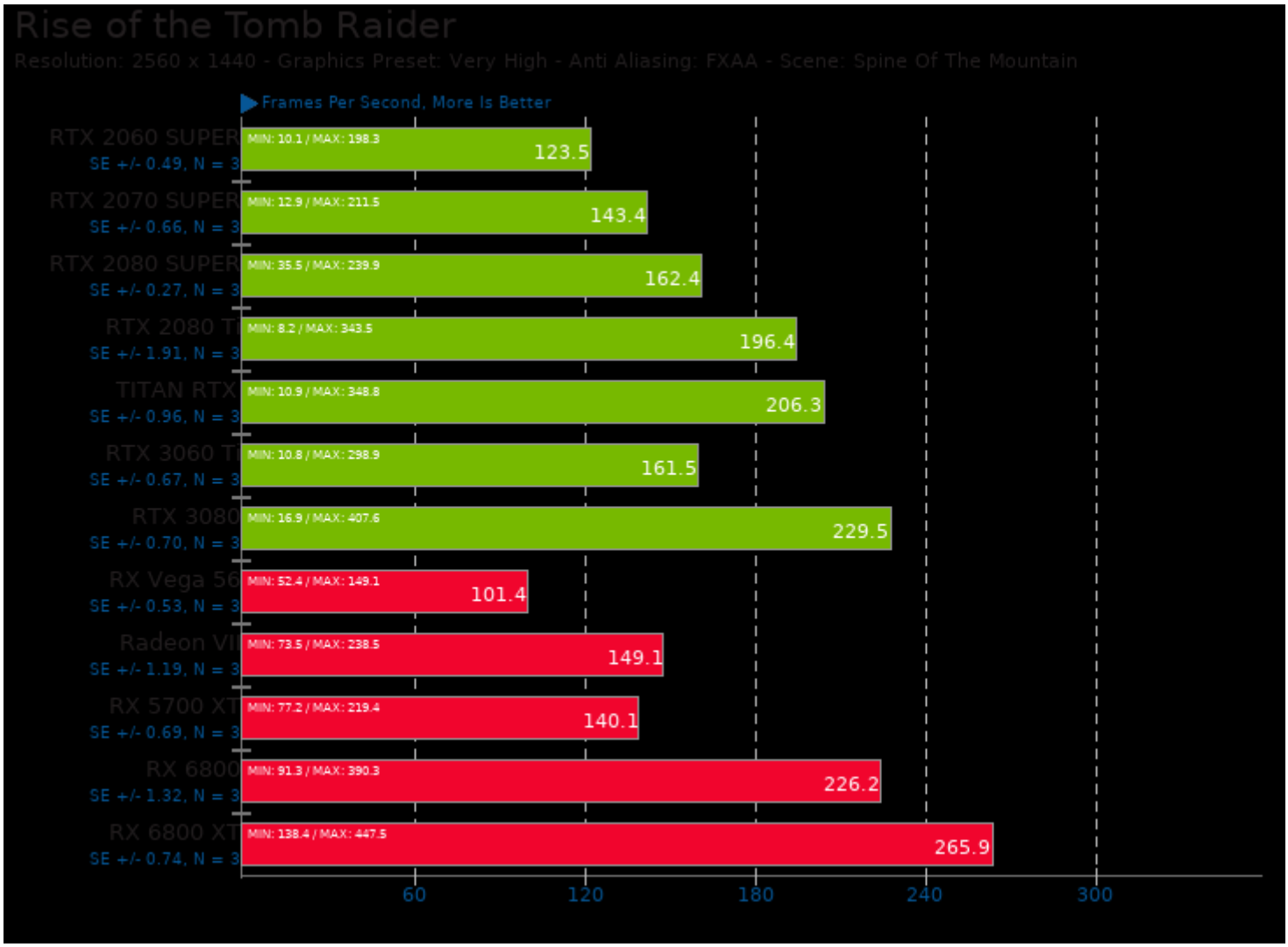

Unigine Heaven 4.0
Resolution: 2560 x 1440 - Mode: Fullscreen - Renderer: OpenGL
Frames Per Second, More Is Better
RTX 2060 SUPER
SE +/- 0.04, N = 3
100.88
RTX 2070 SUPER
SE +/- 0.10, N = 3
121.92
RTX 2080 SUPER
SE +/- 0.03, N = 3
139.12
RTX 2080 T
SE +/- 0.53, N = 3
166.01
TITAN RTX
SE +/- 0.09, N = 3
176.56
RTX 3060 T
SE +/- 0.04, N = 3
133.00
RTX 3080
SE +/- 0.09, N = 3
201.38
RX Vega 56
SE +/- 0.04, N = 3
72.05
Radeon VI
SE +/- 0.03, N = 3
106.48
RX 5700 XT
SE +/- 0.05, N = 3
96.22
RX 6800
SE +/- 0.16, N = 3
187.00
RX 6800 XT
SE +/- 0.12, N = 3
216.96
50
100
150
200
250

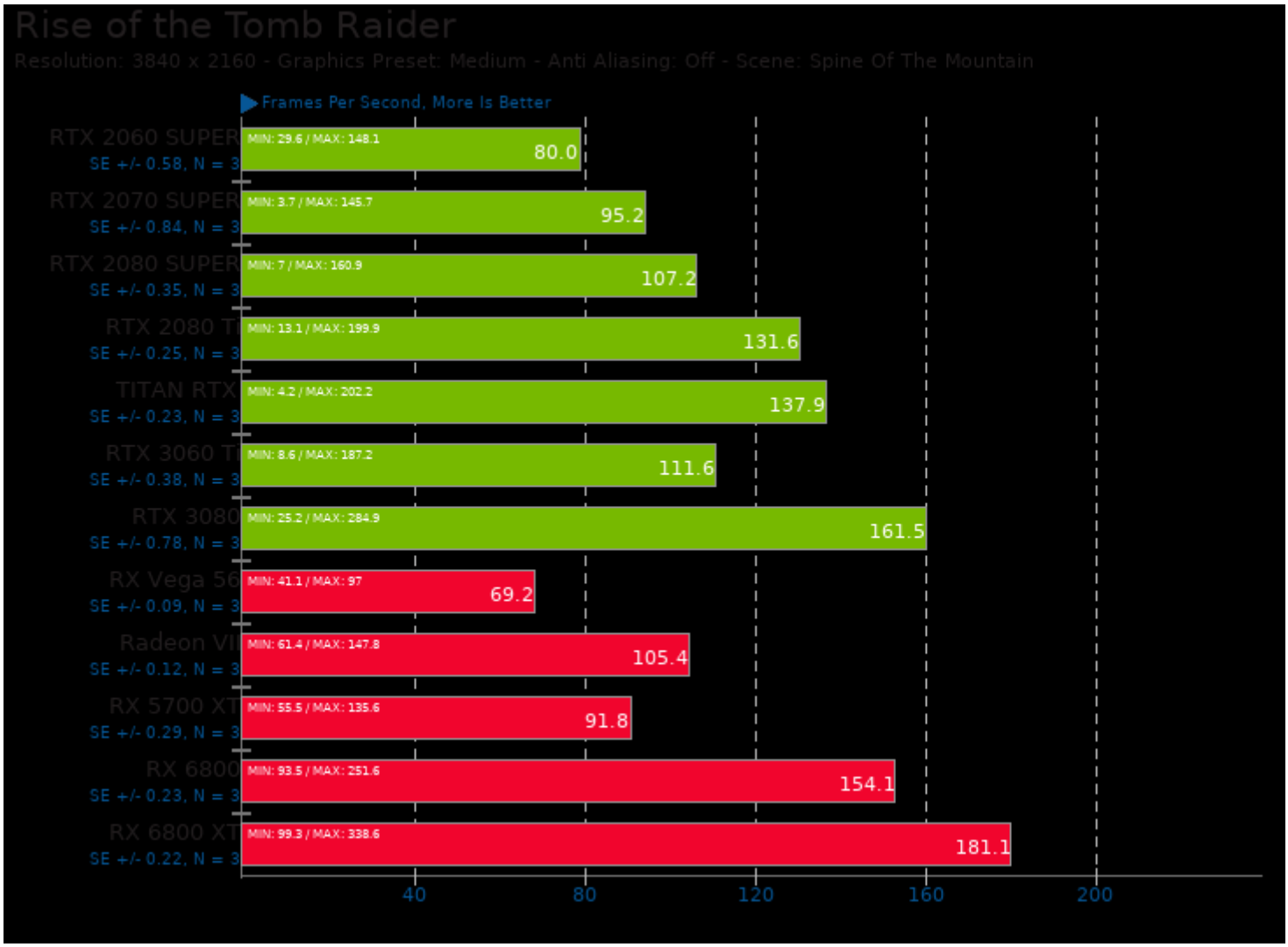

Unigine Superposition 1.0
Resolution: 2560 x 1440 - Mode: Fullscreen - Quality: High - Renderer: OpenGL
Frames Per Second, More Is Better
RTX 2060 SUPER
SE +/- 0.00, N = 3
MAX: 60.1
50.7
RTX 2070 SUPER
SE +/- 0.06, N = 3
MAX: 71.8
60.6
RTX 2080 SUPER
SE +/- 0.06, N = 3
MAX: 83.3
68.4
RTX 2080 Ti
SE +/- 0.09, N = 3
MAX: 100
82.4
TITAN RTX
SE +/- 0.03, N = 3
MAX: 100.8
86.2
RTX 3060 Ti
SE +/- 0.03, N = 3
MAX: 83.1
67.9
RTX 3080
SE +/- 0.03, N = 3
MAX: 121.2
100.2
RX Vega 56
SE +/- 0.03, N = 3
MAX: 42.2
36.2
Radeon VII
SE +/- 0.03, N = 3
MAX: 61.8
53.0
RX 5700 XT
SE +/- 0.00, N = 3
MAX: 60.2
52.1
RX 6800
SE +/- 0.03, N = 3
MAX: 107.7
91.3
RX 6800 XT
SE +/- 0.06, N = 3
MAX: 129.6
106.2
20
40
60
80
100

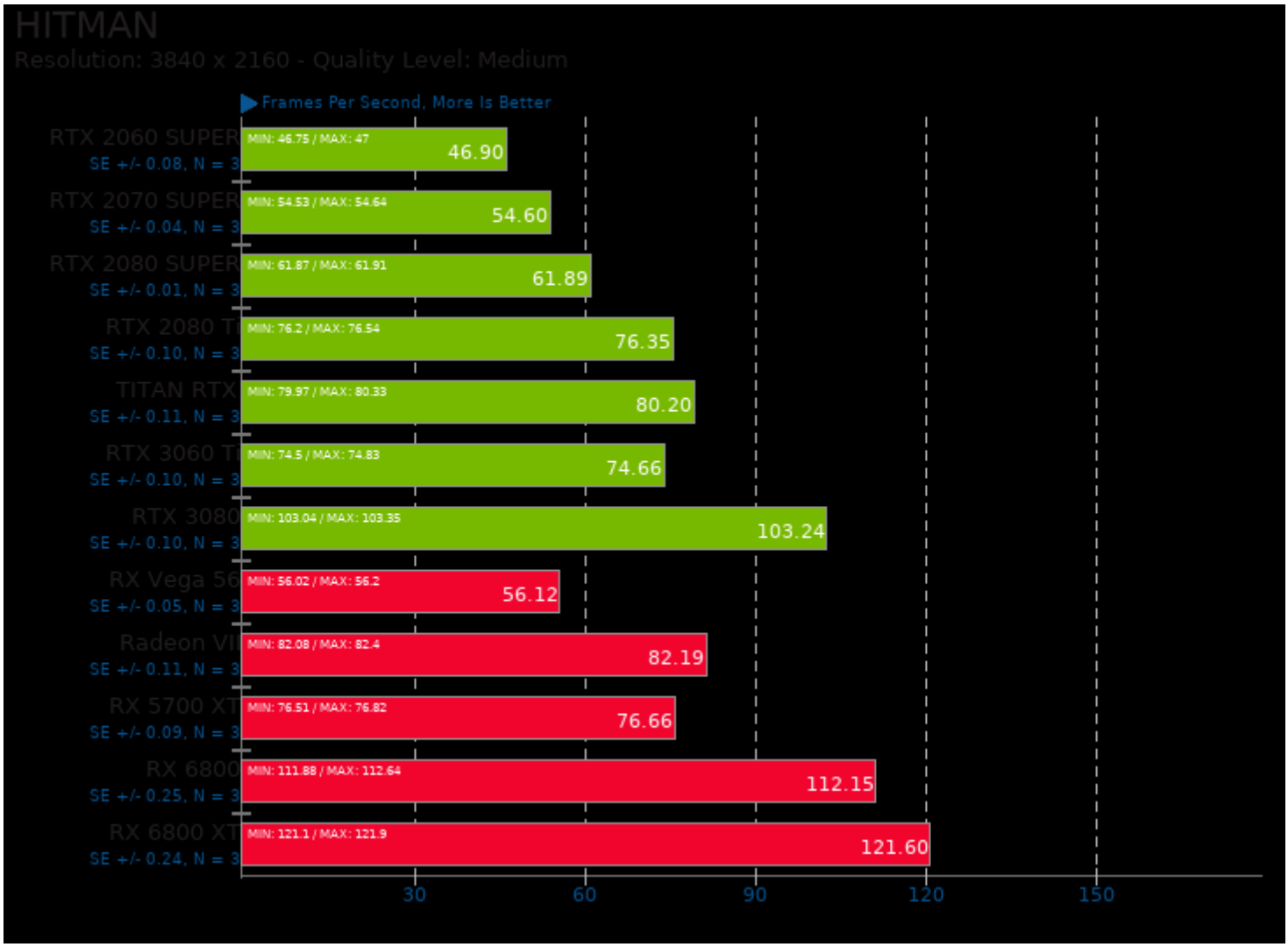

Unigine Superposition 1.0
Resolution: 3840 x 2160 - Mode: Fullscreen - Quality: Low - Renderer: OpenGL
Frames Per Second, More Is Better
RTX 2060 SUPER
SE +/- 0.03, N = 3
MAX: 112.7
86.5
RTX 2070 SUPER
SE +/- 0.07, N = 3
MAX: 127.8
102.6
RTX 2080 SUPER
SE +/- 0.07, N = 3
MAX: 148.9
116.0
RTX 2080 Ti
SE +/- 0.07, N = 3
MAX: 183.4
141.8
TITAN RTX
SE +/- 0.10, N = 3
MAX: 185.8
148.8
RTX 3060 Ti
SE +/- 0.06, N = 3
MAX: 150.2
115.3
RTX 3080
SE +/- 0.09, N = 3
MAX: 218.9
166.8
RX Vega 56
MAX: 80.5
65.0
Radeon VII
SE +/- 0.03, N = 3
MAX: 114.3
92.0
RX 5700 XT
SE +/- 0.00, N = 3
MAX: 120.2
97.7
RX 6800
SE +/- 0.06, N = 3
MAX: 207.3
157.8
RX 6800 XT
SE +/- 0.07, N = 3
MAX: 248.4
189.6
40
80
120
160
200

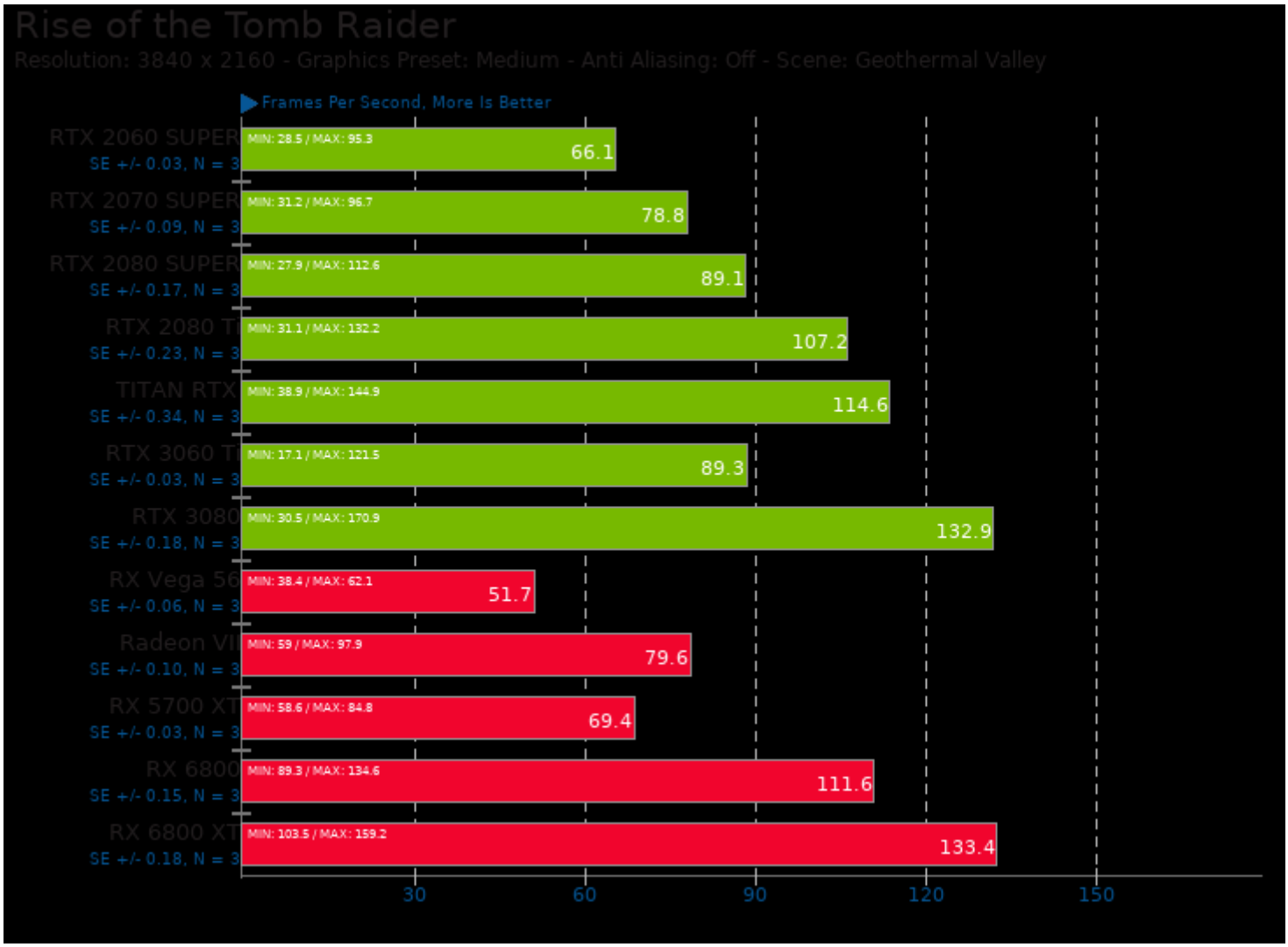

The Talos Principle
Renderer: Vulkan - Resolution: 3840 x 2160
Frames Per Second, More Is Better
RTX 2060 SUPER
SE +/- 0.45, N = 3
83.1
RTX 2070 SUPER
SE +/- 0.93, N = 3
96.8
RTX 2080 SUPER
SE +/- 0.74, N = 3
109.9
RTX 2080 Ti
SE +/- 1.42, N = 3
133.1
TITAN RTX
SE +/- 1.01, N = 3
142.5
RTX 3060 Ti
SE +/- 0.58, N = 3
120.5
RTX 3080
SE +/- 1.49, N = 3
166.8
RX Vega 56
SE +/- 0.09, N = 3
73.9
Radeon VII
SE +/- 0.29, N = 3
116.7
RX 5700 XT
SE +/- 0.33, N = 3
102.4
RX 6800
SE +/- 0.58, N = 3
169.9
RX 6800 XT
SE +/- 0.13, N = 3
202.6
40
80
120
160
200

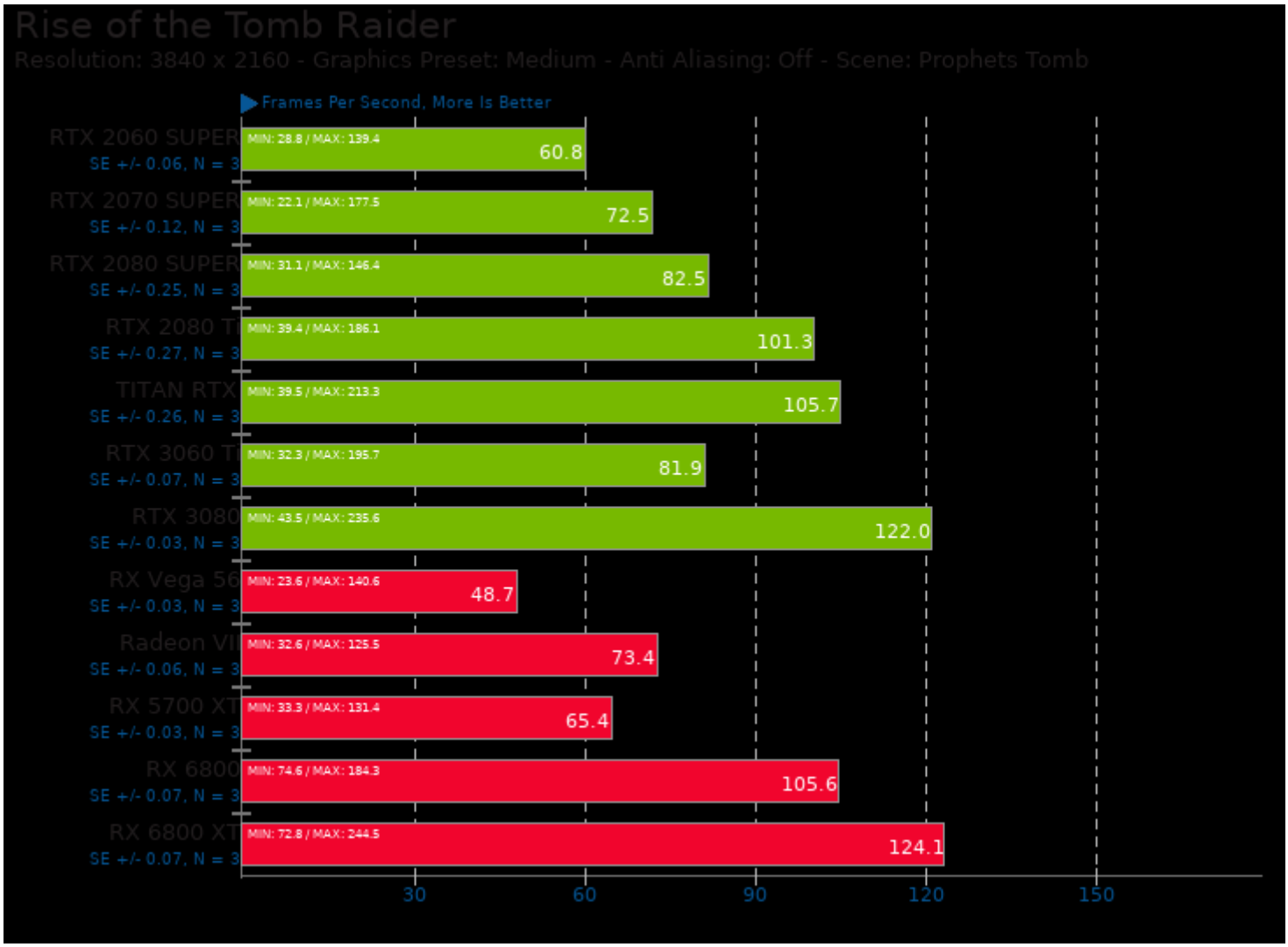

Tesseract 2014-05-12
Resolution: 3840 x 2160
Frames Per Second, More Is Better
RTX 2060 SUPER
SE +/- 2.46, N = 3
320.26
RTX 2070 SUPER
SE +/- 0.49, N = 3
356.97
RTX 2080 SUPER
SE +/- 2.28, N = 3
397.02
RTX 2080 Ti
SE +/- 4.08, N = 3
423.62
TITAN RTX
SE +/- 3.09, N = 3
459.49
RTX 3060 Ti
SE +/- 2.73, N = 3
419.02
RTX 3080
SE +/- 5.21, N = 3
532.26
RX Vega 56
SE +/- 1.47, N = 3
314.18
Radeon VII
SE +/- 3.67, N = 3
490.39
RX 5700 XT
SE +/- 1.63, N = 3
434.38
RX 6800
SE +/- 6.82, N = 3
751.22
RX 6800 XT
SE +/- 5.85, N = 3
838.61
200
400
600
800
1000

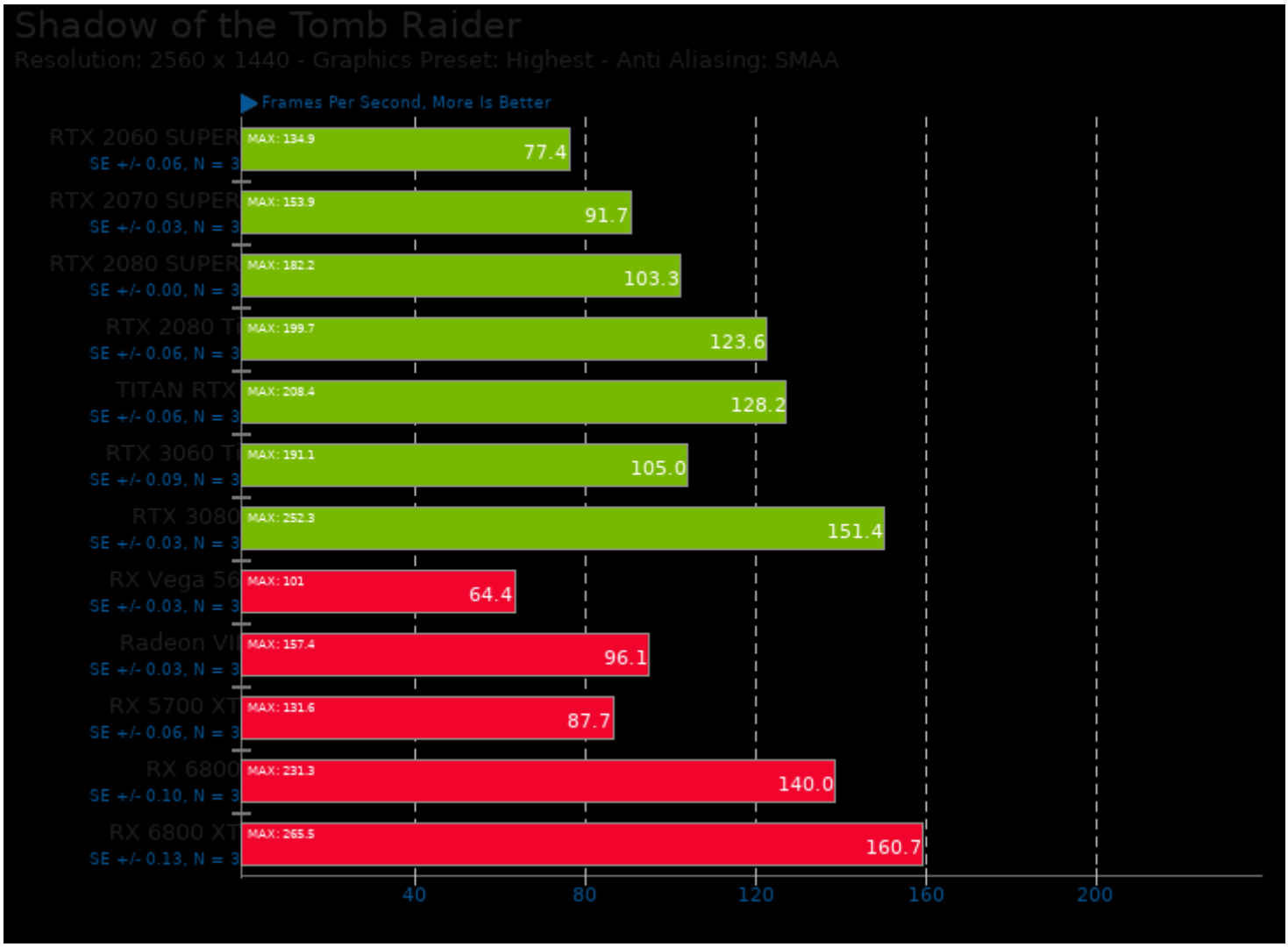

Rise of the Tomb Raider
Resolution: 2560 x 1440 - Graphics Preset: Very High - Anti Aliasing: FXAA - Scene: Spine Of The Mountain
Frames Per Second, More Is Better
RTX 2060 SUPER
SE +/- 0.49, N = 3
MIN: 10.1 / MAX: 198.3
123.5
RTX 2070 SUPER
SE +/- 0.66, N = 3
MIN: 12.9 / MAX: 211.5
143.4
RTX 2080 SUPER
SE +/- 0.27, N = 3
MIN: 35.5 / MAX: 239.9
162.4
RTX 2080 Ti
SE +/- 1.91, N = 3
MIN: 8.2 / MAX: 343.5
196.4
TITAN RTX
SE +/- 0.96, N = 3
MIN: 10.9 / MAX: 348.8
206.3
RTX 3060 Ti
SE +/- 0.67, N = 3
MIN: 10.8 / MAX: 298.9
161.5
RTX 3080
SE +/- 0.70, N = 3
MIN: 16.9 / MAX: 407.6
229.5
RX Vega 56
SE +/- 0.53, N = 3
MIN: 52.4 / MAX: 149.1
101.4
Radeon VII
SE +/- 1.19, N = 3
MIN: 73.5 / MAX: 238.5
149.1
RX 5700 XT
SE +/- 0.69, N = 3
MIN: 77.2 / MAX: 219.4
140.1
RX 6800
SE +/- 1.32, N = 3
MIN: 91.3 / MAX: 390.3
226.2
RX 6800 XT
SE +/- 0.74, N = 3
MIN: 138.4 / MAX: 447.5
265.9
60
120
180
240
300

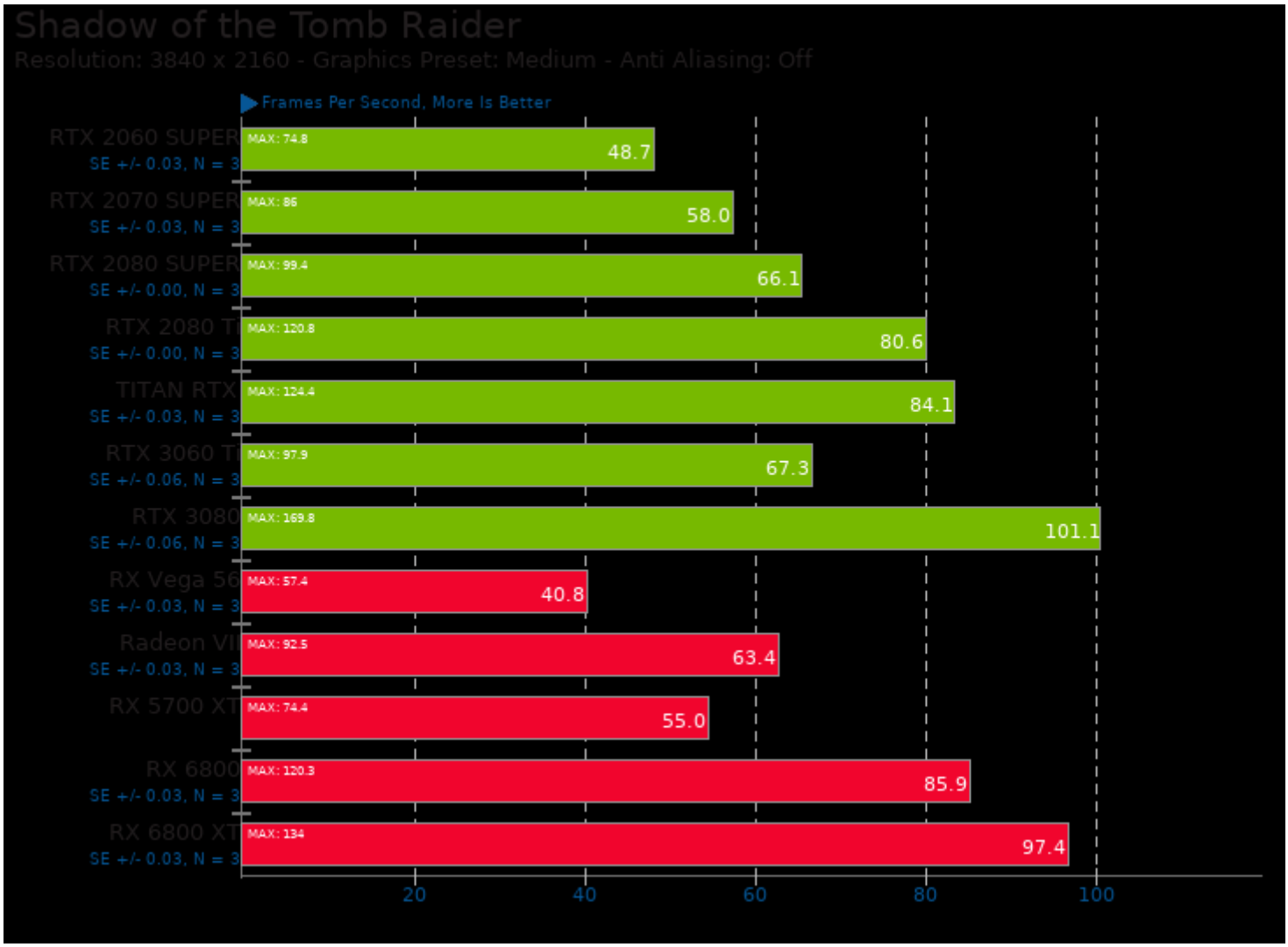

Rise of the Tomb Raider
Resolution: 3840 x 2160 - Graphics Preset: Medium - Anti Aliasing: Off - Scene: Spine Of The Mountain
Frames Per Second, More Is Better
RTX 2060 SUPER
SE +/- 0.58, N = 3
MIN: 29.6 / MAX: 148.1
80.0
RTX 2070 SUPER
SE +/- 0.84, N = 3
MIN: 3.7 / MAX: 145.7
95.2
RTX 2080 SUPER
SE +/- 0.35, N = 3
MIN: 7 / MAX: 160.9
107.2
RTX 2080 T
SE +/- 0.25, N = 3
MIN: 13.1 / MAX: 199.9
131.6
TITAN RTX
SE +/- 0.23, N = 3
MIN: 4.2 / MAX: 202.2
137.9
RTX 3060 T
SE +/- 0.38, N = 3
MIN: 8.6 / MAX: 187.2
111.6
RTX 3080
SE +/- 0.78, N = 3
MIN: 25.2 / MAX: 284.9
161.5
RX Vega 56
SE +/- 0.09, N = 3
MIN: 41.1 / MAX: 97
69.2
Radeon VII
SE +/- 0.12, N = 3
MIN: 61.4 / MAX: 147.8
105.4
RX 5700 XT
SE +/- 0.29, N = 3
MIN: 55.5 / MAX: 135.6
91.8
RX 6800
SE +/- 0.23, N = 3
MIN: 93.5 / MAX: 251.6
154.1
RX 6800 XT
SE +/- 0.22, N = 3
MIN: 99.3 / MAX: 338.6
181.1
40
80
120
160
200

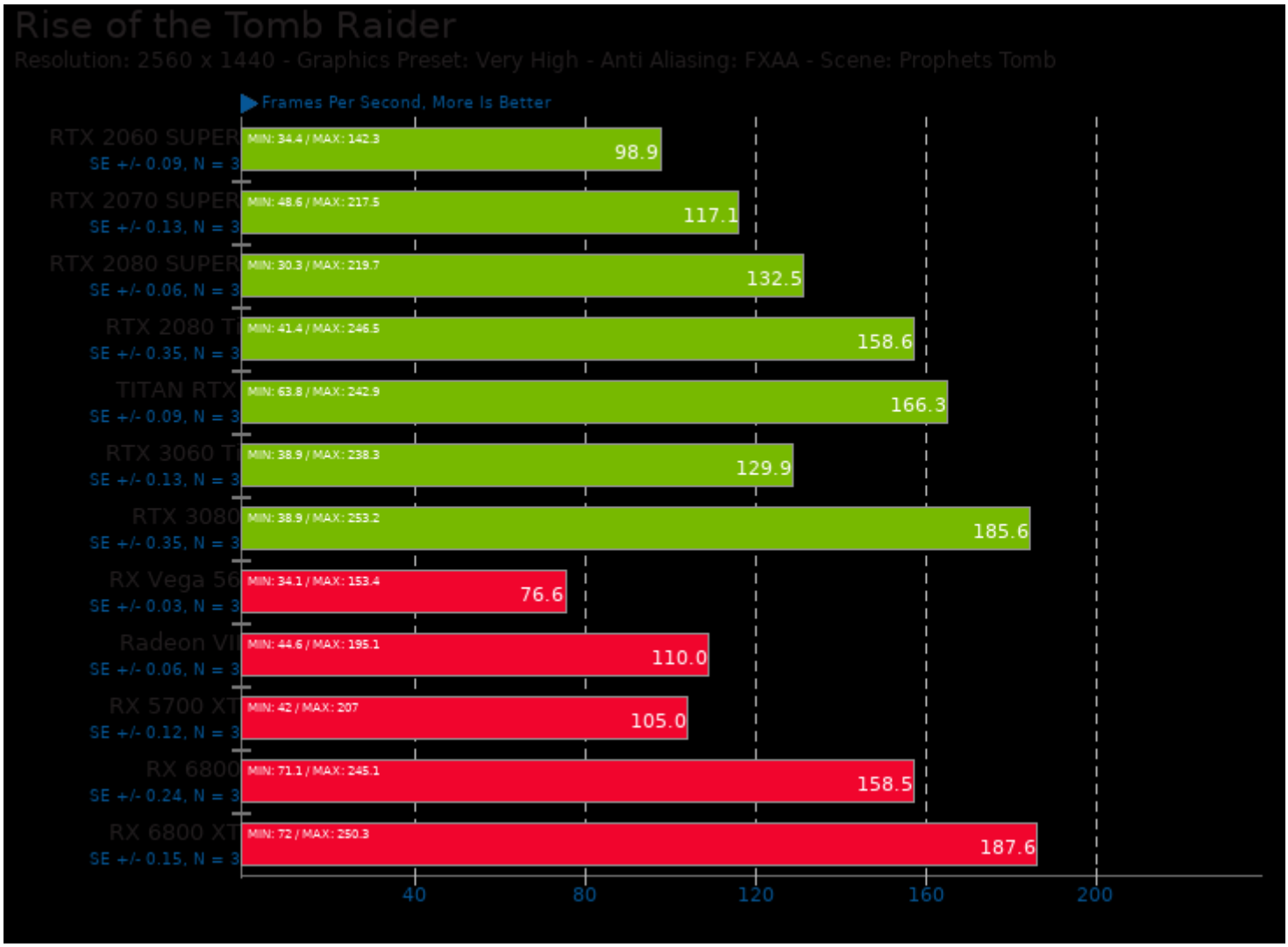

HITMAN
Resolution: 3840 x 2160 - Quality Level: Medium
Frames Per Second, More Is Better
RTX 2060 SUPER
SE +/- 0.08, N = 3
MIN: 46.75 / MAX: 47
46.90
RTX 2070 SUPER
SE +/- 0.04, N = 3
MIN: 54.53 / MAX: 54.64
54.60
RTX 2080 SUPER
SE +/- 0.01, N = 3
MIN: 61.87 / MAX: 61.91
61.89
RTX 2080 T
SE +/- 0.10, N = 3
MIN: 76.2 / MAX: 76.54
76.35
TITAN RTX
SE +/- 0.11, N = 3
MIN: 79.97 / MAX: 80.33
80.20
RTX 3060 T
SE +/- 0.10, N = 3
MIN: 74.5 / MAX: 74.83
74.66
RTX 3080
SE +/- 0.10, N = 3
MIN: 103.04 / MAX: 103.35
103.24
RX Vega 56
SE +/- 0.05, N = 3
MIN: 56.02 / MAX: 56.2
56.12
Radeon VII
SE +/- 0.11, N = 3
MIN: 82.08 / MAX: 82.4
82.19
RX 5700 XT
SE +/- 0.09, N = 3
MIN: 76.51 / MAX: 76.82
76.66
RX 6800
SE +/- 0.25, N = 3
MIN: 111.88 / MAX: 112.64
112.15
RX 6800 XT
SE +/- 0.24, N = 3
MIN: 121.1 / MAX: 121.9
121.60
30
60
90
120
150

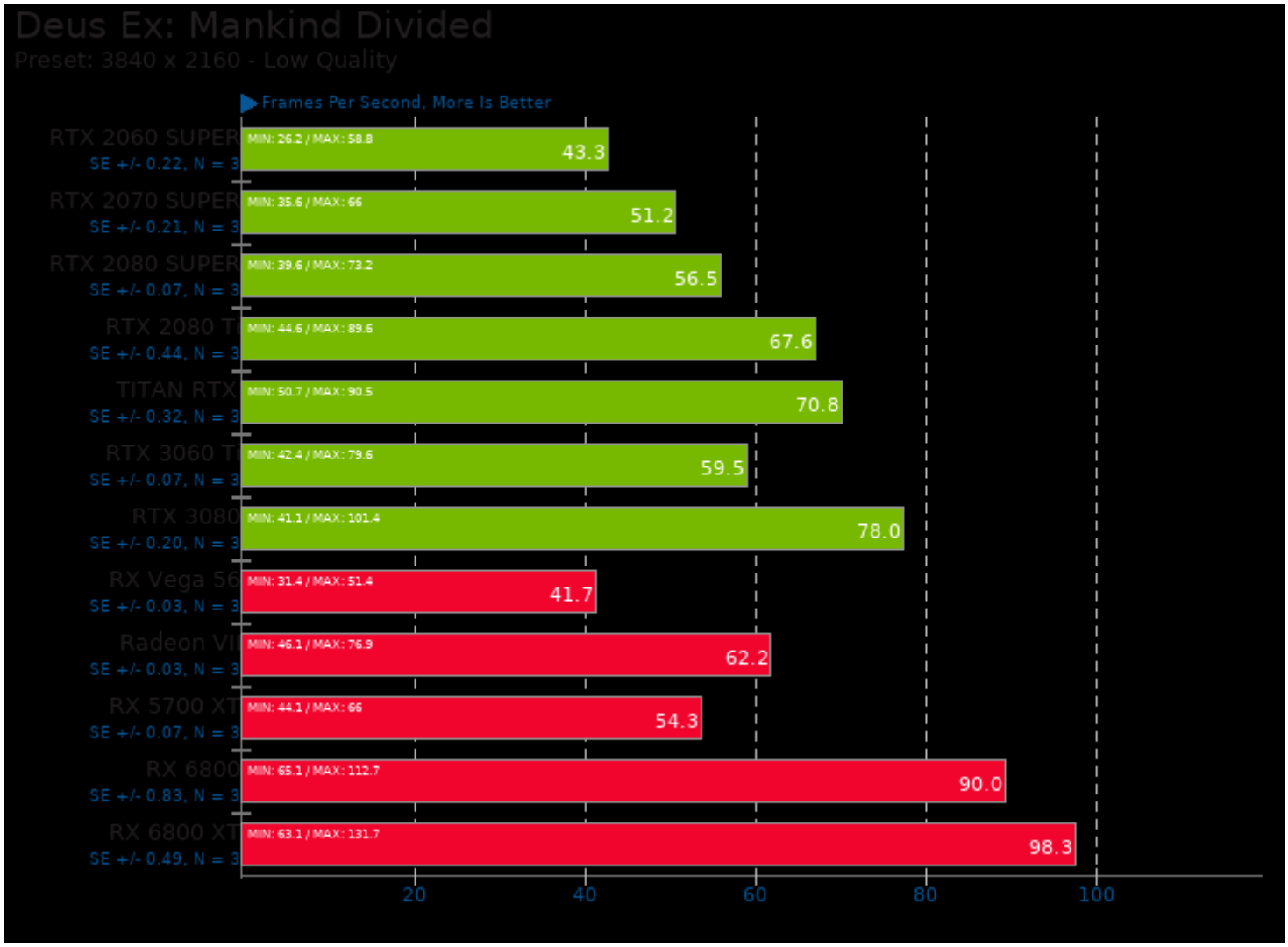

Rise of the Tomb Raider
Resolution: 3840 x 2160 - Graphics Preset: Medium - Anti Aliasing: Off - Scene: Geothermal Valley
Frames Per Second, More Is Better
RTX 2060 SUPER
SE +/- 0.03, N = 3
MIN: 28.5 / MAX: 95.3
66.1
RTX 2070 SUPER
SE +/- 0.09, N = 3
MIN: 31.2 / MAX: 96.7
78.8
RTX 2080 SUPER
SE +/- 0.17, N = 3
MIN: 27.9 / MAX: 112.6
89.1
RTX 2080 Ti
SE +/- 0.23, N = 3
MIN: 31.1 / MAX: 132.2
107.2
TITAN RTX
SE +/- 0.34, N = 3
MIN: 38.9 / MAX: 144.9
114.6
RTX 3060 Ti
SE +/- 0.03, N = 3
MIN: 17.1 / MAX: 121.5
89.3
RTX 3080
SE +/- 0.18, N = 3
MIN: 30.5 / MAX: 170.9
132.9
RX Vega 56
SE +/- 0.06, N = 3
MIN: 38.4 / MAX: 62.1
51.7
Radeon VII
SE +/- 0.10, N = 3
MIN: 59 / MAX: 97.9
79.6
RX 5700 XT
SE +/- 0.03, N = 3
MIN: 58.6 / MAX: 84.8
69.4
RX 6800
SE +/- 0.15, N = 3
MIN: 89.3 / MAX: 134.6
111.6
RX 6800 XT
SE +/- 0.18, N = 3
MIN: 103.5 / MAX: 159.2
133.4
30
60
90
120
150

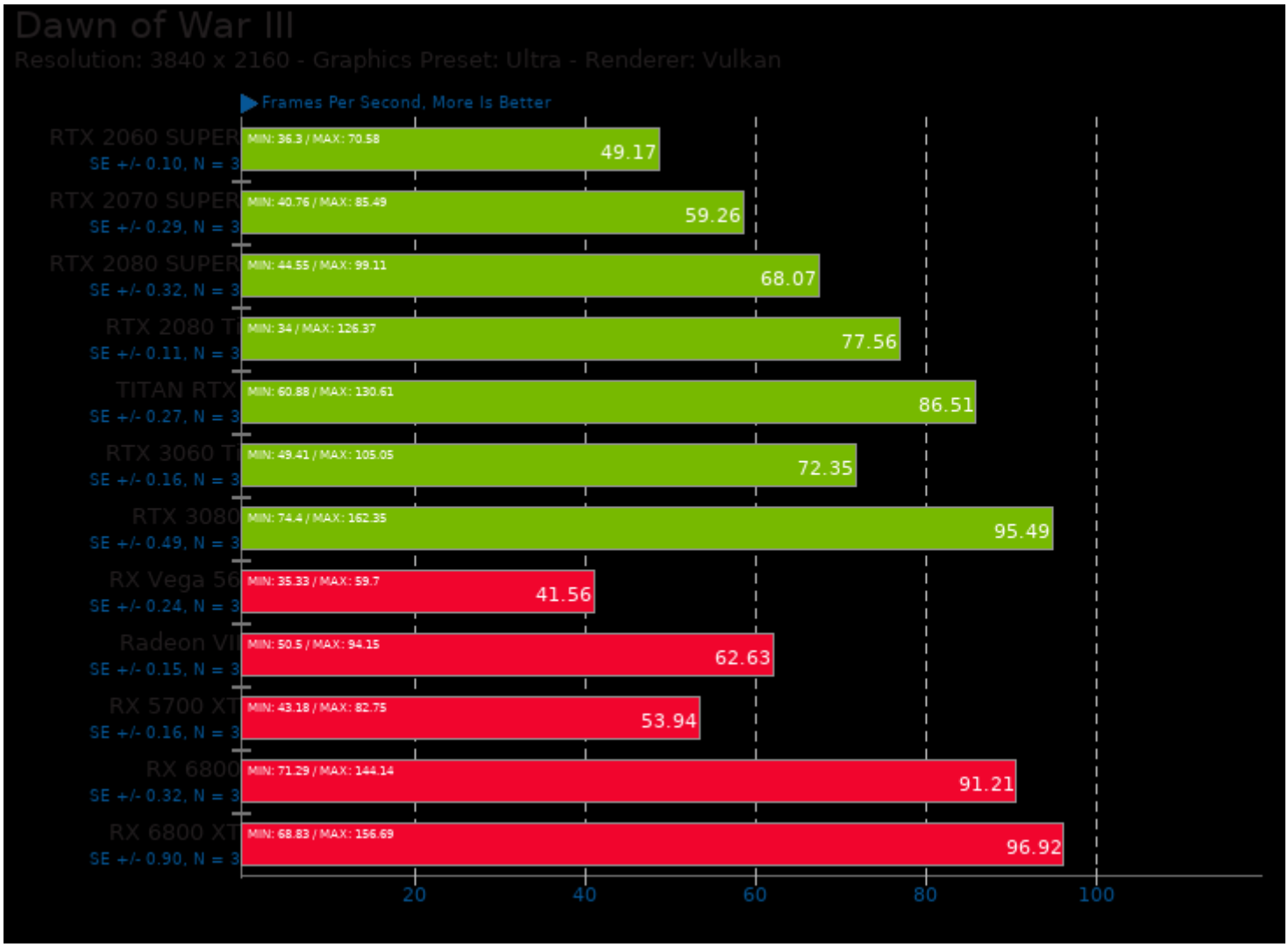

Rise of the Tomb Raider
Resolution: 3840 x 2160 - Graphics Preset: Medium - Anti Aliasing: Off - Scene: Prophets Tomb
Frames Per Second, More Is Better
RTX 2060 SUPER
SE +/- 0.06, N = 3
MIN: 28.8 / MAX: 139.4
60.8
RTX 2070 SUPER
SE +/- 0.12, N = 3
MIN: 22.1 / MAX: 177.5
72.5
RTX 2080 SUPER
SE +/- 0.25, N = 3
MIN: 31.1 / MAX: 146.4
82.5
RTX 2080 Ti
SE +/- 0.27, N = 3
MIN: 39.4 / MAX: 186.1
101.3
TITAN RTX
SE +/- 0.26, N = 3
MIN: 39.5 / MAX: 213.3
105.7
RTX 3060 Ti
SE +/- 0.07, N = 3
MIN: 32.3 / MAX: 195.7
81.9
RTX 3080
SE +/- 0.03, N = 3
MIN: 43.5 / MAX: 235.6
122.0
RX Vega 56
SE +/- 0.03, N = 3
MIN: 23.6 / MAX: 140.6
48.7
Radeon VII
SE +/- 0.06, N = 3
MIN: 32.6 / MAX: 125.5
73.4
RX 5700 XT
SE +/- 0.03, N = 3
MIN: 33.3 / MAX: 131.4
65.4
RX 6800
SE +/- 0.07, N = 3
MIN: 74.6 / MAX: 184.3
105.6
RX 6800 XT
SE +/- 0.07, N = 3
MIN: 72.8 / MAX: 244.5
124.1
30
60
90
120
150

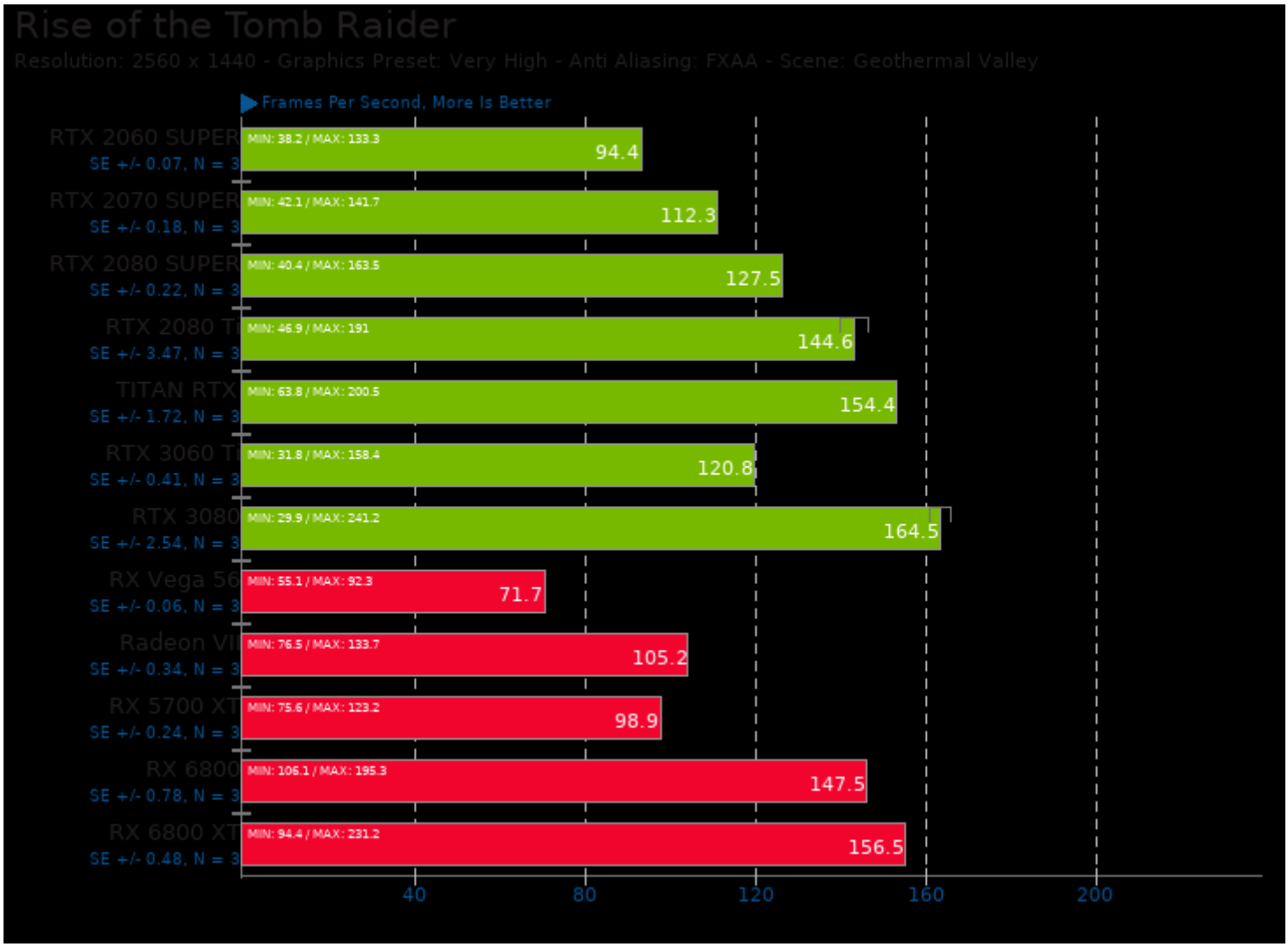

Shadow of the Tomb Raider
Resolution: 2560 x 1440 - Graphics Preset: Highest - Anti Aliasing: SMAA
Frames Per Second, More Is Better
RTX 2060 SUPER
SE +/- 0.06, N = 3
MAX: 134.9
77.4
RTX 2070 SUPER
SE +/- 0.03, N = 3
MAX: 153.9
91.7
RTX 2080 SUPER
SE +/- 0.00, N = 3
MAX: 182.2
103.3
RTX 2080 T
SE +/- 0.06, N = 3
MAX: 199.7
123.6
TITAN RTX
SE +/- 0.06, N = 3
MAX: 208.4
128.2
RTX 3060 T
SE +/- 0.09, N = 3
MAX: 191.1
105.0
RTX 3080
SE +/- 0.03, N = 3
MAX: 252.3
151.4
RX Vega 56
SE +/- 0.03, N = 3
MAX: 101
64.4
Radeon VII
SE +/- 0.03, N = 3
MAX: 157.4
96.1
RX 5700 XT
SE +/- 0.06, N = 3
MAX: 131.6
87.7
RX 6800
SE +/- 0.10, N = 3
MAX: 231.3
140.0
RX 6800 XT
SE +/- 0.13, N = 3
MAX: 265.5
160.7
40
80
120
160
200

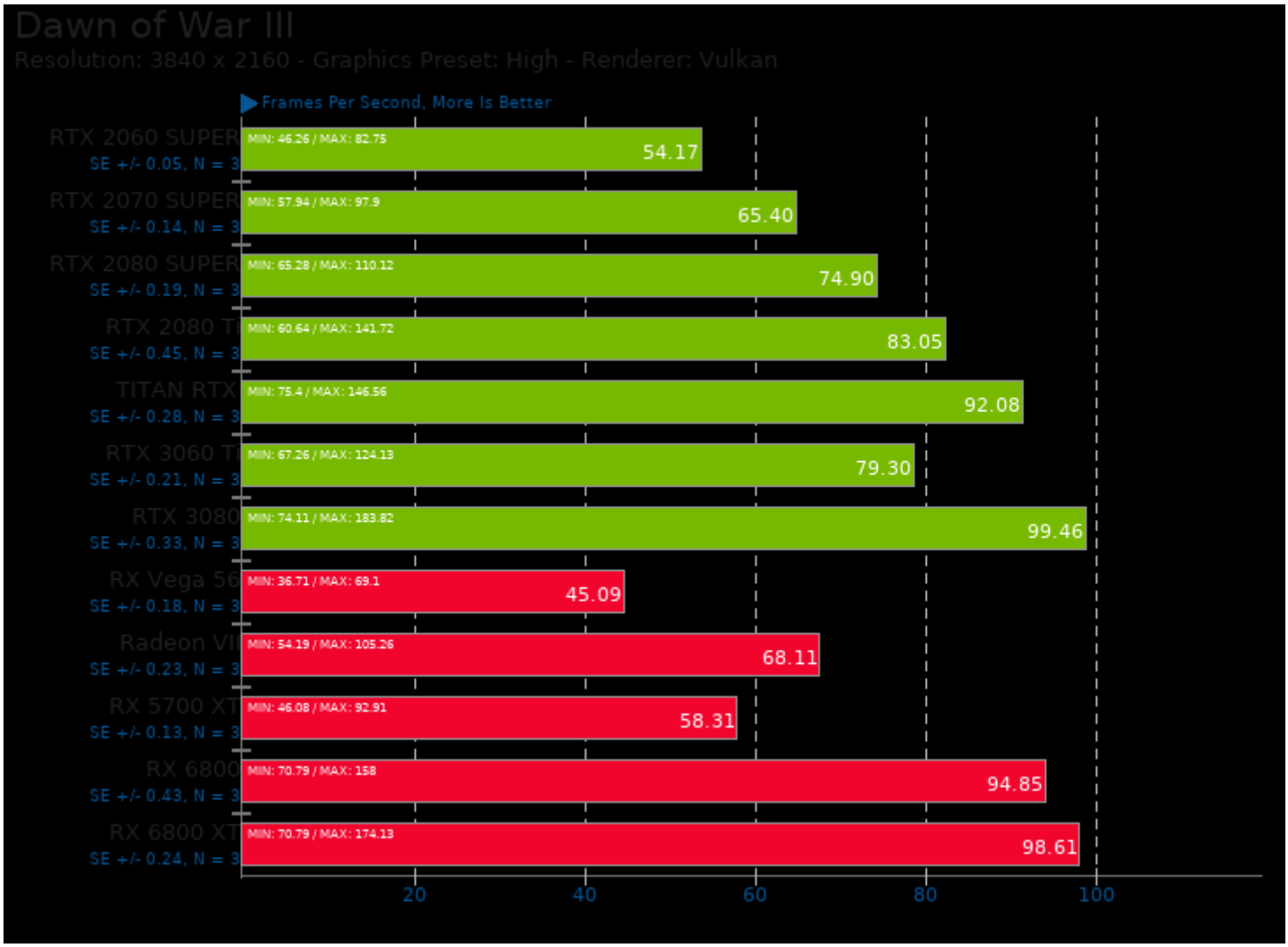

Shadow of the Tomb Raider
Resolution: 3840 x 2160 - Graphics Preset: Medium - Anti Aliasing: Off
Frames Per Second, More Is Better
RTX 2060 SUPER
SE +/- 0.03, N = 3
MAX: 74.8
48.7
RTX 2070 SUPER
SE +/- 0.03, N = 3
MAX: 86
58.0
RTX 2080 SUPER
SE +/- 0.00, N = 3
MAX: 99.4
66.1
RTX 2080 Ti
SE +/- 0.00, N = 3
MAX: 120.8
80.6
TITAN RTX
SE +/- 0.03, N = 3
MAX: 124.4
84.1
RTX 3060 Ti
SE +/- 0.06, N = 3
MAX: 97.9
67.3
RTX 3080
SE +/- 0.06, N = 3
MAX: 169.8
101.1
RX Vega 56
SE +/- 0.03, N = 3
MAX: 57.4
40.8
Radeon VII
SE +/- 0.03, N = 3
MAX: 92.5
63.4
RX 5700 XT
MAX: 74.4
55.0
RX 6800
SE +/- 0.03, N = 3
MAX: 120.3
85.9
RX 6800 XT
SE +/- 0.03, N = 3
MAX: 134
97.4
20
40
60
80
100

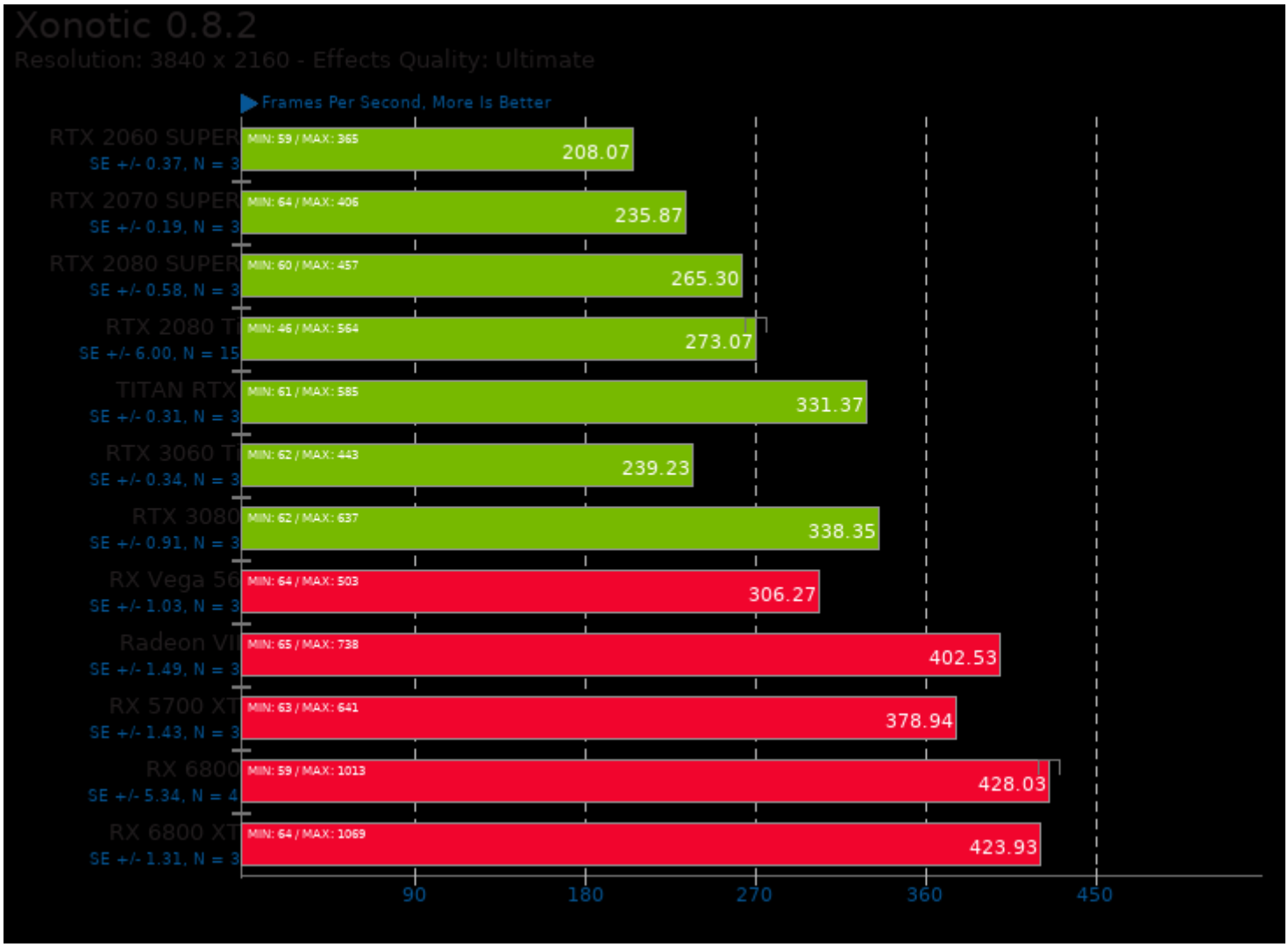

Rise of the Tomb Raider
Resolution: 2560 x 1440 - Graphics Preset: Very High - Anti Aliasing: FXAA - Scene: Prophets Tomb
Frames Per Second, More Is Better
RTX 2060 SUPER
SE +/- 0.09, N = 3
MIN: 34.4 / MAX: 142.3
98.9
RTX 2070 SUPER
SE +/- 0.13, N = 3
MIN: 48.6 / MAX: 217.5
117.1
RTX 2080 SUPER
SE +/- 0.06, N = 3
MIN: 30.3 / MAX: 219.7
132.5
RTX 2080 T
SE +/- 0.35, N = 3
MIN: 41.4 / MAX: 246.5
158.6
TITAN RTX
SE +/- 0.09, N = 3
MIN: 63.8 / MAX: 242.9
166.3
RTX 3060 T
SE +/- 0.13, N = 3
MIN: 38.9 / MAX: 238.3
129.9
RTX 3080
SE +/- 0.35, N = 3
MIN: 38.9 / MAX: 253.2
185.6
RX Vega 56
SE +/- 0.03, N = 3
MIN: 34.1 / MAX: 153.4
76.6
Radeon VII
SE +/- 0.06, N = 3
MIN: 44.6 / MAX: 195.1
110.0
RX 5700 XT
SE +/- 0.12, N = 3
MIN: 42 / MAX: 207
105.0
RX 6800
SE +/- 0.24, N = 3
MIN: 71.1 / MAX: 245.1
158.5
RX 6800 XT
SE +/- 0.15, N = 3
MIN: 72 / MAX: 250.3
187.6
40
80
120
160
200

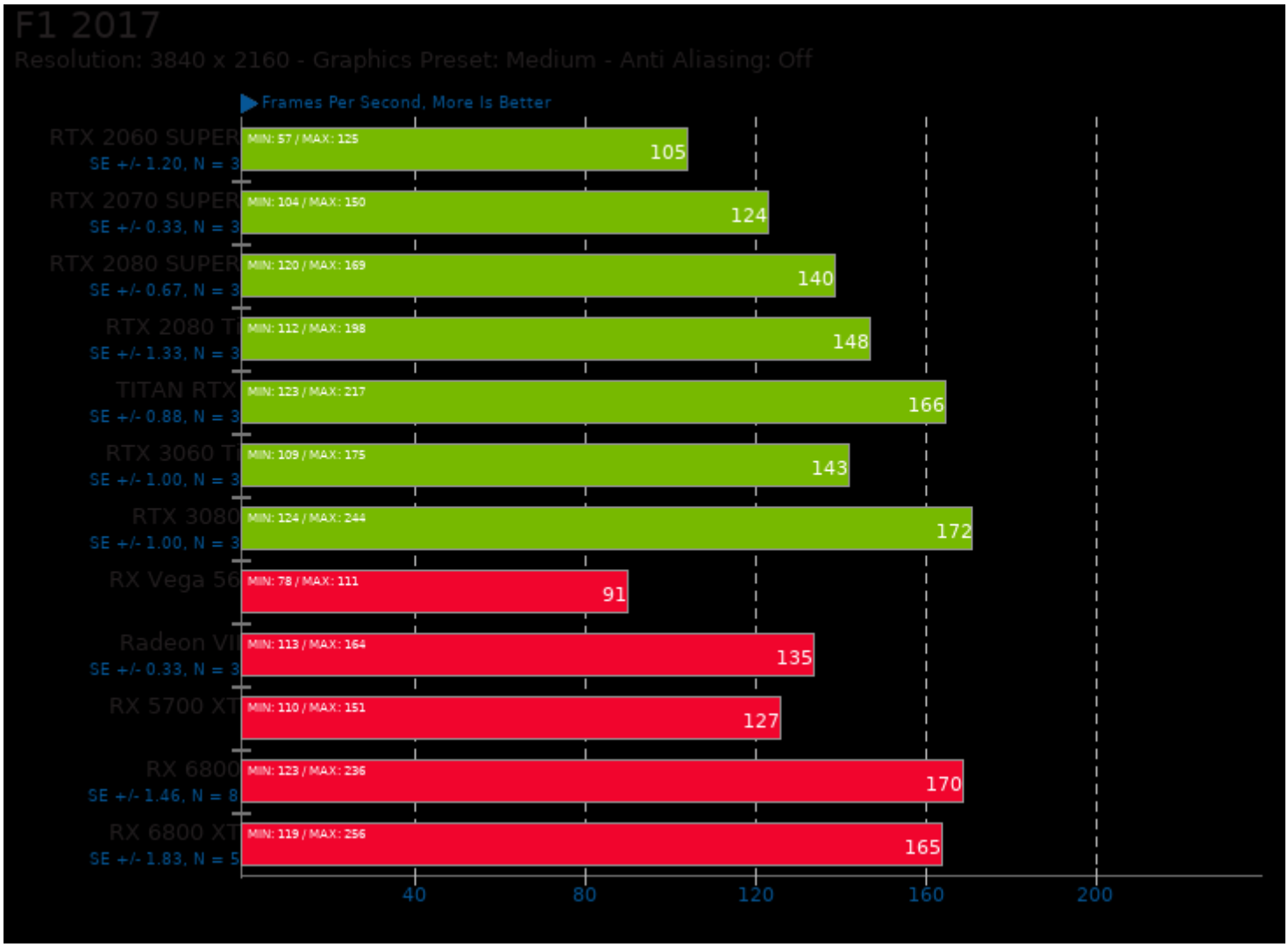

Deus Ex: Mankind Divided
Preset: 3840 x 2160 - Low Quality
Frames Per Second, More Is Better
RTX 2060 SUPER
SE +/- 0.22, N = 3
MIN: 26.2 / MAX: 58.8
43.3
RTX 2070 SUPER
SE +/- 0.21, N = 3
MIN: 35.6 / MAX: 66
51.2
RTX 2080 SUPER
SE +/- 0.07, N = 3
MIN: 39.6 / MAX: 73.2
56.5
RTX 2080 T
SE +/- 0.44, N = 3
MIN: 44.6 / MAX: 89.6
67.6
TITAN RTX
SE +/- 0.32, N = 3
MIN: 50.7 / MAX: 90.5
70.8
RTX 3060 T
SE +/- 0.07, N = 3
MIN: 42.4 / MAX: 79.6
59.5
RTX 3080
SE +/- 0.20, N = 3
MIN: 41.1 / MAX: 101.4
78.0
RX Vega 56
SE +/- 0.03, N = 3
MIN: 31.4 / MAX: 51.4
41.7
Radeon VII
SE +/- 0.03, N = 3
MIN: 46.1 / MAX: 76.9
62.2
RX 5700 XT
SE +/- 0.07, N = 3
MIN: 44.1 / MAX: 66
54.3
RX 6800
SE +/- 0.83, N = 3
MIN: 65.1 / MAX: 112.7
90.0
RX 6800 XT
SE +/- 0.49, N = 3
MIN: 63.1 / MAX: 131.7
98.3
20
40
60
80
100

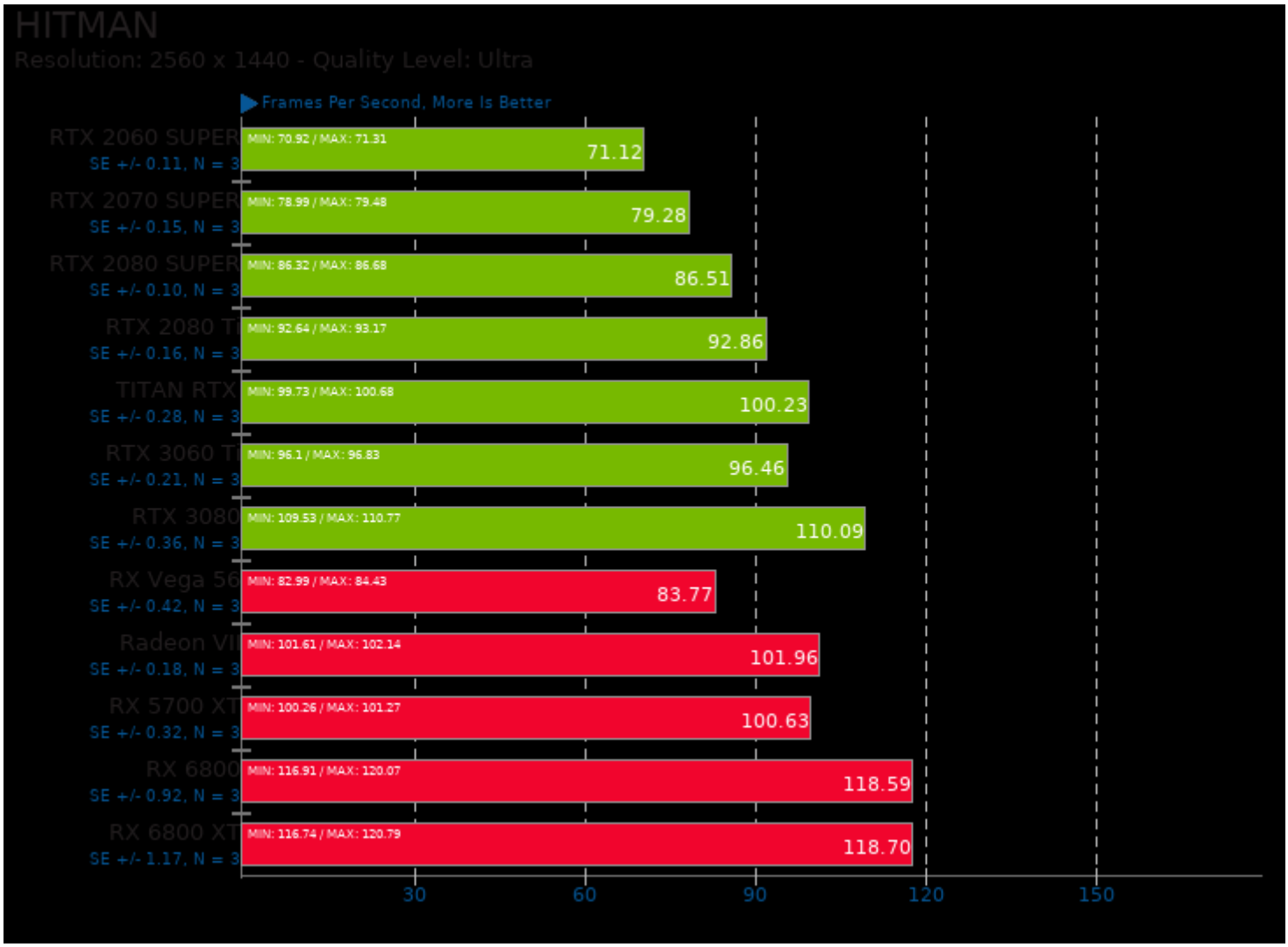

Dawn of War III
Resolution: 3840 x 2160 - Graphics Preset: Ultra - Renderer: Vulkan
Frames Per Second, More Is Better
RTX 2060 SUPER
SE +/- 0.10, N = 3
MIN: 36.3 / MAX: 70.58
49.17
RTX 2070 SUPER
SE +/- 0.29, N = 3
MIN: 40.76 / MAX: 85.49
59.26
RTX 2080 SUPER
SE +/- 0.32, N = 3
MIN: 44.55 / MAX: 99.11
68.07
RTX 2080 Ti
SE +/- 0.11, N = 3
MIN: 34 / MAX: 126.37
77.56
TITAN RTX
SE +/- 0.27, N = 3
MIN: 60.88 / MAX: 130.61
86.51
RTX 3060 Ti
SE +/- 0.16, N = 3
MIN: 49.41 / MAX: 105.05
72.35
RTX 3080
SE +/- 0.49, N = 3
MIN: 74.4 / MAX: 162.35
95.49
RX Vega 56
SE +/- 0.24, N = 3
MIN: 35.33 / MAX: 59.7
41.56
Radeon VII
SE +/- 0.15, N = 3
MIN: 50.5 / MAX: 94.15
62.63
RX 5700 XT
SE +/- 0.16, N = 3
MIN: 43.18 / MAX: 82.75
53.94
RX 6800
SE +/- 0.32, N = 3
MIN: 71.29 / MAX: 144.14
91.21
RX 6800 XT
SE +/- 0.90, N = 3
MIN: 68.83 / MAX: 156.69
96.92
20
40
60
80
100

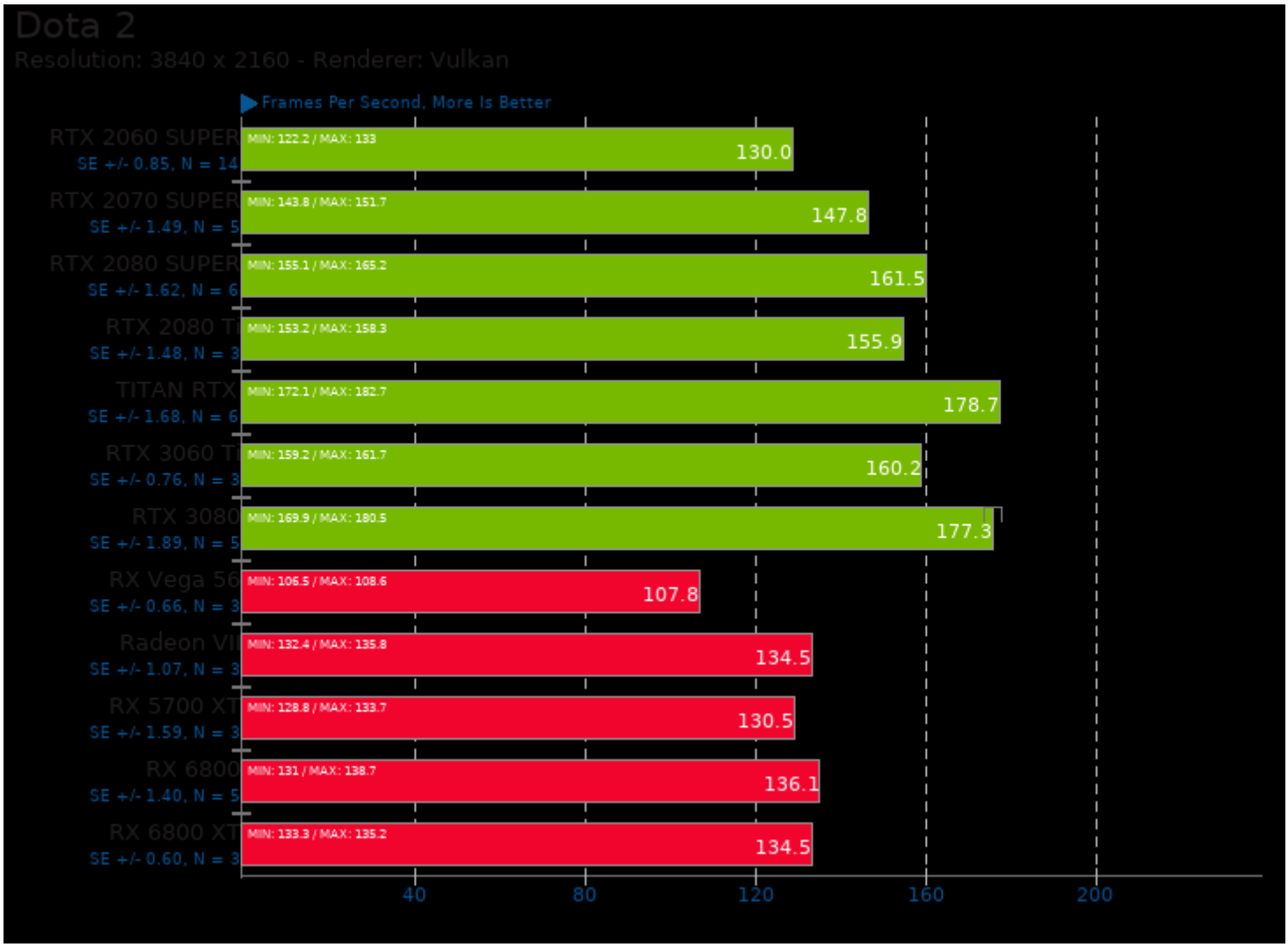

Rise of the Tomb Raider
Resolution: 2560 x 1440 - Graphics Preset: Very High - Anti Aliasing: FXAA - Scene: Geothermal Valley
Frames Per Second, More Is Better
RTX 2060 SUPER
SE +/- 0.07, N = 3
MIN: 38.2 / MAX: 133.3
94.4
RTX 2070 SUPER
SE +/- 0.18, N = 3
MIN: 42.1 / MAX: 141.7
112.3
RTX 2080 SUPER
SE +/- 0.22, N = 3
MIN: 40.4 / MAX: 163.5
127.5
RTX 2080 Ti
SE +/- 3.47, N = 3
MIN: 46.9 / MAX: 191
144.6
TITAN RTX
SE +/- 1.72, N = 3
MIN: 63.8 / MAX: 200.5
154.4
RTX 3060 Ti
SE +/- 0.41, N = 3
MIN: 31.8 / MAX: 158.4
120.8
RTX 3080
SE +/- 2.54, N = 3
MIN: 29.9 / MAX: 241.2
164.5
RX Vega 56
SE +/- 0.06, N = 3
MIN: 55.1 / MAX: 92.3
71.7
Radeon VII
SE +/- 0.34, N = 3
MIN: 76.5 / MAX: 133.7
105.2
RX 5700 XT
SE +/- 0.24, N = 3
MIN: 75.6 / MAX: 123.2
98.9
RX 6800
SE +/- 0.78, N = 3
MIN: 106.1 / MAX: 195.3
147.5
RX 6800 XT
SE +/- 0.48, N = 3
MIN: 94.4 / MAX: 231.2
156.5
40
80
120
160
200

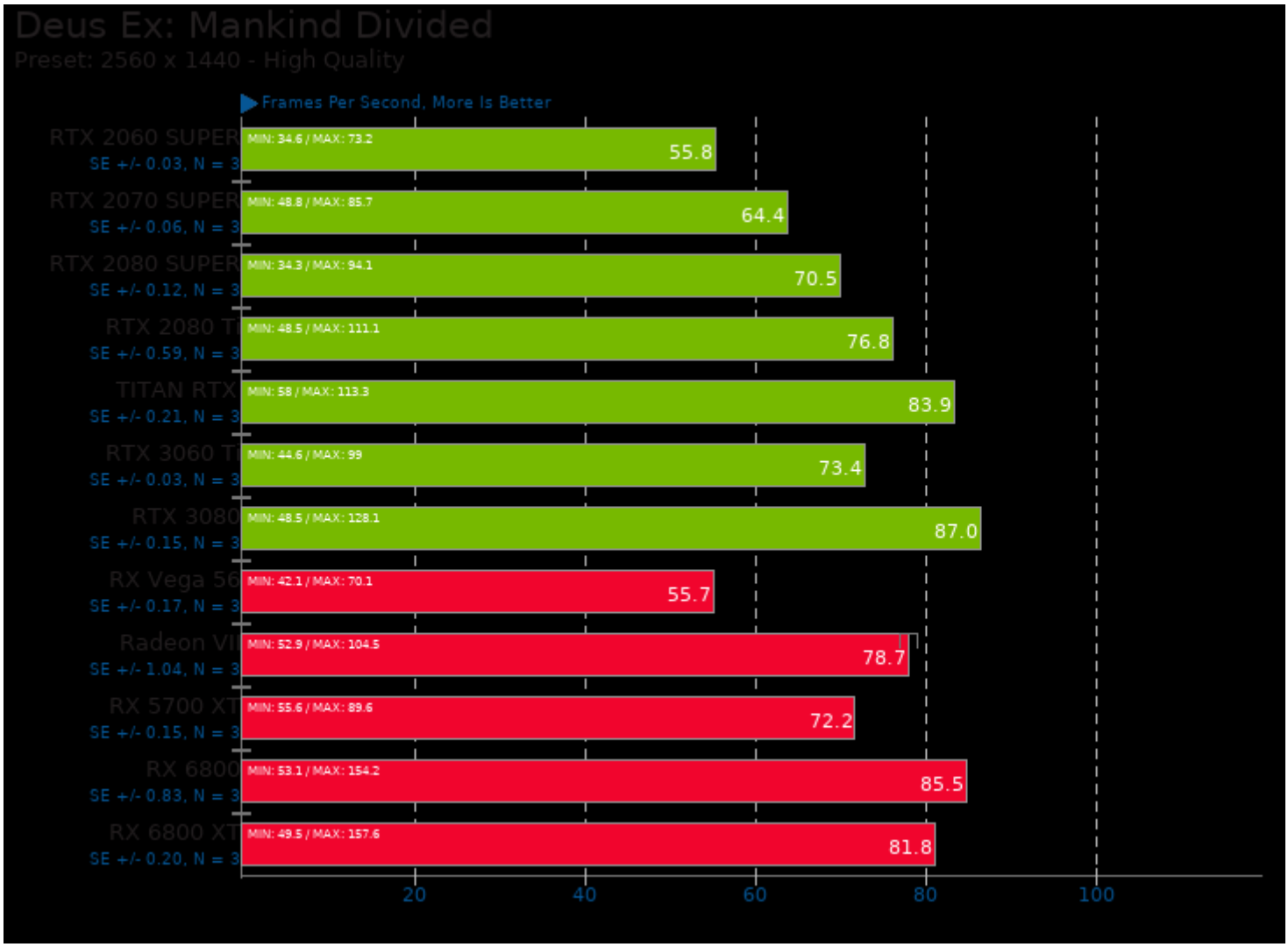

Dawn of War III
Resolution: 3840 x 2160 - Graphics Preset: High - Renderer: Vulkan
Frames Per Second, More Is Better
RTX 2060 SUPER
SE +/- 0.05, N = 3
MIN: 46.26 / MAX: 82.75
54.17
RTX 2070 SUPER
SE +/- 0.14, N = 3
MIN: 57.94 / MAX: 97.9
65.40
RTX 2080 SUPER
SE +/- 0.19, N = 3
MIN: 65.28 / MAX: 110.12
74.90
RTX 2080 Ti
SE +/- 0.45, N = 3
MIN: 60.64 / MAX: 141.72
83.05
TITAN RTX
SE +/- 0.28, N = 3
MIN: 75.4 / MAX: 146.56
92.08
RTX 3060 Ti
SE +/- 0.21, N = 3
MIN: 67.26 / MAX: 124.13
79.30
RTX 3080
SE +/- 0.33, N = 3
MIN: 74.11 / MAX: 183.82
99.46
RX Vega 56
SE +/- 0.18, N = 3
MIN: 36.71 / MAX: 69.1
45.09
Radeon VII
SE +/- 0.23, N = 3
MIN: 54.19 / MAX: 105.26
68.11
RX 5700 XT
SE +/- 0.13, N = 3
MIN: 46.08 / MAX: 92.91
58.31
RX 6800
SE +/- 0.43, N = 3
MIN: 70.79 / MAX: 158
94.85
RX 6800 XT
SE +/- 0.24, N = 3
MIN: 70.79 / MAX: 174.13
98.61
20
40
60
80
100

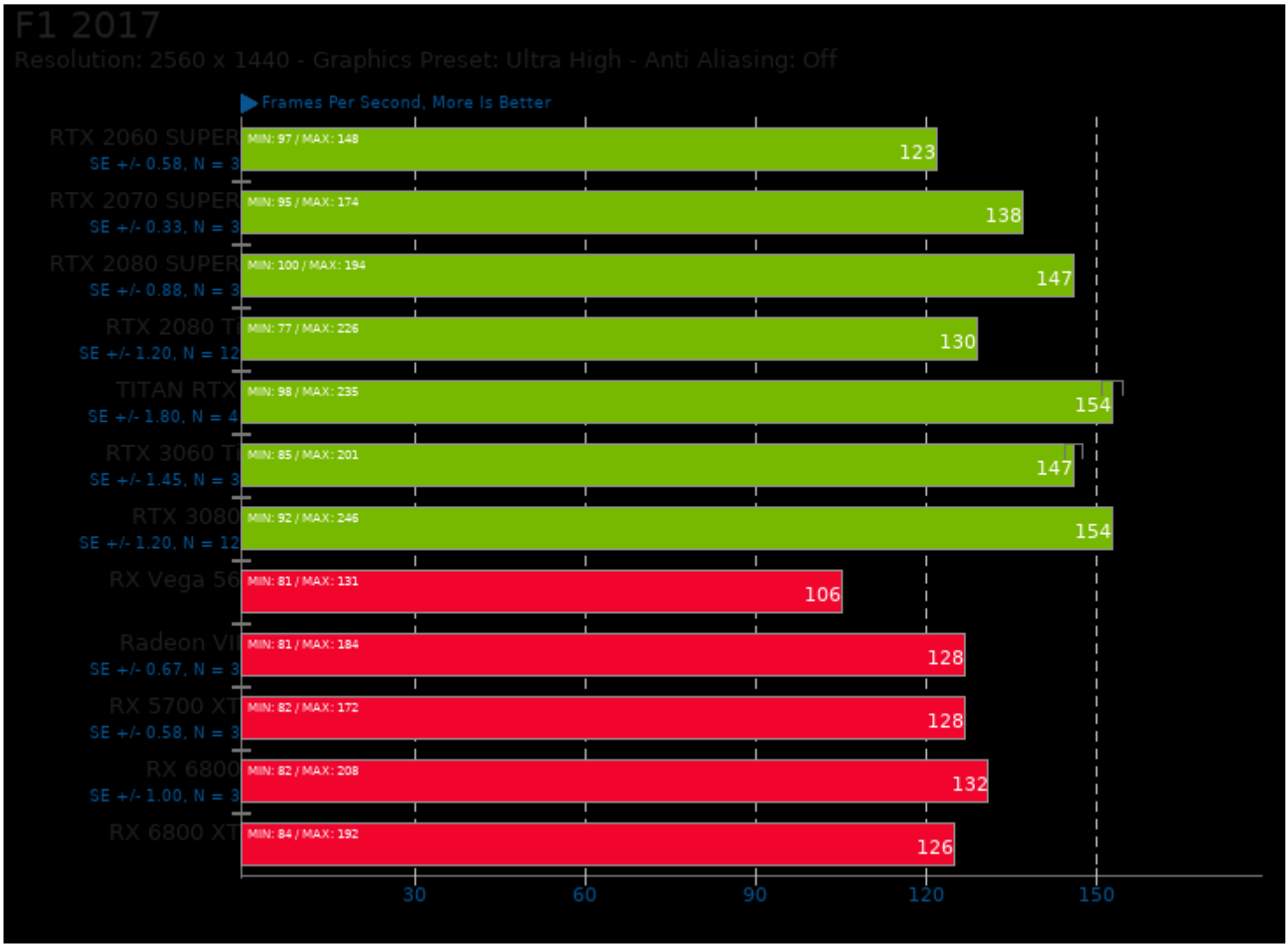

Xonotic 0.8.2
Resolution: 3840 x 2160 - Effects Quality: Ultimate
Frames Per Second, More Is Better
RTX 2060 SUPER
SE +/- 0.37, N = 3
MIN: 59 / MAX: 365
208.07
RTX 2070 SUPER
SE +/- 0.19, N = 3
MIN: 64 / MAX: 406
235.87
RTX 2080 SUPER
SE +/- 0.58, N = 3
MIN: 60 / MAX: 457
265.30
RTX 2080 T
SE +/- 6.00, N = 15
MIN: 46 / MAX: 564
273.07
TITAN RTX
SE +/- 0.31, N = 3
MIN: 61 / MAX: 585
331.37
RTX 3060 T
SE +/- 0.34, N = 3
MIN: 62 / MAX: 443
239.23
RTX 3080
SE +/- 0.91, N = 3
MIN: 62 / MAX: 637
338.35
RX Vega 56
SE +/- 1.03, N = 3
MIN: 64 / MAX: 503
306.27
Radeon VII
SE +/- 1.49, N = 3
MIN: 65 / MAX: 738
402.53
RX 5700 XT
SE +/- 1.43, N = 3
MIN: 63 / MAX: 641
378.94
RX 6800
SE +/- 5.34, N = 4
MIN: 59 / MAX: 1013
428.03
RX 6800 XT
SE +/- 1.31, N = 3
MIN: 64 / MAX: 1069
423.93
90
180
270
360
450

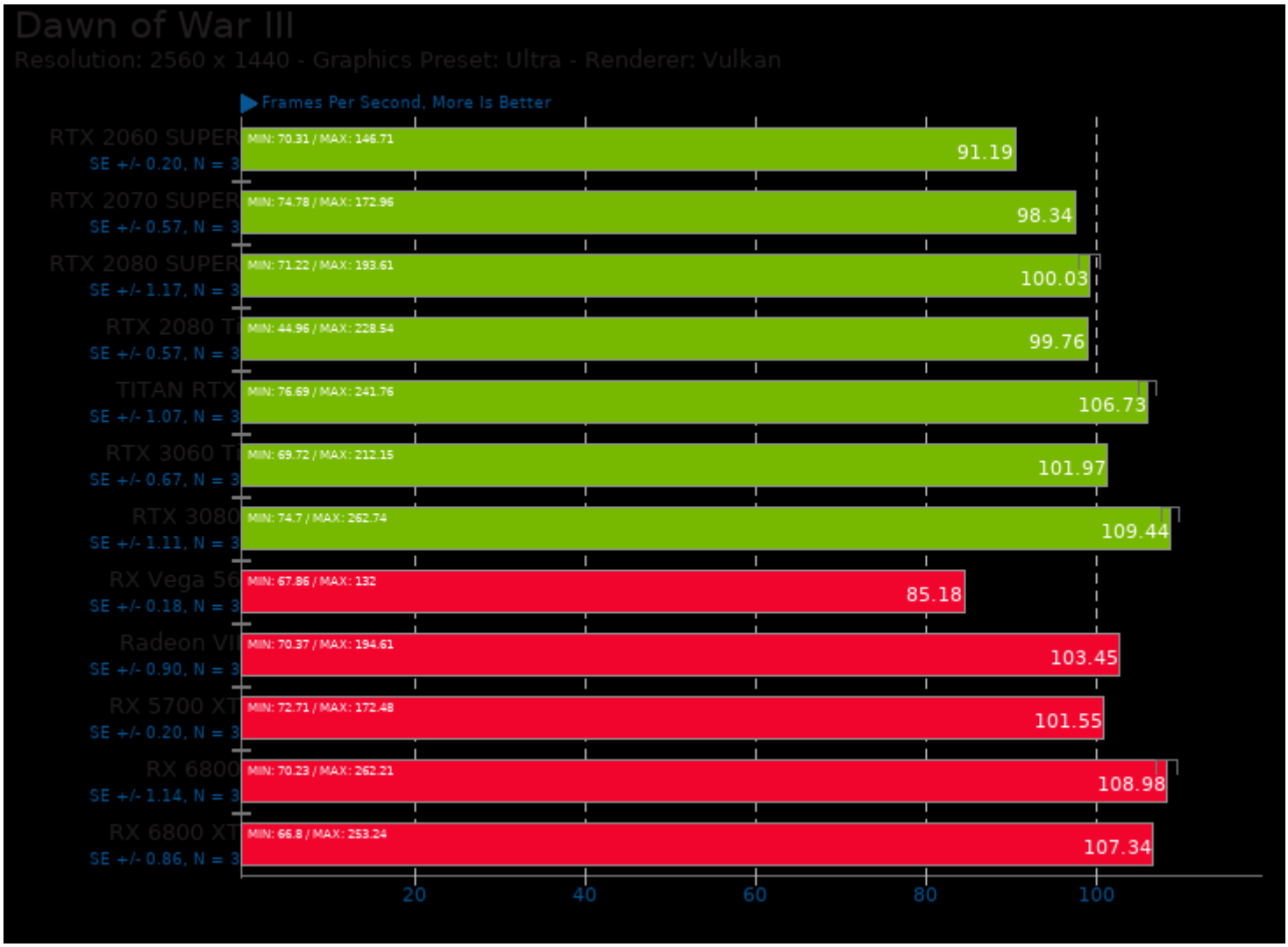

F1 2017
Resolution: 3840 x 2160 - Graphics Preset: Medium - Anti Aliasing: Off
Frames Per Second, More Is Better
RTX 2060 SUPER
SE +/- 1.20, N = 3
MIN: 57 / MAX: 125
105
RTX 2070 SUPER
SE +/- 0.33, N = 3
MIN: 104 / MAX: 150
124
RTX 2080 SUPER
SE +/- 0.67, N = 3
MIN: 120 / MAX: 169
140
RTX 2080 T
SE +/- 1.33, N = 3
MIN: 112 / MAX: 198
148
TITAN RTX
SE +/- 0.88, N = 3
MIN: 123 / MAX: 217
166
RTX 3060 T
SE +/- 1.00, N = 3
MIN: 109 / MAX: 175
143
RTX 3080
SE +/- 1.00, N = 3
MIN: 124 / MAX: 244
172
RX Vega 56
MIN: 78 / MAX: 111
91
Radeon VII
SE +/- 0.33, N = 3
MIN: 113 / MAX: 164
135
RX 5700 XT
MIN: 110 / MAX: 151
127
RX 6800
SE +/- 1.46, N = 8
MIN: 123 / MAX: 236
170
RX 6800 XT
SE +/- 1.83, N = 5
MIN: 119 / MAX: 256
165
40
80
120
160
200

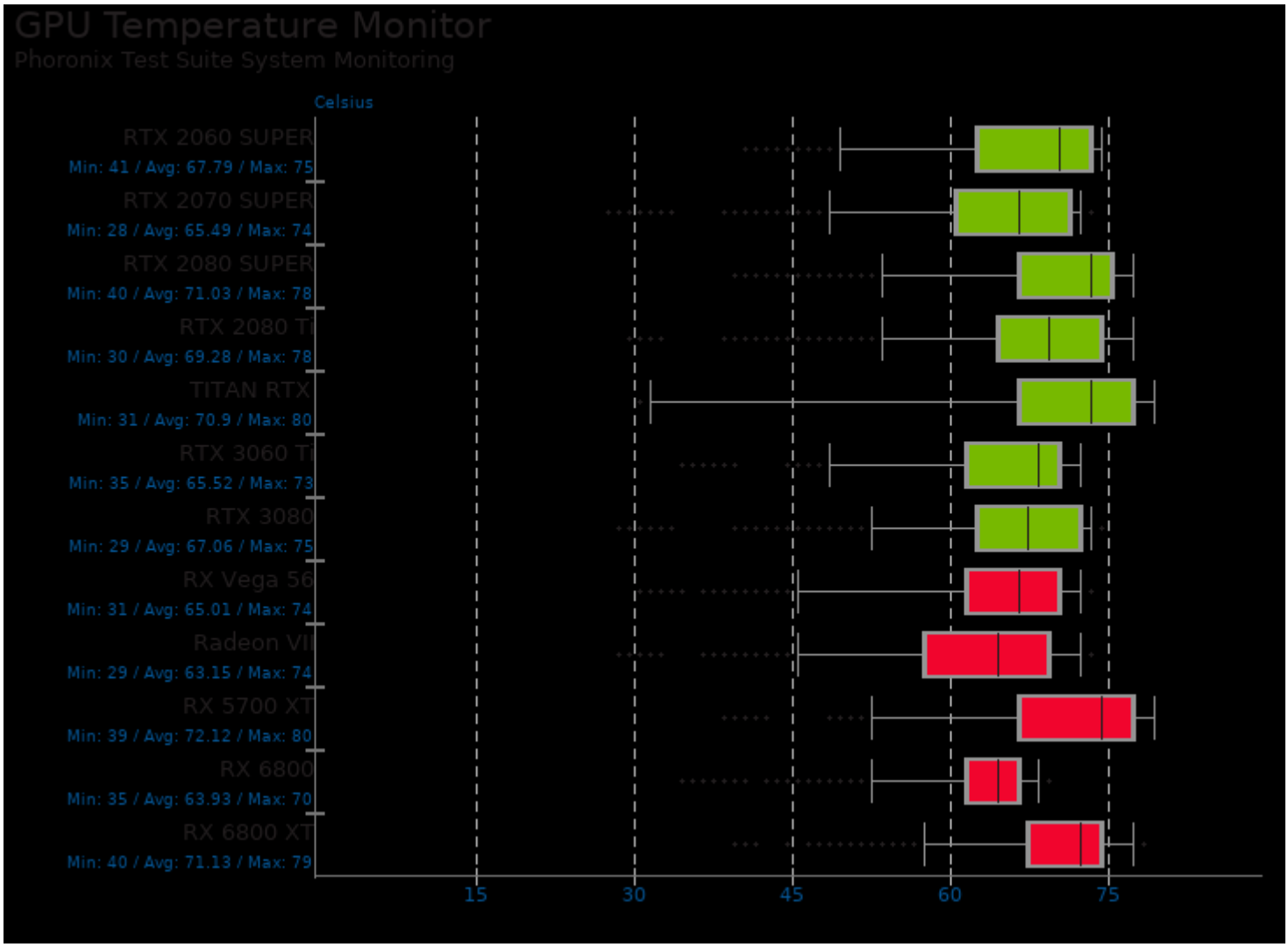

HITMAN
Resolution: 2560 x 1440 - Quality Level: Ultra
Frames Per Second, More Is Better
RTX 2060 SUPER
SE +/- 0.11, N = 3
MIN: 70.92 / MAX: 71.31
71.12
RTX 2070 SUPER
SE +/- 0.15, N = 3
MIN: 78.99 / MAX: 79.48
79.28
RTX 2080 SUPER
SE +/- 0.10, N = 3
MIN: 86.32 / MAX: 86.68
86.51
RTX 2080 Ti
SE +/- 0.16, N = 3
MIN: 92.64 / MAX: 93.17
92.86
TITAN RTX
SE +/- 0.28, N = 3
MIN: 99.73 / MAX: 100.68
100.23
RTX 3060 Ti
SE +/- 0.21, N = 3
MIN: 96.1 / MAX: 96.83
96.46
RTX 3080
SE +/- 0.36, N = 3
MIN: 109.53 / MAX: 110.77
110.09
RX Vega 56
SE +/- 0.42, N = 3
MIN: 82.99 / MAX: 84.43
83.77
Radeon VII
SE +/- 0.18, N = 3
MIN: 101.61 / MAX: 102.14
101.96
RX 5700 XT
SE +/- 0.32, N = 3
MIN: 100.26 / MAX: 101.27
100.63
RX 6800
SE +/- 0.92, N = 3
MIN: 116.91 / MAX: 120.07
118.59
RX 6800 XT
SE +/- 1.17, N = 3
MIN: 116.74 / MAX: 120.79
118.70
30
60
90
120
150

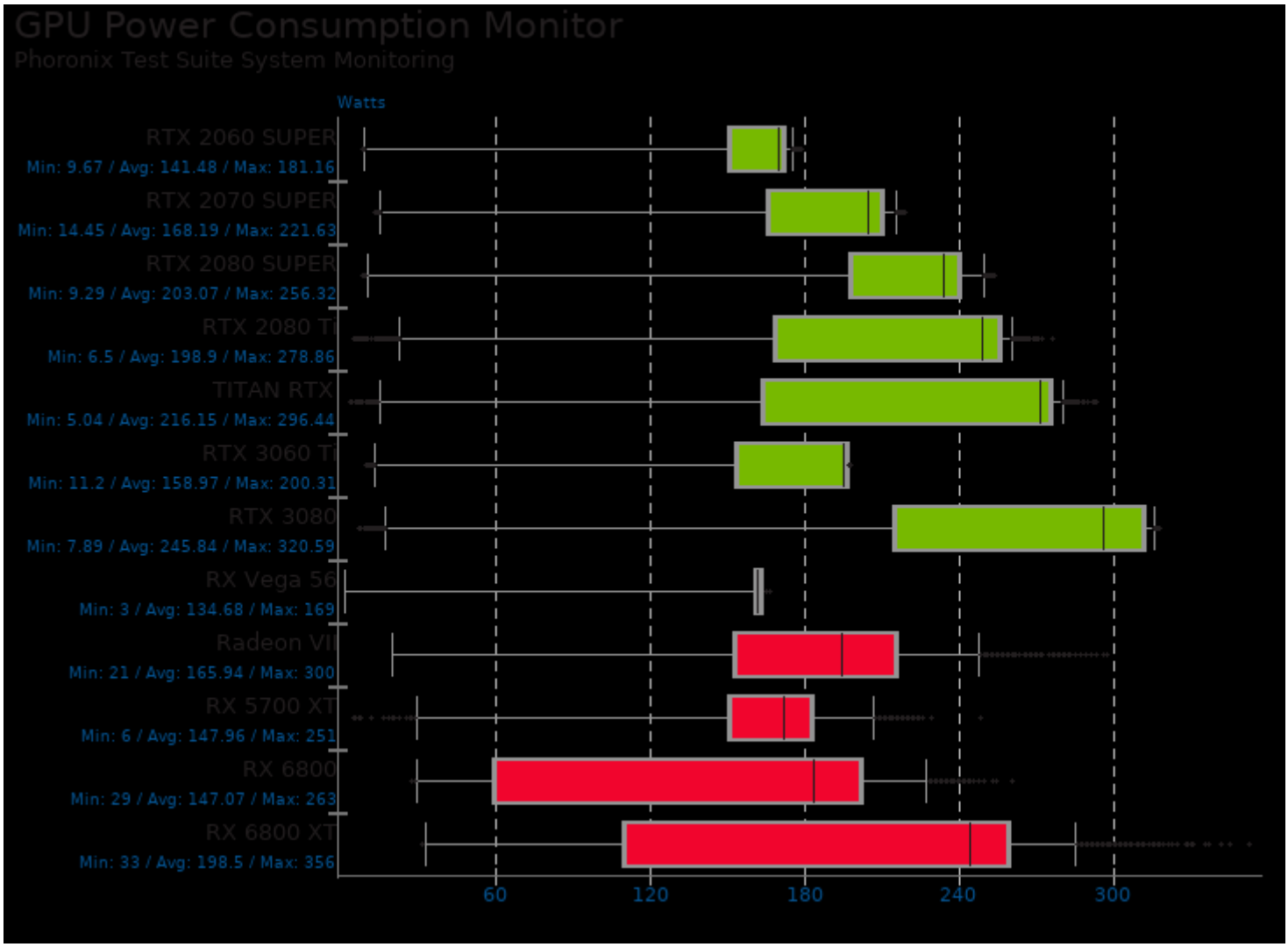

Dota 2
Resolution: 3840 x 2160 - Renderer: Vulkan
Frames Per Second, More Is Better
RTX 2060 SUPER
SE +/- 0.85, N = 14
MIN: 122.2 / MAX: 133
130.0
RTX 2070 SUPER
SE +/- 1.49, N = 5
MIN: 143.8 / MAX: 151.7
147.8
RTX 2080 SUPER
SE +/- 1.62, N = 6
MIN: 155.1 / MAX: 165.2
161.5
RTX 2080 Ti
SE +/- 1.48, N = 3
MIN: 153.2 / MAX: 158.3
155.9
TITAN RTX
SE +/- 1.68, N = 6
MIN: 172.1 / MAX: 182.7
178.7
RTX 3060 Ti
SE +/- 0.76, N = 3
MIN: 159.2 / MAX: 161.7
160.2
RTX 3080
SE +/- 1.89, N = 5
MIN: 169.9 / MAX: 180.5
177.3
RX Vega 56
SE +/- 0.66, N = 3
MIN: 106.5 / MAX: 108.6
107.8
Radeon VII
SE +/- 1.07, N = 3
MIN: 132.4 / MAX: 135.8
134.5
RX 5700 XT
SE +/- 1.59, N = 3
MIN: 128.8 / MAX: 133.7
130.5
RX 6800
SE +/- 1.40, N = 5
MIN: 131 / MAX: 138.7
136.1
RX 6800 XT
SE +/- 0.60, N = 3
MIN: 133.3 / MAX: 135.2
134.5
40
80
120
160
200

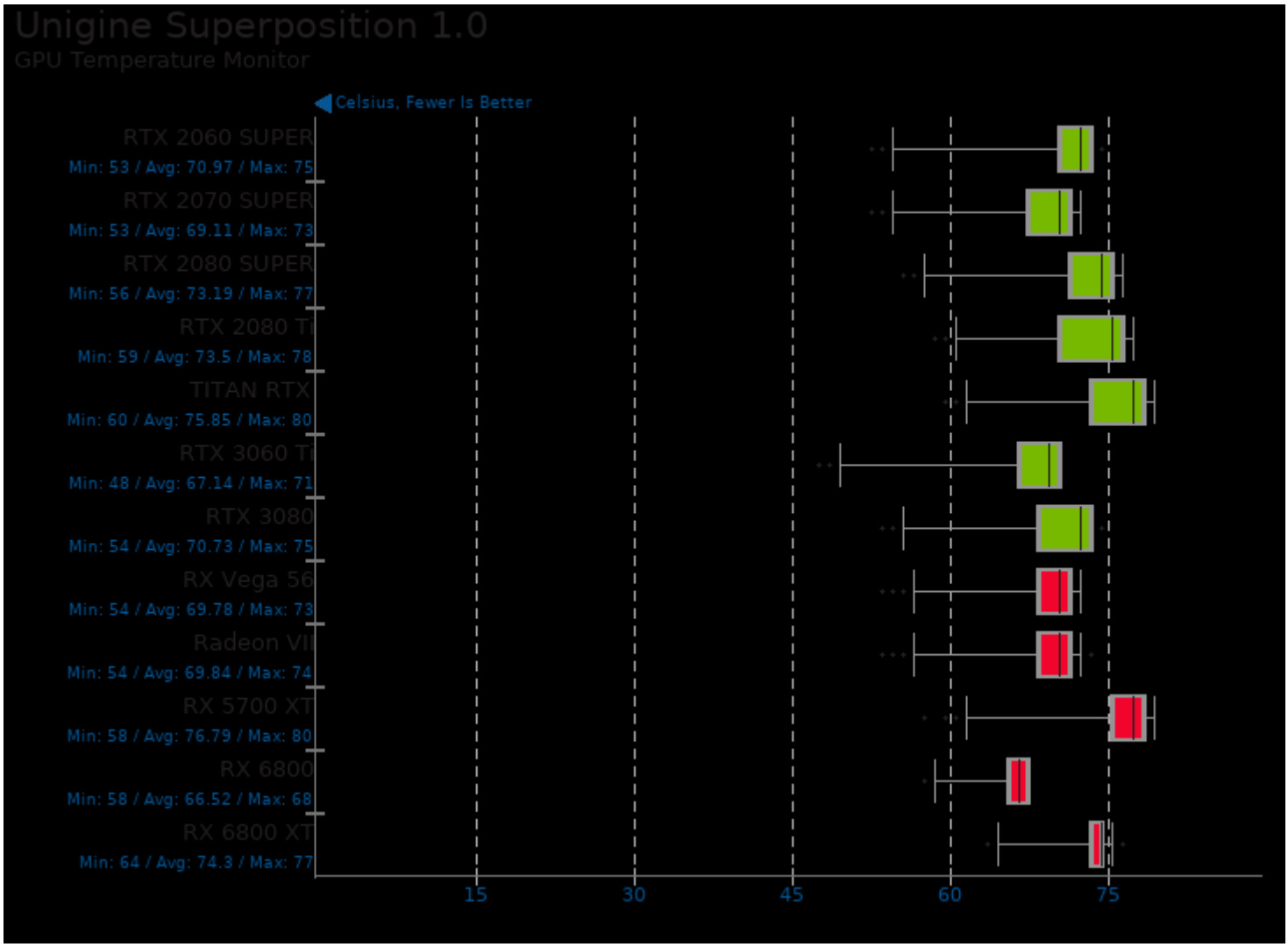

Deus Ex: Mankind Divided
Preset: 2560 x 1440 - High Quality
Frames Per Second, More Is Better
RTX 2060 SUPER
SE +/- 0.03, N = 3
MIN: 34.6 / MAX: 73.2
55.8
RTX 2070 SUPER
SE +/- 0.06, N = 3
MIN: 48.8 / MAX: 85.7
64.4
RTX 2080 SUPER
SE +/- 0.12, N = 3
MIN: 34.3 / MAX: 94.1
70.5
RTX 2080 Ti
SE +/- 0.59, N = 3
MIN: 48.5 / MAX: 111.1
76.8
TITAN RTX
SE +/- 0.21, N = 3
MIN: 58 / MAX: 113.3
83.9
RTX 3060 Ti
SE +/- 0.03, N = 3
MIN: 44.6 / MAX: 99
73.4
RTX 3080
SE +/- 0.15, N = 3
MIN: 48.5 / MAX: 128.1
87.0
RX Vega 56
SE +/- 0.17, N = 3
MIN: 42.1 / MAX: 70.1
55.7
Radeon VII
SE +/- 1.04, N = 3
MIN: 52.9 / MAX: 104.5
78.7
RX 5700 XT
SE +/- 0.15, N = 3
MIN: 55.6 / MAX: 89.6
72.2
RX 6800
SE +/- 0.83, N = 3
MIN: 53.1 / MAX: 154.2
85.5
RX 6800 XT
SE +/- 0.20, N = 3
MIN: 49.5 / MAX: 157.6
81.8
20
40
60
80
100

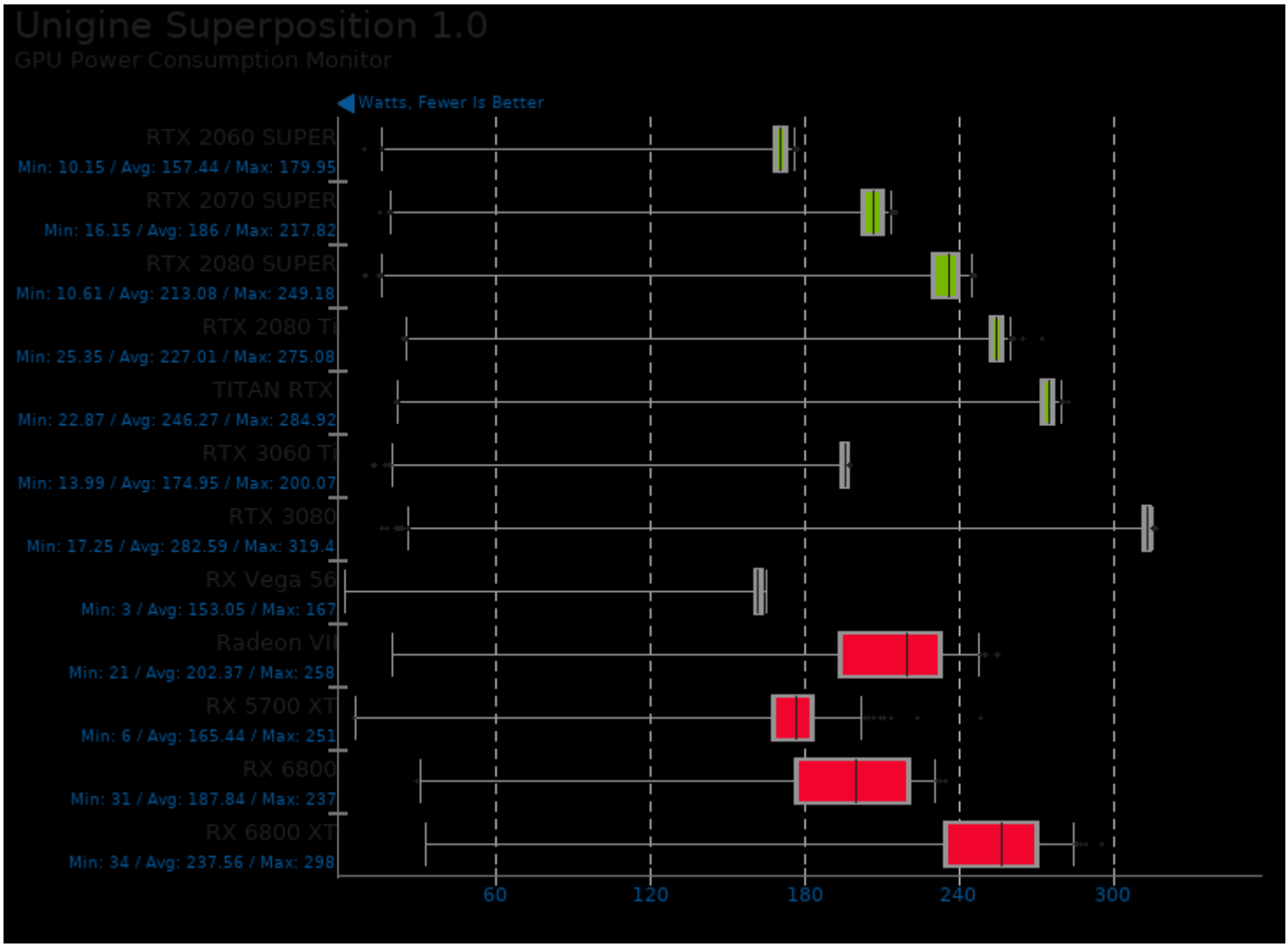

F1 2017
Resolution: 2560 x 1440 - Graphics Preset: Ultra High - Anti Aliasing: Off
Frames Per Second, More Is Better
RTX 2060 SUPER
SE +/- 0.58, N = 3
MIN: 97 / MAX: 148
123
RTX 2070 SUPER
SE +/- 0.33, N = 3
MIN: 95 / MAX: 174
138
RTX 2080 SUPER
SE +/- 0.88, N = 3
MIN: 100 / MAX: 194
147
RTX 2080 T
SE +/- 1.20, N = 12
MIN: 77 / MAX: 226
130
TITAN RTX
SE +/- 1.80, N = 4
MIN: 98 / MAX: 235
154
RTX 3060 T
SE +/- 1.45, N = 3
MIN: 85 / MAX: 201
147
RTX 3080
SE +/- 1.20, N = 12
MIN: 92 / MAX: 246
154
RX Vega 56
MIN: 81 / MAX: 131
106
Radeon VII
SE +/- 0.67, N = 3
MIN: 81 / MAX: 184
128
RX 5700 XT
SE +/- 0.58, N = 3
MIN: 82 / MAX: 172
128
RX 6800
SE +/- 1.00, N = 3
MIN: 82 / MAX: 208
132
RX 6800 XT
MIN: 84 / MAX: 192
126
30
60
90
120
150

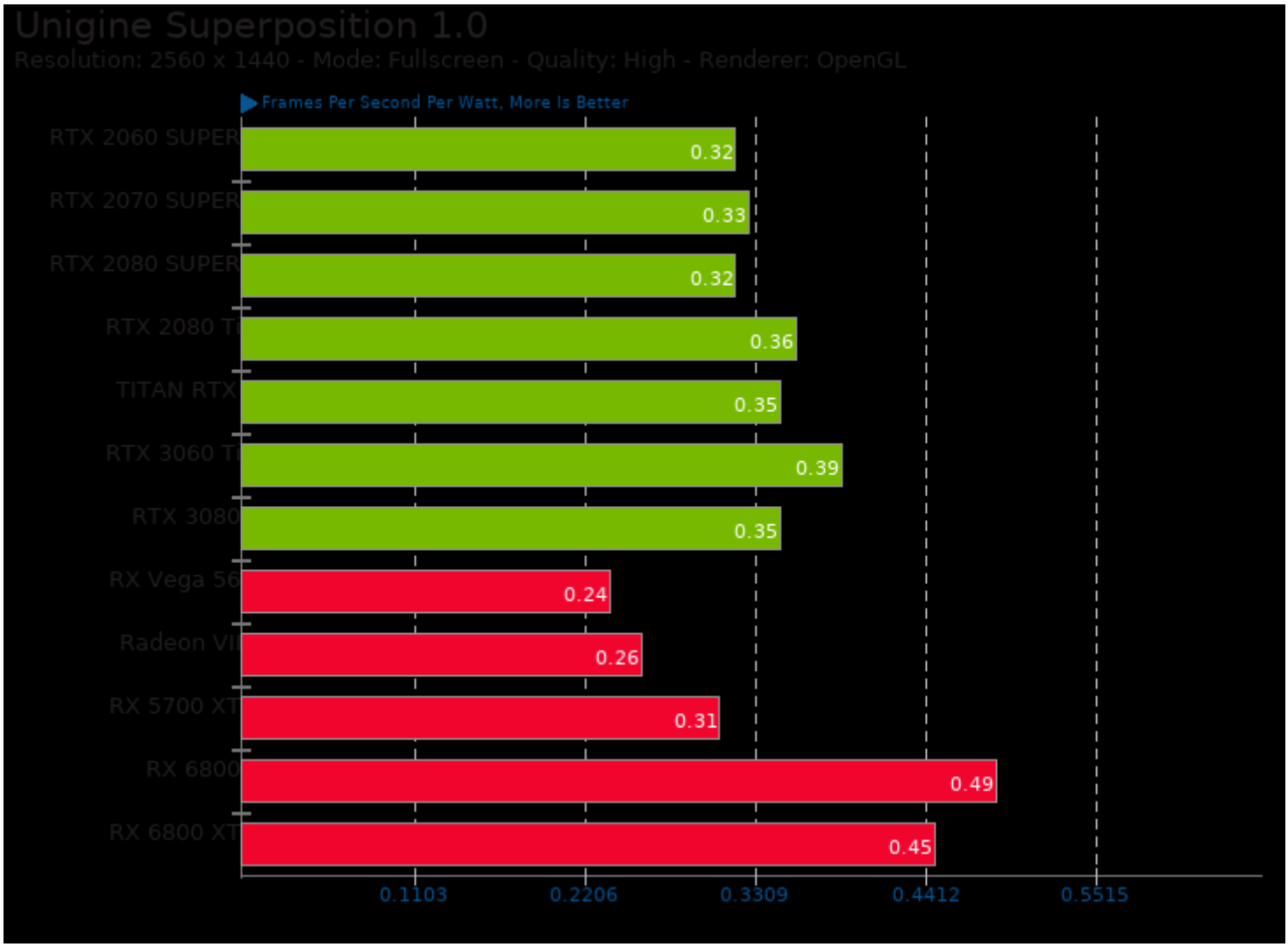

Dawn of War III
Resolution: 2560 x 1440 - Graphics Preset: Ultra - Renderer: Vulkan
Frames Per Second, More Is Better
RTX 2060 SUPER
SE +/- 0.20, N = 3
MIN: 70.31 / MAX: 146.71
91.19
RTX 2070 SUPER
SE +/- 0.57, N = 3
MIN: 74.78 / MAX: 172.96
98.34
RTX 2080 SUPER
SE +/- 1.17, N = 3
MIN: 71.22 / MAX: 193.61
100.03
RTX 2080 Ti
SE +/- 0.57, N = 3
MIN: 44.96 / MAX: 228.54
99.76
TITAN RTX
SE +/- 1.07, N = 3
MIN: 76.69 / MAX: 241.76
106.73
RTX 3060 Ti
SE +/- 0.67, N = 3
MIN: 69.72 / MAX: 212.15
101.97
RTX 3080
SE +/- 1.11, N = 3
MIN: 74.7 / MAX: 262.74
109.44
RX Vega 56
SE +/- 0.18, N = 3
MIN: 67.86 / MAX: 132
85.18
Radeon VII
SE +/- 0.90, N = 3
MIN: 70.37 / MAX: 194.61
103.45
RX 5700 XT
SE +/- 0.20, N = 3
MIN: 72.71 / MAX: 172.48
101.55
RX 6800
SE +/- 1.14, N = 3
MIN: 70.23 / MAX: 262.21
108.98
RX 6800 XT
SE +/- 0.86, N = 3
MIN: 66.8 / MAX: 253.24
107.34
20
40
60
80
100

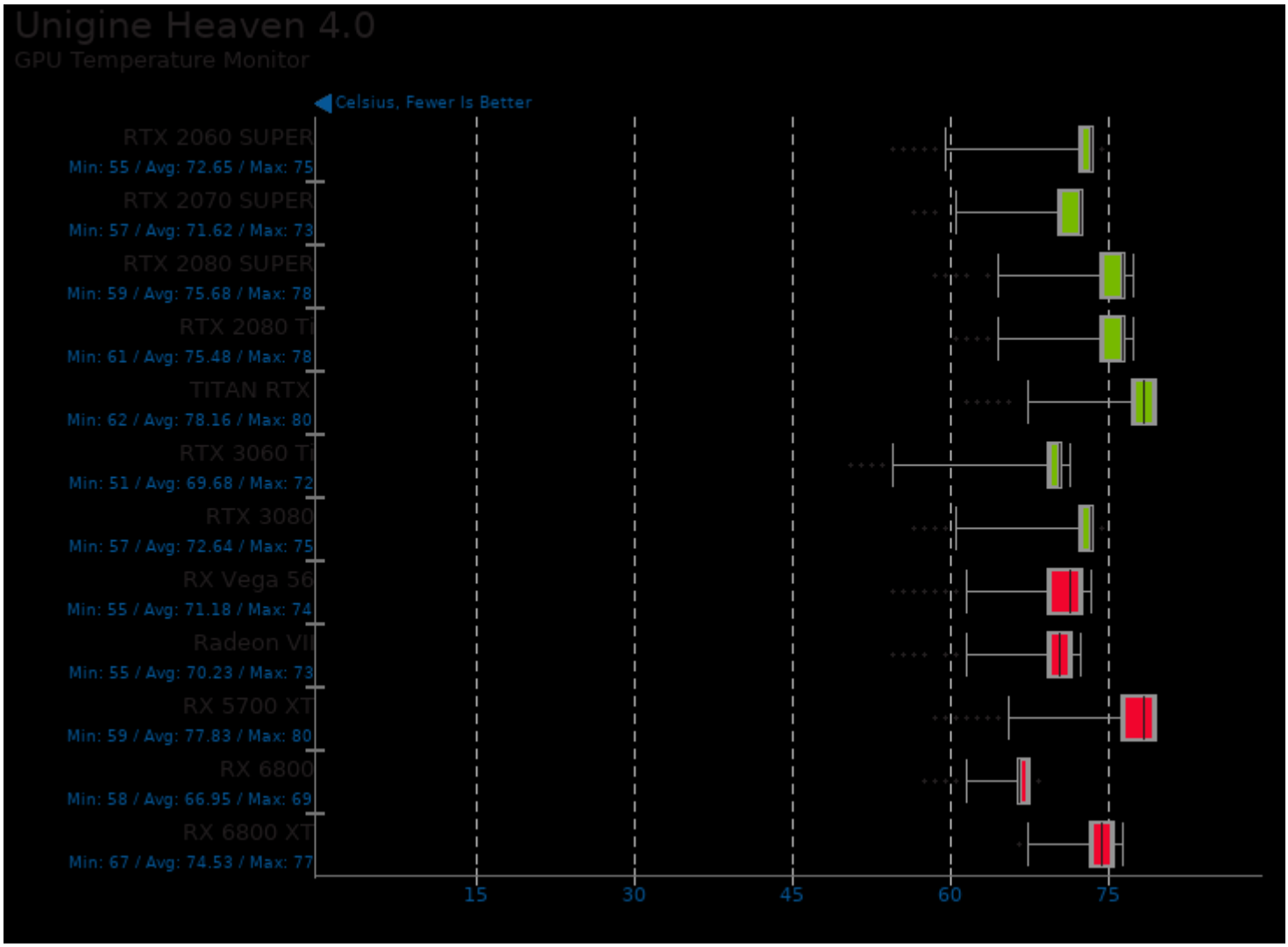

GPU Temperature Monitor
Phoronix Test Suite System Monitoring
Celsius
RTX 2060 SUPER
Min: 41 / Avg: 67.79 / Max: 75
RTX 2070 SUPER
Min: 28 / Avg: 65.49 / Max: 74
RTX 2080 SUPER
Min: 40 / Avg: 71.03 / Max: 78
RTX 2080 Ti
Min: 30 / Avg: 69.28 / Max: 78
TITAN RTX
Min: 31 / Avg: 70.9 / Max: 80
RTX 3060 Ti
Min: 35 / Avg: 65.52 / Max: 73
RTX 3080
Min: 29 / Avg: 67.06 / Max: 75
RX Vega 56
Min: 31 / Avg: 65.01 / Max: 74
Radeon VII
Min: 29 / Avg: 63.15 / Max: 74
RX 5700 XT
Min: 39 / Avg: 72.12 / Max: 80
RX 6800
Min: 35 / Avg: 63.93 / Max: 70
RX 6800 XT
Min: 40 / Avg: 71.13 / Max: 79
15
30
45
60
75

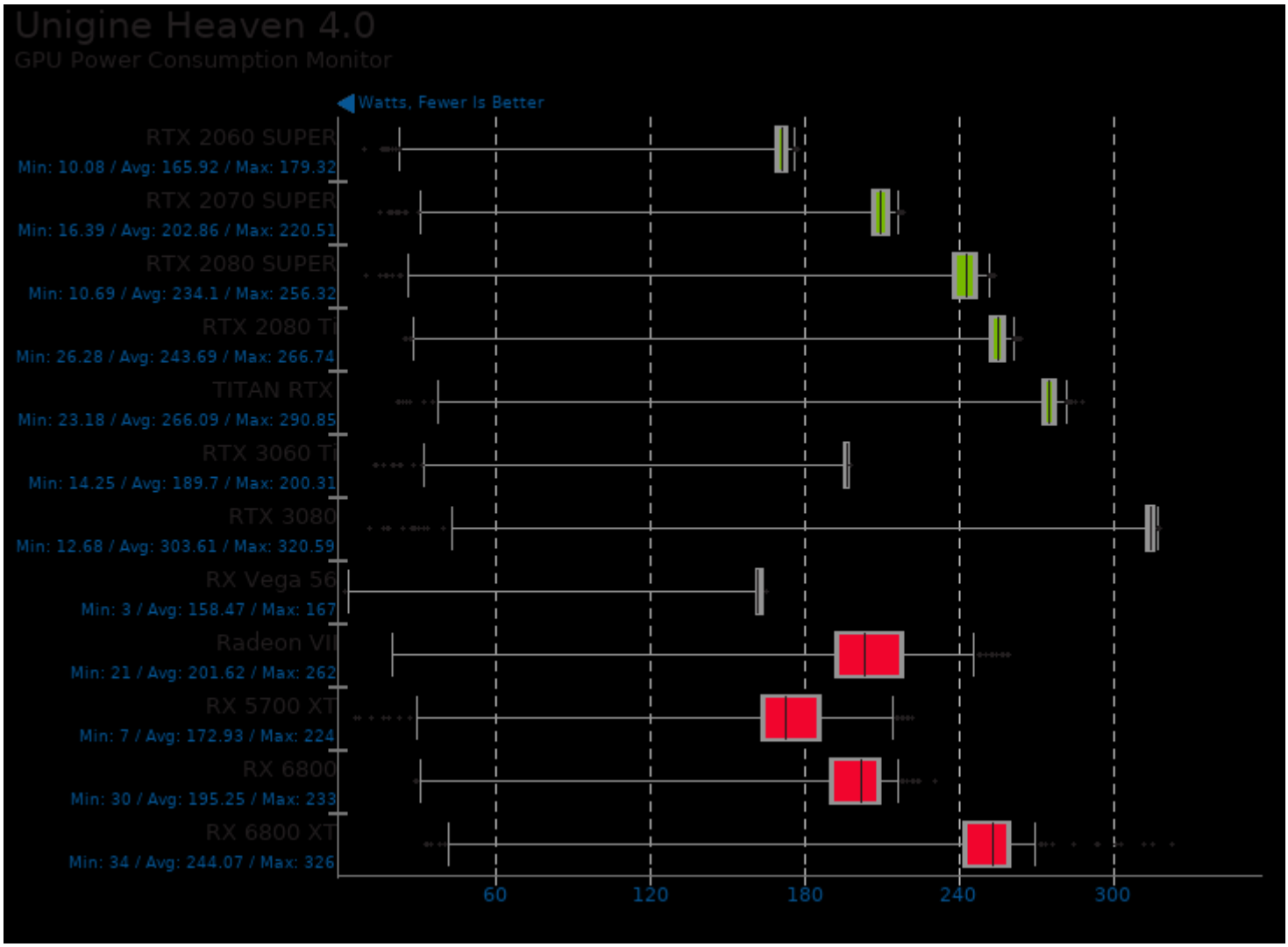

GPU Power Consumption Monitor
Phoronix Test Suite System Monitoring
Watts
RTX 2060 SUPER
Min: 9.67 / Avg: 141.48 / Max: 181.16
RTX 2070 SUPER
Min: 14.45 / Avg: 168.19 / Max: 221.63
RTX 2080 SUPER
Min: 9.29 / Avg: 203.07 / Max: 256.32
RTX 2080 Ti
Min: 6.5 / Avg: 198.9 / Max: 278.86
TITAN RTX
Min: 5.04 / Avg: 216.15 / Max: 296.44
RTX 3060 Ti
Min: 11.2 / Avg: 158.97 / Max: 200.31
RTX 3080
Min: 7.89 / Avg: 245.84 / Max: 320.59
RX Vega 56
Min: 3 / Avg: 134.68 / Max: 169
Radeon VII
Min: 21 / Avg: 165.94 / Max: 300
RX 5700 XT
Min: 6 / Avg: 147.96 / Max: 251
RX 6800
Min: 29 / Avg: 147.07 / Max: 263
RX 6800 XT
Min: 33 / Avg: 198.5 / Max: 356
60
120
180
240
300

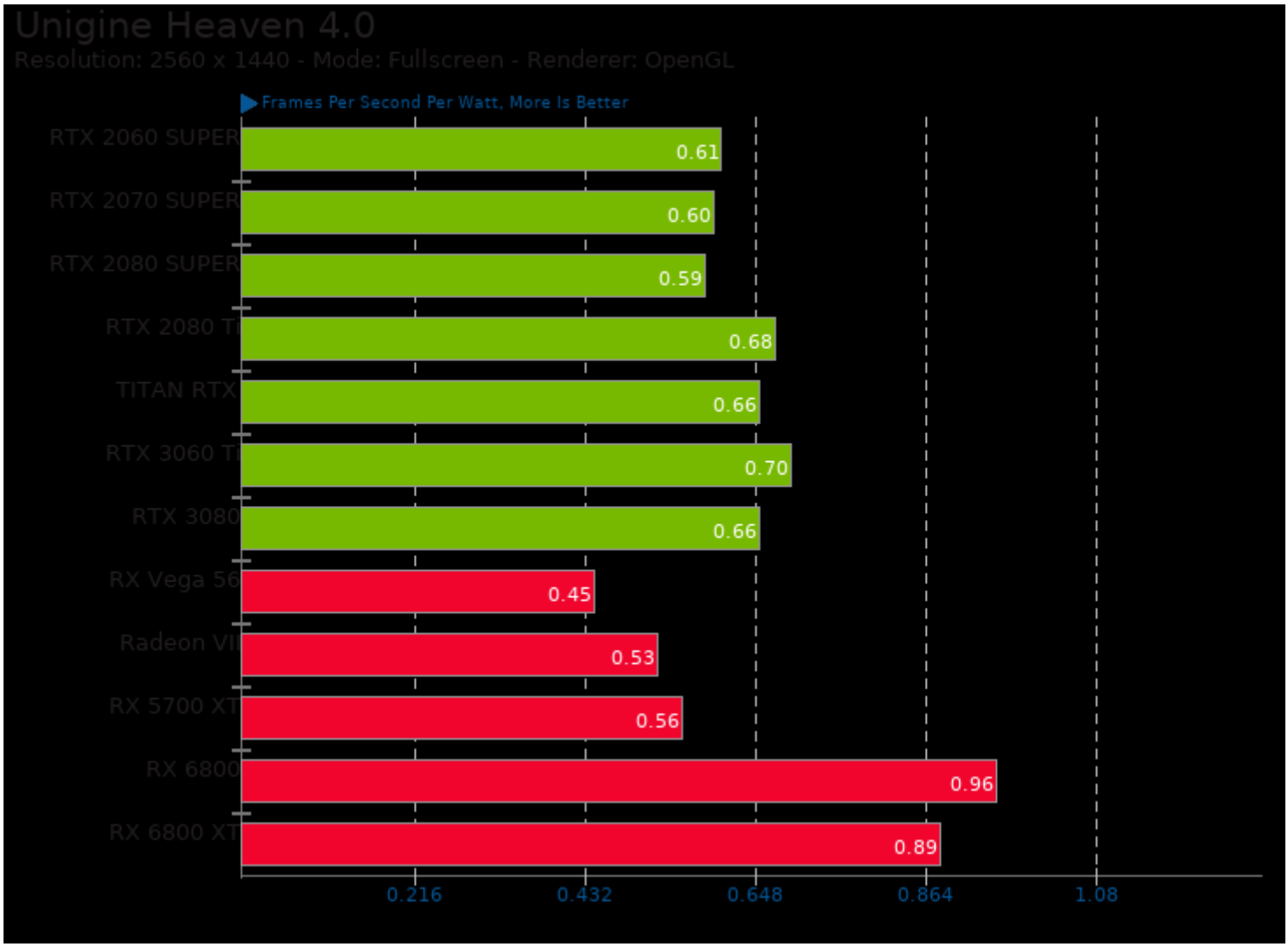

Unigine Superposition 1.0
GPU Temperature Monitor
Celsius, Fewer Is Better
RTX 2060 SUPER
Min: 53 / Avg: 70.97 / Max: 75
RTX 2070 SUPER
Min: 53 / Avg: 69.11 / Max: 73
RTX 2080 SUPER
Min: 56 / Avg: 73.19 / Max: 77
RTX 2080 Ti
Min: 59 / Avg: 73.5 / Max: 78
TITAN RTX
Min: 60 / Avg: 75.85 / Max: 80
RTX 3060 Ti
Min: 48 / Avg: 67.14 / Max: 71
RTX 3080
Min: 54 / Avg: 70.73 / Max: 75
RX Vega 56
Min: 54 / Avg: 69.78 / Max: 73
Radeon VII
Min: 54 / Avg: 69.84 / Max: 74
RX 5700 XT
Min: 58 / Avg: 76.79 / Max: 80
RX 6800
Min: 58 / Avg: 66.52 / Max: 68
RX 6800 XT
Min: 64 / Avg: 74.3 / Max: 77
15
30
45
60
75

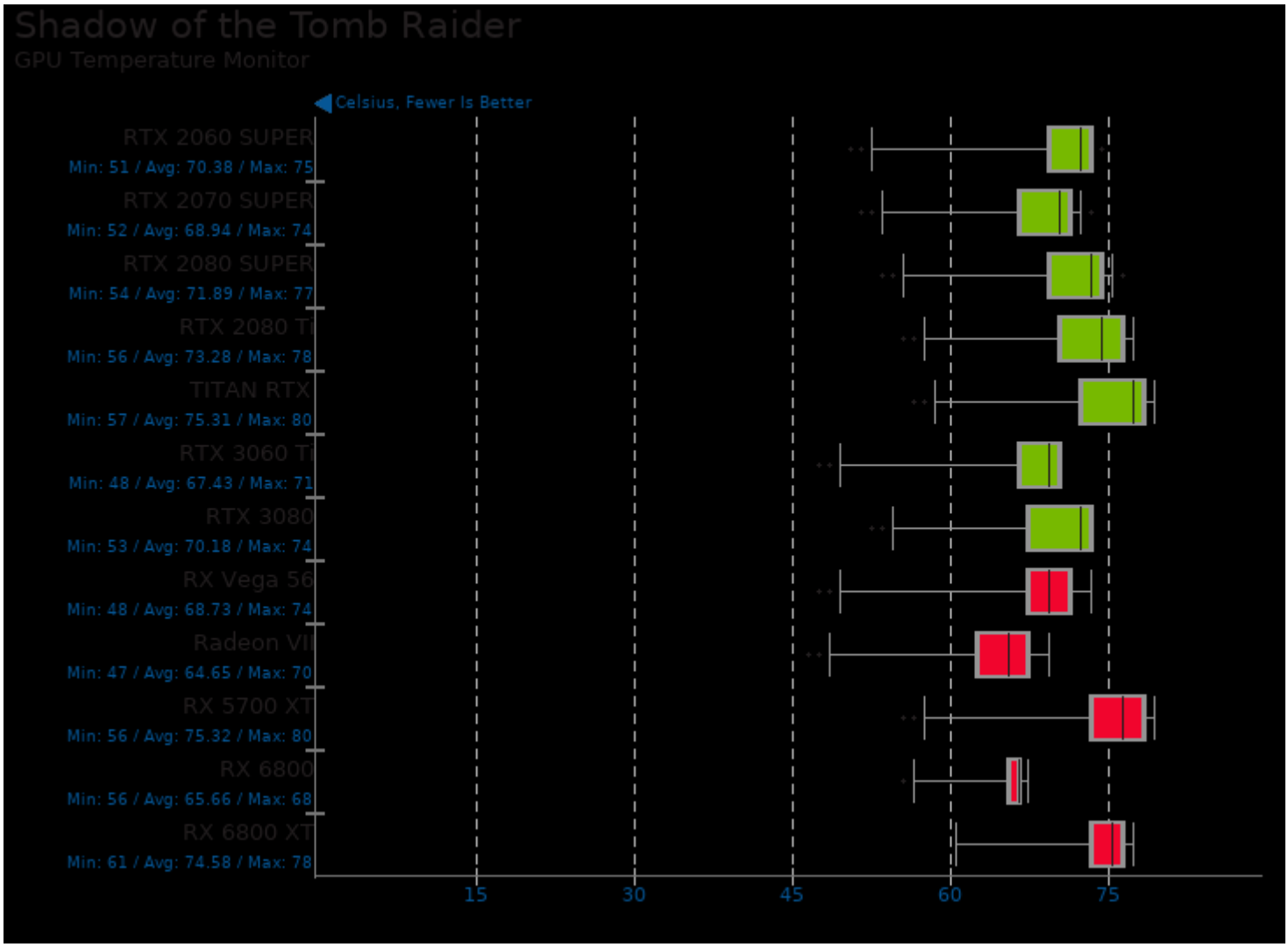

Unigine Superposition 1.0
GPU Power Consumption Monitor
Watts, Fewer Is Better
RTX 2060 SUPER
Min: 10.15 / Avg: 157.44 / Max: 179.95
RTX 2070 SUPER
Min: 16.15 / Avg: 186 / Max: 217.82
RTX 2080 SUPER
Min: 10.61 / Avg: 213.08 / Max: 249.18
RTX 2080 Ti
Min: 25.35 / Avg: 227.01 / Max: 275.08
TITAN RTX
Min: 22.87 / Avg: 246.27 / Max: 284.92
RTX 3060 Ti
Min: 13.99 / Avg: 174.95 / Max: 200.07
RTX 3080
Min: 17.25 / Avg: 282.59 / Max: 319.4
RX Vega 56
Min: 3 / Avg: 153.05 / Max: 167
Radeon VII
Min: 21 / Avg: 202.37 / Max: 258
RX 5700 XT
Min: 6 / Avg: 165.44 / Max: 251
RX 6800
Min: 31 / Avg: 187.84 / Max: 237
RX 6800 XT
Min: 34 / Avg: 237.56 / Max: 298
60
120
180
240
300

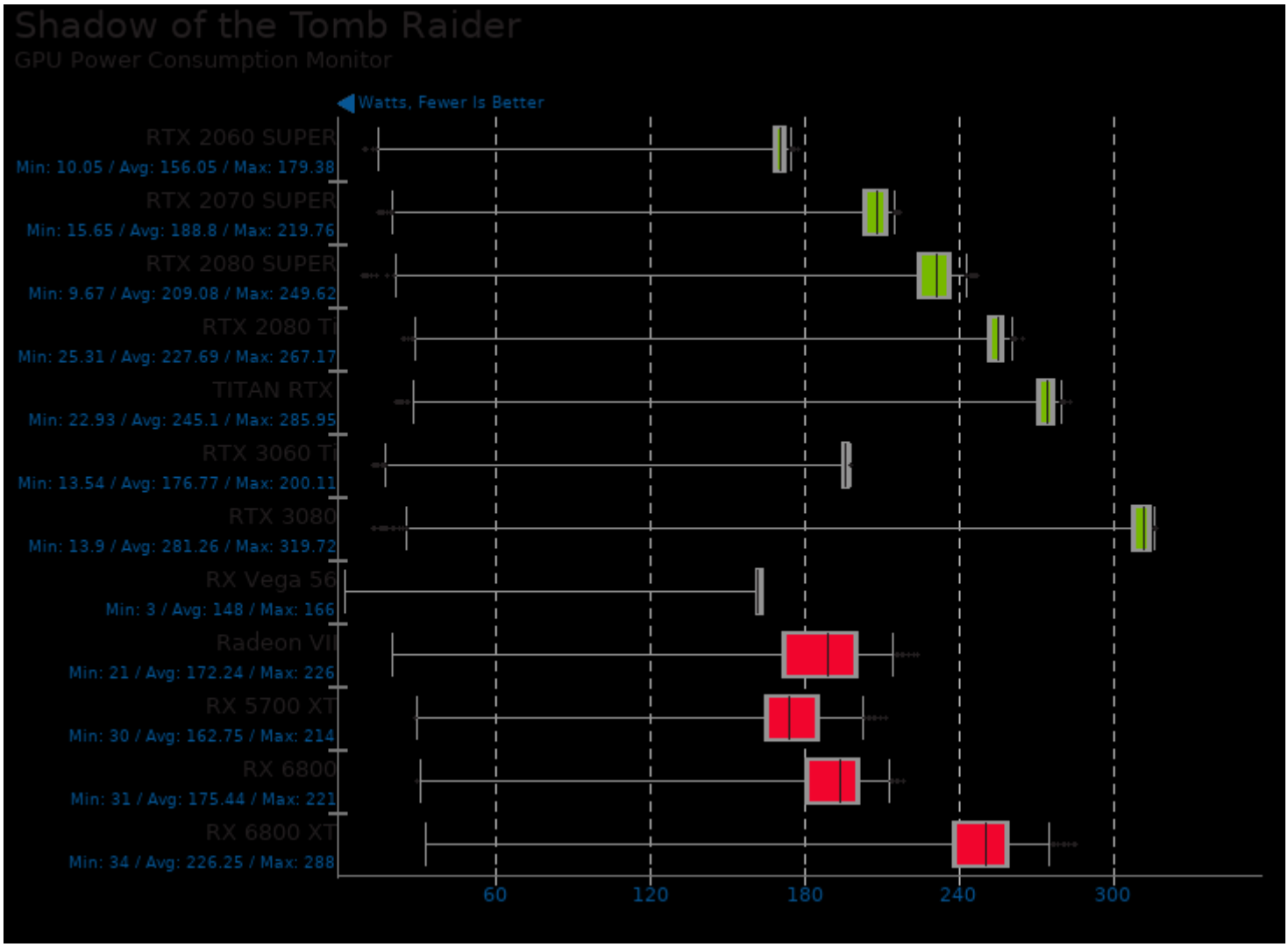

Unigine Superposition 1.0
Resolution: 2560 x 1440 - Mode: Fullscreen - Quality: High - Renderer: OpenGL
Frames Per Second Per Watt, More Is Better
RTX 2060 SUPER
RTX 2070 SUPER
RTX 2080 SUPER
RTX 2080 Ti
TITAN RTX
RTX 3060 Ti
RTX 3080
RX Vega 56
Radeon VII
RX 5700 XT
RX 6800
RX 6800 XT
0.32
0.33
0.32
0.36
0.35
0.39
0.35
0.24
0.26
0.31
0.49
0.45
0.1103
0.2206
0.3309
0.4412
0.5515

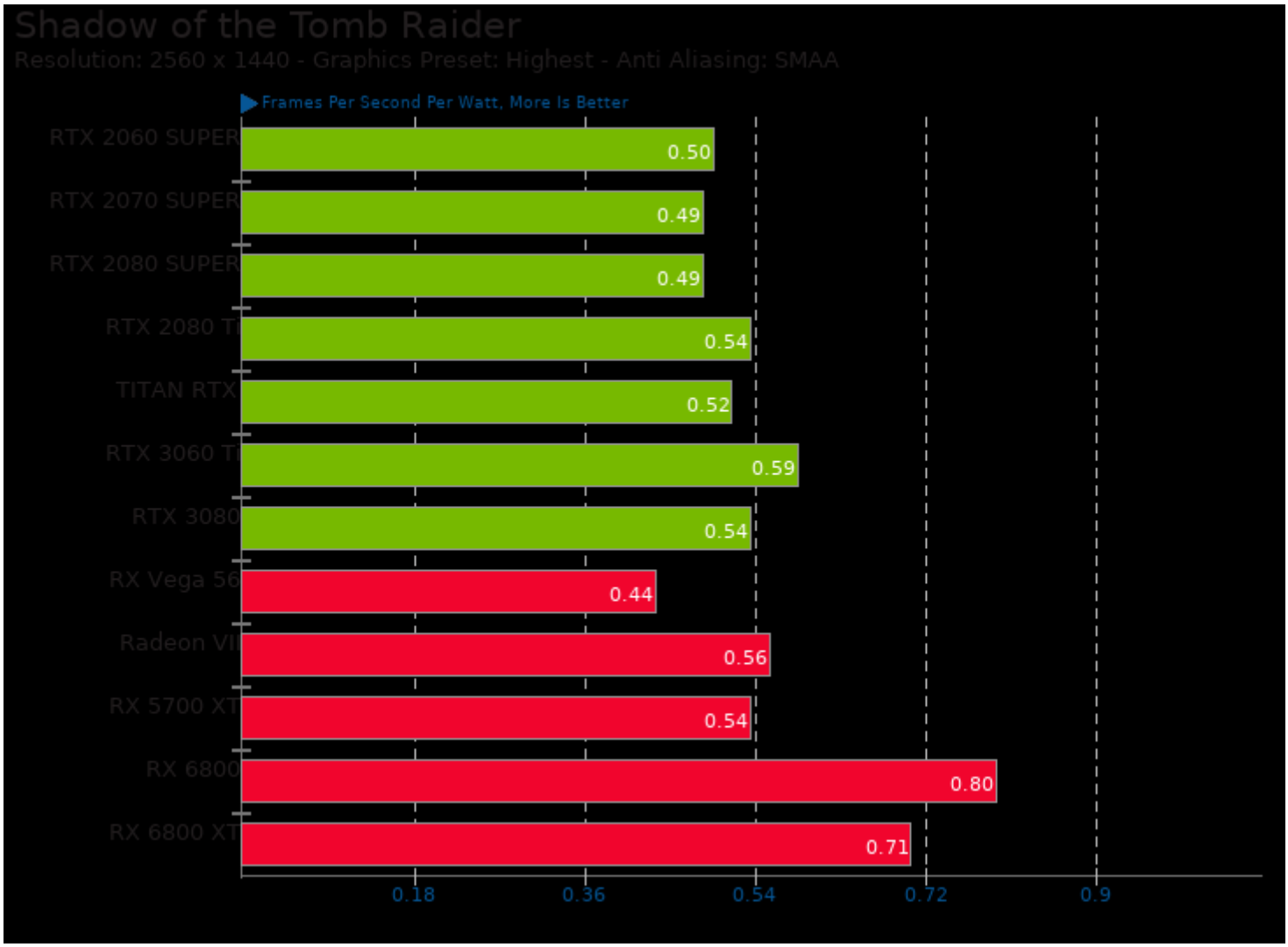

Unigine Heaven 4.0
GPU Temperature Monitor
Celsius, Fewer Is Better
RTX 2060 SUPER
Min: 55 / Avg: 72.65 / Max: 75
RTX 2070 SUPER
Min: 57 / Avg: 71.62 / Max: 73
RTX 2080 SUPER
Min: 59 / Avg: 75.68 / Max: 78
RTX 2080 Ti
Min: 61 / Avg: 75.48 / Max: 78
TITAN RTX
Min: 62 / Avg: 78.16 / Max: 80
RTX 3060 Ti
Min: 51 / Avg: 69.68 / Max: 72
RTX 3080
Min: 57 / Avg: 72.64 / Max: 75
RX Vega 56
Min: 55 / Avg: 71.18 / Max: 74
Radeon VII
Min: 55 / Avg: 70.23 / Max: 73
RX 5700 XT
Min: 59 / Avg: 77.83 / Max: 80
RX 6800
Min: 58 / Avg: 66.95 / Max: 69
RX 6800 XT
Min: 67 / Avg: 74.53 / Max: 77
15
30
45
60
75

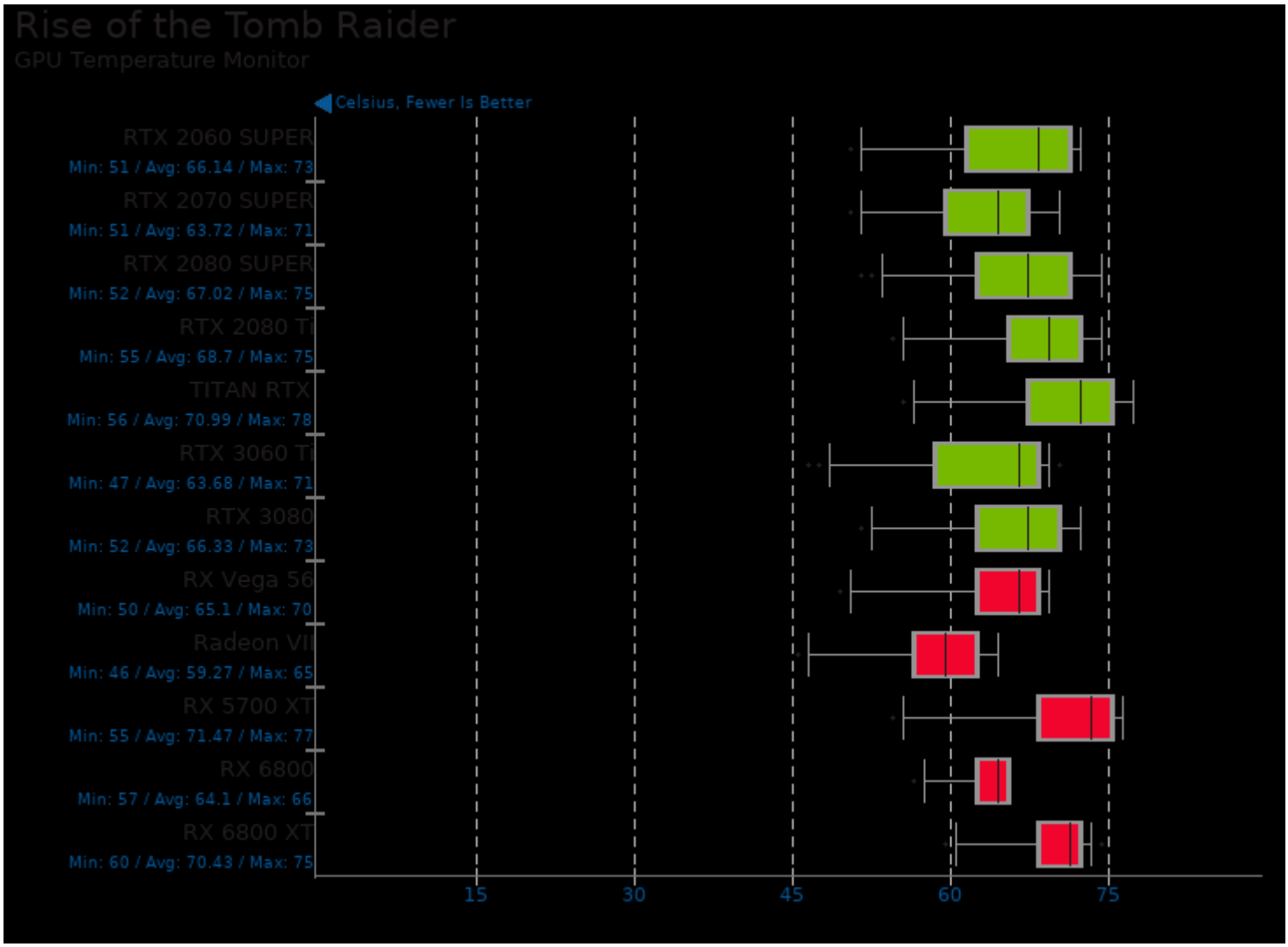

Unigine Heaven 4.0
GPU Power Consumption Monitor
Watts, Fewer Is Better
RTX 2060 SUPER
Min: 10.08 / Avg: 165.92 / Max: 179.32
RTX 2070 SUPER
Min: 16.39 / Avg: 202.86 / Max: 220.51
RTX 2080 SUPER
Min: 10.69 / Avg: 234.1 / Max: 256.32
RTX 2080 Ti
Min: 26.28 / Avg: 243.69 / Max: 266.74
TITAN RTX
Min: 23.18 / Avg: 266.09 / Max: 290.85
RTX 3060 Ti
Min: 14.25 / Avg: 189.7 / Max: 200.31
RTX 3080
Min: 12.68 / Avg: 303.61 / Max: 320.59
RX Vega 56
Min: 3 / Avg: 158.47 / Max: 167
Radeon VII
Min: 21 / Avg: 201.62 / Max: 262
RX 5700 XT
Min: 7 / Avg: 172.93 / Max: 224
RX 6800
Min: 30 / Avg: 195.25 / Max: 233
RX 6800 XT
Min: 34 / Avg: 244.07 / Max: 326
60
120
180
240
300

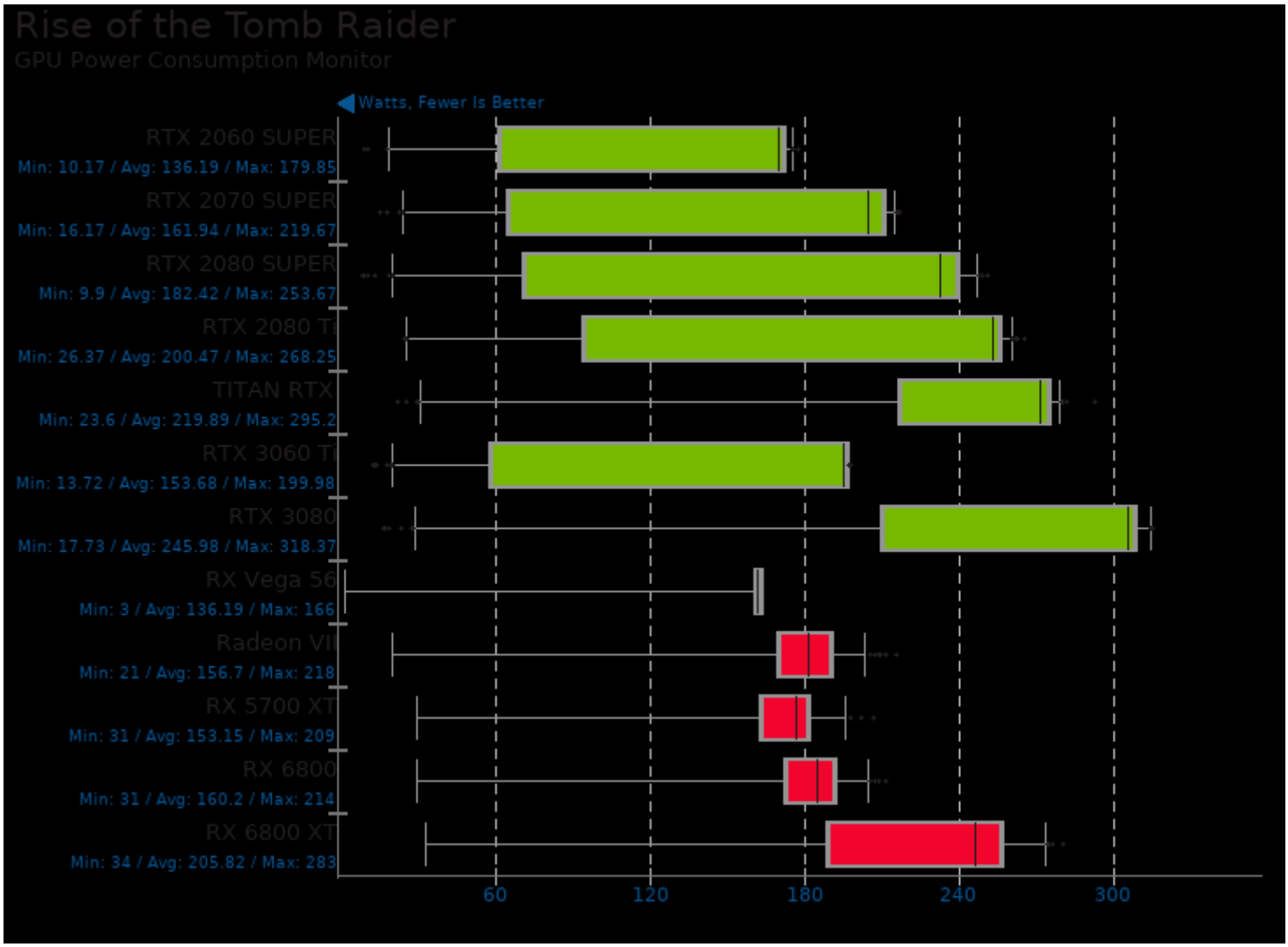

Unigine Heaven 4.0
Resolution: 2560 x 1440 - Mode: Fullscreen - Renderer: OpenGL
Frames Per Second Per Watt, More Is Better
RTX 2060 SUPER
0.61
RTX 2070 SUPER
0.60
RTX 2080 SUPER
0.59
RTX 2080 Ti
0.68
TITAN RTX
0.66
RTX 3060 Ti
0.70
RTX 3080
0.66
RX Vega 56
0.45
Radeon VII
0.53
RX 5700 XT
0.56
RX 6800
0.96
RX 6800 XT
0.89
0.216
0.432
0.648
0.864
1.08

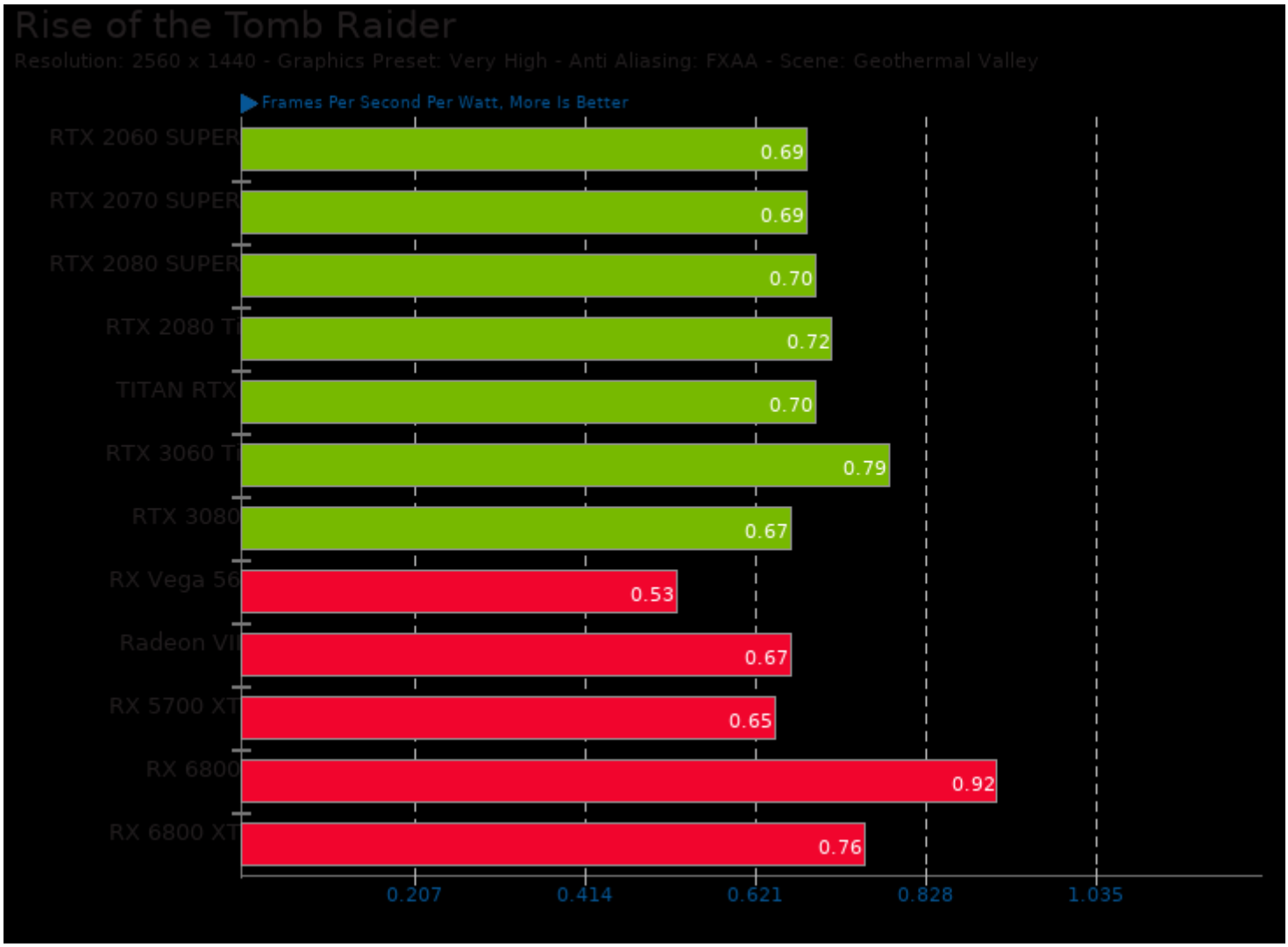

Shadow of the Tomb Raider
GPU Temperature Monitor
Celsius, Fewer Is Better
RTX 2060 SUPER
Min: 51 / Avg: 70.38 / Max: 75
RTX 2070 SUPER
Min: 52 / Avg: 68.94 / Max: 74
RTX 2080 SUPER
Min: 54 / Avg: 71.89 / Max: 77
RTX 2080 Ti
Min: 56 / Avg: 73.28 / Max: 78
TITAN RTX
Min: 57 / Avg: 75.31 / Max: 80
RTX 3060 Ti
Min: 48 / Avg: 67.43 / Max: 71
RTX 3080
Min: 53 / Avg: 70.18 / Max: 74
RX Vega 56
Min: 48 / Avg: 68.73 / Max: 74
Radeon VII
Min: 47 / Avg: 64.65 / Max: 70
RX 5700 XT
Min: 56 / Avg: 75.32 / Max: 80
RX 6800
Min: 56 / Avg: 65.66 / Max: 68
RX 6800 XT
Min: 61 / Avg: 74.58 / Max: 78
15
30
45
60
75

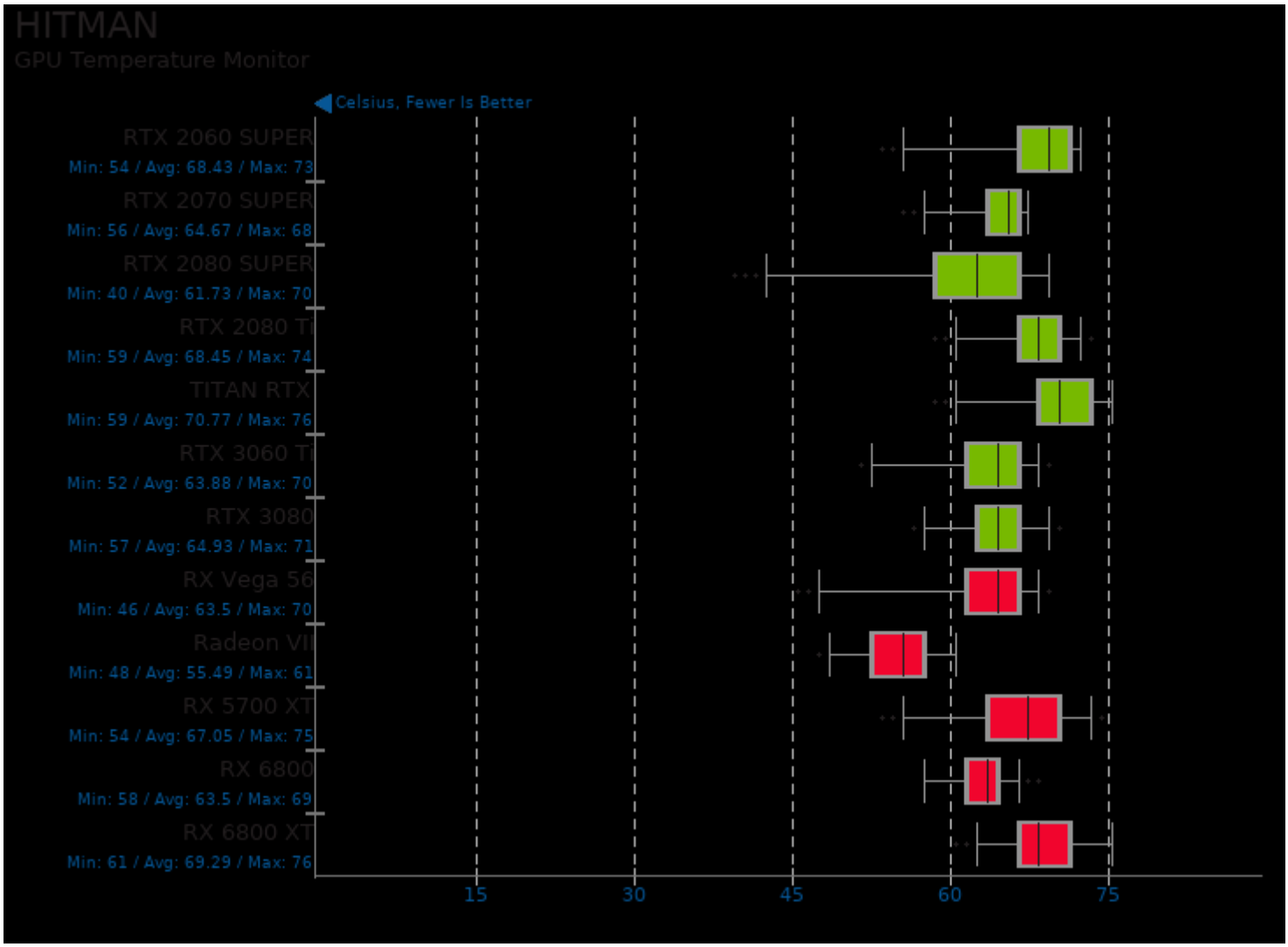

Shadow of the Tomb Raider
GPU Power Consumption Monitor
Watts, Fewer Is Better
RTX 2060 SUPER
Min: 10.05 / Avg: 156.05 / Max: 179.38
RTX 2070 SUPER
Min: 15.65 / Avg: 188.8 / Max: 219.76
RTX 2080 SUPER
Min: 9.67 / Avg: 209.08 / Max: 249.62
RTX 2080 Ti
Min: 25.31 / Avg: 227.69 / Max: 267.17
TITAN RTX
Min: 22.93 / Avg: 245.1 / Max: 285.95
RTX 3060 Ti
Min: 13.54 / Avg: 176.77 / Max: 200.11
RTX 3080
Min: 13.9 / Avg: 281.26 / Max: 319.72
RX Vega 56
Min: 3 / Avg: 148 / Max: 166
Radeon VII
Min: 21 / Avg: 172.24 / Max: 226
RX 5700 XT
Min: 30 / Avg: 162.75 / Max: 214
RX 6800
Min: 31 / Avg: 175.44 / Max: 221
RX 6800 XT
Min: 34 / Avg: 226.25 / Max: 288
60
120
180
240
300

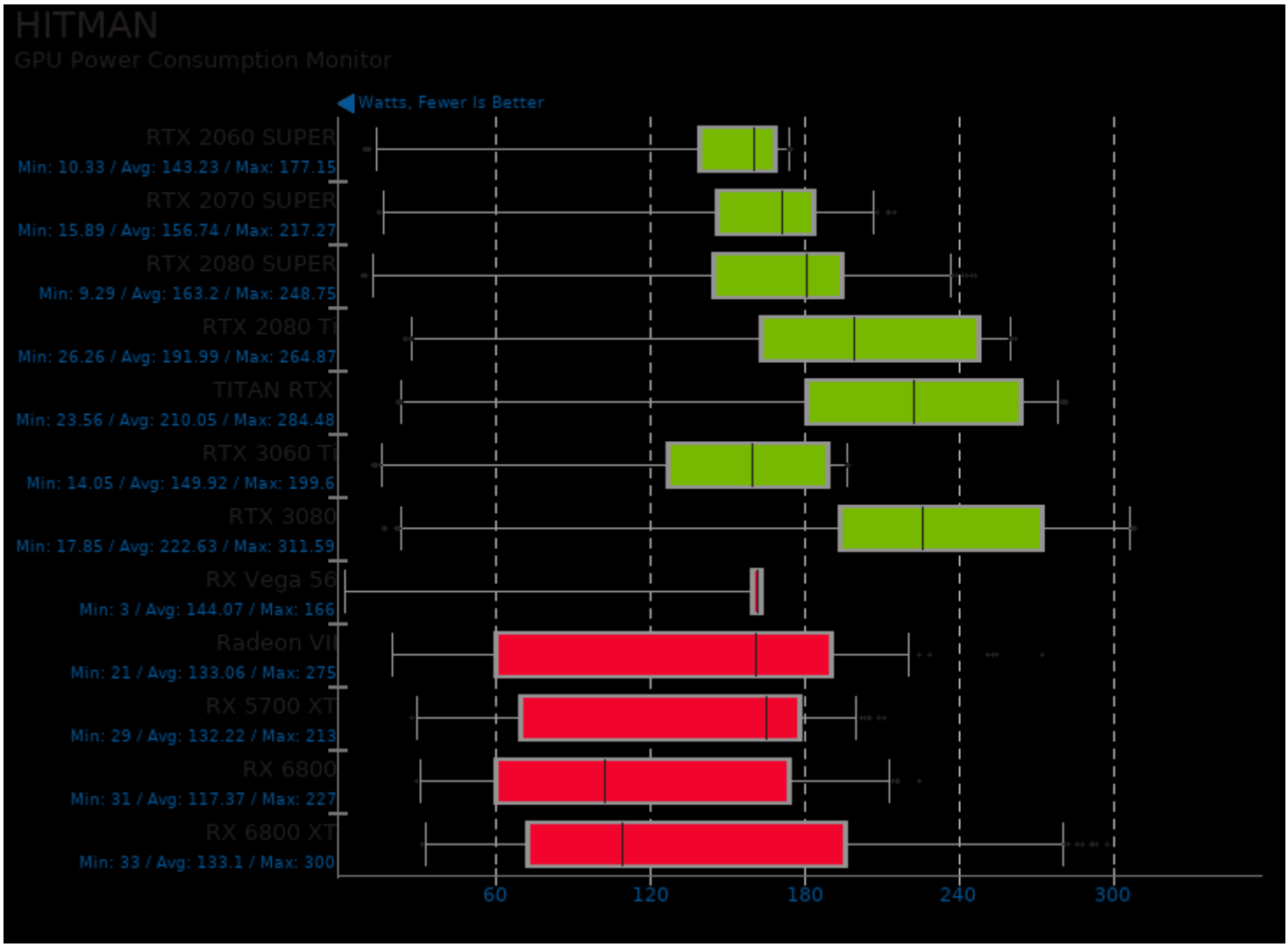

Shadow of the Tomb Raider
Resolution: 2560 x 1440 - Graphics Preset: Highest - Anti Aliasing: SMAA
Frames Per Second Per Watt, More Is Better
RTX 2060 SUPER
0.50
RTX 2070 SUPER
0.49
RTX 2080 SUPER
0.49
RTX 2080 Ti
0.54
TITAN RTX
0.52
RTX 3060 Ti
0.59
RTX 3080
0.54
RX Vega 56
0.44
Radeon VII
0.56
RX 5700 XT
0.54
RX 6800
0.80
RX 6800 XT
0.71
0.18
0.36
0.54
0.72
0.9

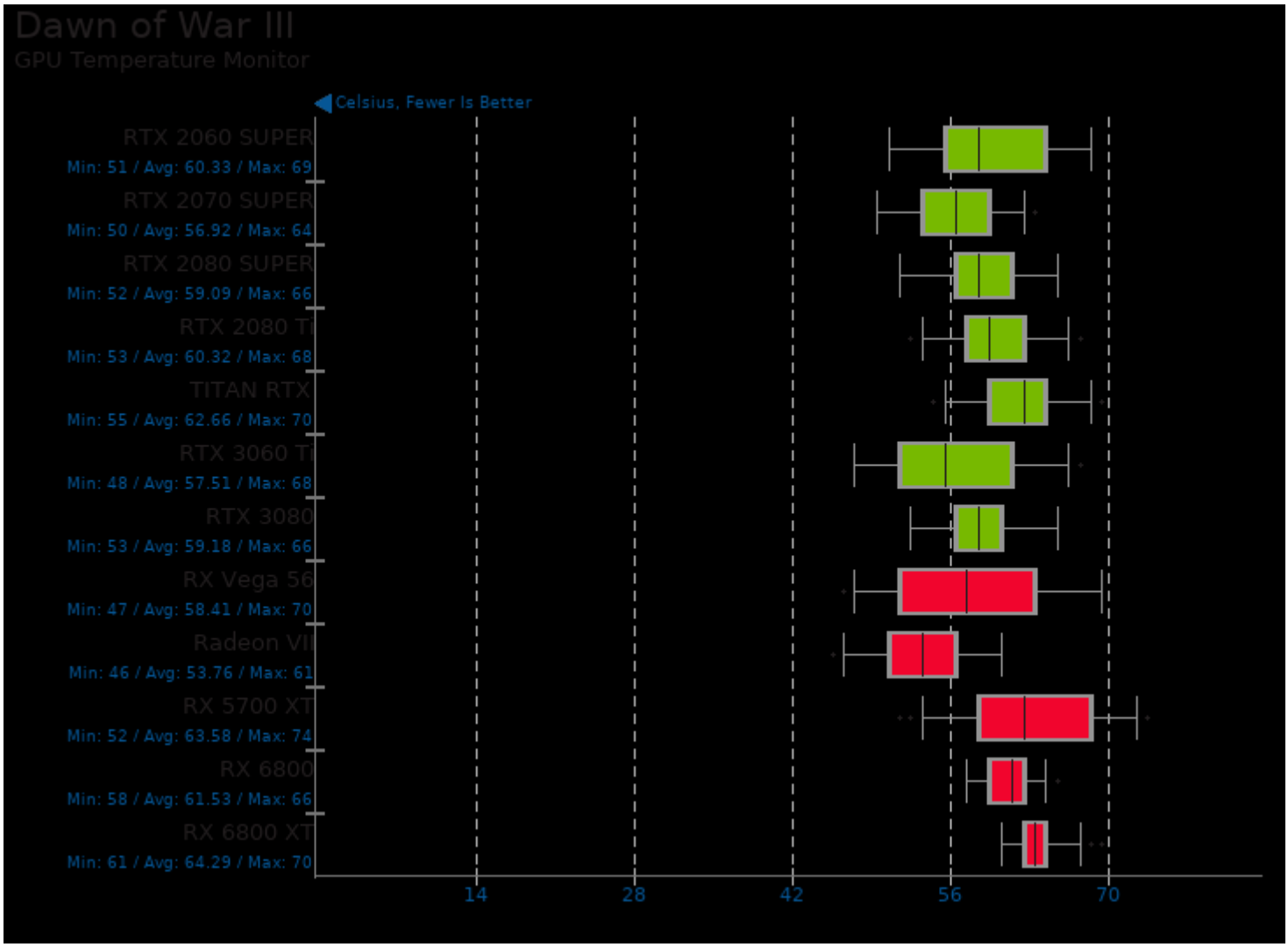

Rise of the Tomb Raider
GPU Temperature Monitor
Celsius, Fewer Is Better
RTX 2060 SUPER
Min: 51 / Avg: 66.14 / Max: 73
RTX 2070 SUPER
Min: 51 / Avg: 63.72 / Max: 71
RTX 2080 SUPER
Min: 52 / Avg: 67.02 / Max: 75
RTX 2080 Ti
Min: 55 / Avg: 68.7 / Max: 75
TITAN RTX
Min: 56 / Avg: 70.99 / Max: 78
RTX 3060 Ti
Min: 47 / Avg: 63.68 / Max: 71
RTX 3080
Min: 52 / Avg: 66.33 / Max: 73
RX Vega 56
Min: 50 / Avg: 65.1 / Max: 70
Radeon VII
Min: 46 / Avg: 59.27 / Max: 65
RX 5700 XT
Min: 55 / Avg: 71.47 / Max: 77
RX 6800
Min: 57 / Avg: 64.1 / Max: 66
RX 6800 XT
Min: 60 / Avg: 70.43 / Max: 75
15
30
45
60
75

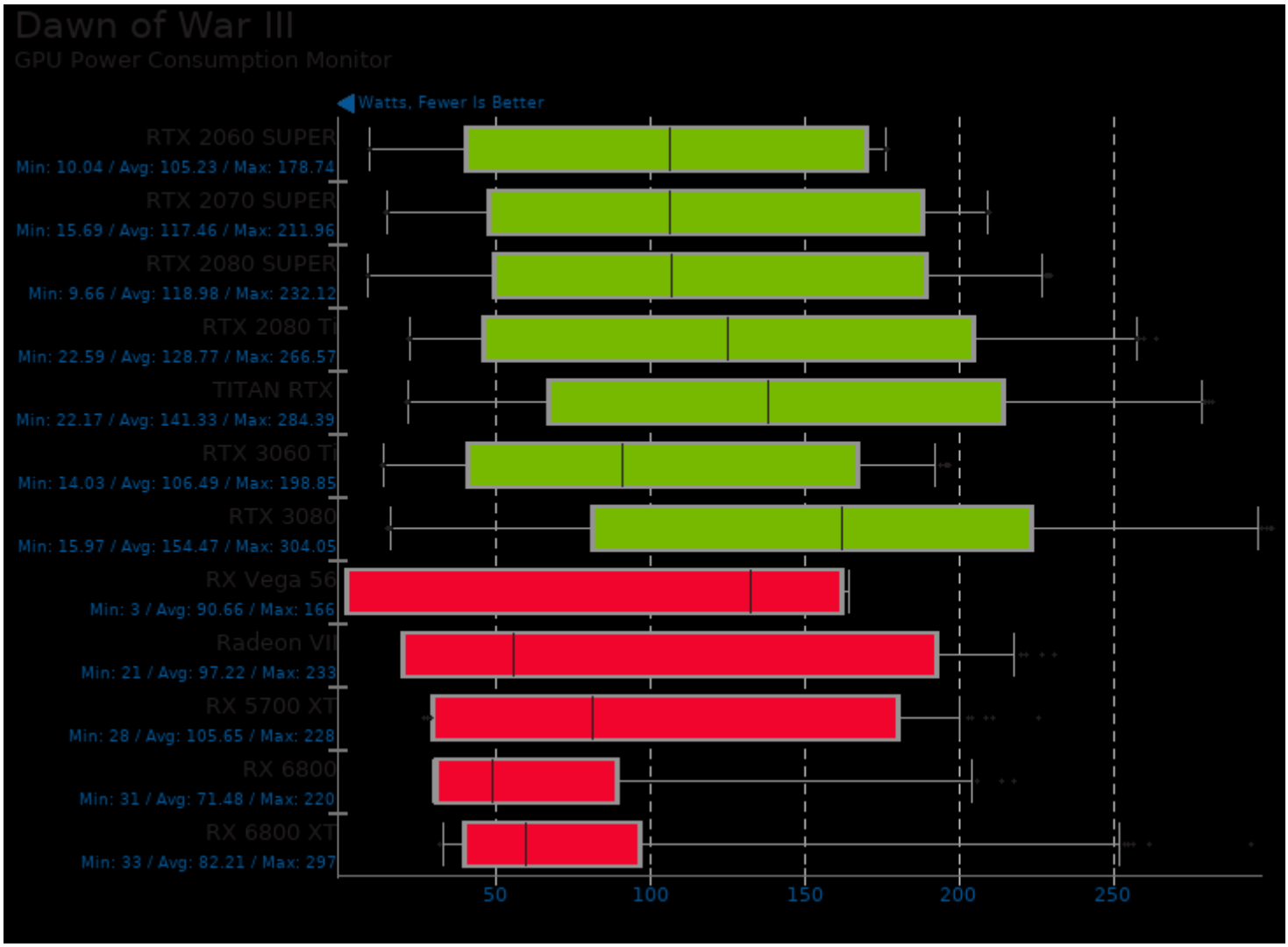

Rise of the Tomb Raider
GPU Power Consumption Monitor
Watts, Fewer Is Better
RTX 2060 SUPER
Min: 10.17 / Avg: 136.19 / Max: 179.85
RTX 2070 SUPER
Min: 16.17 / Avg: 161.94 / Max: 219.67
RTX 2080 SUPER
Min: 9.9 / Avg: 182.42 / Max: 253.67
RTX 2080 Ti
Min: 26.37 / Avg: 200.47 / Max: 268.25
TITAN RTX
Min: 23.6 / Avg: 219.89 / Max: 295.2
RTX 3060 Ti
Min: 13.72 / Avg: 153.68 / Max: 199.98
RTX 3080
Min: 17.73 / Avg: 245.98 / Max: 318.37
RX Vega 56
Min: 3 / Avg: 136.19 / Max: 166
Radeon VII
Min: 21 / Avg: 156.7 / Max: 218
RX 5700 XT
Min: 31 / Avg: 153.15 / Max: 209
RX 6800
Min: 31 / Avg: 160.2 / Max: 214
RX 6800 XT
Min: 34 / Avg: 205.82 / Max: 283
60
120
180
240
300

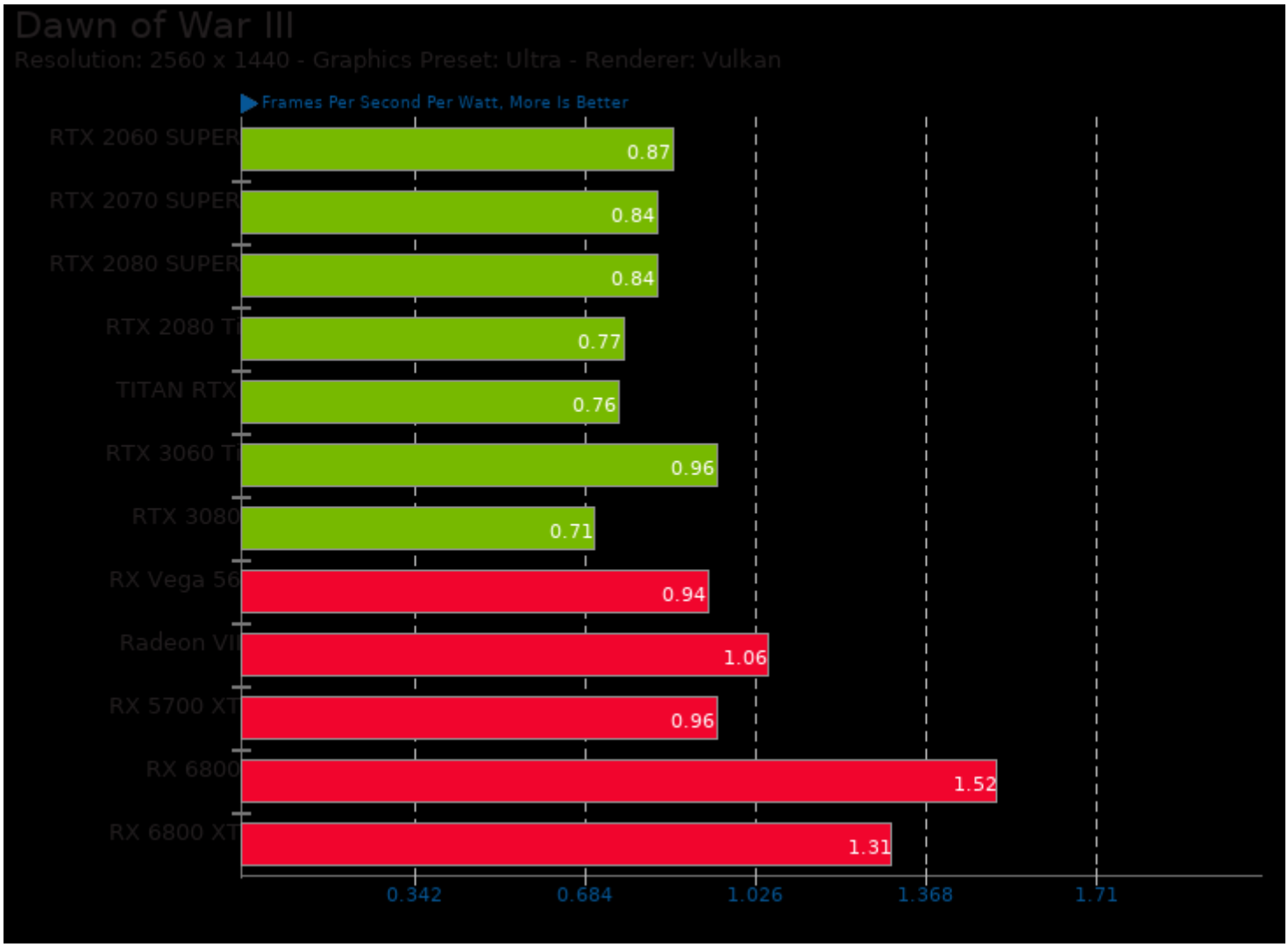

Rise of the Tomb Raider
Resolution: 2560 x 1440 - Graphics Preset: Very High - Anti Aliasing: FXAA - Scene: Geothermal Valley
Frames Per Second Per Watt, More Is Better
RTX 2060 SUPER
0.69
RTX 2070 SUPER
0.69
RTX 2080 SUPER
0.70
RTX 2080 Ti
0.72
TITAN RTX
0.70
RTX 3060 Ti
0.79
RTX 3080
0.67
RX Vega 56
0.53
Radeon VII
0.67
RX 5700 XT
0.65
RX 6800
0.92
RX 6800 XT
0.76
0.207
0.414
0.621
0.828
1.035

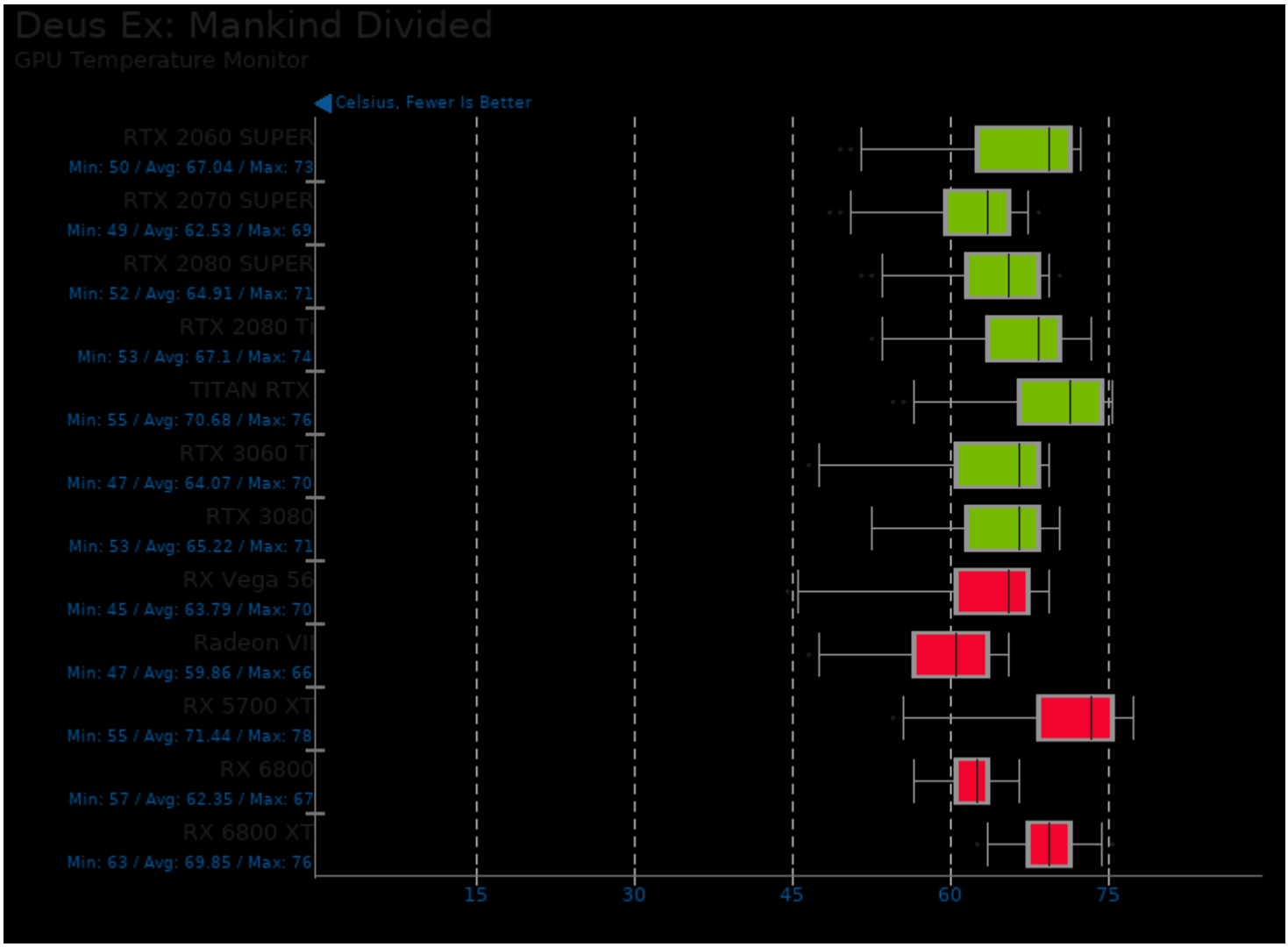

HITMAN
GPU Temperature Monitor
Celsius, Fewer Is Better
RTX 2060 SUPER
Min: 54 / Avg: 68.43 / Max: 73
RTX 2070 SUPER
Min: 56 / Avg: 64.67 / Max: 68
RTX 2080 SUPER
Min: 40 / Avg: 61.73 / Max: 70
RTX 2080 Ti
Min: 59 / Avg: 68.45 / Max: 74
TITAN RTX
Min: 59 / Avg: 70.77 / Max: 76
RTX 3060 Ti
Min: 52 / Avg: 63.88 / Max: 70
RTX 3080
Min: 57 / Avg: 64.93 / Max: 71
RX Vega 56
Min: 46 / Avg: 63.5 / Max: 70
Radeon VII
Min: 48 / Avg: 55.49 / Max: 61
RX 5700 XT
Min: 54 / Avg: 67.05 / Max: 75
RX 6800
Min: 58 / Avg: 63.5 / Max: 69
RX 6800 XT
Min: 61 / Avg: 69.29 / Max: 76
15
30
45
60
75

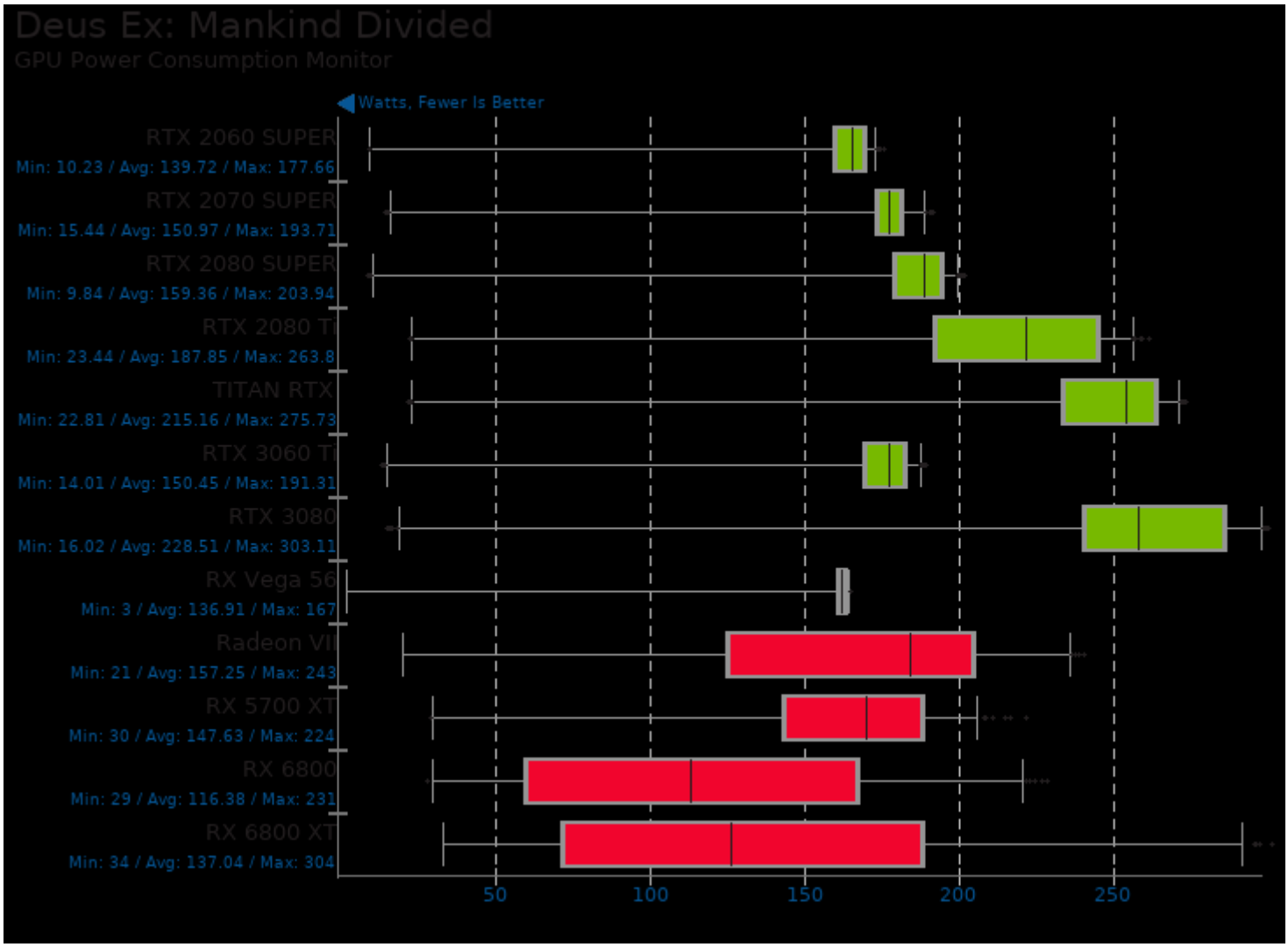

HITMAN
GPU Power Consumption Monitor
Watts, Fewer Is Better
RTX 2060 SUPER
Min: 10.33 / Avg: 143.23 / Max: 177.15
RTX 2070 SUPER
Min: 15.89 / Avg: 156.74 / Max: 217.27
RTX 2080 SUPER
Min: 9.29 / Avg: 163.2 / Max: 248.75
RTX 2080 Ti
Min: 26.26 / Avg: 191.99 / Max: 264.87
TITAN RTX
Min: 23.56 / Avg: 210.05 / Max: 284.48
RTX 3060 Ti
Min: 14.05 / Avg: 149.92 / Max: 199.6
RTX 3080
Min: 17.85 / Avg: 222.63 / Max: 311.59
RX Vega 56
Min: 3 / Avg: 144.07 / Max: 166
Radeon VII
Min: 21 / Avg: 133.06 / Max: 275
RX 5700 XT
Min: 29 / Avg: 132.22 / Max: 213
RX 6800
Min: 31 / Avg: 117.37 / Max: 227
RX 6800 XT
Min: 33 / Avg: 133.1 / Max: 300
60
120
180
240
300

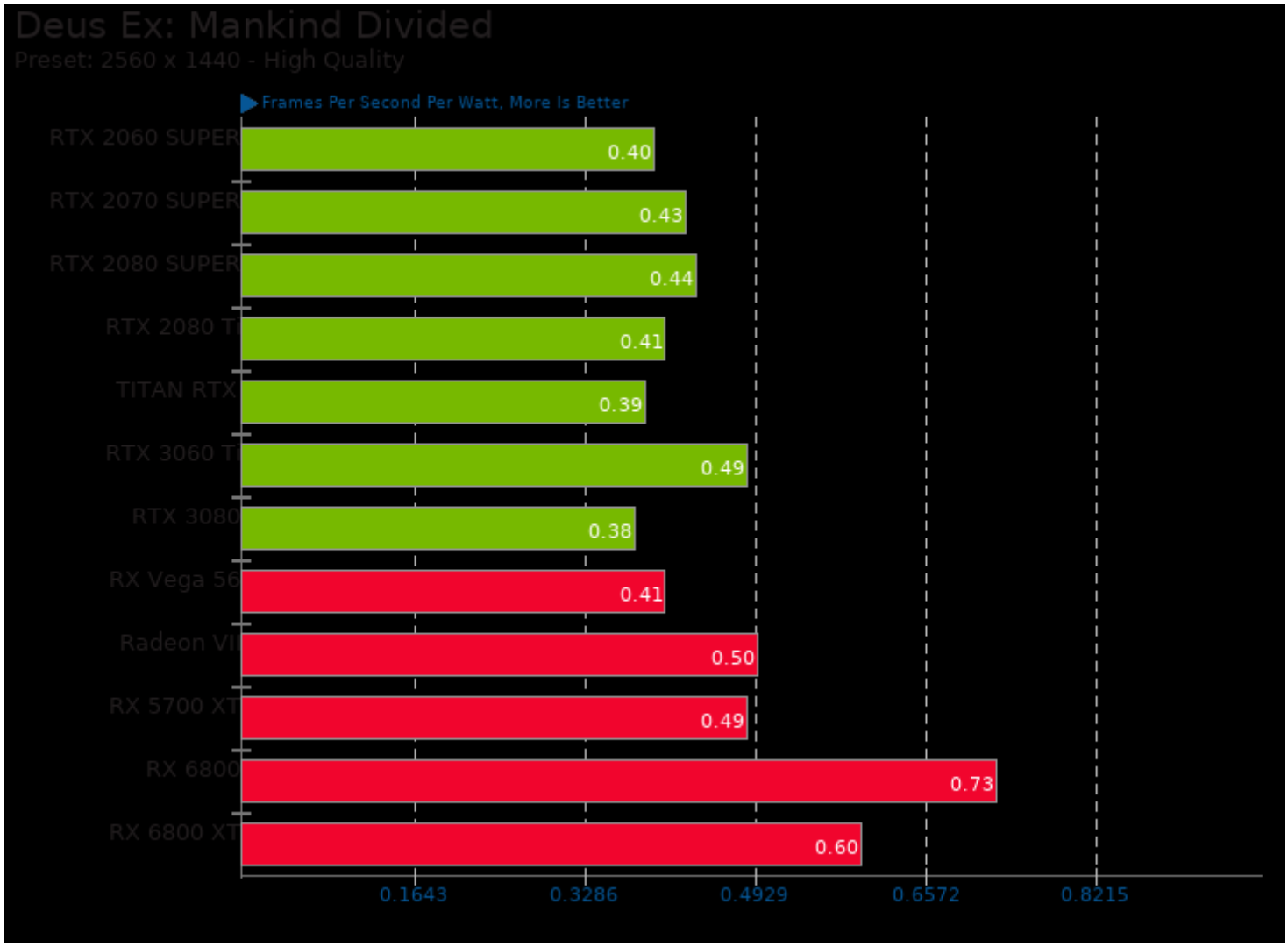

Dawn of War III
GPU Temperature Monitor
Celsius, Fewer Is Better
RTX 2060 SUPER
Min: 51 / Avg: 60.33 / Max: 69
RTX 2070 SUPER
Min: 50 / Avg: 56.92 / Max: 64
RTX 2080 SUPER
Min: 52 / Avg: 59.09 / Max: 66
RTX 2080 Ti
Min: 53 / Avg: 60.32 / Max: 68
TITAN RTX
Min: 55 / Avg: 62.66 / Max: 70
RTX 3060 Ti
Min: 48 / Avg: 57.51 / Max: 68
RTX 3080
Min: 53 / Avg: 59.18 / Max: 66
RX Vega 56
Min: 47 / Avg: 58.41 / Max: 70
Radeon VII
Min: 46 / Avg: 53.76 / Max: 61
RX 5700 XT
Min: 52 / Avg: 63.58 / Max: 74
RX 6800
Min: 58 / Avg: 61.53 / Max: 66
RX 6800 XT
Min: 61 / Avg: 64.29 / Max: 70
14
28
42
56
70

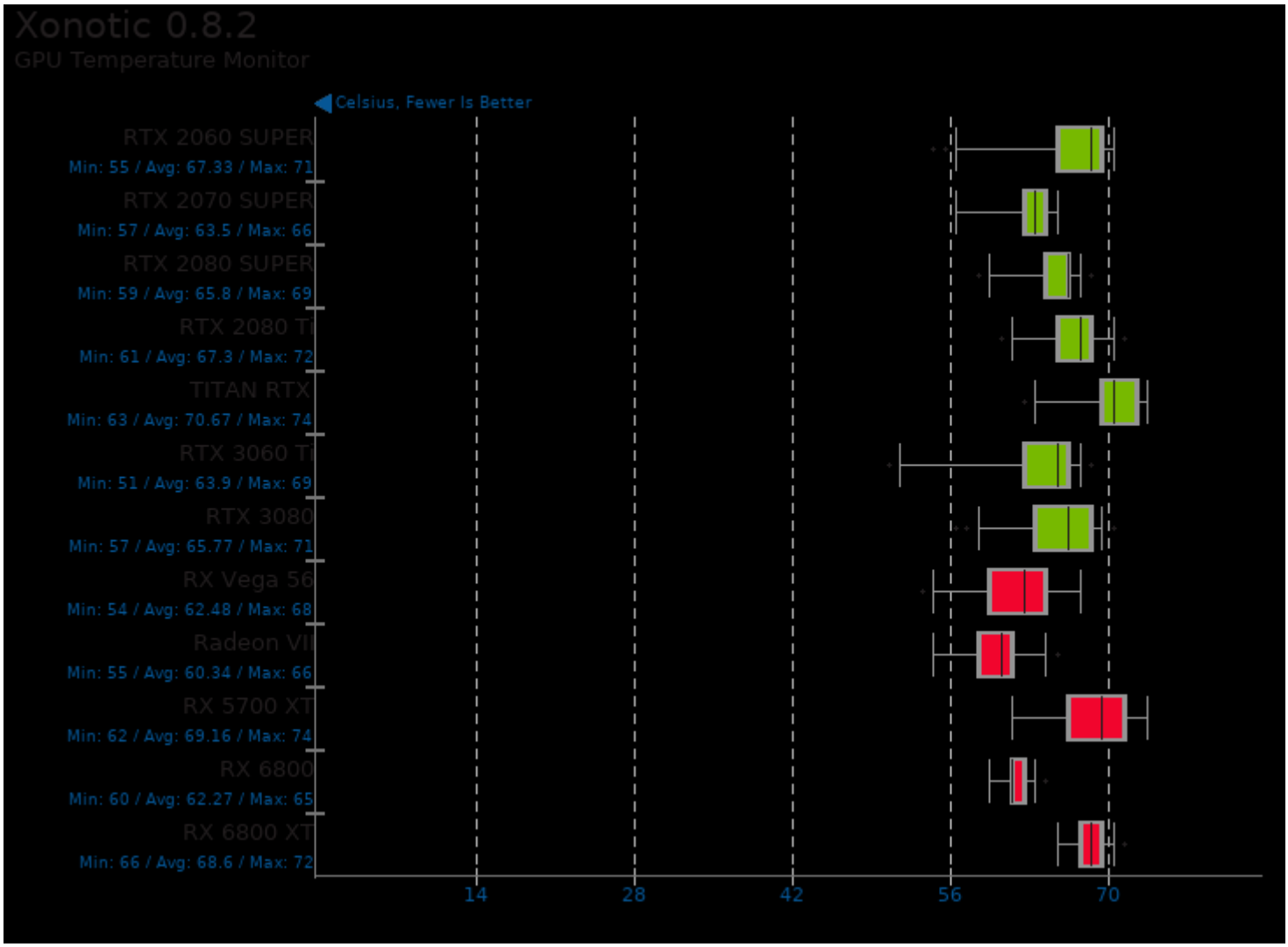

Dawn of War III
GPU Power Consumption Monitor
Watts, Fewer Is Better
RTX 2060 SUPER
Min: 10.04 / Avg: 105.23 / Max: 178.74
RTX 2070 SUPER
Min: 15.69 / Avg: 117.46 / Max: 211.96
RTX 2080 SUPER
Min: 9.66 / Avg: 118.98 / Max: 232.12
RTX 2080 Ti
Min: 22.59 / Avg: 128.77 / Max: 266.57
TITAN RTX
Min: 22.17 / Avg: 141.33 / Max: 284.39
RTX 3060 Ti
Min: 14.03 / Avg: 106.49 / Max: 198.85
RTX 3080
Min: 15.97 / Avg: 154.47 / Max: 304.05
RX Vega 56
Min: 3 / Avg: 90.66 / Max: 166
Radeon VII
Min: 21 / Avg: 97.22 / Max: 233
RX 5700 XT
Min: 28 / Avg: 105.65 / Max: 228
RX 6800
Min: 31 / Avg: 71.48 / Max: 220
RX 6800 XT
Min: 33 / Avg: 82.21 / Max: 297
50
100
150
200
250

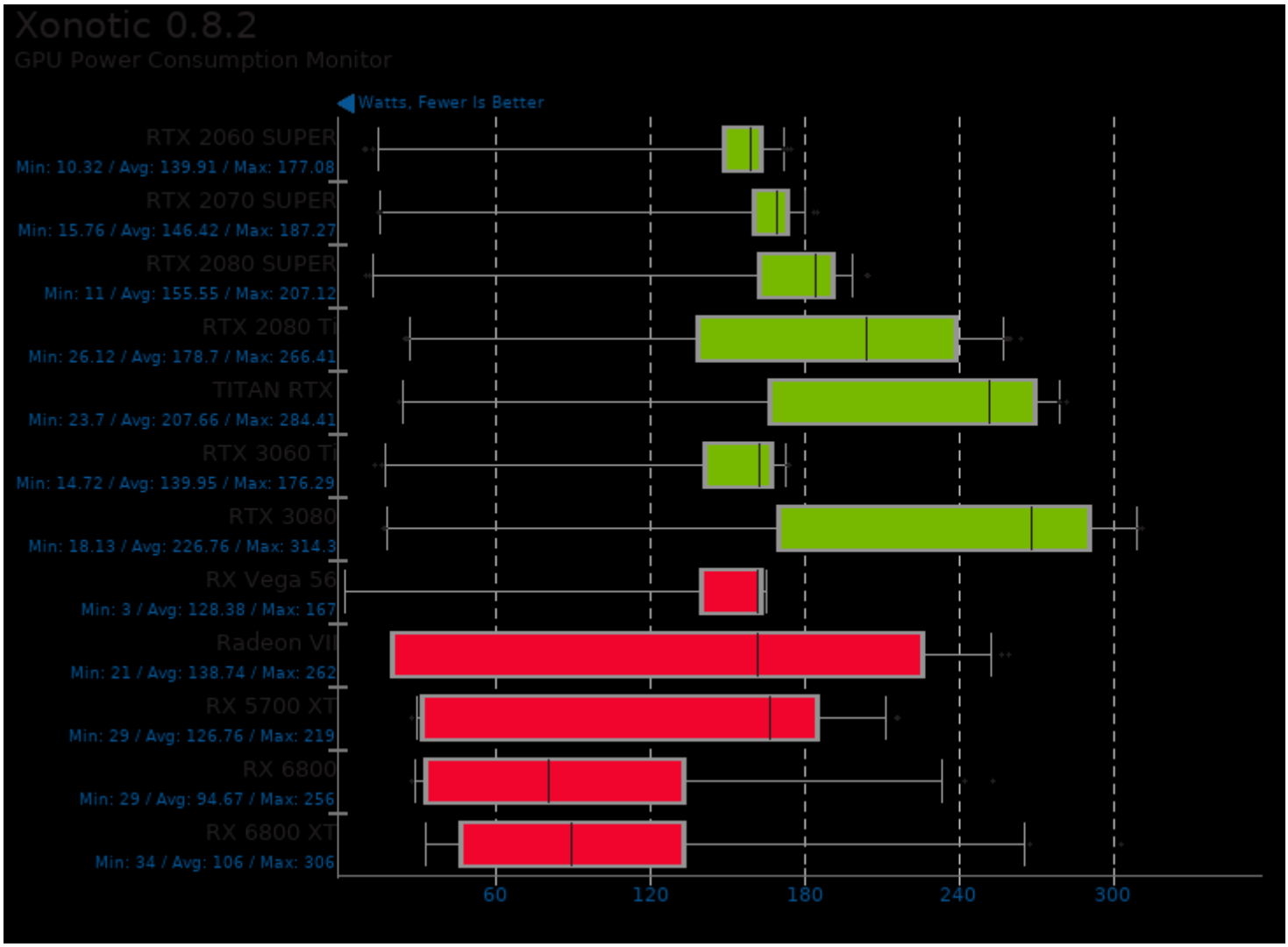

Dawn of War III
Resolution: 2560 x 1440 - Graphics Preset: Ultra - Renderer: Vulkan
Frames Per Second Per Watt, More Is Better
RTX 2060 SUPER
0.87
RTX 2070 SUPER
0.84
RTX 2080 SUPER
0.84
RTX 2080 Ti
0.77
TITAN RTX
0.76
RTX 3060 Ti
0.96
RTX 3080
0.71
RX Vega 56
0.94
Radeon VII
1.06
RX 5700 XT
0.96
RX 6800
1.52
RX 6800 XT
1.31
0.342
0.684
1.026
1.368
1.71

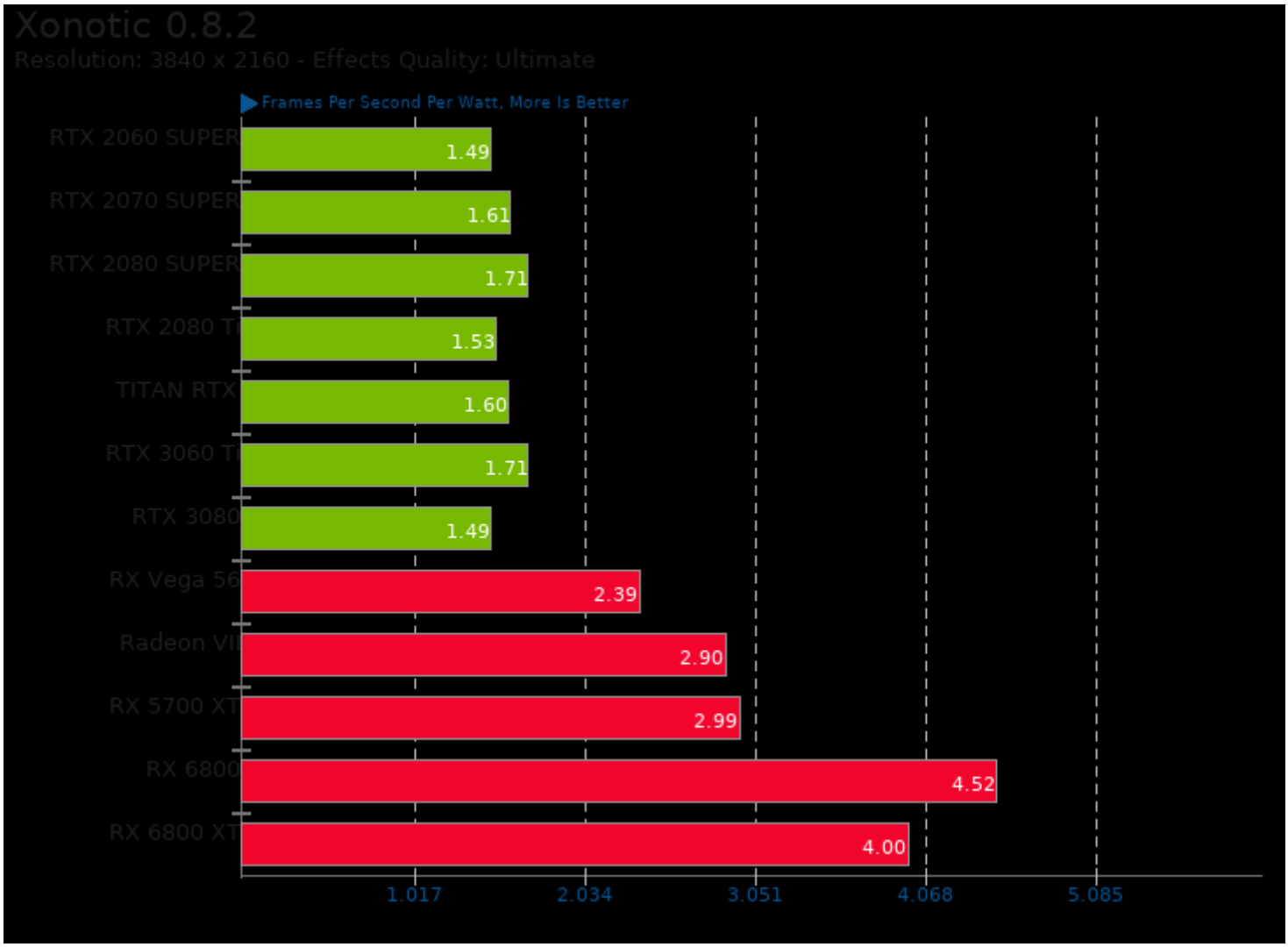

Deus Ex: Mankind Divided
GPU Temperature Monitor
Celsius, Fewer Is Better
RTX 2060 SUPER
Min: 50 / Avg: 67.04 / Max: 73
RTX 2070 SUPER
Min: 49 / Avg: 62.53 / Max: 69
RTX 2080 SUPER
Min: 52 / Avg: 64.91 / Max: 71
RTX 2080 Ti
Min: 53 / Avg: 67.1 / Max: 74
TITAN RTX
Min: 55 / Avg: 70.68 / Max: 76
RTX 3060 Ti
Min: 47 / Avg: 64.07 / Max: 70
RTX 3080
Min: 53 / Avg: 65.22 / Max: 71
RX Vega 56
Min: 45 / Avg: 63.79 / Max: 70
Radeon VII
Min: 47 / Avg: 59.86 / Max: 66
RX 5700 XT
Min: 55 / Avg: 71.44 / Max: 78
RX 6800
Min: 57 / Avg: 62.35 / Max: 67
RX 6800 XT
Min: 63 / Avg: 69.85 / Max: 76
15
30
45
60
75

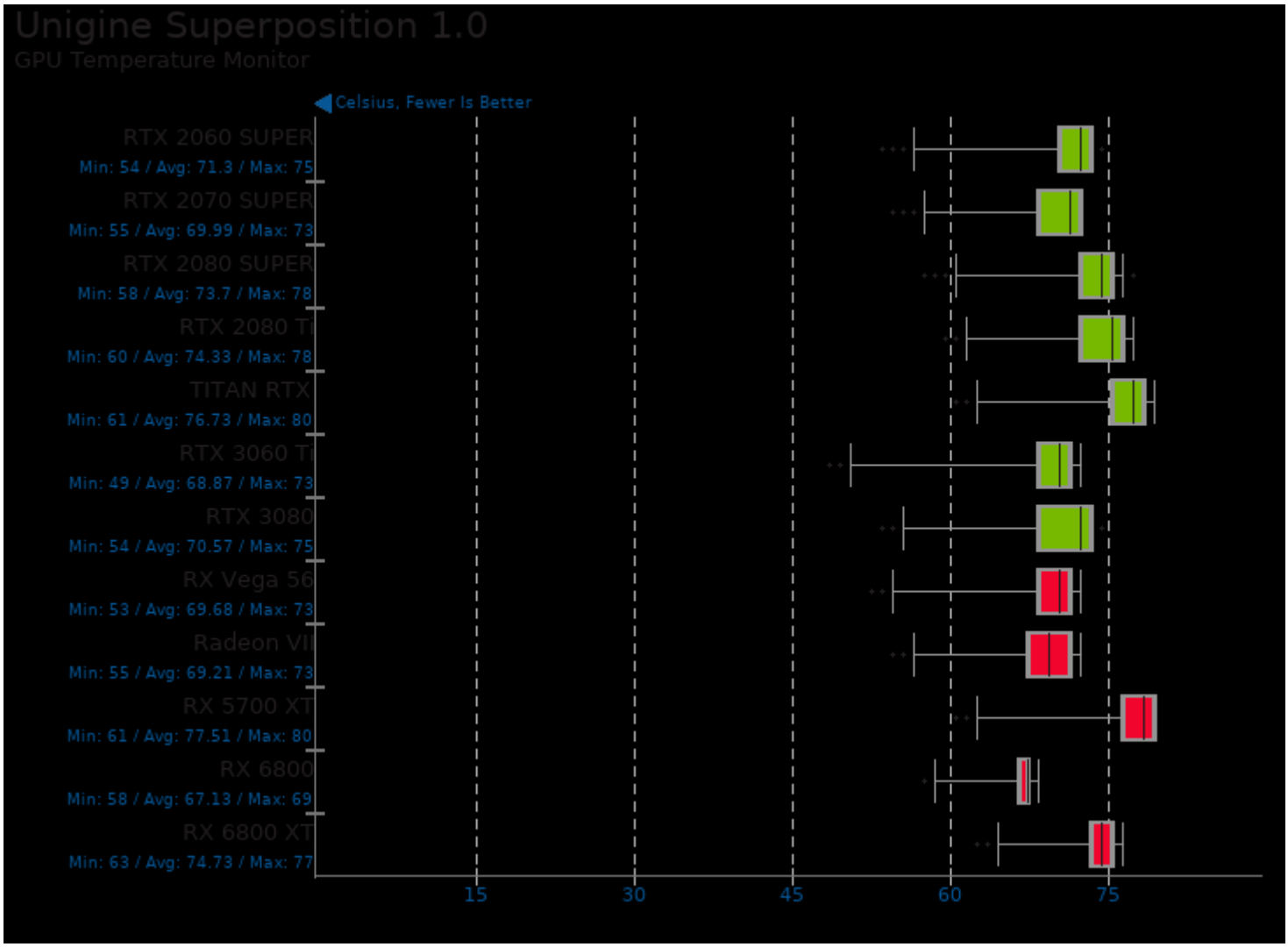

Deus Ex: Mankind Divided
GPU Power Consumption Monitor
Watts, Fewer Is Better
RTX 2060 SUPER
Min: 10.23 / Avg: 139.72 / Max: 177.66
RTX 2070 SUPER
Min: 15.44 / Avg: 150.97 / Max: 193.71
RTX 2080 SUPER
Min: 9.84 / Avg: 159.36 / Max: 203.94
RTX 2080 Ti
Min: 23.44 / Avg: 187.85 / Max: 263.8
TITAN RTX
Min: 22.81 / Avg: 215.16 / Max: 275.73
RTX 3060 Ti
Min: 14.01 / Avg: 150.45 / Max: 191.31
RTX 3080
Min: 16.02 / Avg: 228.51 / Max: 303.11
RX Vega 56
Min: 3 / Avg: 136.91 / Max: 167
Radeon VII
Min: 21 / Avg: 157.25 / Max: 243
RX 5700 XT
Min: 30 / Avg: 147.63 / Max: 224
RX 6800
Min: 29 / Avg: 116.38 / Max: 231
RX 6800 XT
Min: 34 / Avg: 137.04 / Max: 304
50
100
150
200
250

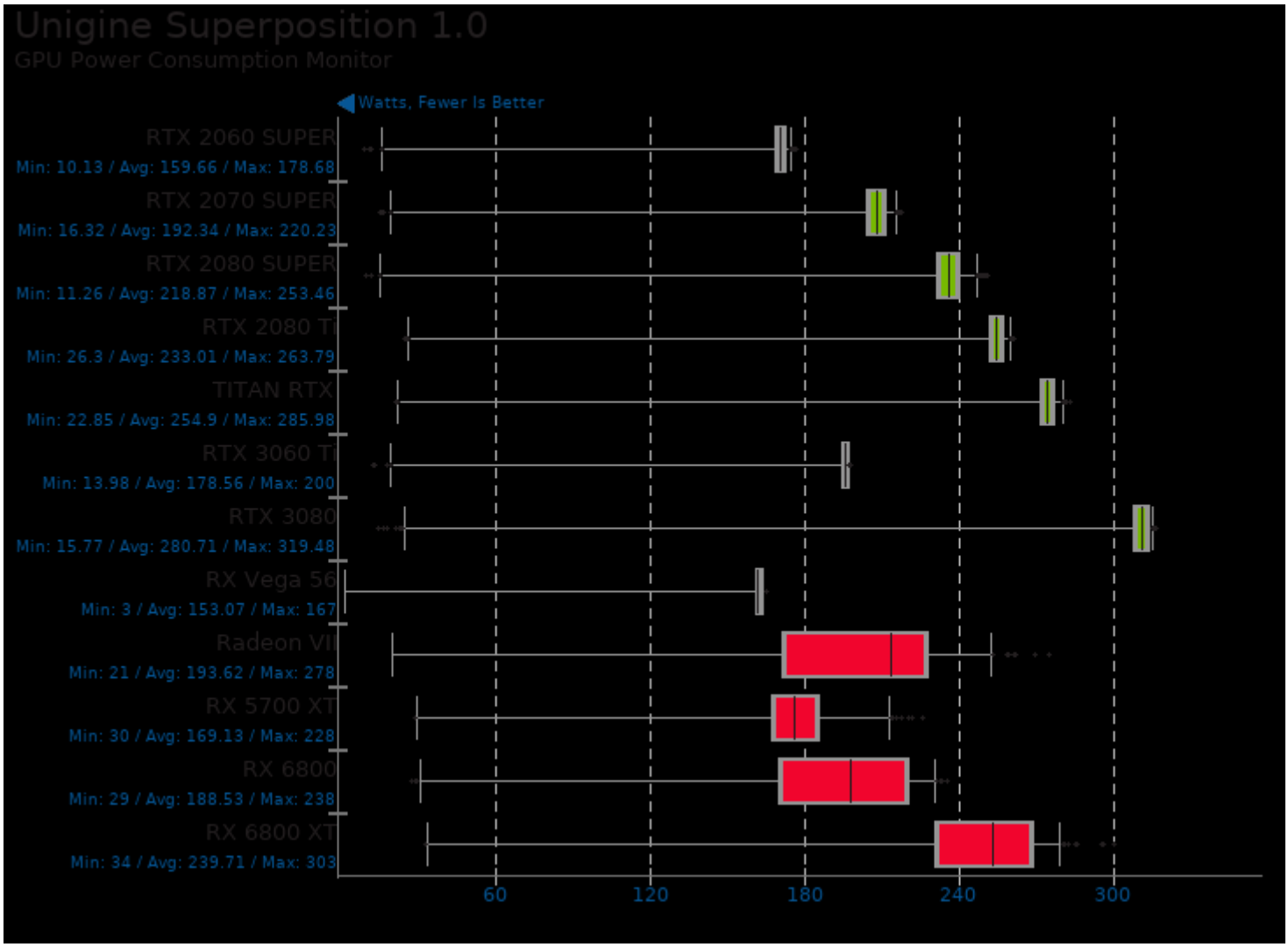

Deus Ex: Mankind Divided
Preset: 2560 x 1440 - High Quality
Frames Per Second Per Watt, More Is Better
RTX 2060 SUPER
RTX 2070 SUPER
RTX 2080 SUPER
RTX 2080 Ti
TITAN RTX
RTX 3060 Ti
RTX 3080
RX Vega 56
Radeon VII
RX 5700 XT
RX 6800
RX 6800 XT
0.40
0.43
0.44
0.41
0.39
0.49
0.38
0.41
0.50
0.49
0.73
0.60
0.1643
0.3286
0.4929
0.6572
0.8215

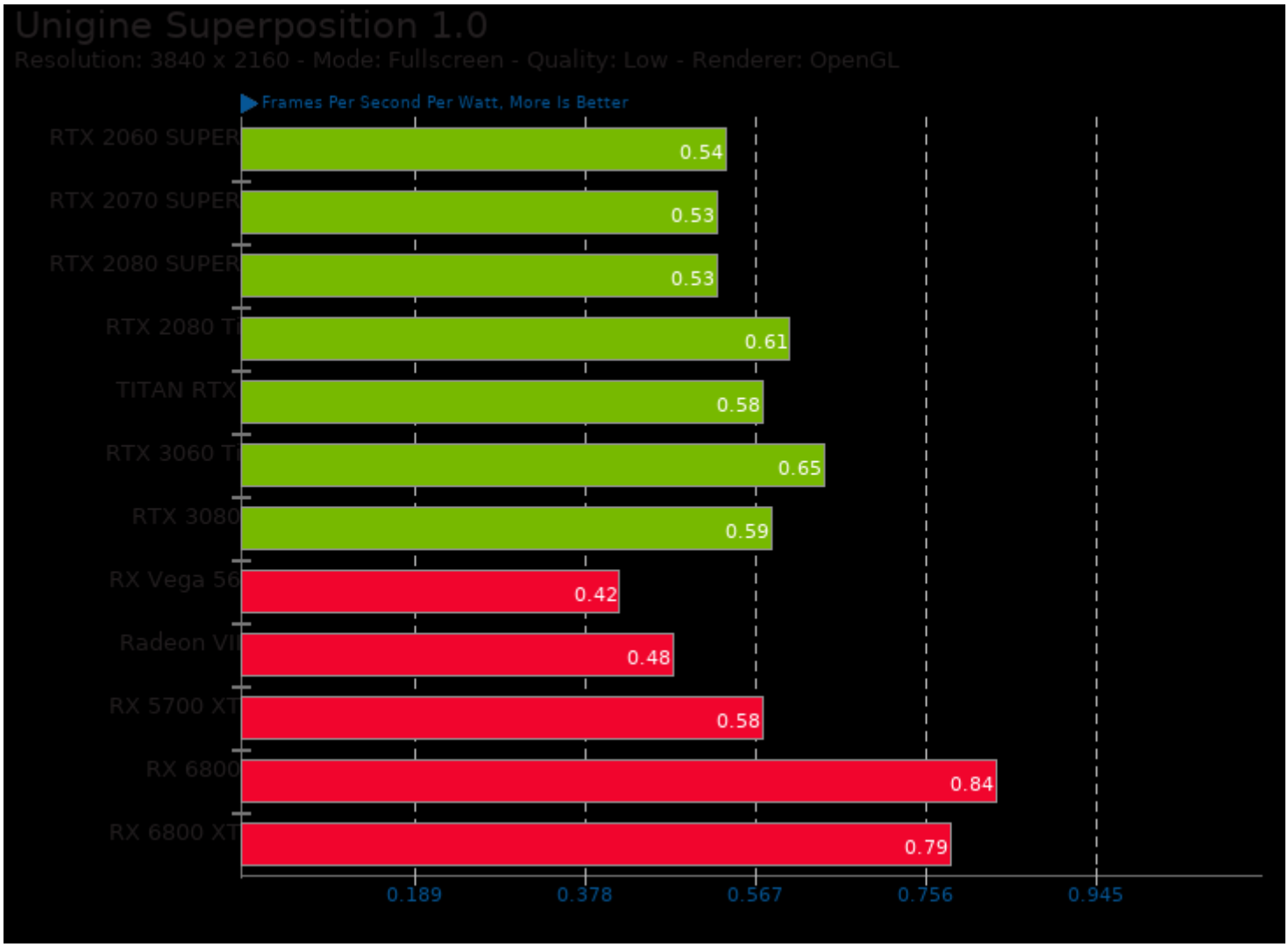

Xonotic 0.8.2
GPU Temperature Monitor
Celsius, Fewer Is Better
RTX 2060 SUPER
Min: 55 / Avg: 67.33 / Max: 71
RTX 2070 SUPER
Min: 57 / Avg: 63.5 / Max: 66
RTX 2080 SUPER
Min: 59 / Avg: 65.8 / Max: 69
RTX 2080 Ti
Min: 61 / Avg: 67.3 / Max: 72
TITAN RTX
Min: 63 / Avg: 70.67 / Max: 74
RTX 3060 Ti
Min: 51 / Avg: 63.9 / Max: 69
RTX 3080
Min: 57 / Avg: 65.77 / Max: 71
RX Vega 56
Min: 54 / Avg: 62.48 / Max: 68
Radeon VII
Min: 55 / Avg: 60.34 / Max: 66
RX 5700 XT
Min: 62 / Avg: 69.16 / Max: 74
RX 6800
Min: 60 / Avg: 62.27 / Max: 65
RX 6800 XT
Min: 66 / Avg: 68.6 / Max: 72
14
28
42
56
70

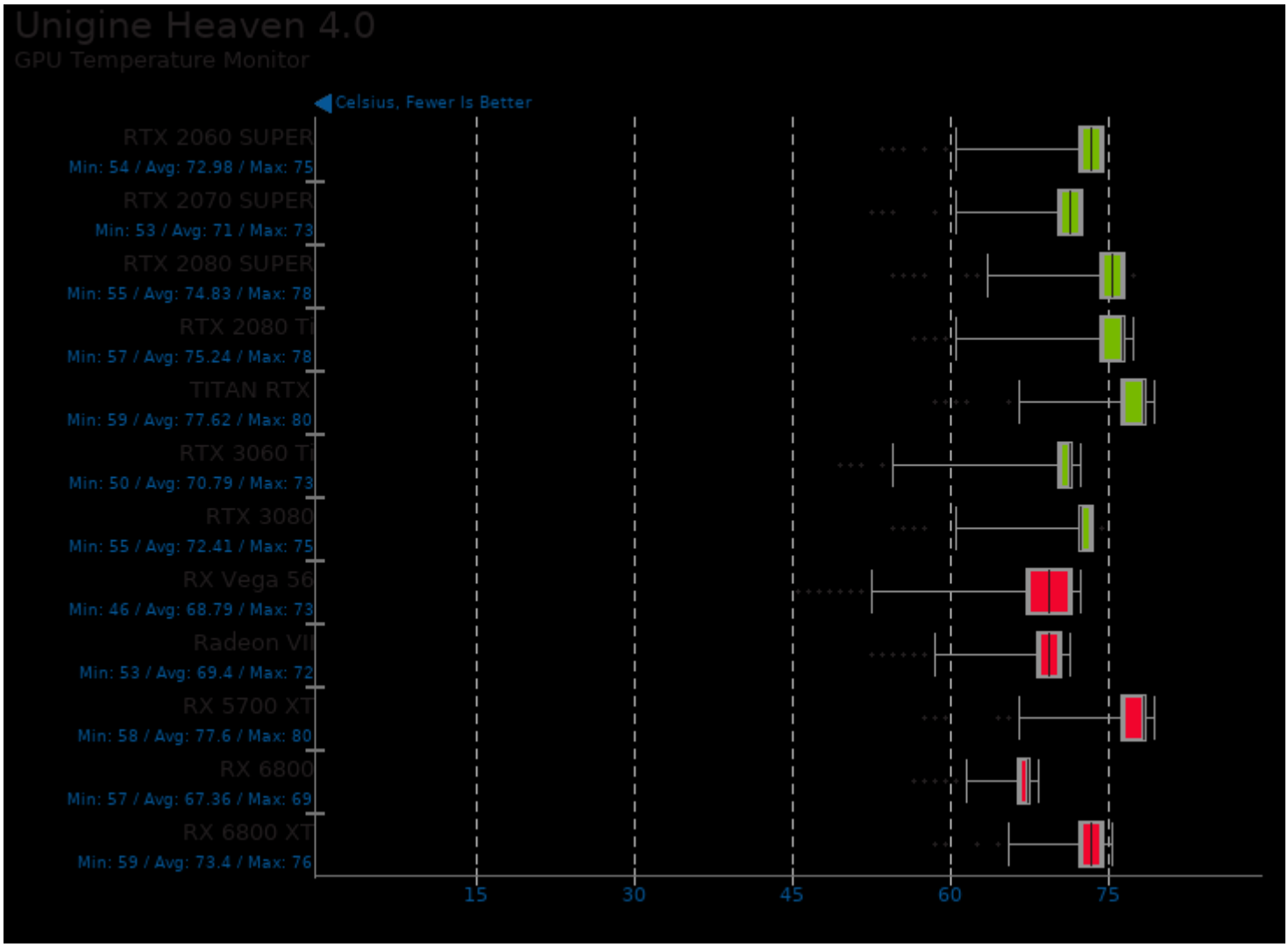

Xonotic 0.8.2
GPU Power Consumption Monitor
Watts, Fewer Is Better
RTX 2060 SUPER
Min: 10.32 / Avg: 139.91 / Max: 177.08
RTX 2070 SUPER
Min: 15.76 / Avg: 146.42 / Max: 187.27
RTX 2080 SUPER
Min: 11 / Avg: 155.55 / Max: 207.12
RTX 2080 Ti
Min: 26.12 / Avg: 178.7 / Max: 266.41
TITAN RTX
Min: 23.7 / Avg: 207.66 / Max: 284.41
RTX 3060 Ti
Min: 14.72 / Avg: 139.95 / Max: 176.29
RTX 3080
Min: 18.13 / Avg: 226.76 / Max: 314.3
RX Vega 56
Min: 3 / Avg: 128.38 / Max: 167
Radeon VII
Min: 21 / Avg: 138.74 / Max: 262
RX 5700 XT
Min: 29 / Avg: 126.76 / Max: 219
RX 6800
Min: 29 / Avg: 94.67 / Max: 256
RX 6800 XT
Min: 34 / Avg: 106 / Max: 306
60
120
180
240
300

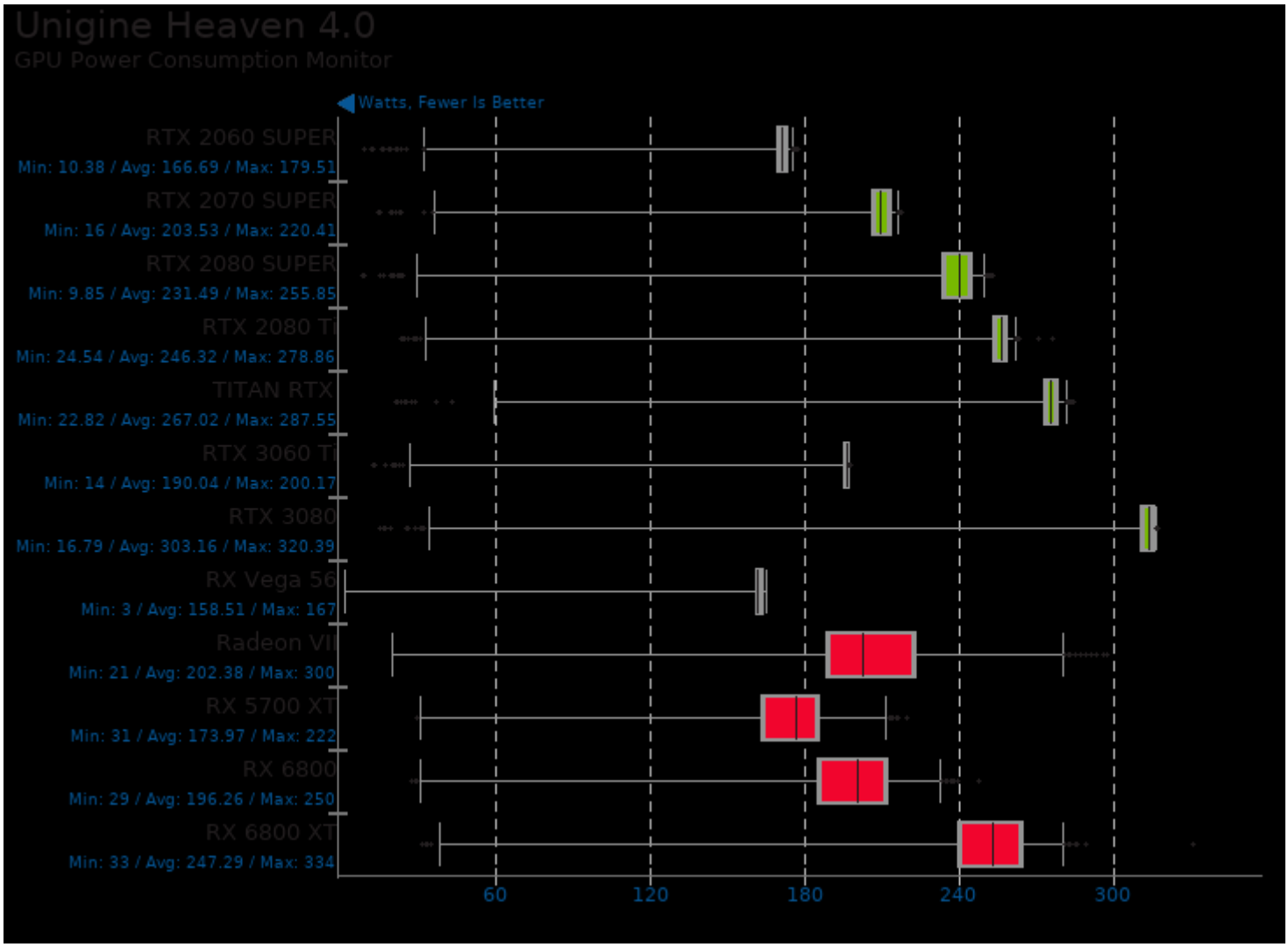

Xonotic 0.8.2
Resolution: 3840 x 2160 - Effects Quality: Ultimate
Frames Per Second Per Watt, More Is Better
RTX 2060 SUPER
1.49
RTX 2070 SUPER
1.61
RTX 2080 SUPER
1.71
RTX 2080 T
1.53
TITAN RTX
1.60
RTX 3060 T
1.71
RTX 3080
1.49
RX Vega 56
2.39
Radeon VI
2.90
RX 5700 XT
2.99
RX 6800
4.52
RX 6800 XT
4.00
1.017
2.034
3.051
4.068
5.085

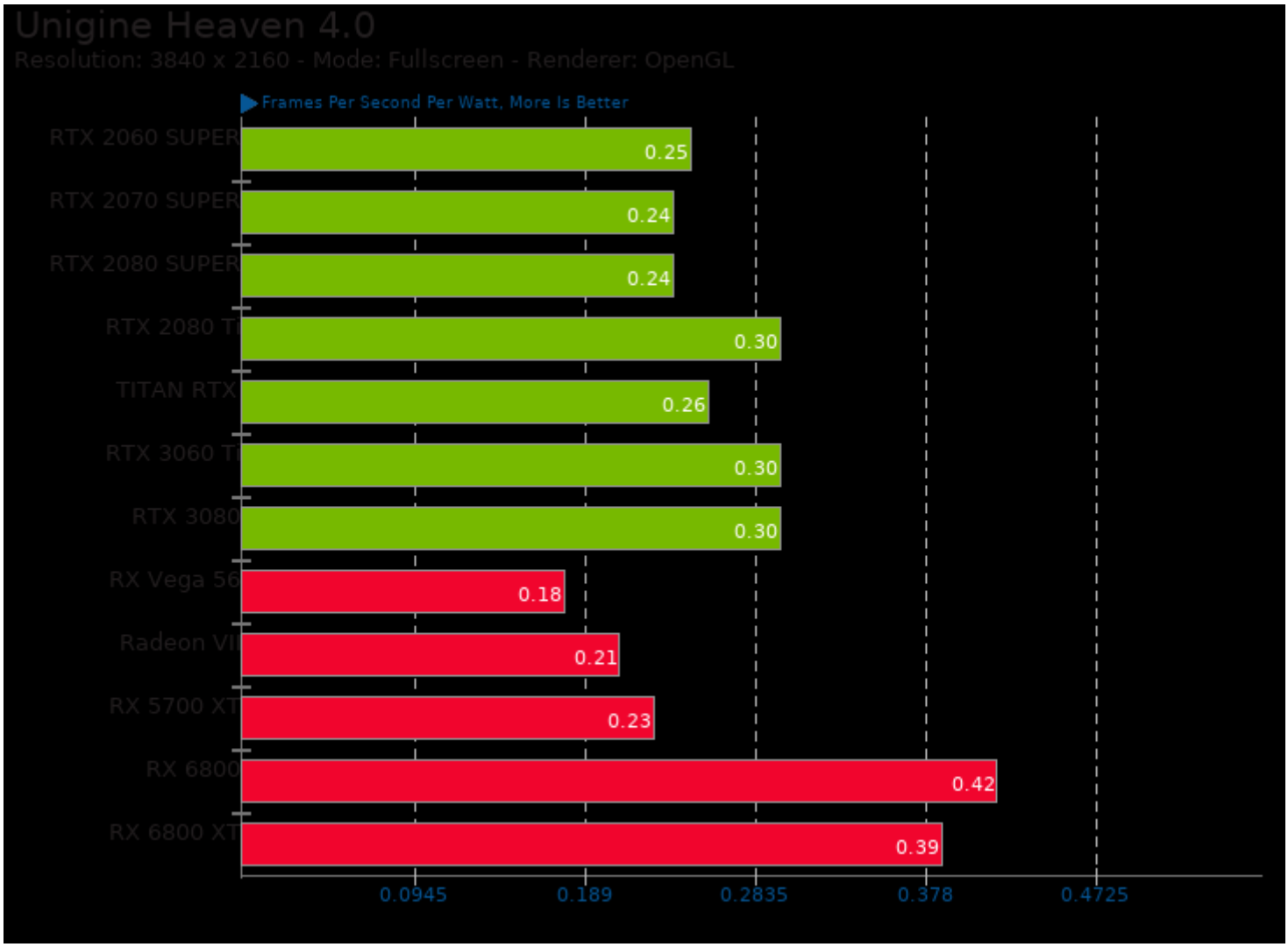

Unigine Superposition 1.0
GPU Temperature Monitor
Celsius, Fewer Is Better
RTX 2060 SUPER
Min: 54 / Avg: 71.3 / Max: 75
RTX 2070 SUPER
Min: 55 / Avg: 69.99 / Max: 73
RTX 2080 SUPER
Min: 58 / Avg: 73.7 / Max: 78
RTX 2080 Ti
Min: 60 / Avg: 74.33 / Max: 78
TITAN RTX
Min: 61 / Avg: 76.73 / Max: 80
RTX 3060 Ti
Min: 49 / Avg: 68.87 / Max: 73
RTX 3080
Min: 54 / Avg: 70.57 / Max: 75
RX Vega 56
Min: 53 / Avg: 69.68 / Max: 73
Radeon VII
Min: 55 / Avg: 69.21 / Max: 73
RX 5700 XT
Min: 61 / Avg: 77.51 / Max: 80
RX 6800
Min: 58 / Avg: 67.13 / Max: 69
RX 6800 XT
Min: 63 / Avg: 74.73 / Max: 77
15
30
45
60
75

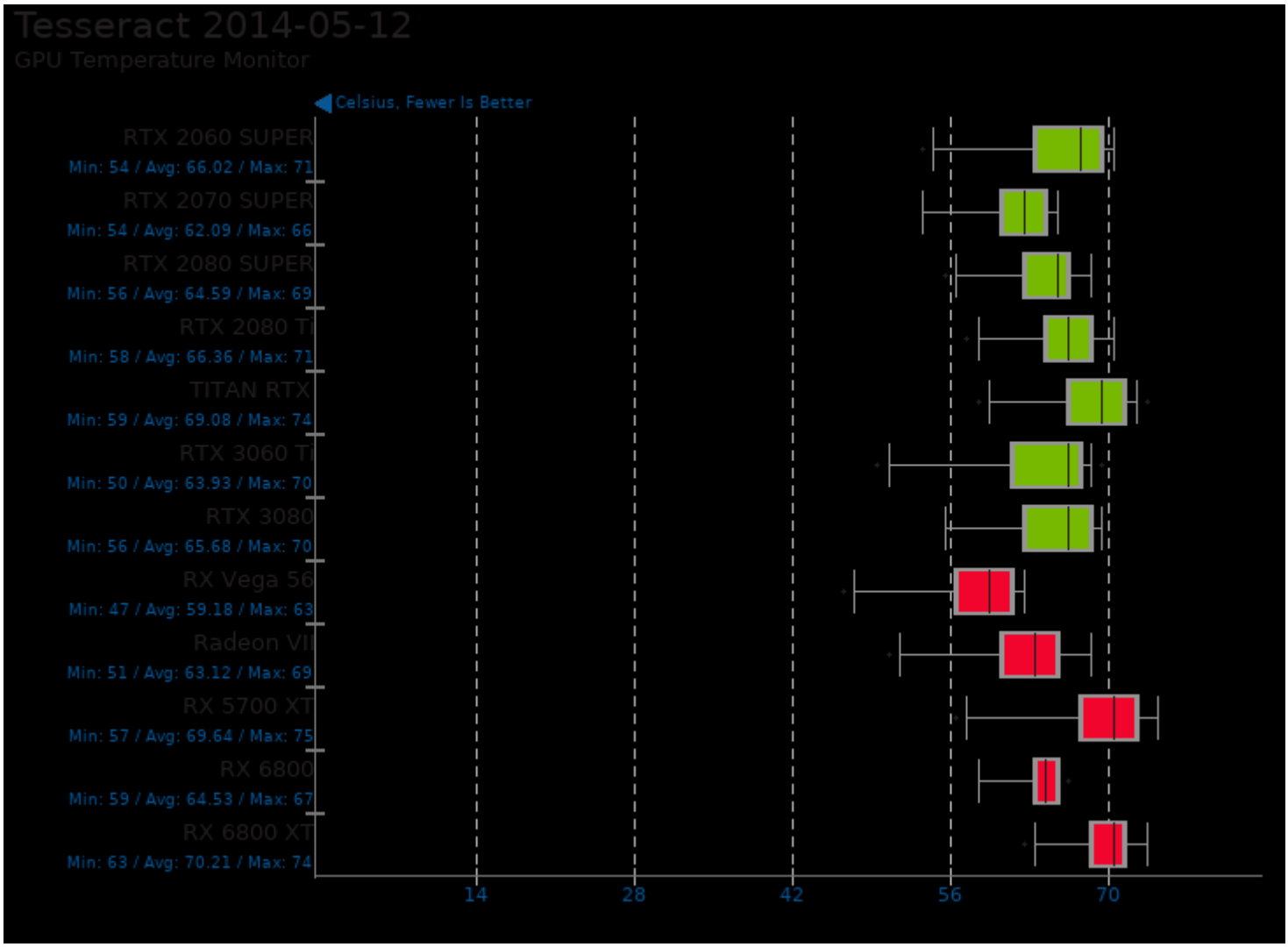

Unigine Superposition 1.0
GPU Power Consumption Monitor
Watts, Fewer Is Better
RTX 2060 SUPER
Min: 10.13 / Avg: 159.66 / Max: 178.68
RTX 2070 SUPER
Min: 16.32 / Avg: 192.34 / Max: 220.23
RTX 2080 SUPER
Min: 11.26 / Avg: 218.87 / Max: 253.46
RTX 2080 Ti
Min: 26.3 / Avg: 233.01 / Max: 263.79
TITAN RTX
Min: 22.85 / Avg: 254.9 / Max: 285.98
RTX 3060 Ti
Min: 13.98 / Avg: 178.56 / Max: 200
RTX 3080
Min: 15.77 / Avg: 280.71 / Max: 319.48
RX Vega 56
Min: 3 / Avg: 153.07 / Max: 167
Radeon VII
Min: 21 / Avg: 193.62 / Max: 278
RX 5700 XT
Min: 30 / Avg: 169.13 / Max: 228
RX 6800
Min: 29 / Avg: 188.53 / Max: 238
RX 6800 XT
Min: 34 / Avg: 239.71 / Max: 303
60
120
180
240
300

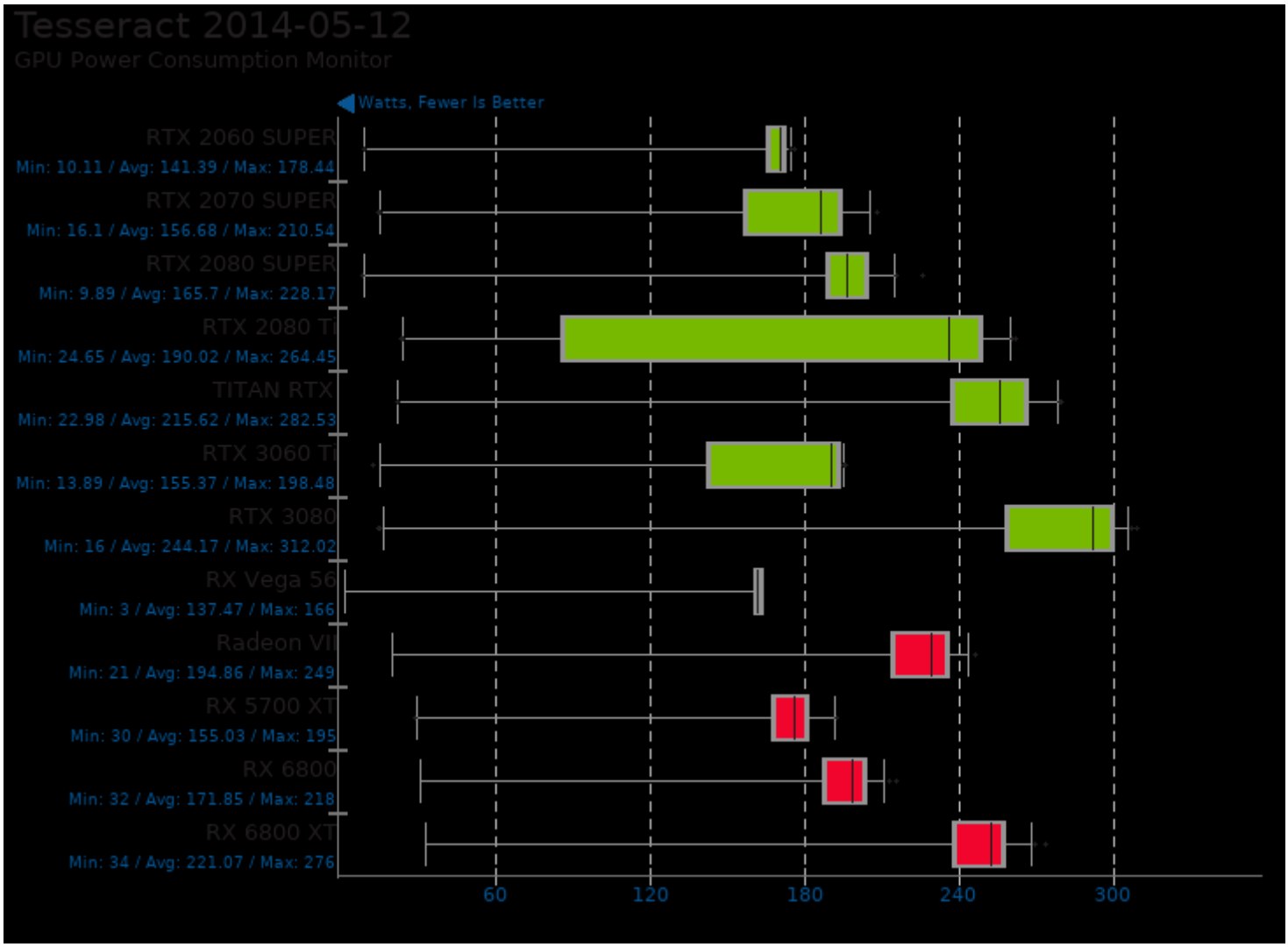

Unigine Superposition 1.0
Resolution: 3840 x 2160 - Mode: Fullscreen - Quality: Low - Renderer: OpenGL
Frames Per Second Per Watt, More Is Better
RTX 2060 SUPER
0.54
RTX 2070 SUPER
0.53
RTX 2080 SUPER
0.53
RTX 2080 Ti
0.61
TITAN RTX
0.58
RTX 3060 Ti
0.65
RTX 3080
0.59
RX Vega 56
0.42
Radeon VII
0.48
RX 5700 XT
0.58
RX 6800
0.84
RX 6800 XT
0.79
0.189
0.378
0.567
0.756
0.945

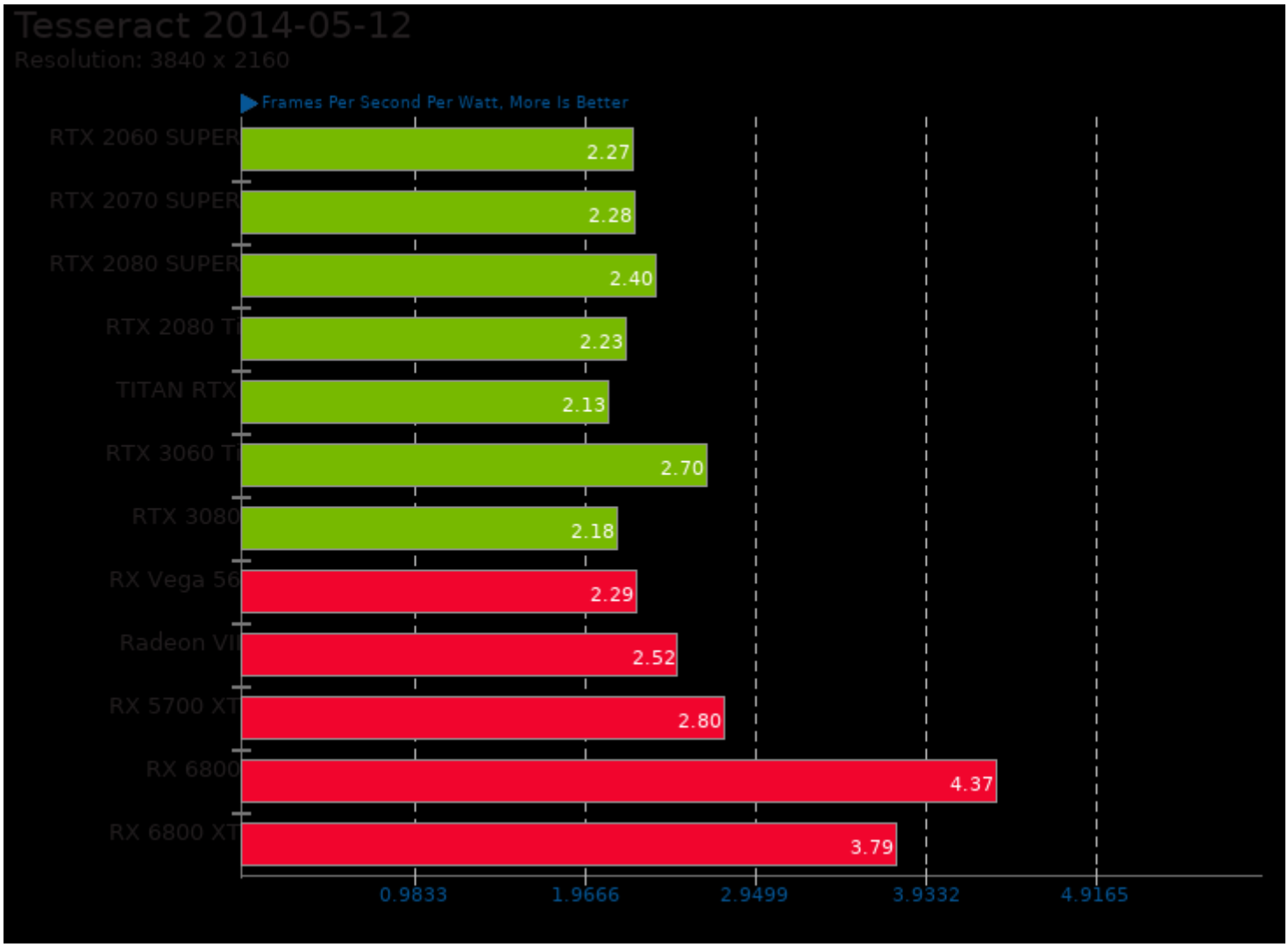

Unigine Heaven 4.0
GPU Temperature Monitor
Celsius, Fewer Is Better
RTX 2060 SUPER
Min: 54 / Avg: 72.98 / Max: 75
RTX 2070 SUPER
Min: 53 / Avg: 71 / Max: 73
RTX 2080 SUPER
Min: 55 / Avg: 74.83 / Max: 78
RTX 2080 Ti
Min: 57 / Avg: 75.24 / Max: 78
TITAN RTX
Min: 59 / Avg: 77.62 / Max: 80
RTX 3060 Ti
Min: 50 / Avg: 70.79 / Max: 73
RTX 3080
Min: 55 / Avg: 72.41 / Max: 75
RX Vega 56
Min: 46 / Avg: 68.79 / Max: 73
Radeon VII
Min: 53 / Avg: 69.4 / Max: 72
RX 5700 XT
Min: 58 / Avg: 77.6 / Max: 80
RX 6800
Min: 57 / Avg: 67.36 / Max: 69
RX 6800 XT
Min: 59 / Avg: 73.4 / Max: 76
15
30
45
60
75

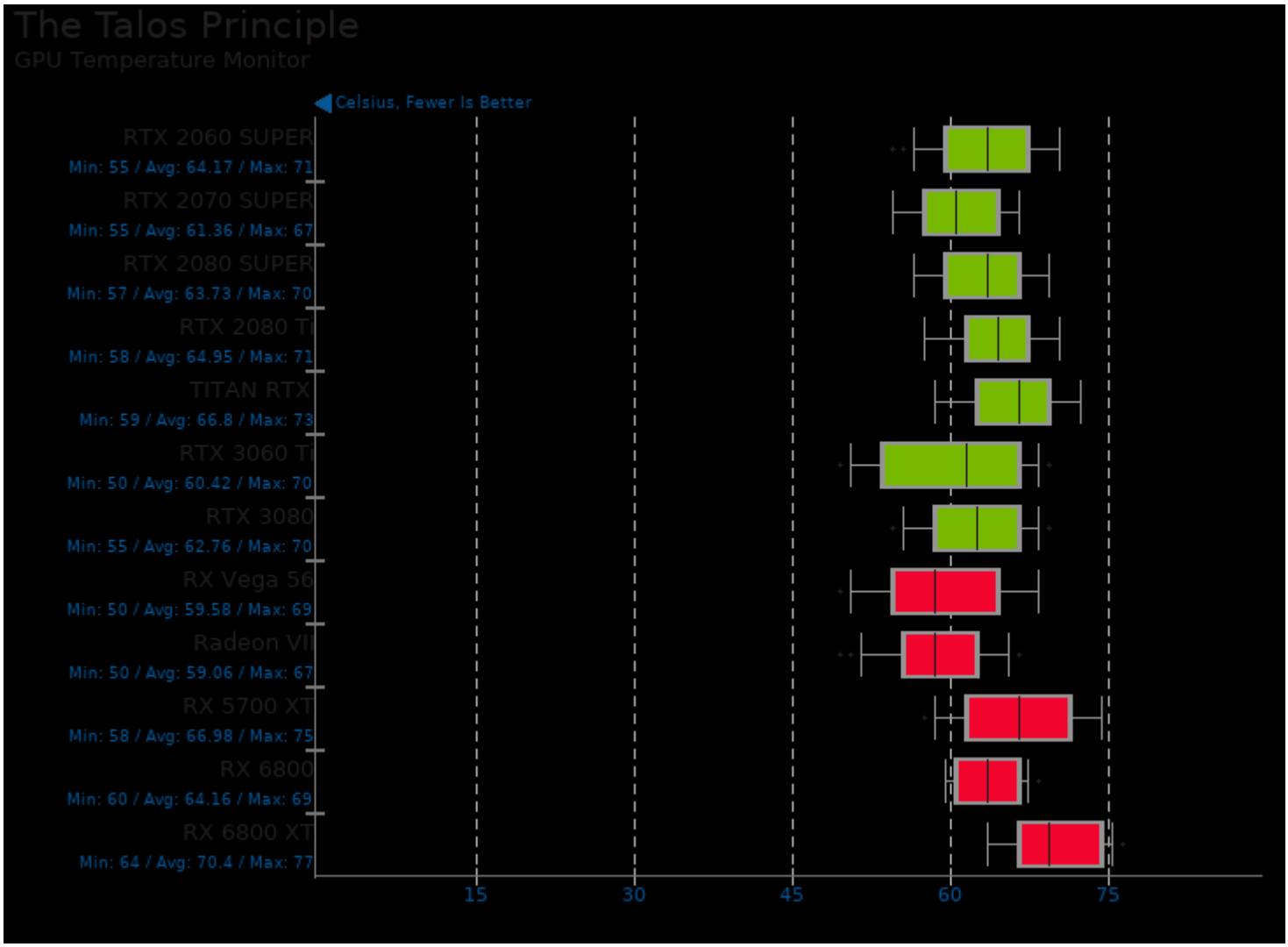

Unigine Heaven 4.0
GPU Power Consumption Monitor
Watts, Fewer Is Better
RTX 2060 SUPER
Min: 10.38 / Avg: 166.69 / Max: 179.51
RTX 2070 SUPER
Min: 16 / Avg: 203.53 / Max: 220.41
RTX 2080 SUPER
Min: 9.85 / Avg: 231.49 / Max: 255.85
RTX 2080 Ti
Min: 24.54 / Avg: 246.32 / Max: 278.86
TITAN RTX
Min: 22.82 / Avg: 267.02 / Max: 287.55
RTX 3060 Ti
Min: 14 / Avg: 190.04 / Max: 200.17
RTX 3080
Min: 16.79 / Avg: 303.16 / Max: 320.39
RX Vega 56
Min: 3 / Avg: 158.51 / Max: 167
Radeon VII
Min: 21 / Avg: 202.38 / Max: 300
RX 5700 XT
Min: 31 / Avg: 173.97 / Max: 222
RX 6800
Min: 29 / Avg: 196.26 / Max: 250
RX 6800 XT
Min: 33 / Avg: 247.29 / Max: 334
60
120
180
240
300

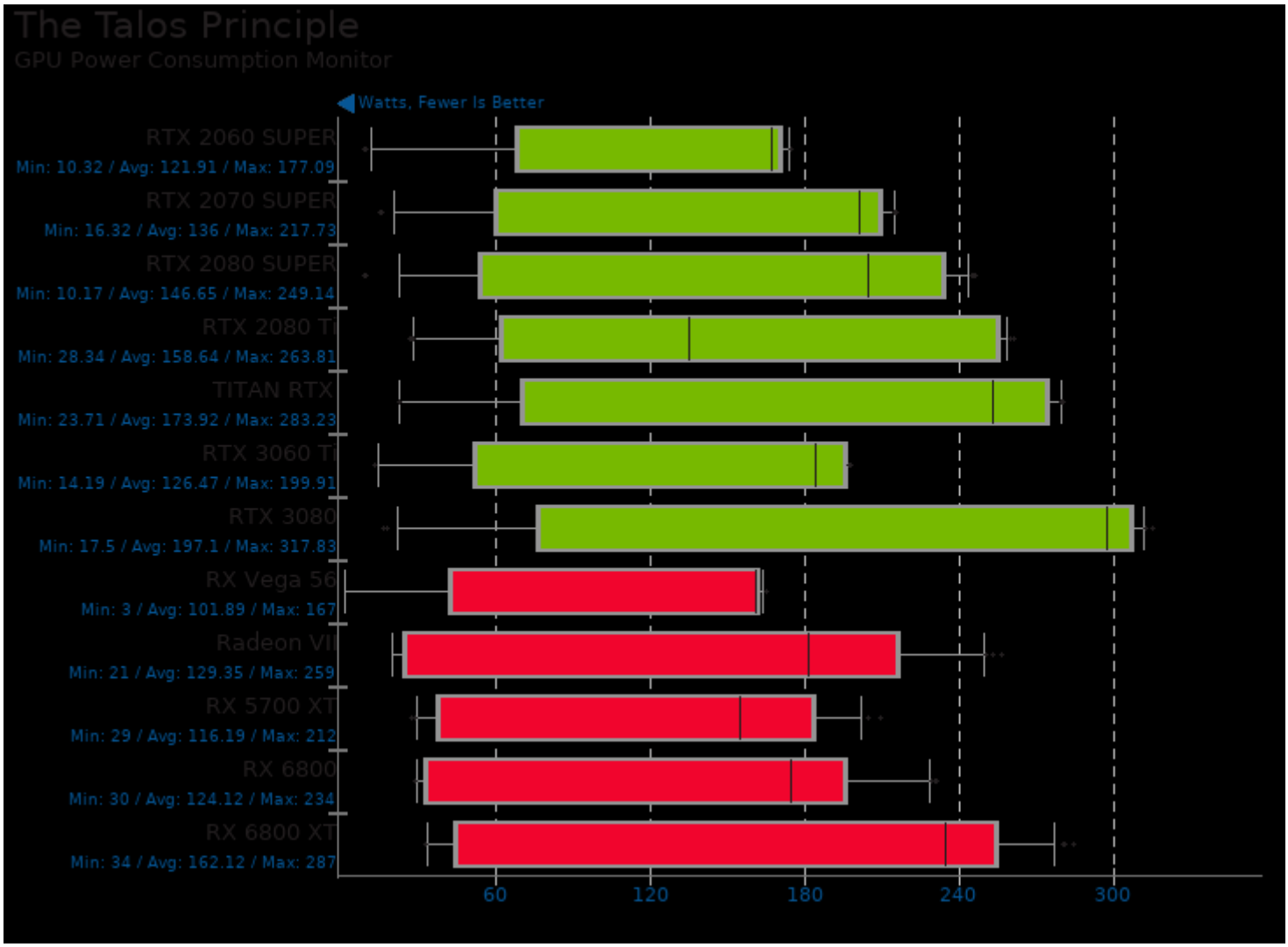

Unigine Heaven 4.0
Resolution: 3840 x 2160 - Mode: Fullscreen - Renderer: OpenGL
Frames Per Second Per Watt, More Is Better
RTX 2060 SUPER
0.25
RTX 2070 SUPER
0.24
RTX 2080 SUPER
0.24
RTX 2080 Ti
0.30
TITAN RTX
0.26
RTX 3060 Ti
0.30
RTX 3080
0.30
RX Vega 56
0.18
Radeon VII
0.21
RX 5700 XT
0.23
RX 6800
0.42
RX 6800 XT
0.39
0.0945
0.189
0.2835
0.378
0.4725

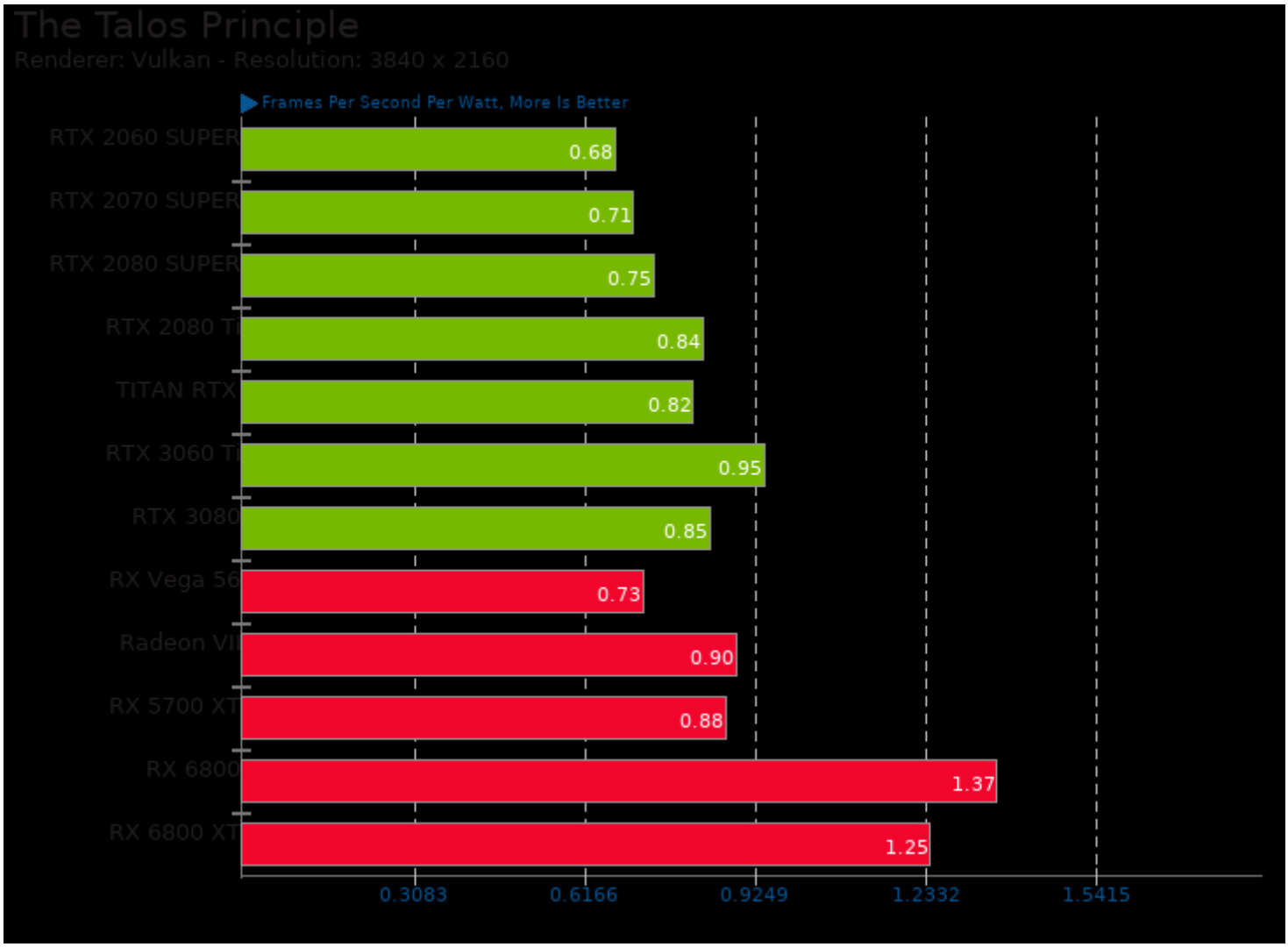

Tesseract 2014-05-12
GPU Temperature Monitor
Celsius, Fewer Is Better
RTX 2060 SUPER
Min: 54 / Avg: 66.02 / Max: 71
RTX 2070 SUPER
Min: 54 / Avg: 62.09 / Max: 66
RTX 2080 SUPER
Min: 56 / Avg: 64.59 / Max: 69
RTX 2080 Ti
Min: 58 / Avg: 66.36 / Max: 71
TITAN RTX
Min: 59 / Avg: 69.08 / Max: 74
RTX 3060 Ti
Min: 50 / Avg: 63.93 / Max: 70
RTX 3080
Min: 56 / Avg: 65.68 / Max: 70
RX Vega 56
Min: 47 / Avg: 59.18 / Max: 63
Radeon VII
Min: 51 / Avg: 63.12 / Max: 69
RX 5700 XT
Min: 57 / Avg: 69.64 / Max: 75
RX 6800
Min: 59 / Avg: 64.53 / Max: 67
RX 6800 XT
Min: 63 / Avg: 70.21 / Max: 74
14
28
42
56
70

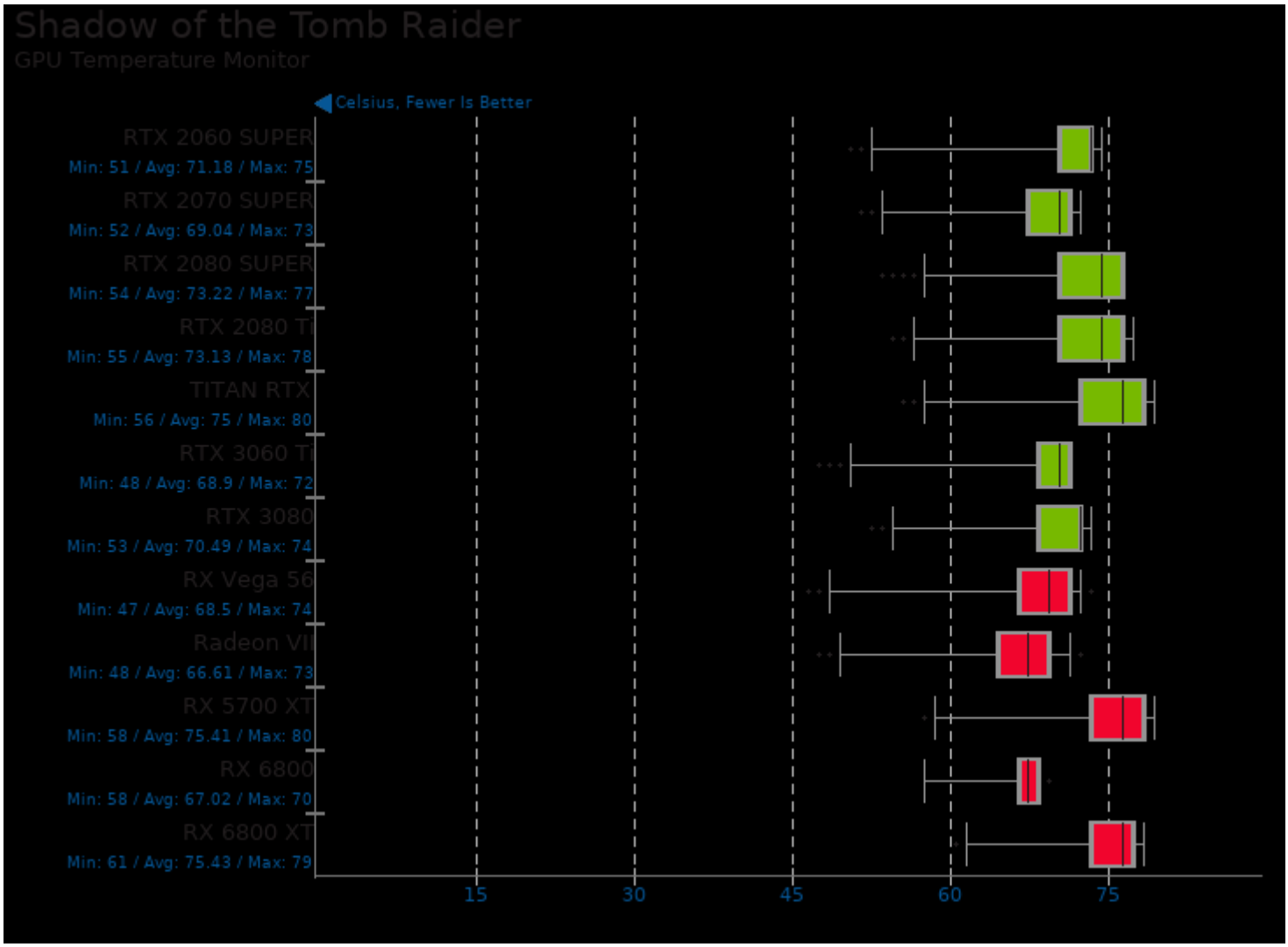

Tesseract 2014-05-12
GPU Power Consumption Monitor
Watts, Fewer Is Better
RTX 2060 SUPER
Min: 10.11 / Avg: 141.39 / Max: 178.44
RTX 2070 SUPER
Min: 16.1 / Avg: 156.68 / Max: 210.54
RTX 2080 SUPER
Min: 9.89 / Avg: 165.7 / Max: 228.17
RTX 2080 Ti
Min: 24.65 / Avg: 190.02 / Max: 264.45
TITAN RTX
Min: 22.98 / Avg: 215.62 / Max: 282.53
RTX 3060 Ti
Min: 13.89 / Avg: 155.37 / Max: 198.48
RTX 3080
Min: 16 / Avg: 244.17 / Max: 312.02
RX Vega 56
Min: 3 / Avg: 137.47 / Max: 166
Radeon VII
Min: 21 / Avg: 194.86 / Max: 249
RX 5700 XT
Min: 30 / Avg: 155.03 / Max: 195
RX 6800
Min: 32 / Avg: 171.85 / Max: 218
RX 6800 XT
Min: 34 / Avg: 221.07 / Max: 276
60
120
180
240
300

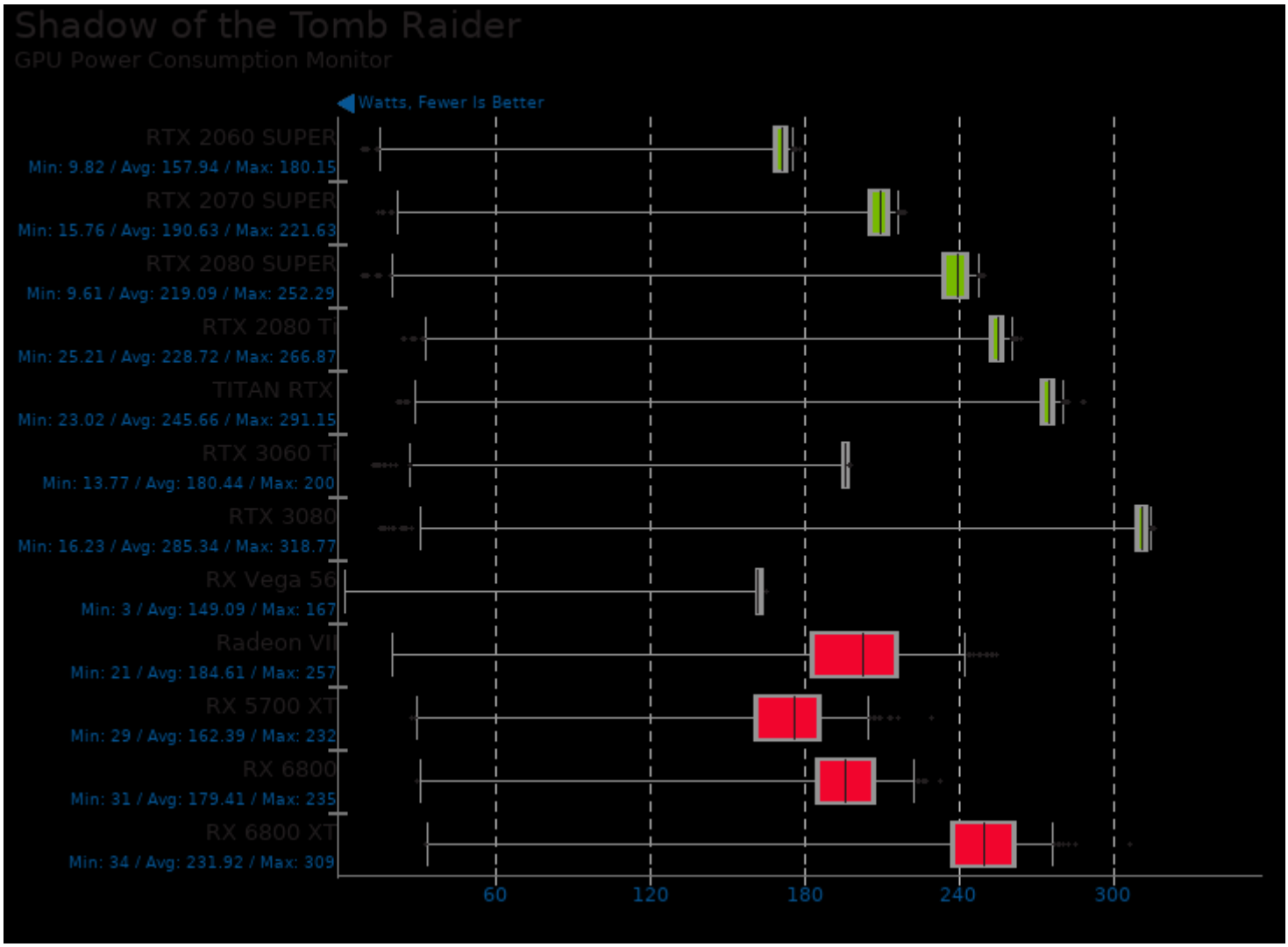

Tesseract 2014-05-12
Resolution: 3840 x 2160
Frames Per Second Per Watt, More Is Better
RTX 2060 SUPER
RTX 2070 SUPER
RTX 2080 SUPER
RTX 2080 Ti
TITAN RTX
RTX 3060 Ti
RTX 3080
RX Vega 56
Radeon VII
RX 5700 XT
RX 6800
RX 6800 XT
2.27
2.28
2.40
2.23
2.13
2.70
2.18
2.29
2.52
2.80
4.37
3.79
0.9833
1.9666
2.9499
3.9332
4.9165

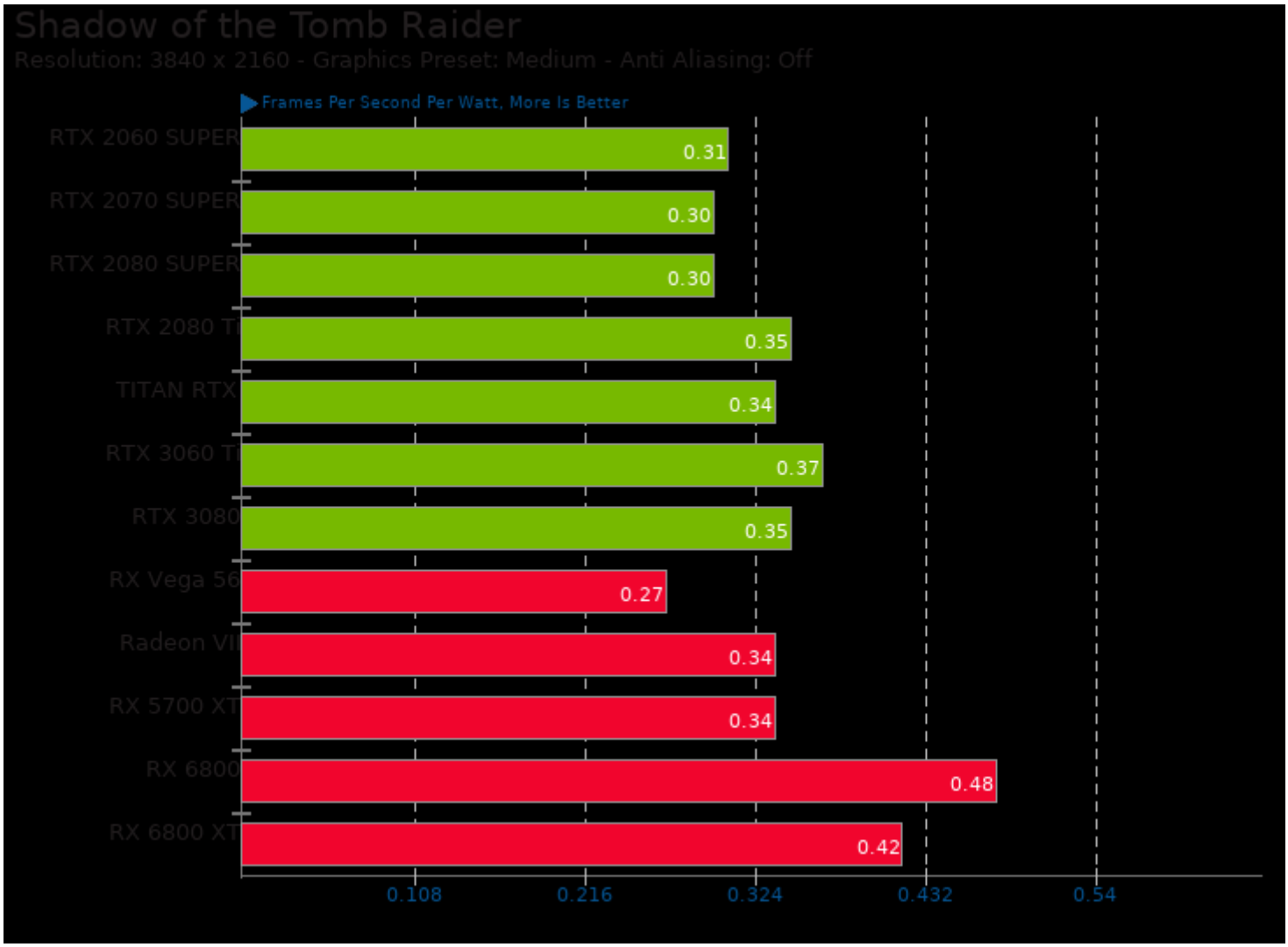

The Talos Principle
GPU Temperature Monitor
Celsius, Fewer Is Better
RTX 2060 SUPER
Min: 55 / Avg: 64.17 / Max: 71
RTX 2070 SUPER
Min: 55 / Avg: 61.36 / Max: 67
RTX 2080 SUPER
Min: 57 / Avg: 63.73 / Max: 70
RTX 2080 Ti
Min: 58 / Avg: 64.95 / Max: 71
TITAN RTX
Min: 59 / Avg: 66.8 / Max: 73
RTX 3060 Ti
Min: 50 / Avg: 60.42 / Max: 70
RTX 3080
Min: 55 / Avg: 62.76 / Max: 70
RX Vega 56
Min: 50 / Avg: 59.58 / Max: 69
Radeon VII
Min: 50 / Avg: 59.06 / Max: 67
RX 5700 XT
Min: 58 / Avg: 66.98 / Max: 75
RX 6800
Min: 60 / Avg: 64.16 / Max: 69
RX 6800 XT
Min: 64 / Avg: 70.4 / Max: 77
15
30
45
60
75

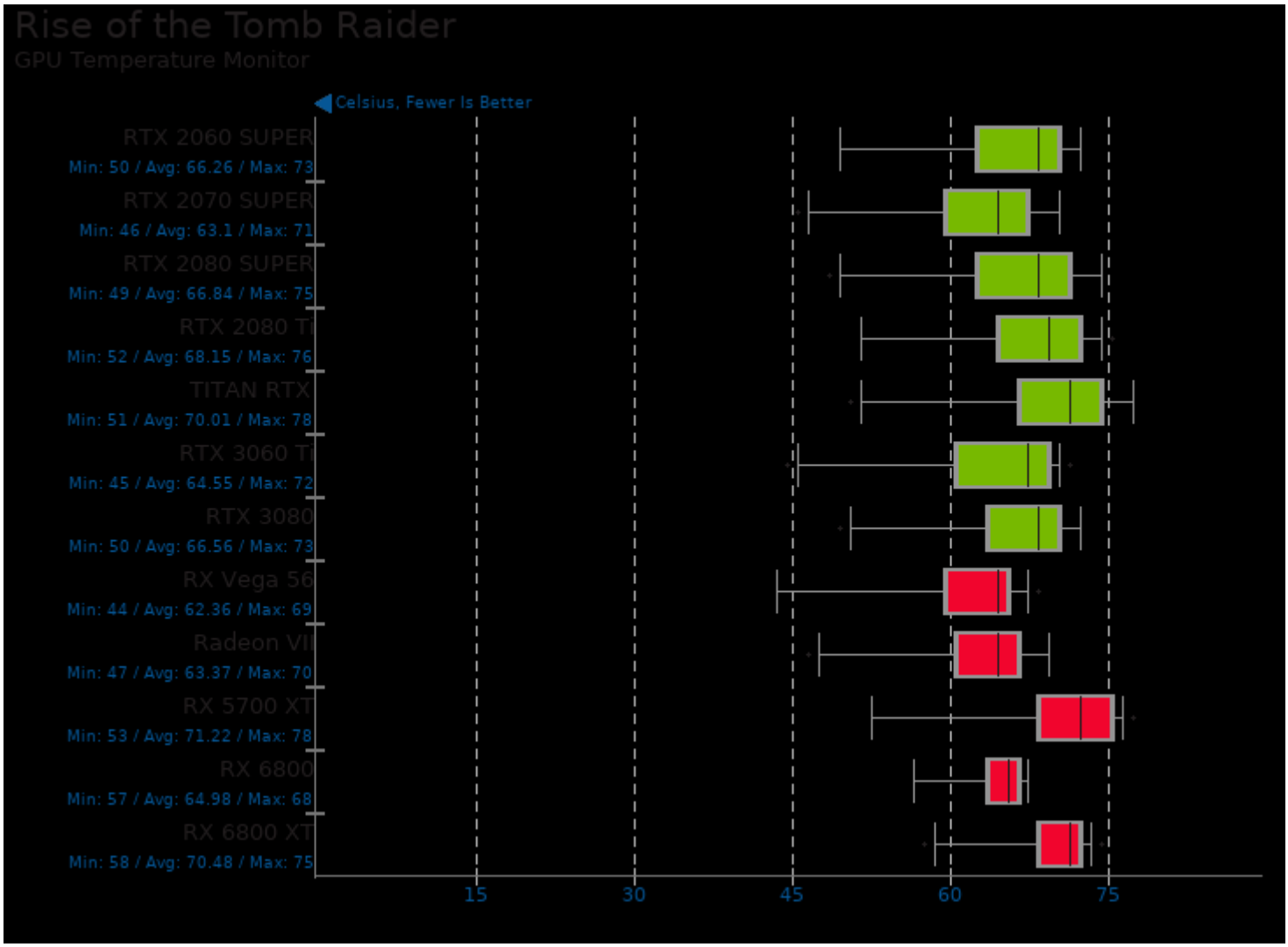

The Talos Principle
GPU Power Consumption Monitor
Watts, Fewer Is Better
RTX 2060 SUPER
Min: 10.32 / Avg: 121.91 / Max: 177.09
RTX 2070 SUPER
Min: 16.32 / Avg: 136 / Max: 217.73
RTX 2080 SUPER
Min: 10.17 / Avg: 146.65 / Max: 249.14
RTX 2080 Ti
Min: 28.34 / Avg: 158.64 / Max: 263.81
TITAN RTX
Min: 23.71 / Avg: 173.92 / Max: 283.23
RTX 3060 Ti
Min: 14.19 / Avg: 126.47 / Max: 199.91
RTX 3080
Min: 17.5 / Avg: 197.1 / Max: 317.83
RX Vega 56
Min: 3 / Avg: 101.89 / Max: 167
Radeon VII
Min: 21 / Avg: 129.35 / Max: 259
RX 5700 XT
Min: 29 / Avg: 116.19 / Max: 212
RX 6800
Min: 30 / Avg: 124.12 / Max: 234
RX 6800 XT
Min: 34 / Avg: 162.12 / Max: 287
60
120
180
240
300

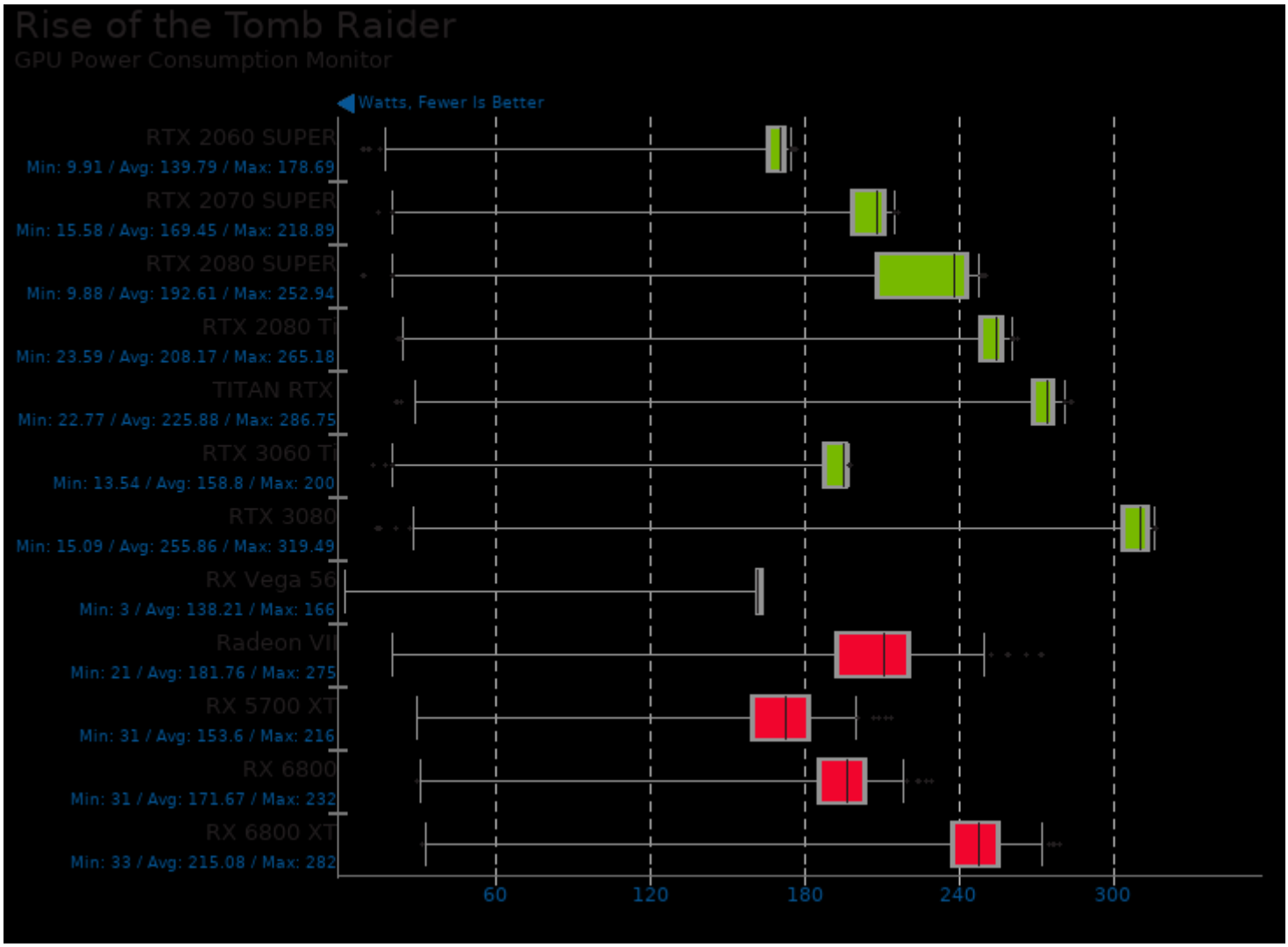

The Talos Principle
Renderer: Vulkan - Resolution: 3840 x 2160
Frames Per Second Per Watt, More Is Better
RTX 2060 SUPER
RTX 2070 SUPER
RTX 2080 SUPER
RTX 2080 Ti
TITAN RTX
RTX 3060 Ti
RTX 3080
RX Vega 56
Radeon VII
RX 5700 XT
RX 6800
RX 6800 XT
0.68
0.71
0.75
0.84
0.82
0.95
0.85
0.73
0.90
0.88
1.37
1.25
0.3083
0.6166
0.9249
1.2332
1.5415

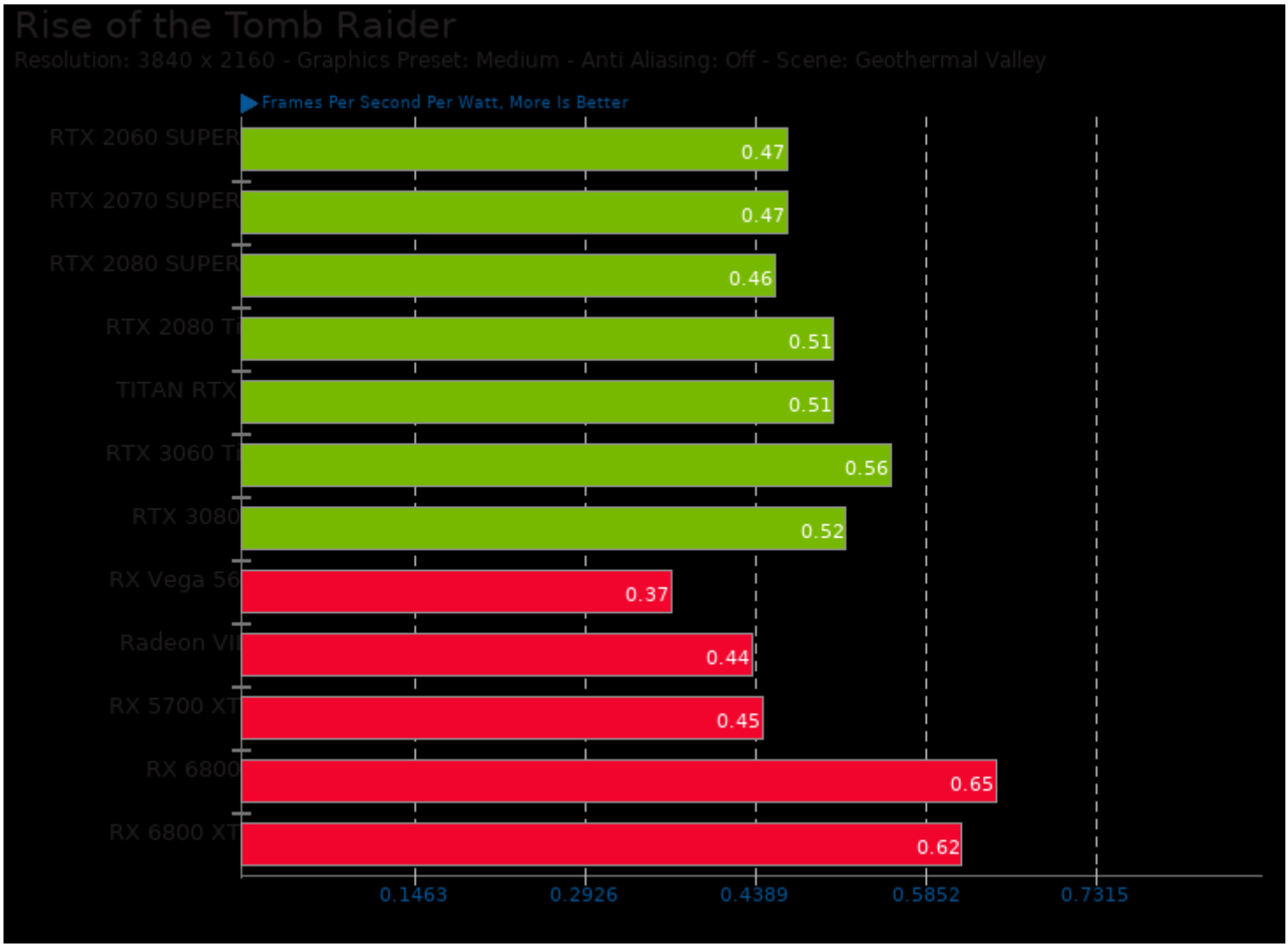

Shadow of the Tomb Raider
GPU Temperature Monitor
Celsius, Fewer Is Better
RTX 2060 SUPER
Min: 51 / Avg: 71.18 / Max: 75
RTX 2070 SUPER
Min: 52 / Avg: 69.04 / Max: 73
RTX 2080 SUPER
Min: 54 / Avg: 73.22 / Max: 77
RTX 2080 Ti
Min: 55 / Avg: 73.13 / Max: 78
TITAN RTX
Min: 56 / Avg: 75 / Max: 80
RTX 3060 Ti
Min: 48 / Avg: 68.9 / Max: 72
RTX 3080
Min: 53 / Avg: 70.49 / Max: 74
RX Vega 56
Min: 47 / Avg: 68.5 / Max: 74
Radeon VII
Min: 48 / Avg: 66.61 / Max: 73
RX 5700 XT
Min: 58 / Avg: 75.41 / Max: 80
RX 6800
Min: 58 / Avg: 67.02 / Max: 70
RX 6800 XT
Min: 61 / Avg: 75.43 / Max: 79
15
30
45
60
75

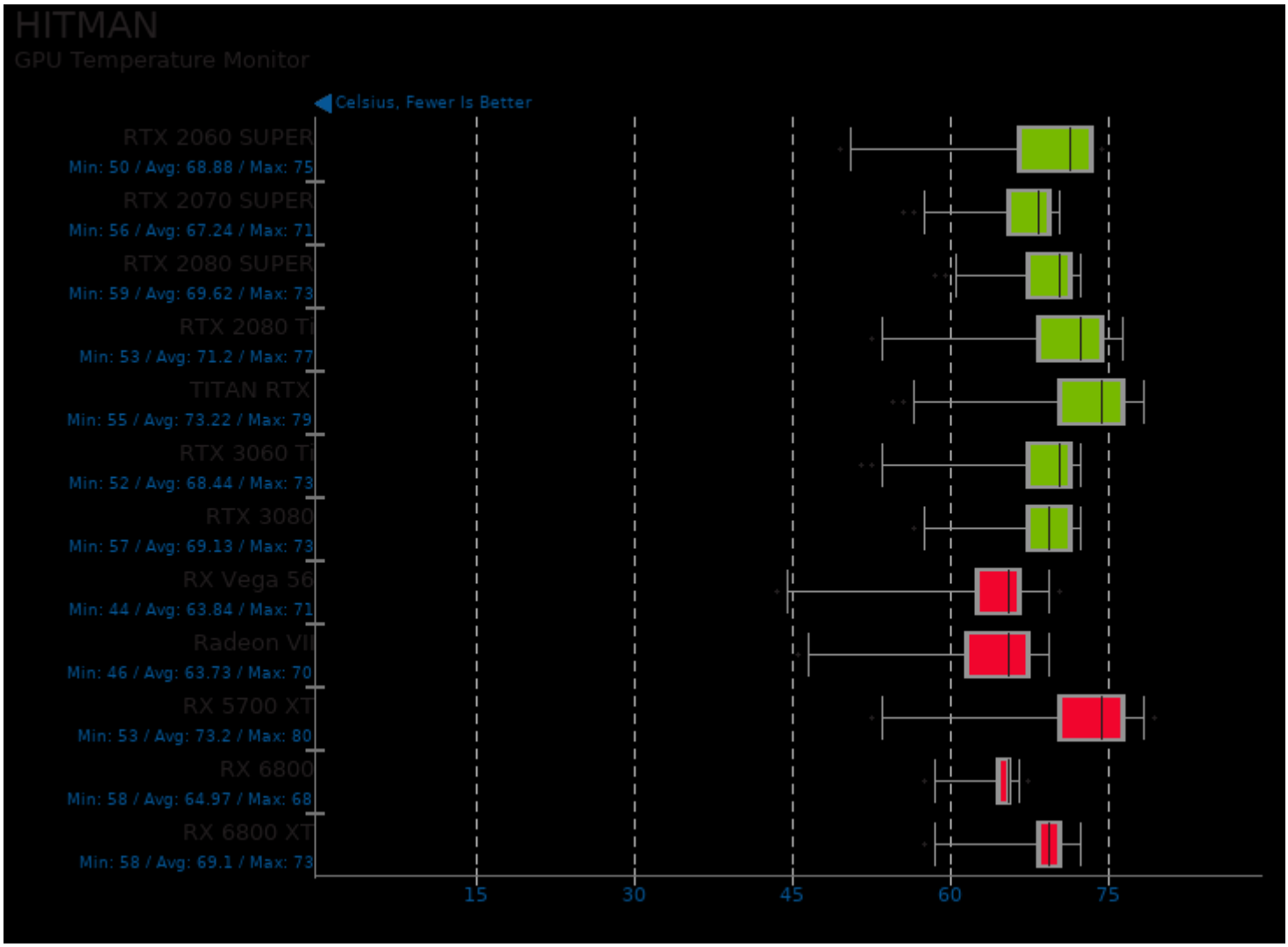

Shadow of the Tomb Raider
GPU Power Consumption Monitor
Watts, Fewer Is Better
RTX 2060 SUPER
Min: 9.82 / Avg: 157.94 / Max: 180.15
RTX 2070 SUPER
Min: 15.76 / Avg: 190.63 / Max: 221.63
RTX 2080 SUPER
Min: 9.61 / Avg: 219.09 / Max: 252.29
RTX 2080 Ti
Min: 25.21 / Avg: 228.72 / Max: 266.87
TITAN RTX
Min: 23.02 / Avg: 245.66 / Max: 291.15
RTX 3060 Ti
Min: 13.77 / Avg: 180.44 / Max: 200
RTX 3080
Min: 16.23 / Avg: 285.34 / Max: 318.77
RX Vega 56
Min: 3 / Avg: 149.09 / Max: 167
Radeon VII
Min: 21 / Avg: 184.61 / Max: 257
RX 5700 XT
Min: 29 / Avg: 162.39 / Max: 232
RX 6800
Min: 31 / Avg: 179.41 / Max: 235
RX 6800 XT
Min: 34 / Avg: 231.92 / Max: 309
60
120
180
240
300

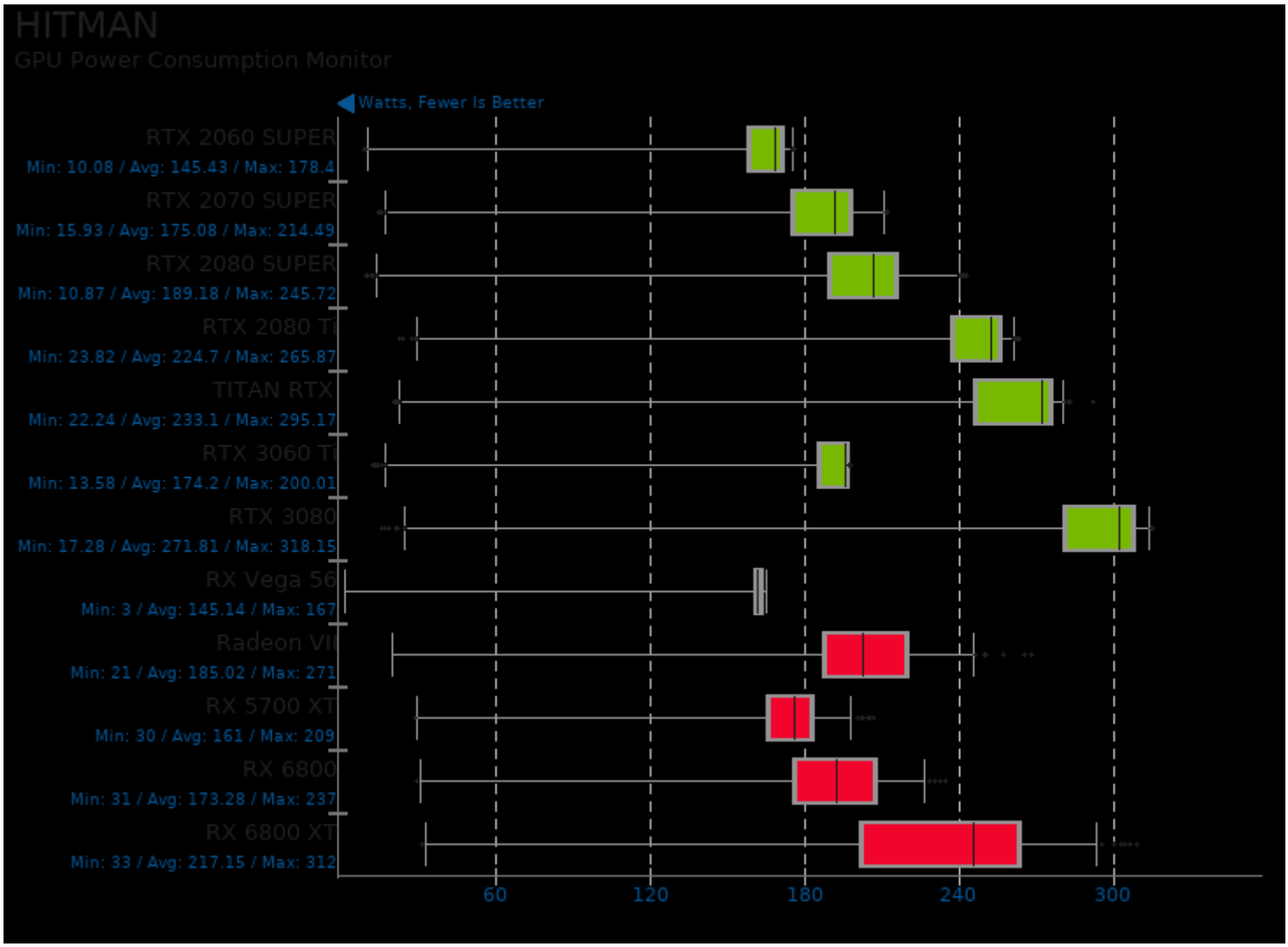

Shadow of the Tomb Raider
Resolution: 3840 x 2160 - Graphics Preset: Medium - Anti Aliasing: Off
Frames Per Second Per Watt, More Is Better
RTX 2060 SUPER
0.31
RTX 2070 SUPER
0.30
RTX 2080 SUPER
0.30
RTX 2080 Ti
0.35
TITAN RTX
0.34
RTX 3060 Ti
0.37
RTX 3080
0.35
RX Vega 56
0.27
Radeon VII
0.34
RX 5700 XT
0.34
RX 6800
0.48
RX 6800 XT
0.42
0.108
0.216
0.324
0.432
0.54

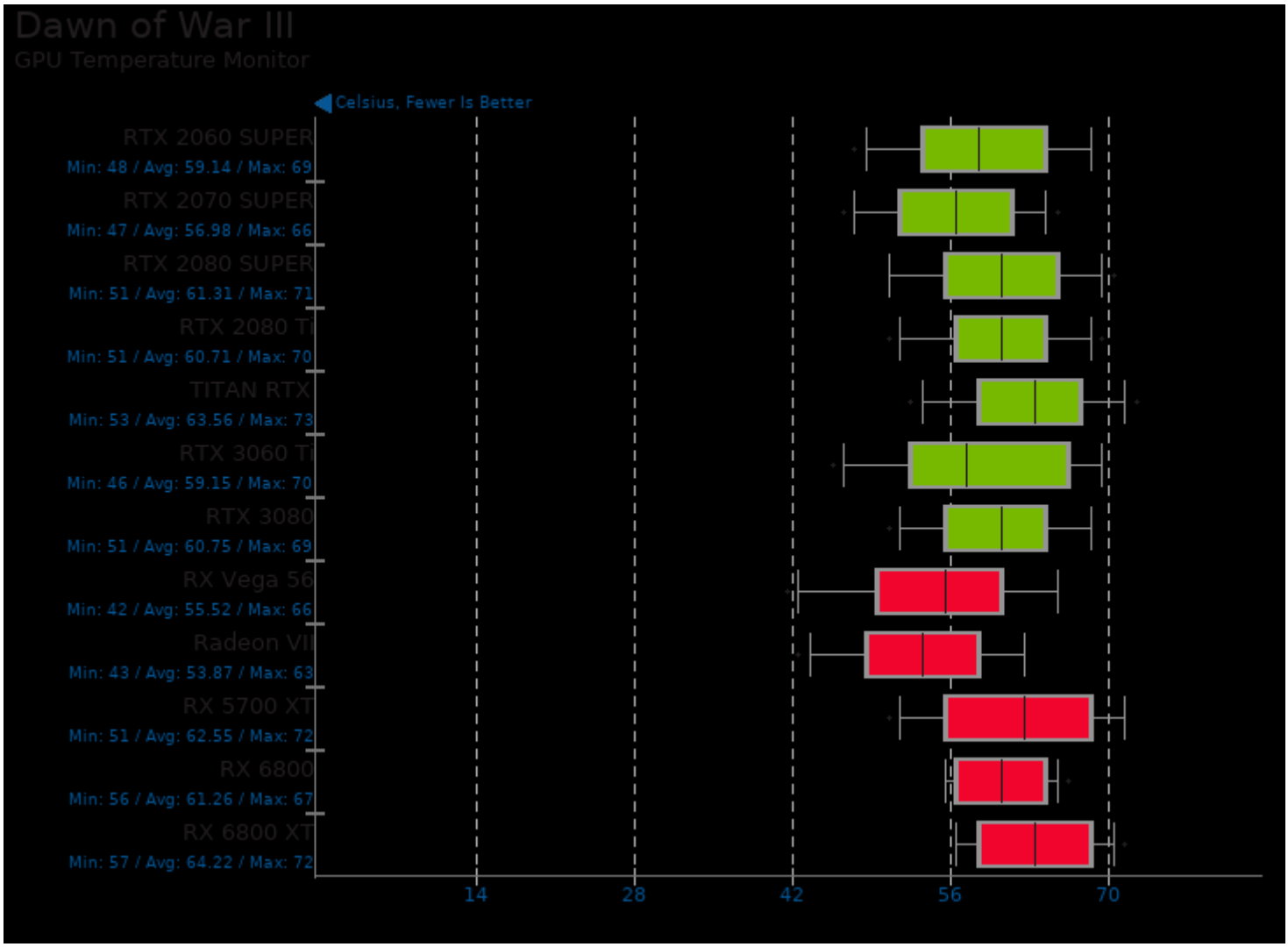

Rise of the Tomb Raider
GPU Temperature Monitor
Celsius, Fewer Is Better
RTX 2060 SUPER
Min: 50 / Avg: 66.26 / Max: 73
RTX 2070 SUPER
Min: 46 / Avg: 63.1 / Max: 71
RTX 2080 SUPER
Min: 49 / Avg: 66.84 / Max: 75
RTX 2080 Ti
Min: 52 / Avg: 68.15 / Max: 76
TITAN RTX
Min: 51 / Avg: 70.01 / Max: 78
RTX 3060 Ti
Min: 45 / Avg: 64.55 / Max: 72
RTX 3080
Min: 50 / Avg: 66.56 / Max: 73
RX Vega 56
Min: 44 / Avg: 62.36 / Max: 69
Radeon VII
Min: 47 / Avg: 63.37 / Max: 70
RX 5700 XT
Min: 53 / Avg: 71.22 / Max: 78
RX 6800
Min: 57 / Avg: 64.98 / Max: 68
RX 6800 XT
Min: 58 / Avg: 70.48 / Max: 75
15
30
45
60
75

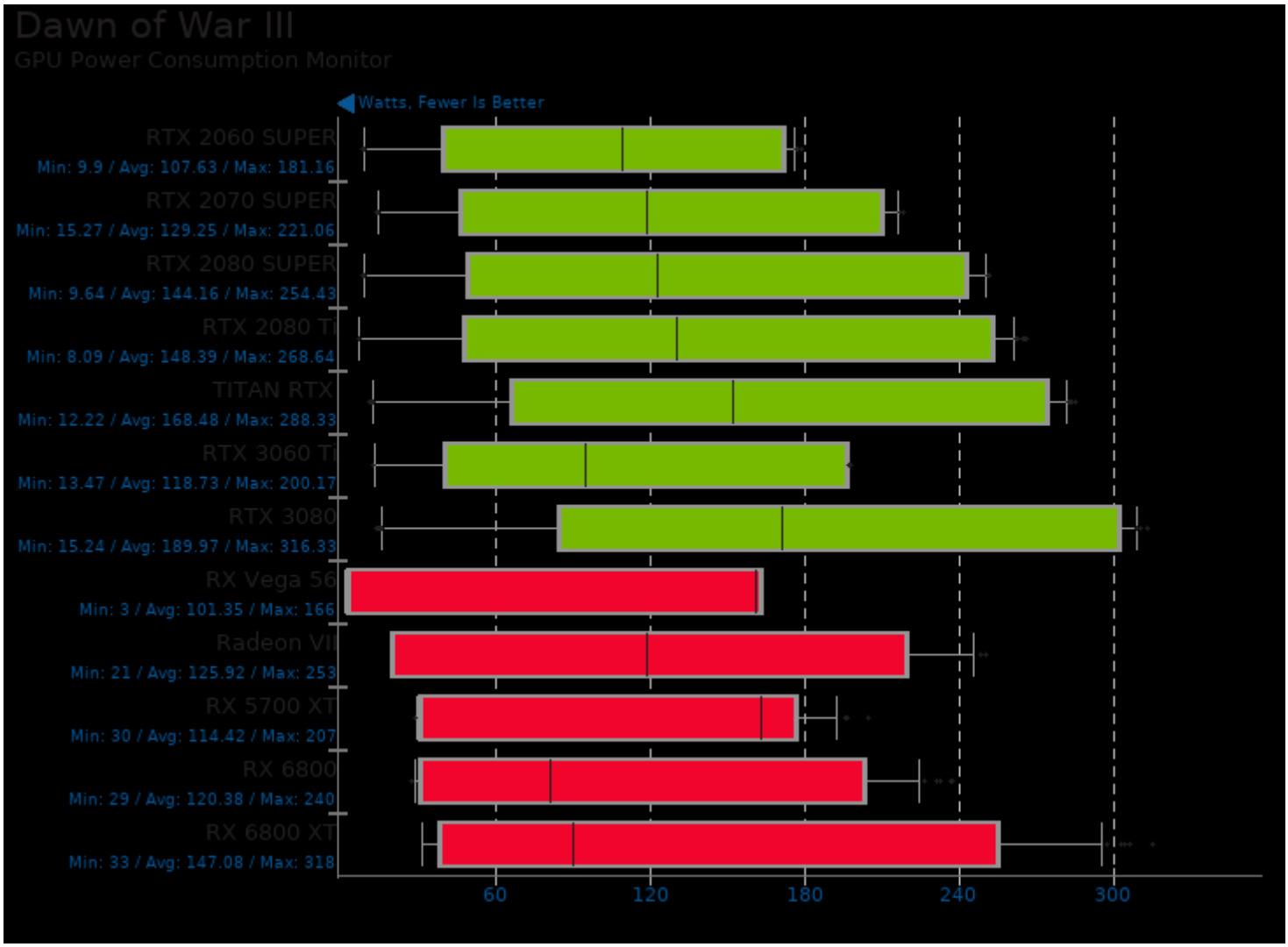

Rise of the Tomb Raider
GPU Power Consumption Monitor
Watts, Fewer Is Better
RTX 2060 SUPER
Min: 9.91 / Avg: 139.79 / Max: 178.69
RTX 2070 SUPER
Min: 15.58 / Avg: 169.45 / Max: 218.89
RTX 2080 SUPER
Min: 9.88 / Avg: 192.61 / Max: 252.94
RTX 2080 Ti
Min: 23.59 / Avg: 208.17 / Max: 265.18
TITAN RTX
Min: 22.77 / Avg: 225.88 / Max: 286.75
RTX 3060 Ti
Min: 13.54 / Avg: 158.8 / Max: 200
RTX 3080
Min: 15.09 / Avg: 255.86 / Max: 319.49
RX Vega 56
Min: 3 / Avg: 138.21 / Max: 166
Radeon VII
Min: 21 / Avg: 181.76 / Max: 275
RX 5700 XT
Min: 31 / Avg: 153.6 / Max: 216
RX 6800
Min: 31 / Avg: 171.67 / Max: 232
RX 6800 XT
Min: 33 / Avg: 215.08 / Max: 282
60
120
180
240
300

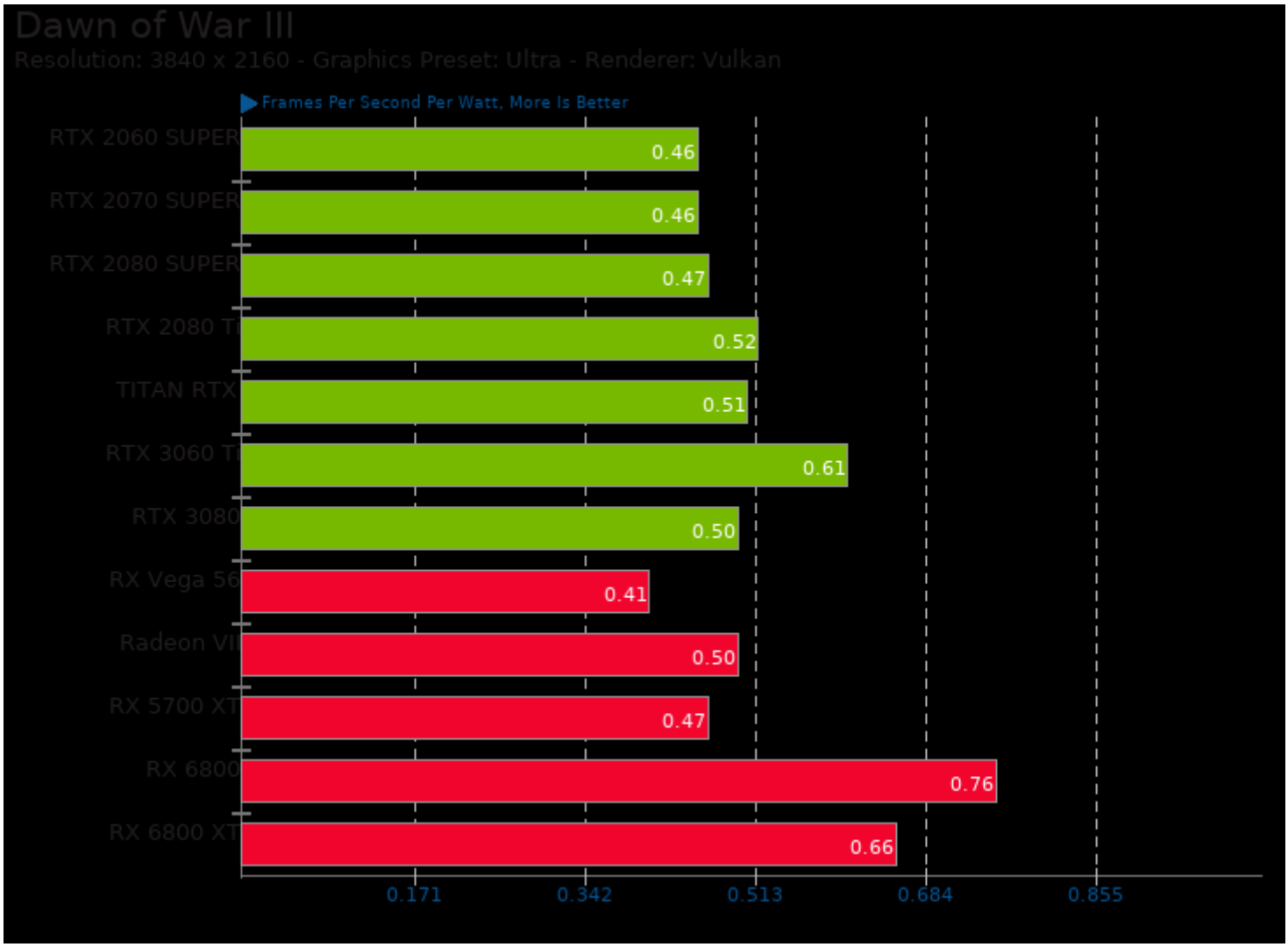

Rise of the Tomb Raider
Resolution: 3840 x 2160 - Graphics Preset: Medium - Anti Aliasing: Off - Scene: Geothermal Valley
Frames Per Second Per Watt, More Is Better
RTX 2060 SUPER
0.47
RTX 2070 SUPER
0.47
RTX 2080 SUPER
0.46
RTX 2080 Ti
0.51
TITAN RTX
0.51
RTX 3060 Ti
0.56
RTX 3080
0.52
RX Vega 56
0.37
Radeon VII
0.44
RX 5700 XT
0.45
RX 6800
0.65
RX 6800 XT
0.62
0.1463
0.2926
0.4389
0.5852
0.7315

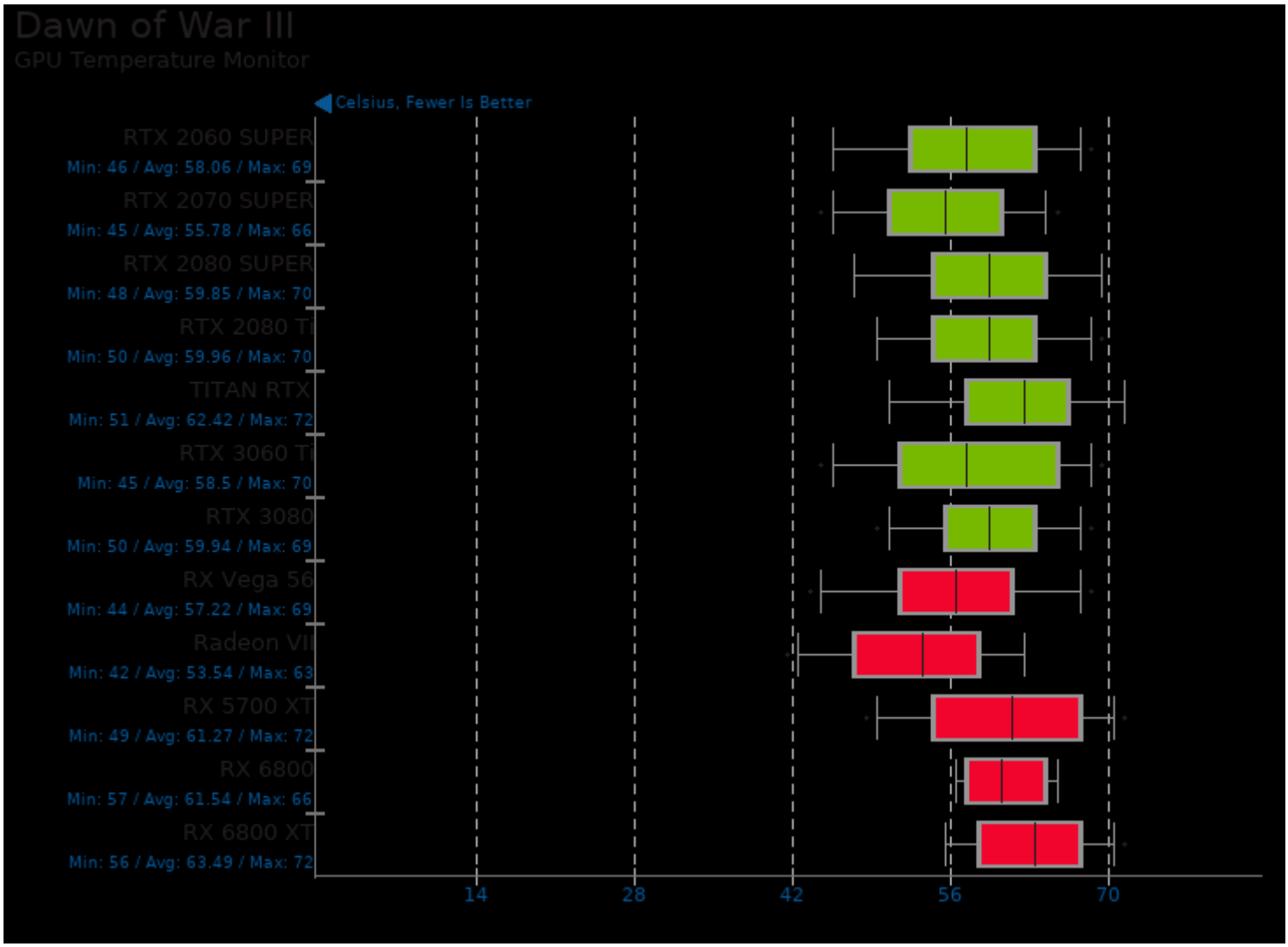

HITMAN
GPU Temperature Monitor
Celsius, Fewer Is Better
RTX 2060 SUPER
Min: 50 / Avg: 68.88 / Max: 75
RTX 2070 SUPER
Min: 56 / Avg: 67.24 / Max: 71
RTX 2080 SUPER
Min: 59 / Avg: 69.62 / Max: 73
RTX 2080 Ti
Min: 53 / Avg: 71.2 / Max: 77
TITAN RTX
Min: 55 / Avg: 73.22 / Max: 79
RTX 3060 Ti
Min: 52 / Avg: 68.44 / Max: 73
RTX 3080
Min: 57 / Avg: 69.13 / Max: 73
RX Vega 56
Min: 44 / Avg: 63.84 / Max: 71
Radeon VII
Min: 46 / Avg: 63.73 / Max: 70
RX 5700 XT
Min: 53 / Avg: 73.2 / Max: 80
RX 6800
Min: 58 / Avg: 64.97 / Max: 68
RX 6800 XT
Min: 58 / Avg: 69.1 / Max: 73
15
30
45
60
75

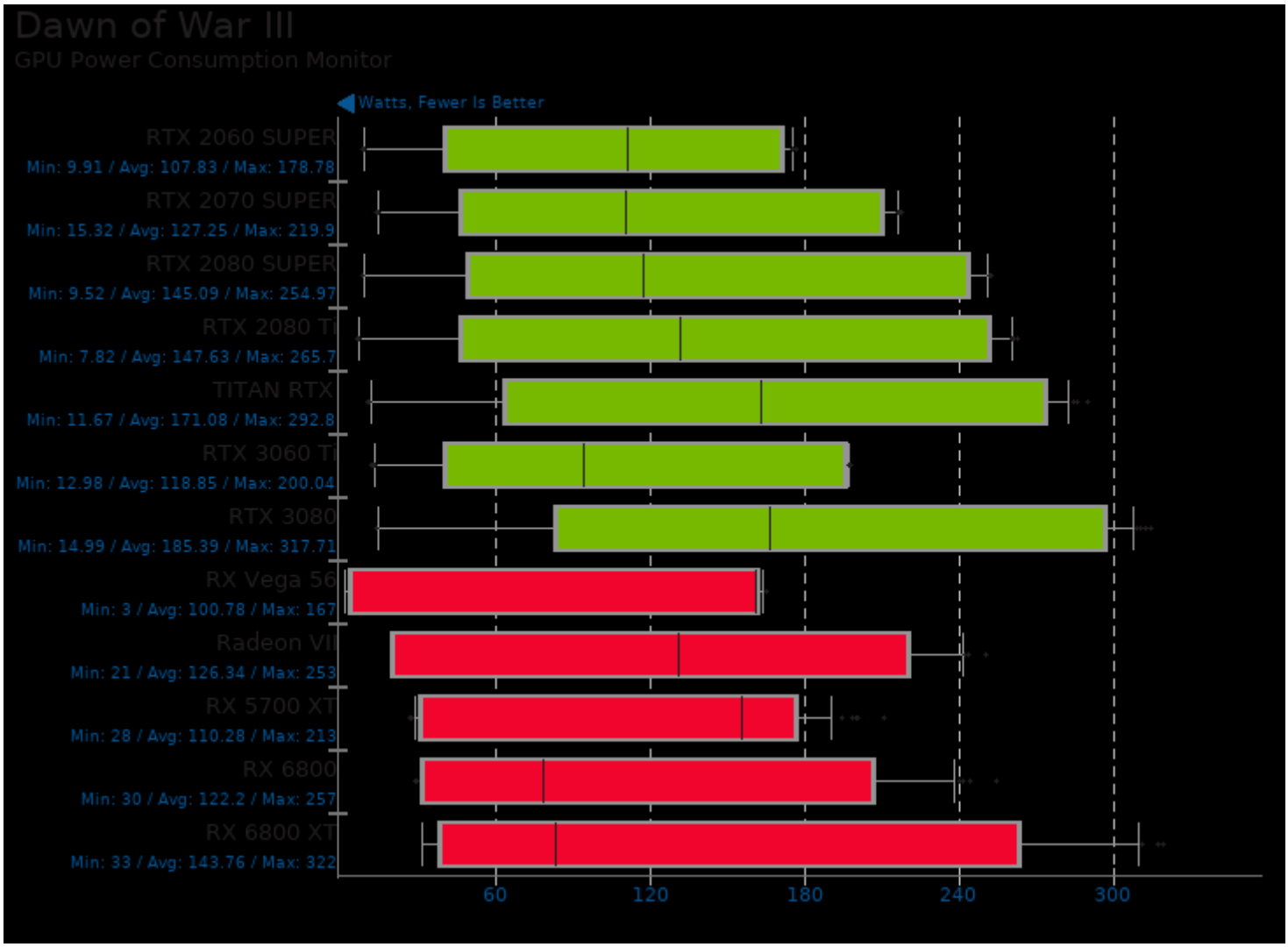

HITMAN
GPU Power Consumption Monitor
Watts, Fewer Is Better
RTX 2060 SUPER
Min: 10.08 / Avg: 145.43 / Max: 178.4
RTX 2070 SUPER
Min: 15.93 / Avg: 175.08 / Max: 214.49
RTX 2080 SUPER
Min: 10.87 / Avg: 189.18 / Max: 245.72
RTX 2080 Ti
Min: 23.82 / Avg: 224.7 / Max: 265.87
TITAN RTX
Min: 22.24 / Avg: 233.1 / Max: 295.17
RTX 3060 Ti
Min: 13.58 / Avg: 174.2 / Max: 200.01
RTX 3080
Min: 17.28 / Avg: 271.81 / Max: 318.15
RX Vega 56
Min: 3 / Avg: 145.14 / Max: 167
Radeon VII
Min: 21 / Avg: 185.02 / Max: 271
RX 5700 XT
Min: 30 / Avg: 161 / Max: 209
RX 6800
Min: 31 / Avg: 173.28 / Max: 237
RX 6800 XT
Min: 33 / Avg: 217.15 / Max: 312
60
120
180
240
300

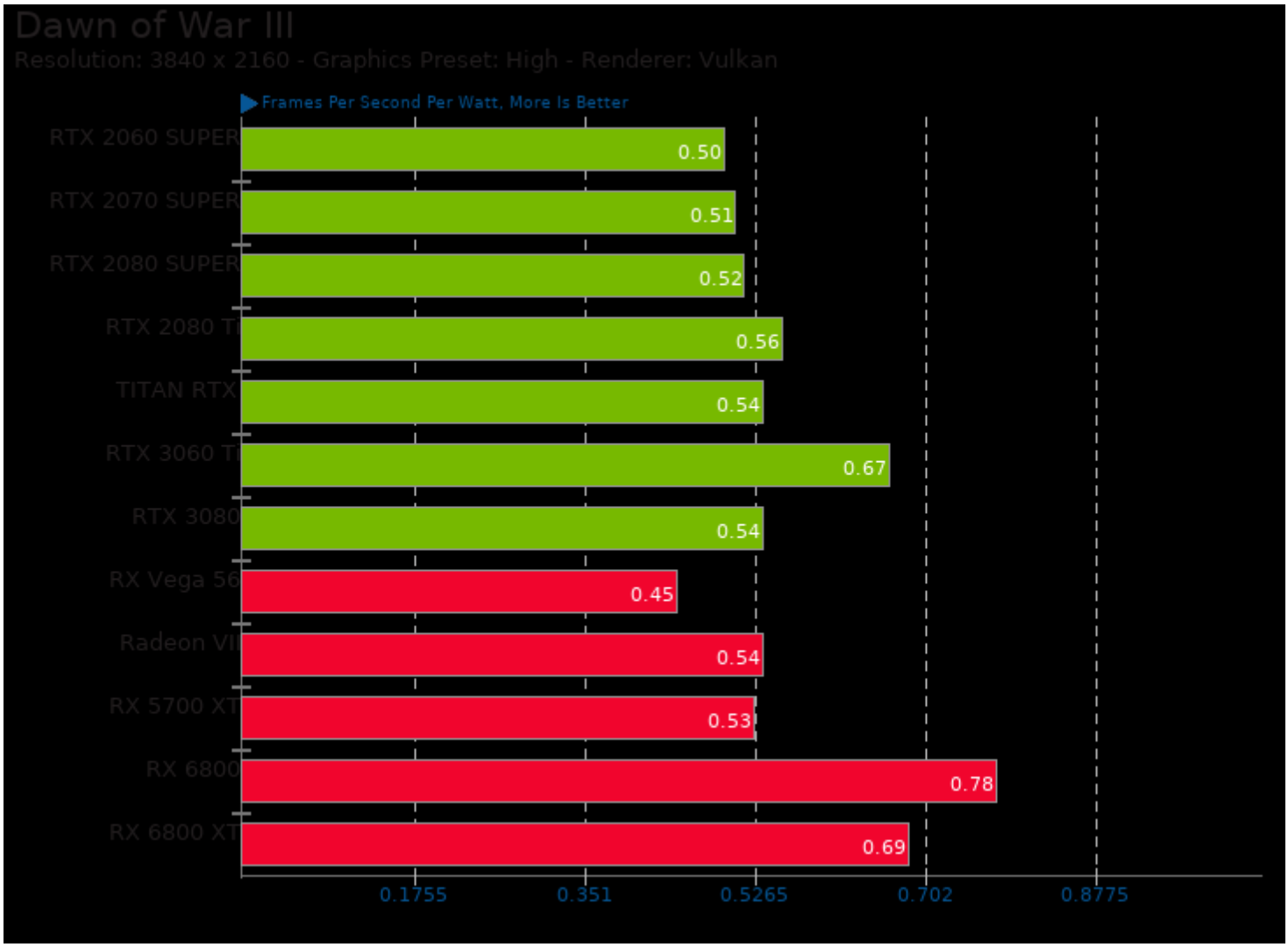

Dawn of War III
GPU Temperature Monitor
Celsius, Fewer Is Better
RTX 2060 SUPER
Min: 48 / Avg: 59.14 / Max: 69
RTX 2070 SUPER
Min: 47 / Avg: 56.98 / Max: 66
RTX 2080 SUPER
Min: 51 / Avg: 61.31 / Max: 71
RTX 2080 Ti
Min: 51 / Avg: 60.71 / Max: 70
TITAN RTX
Min: 53 / Avg: 63.56 / Max: 73
RTX 3060 Ti
Min: 46 / Avg: 59.15 / Max: 70
RTX 3080
Min: 51 / Avg: 60.75 / Max: 69
RX Vega 56
Min: 42 / Avg: 55.52 / Max: 66
Radeon VII
Min: 43 / Avg: 53.87 / Max: 63
RX 5700 XT
Min: 51 / Avg: 62.55 / Max: 72
RX 6800
Min: 56 / Avg: 61.26 / Max: 67
RX 6800 XT
Min: 57 / Avg: 64.22 / Max: 72
14
28
42
56
70

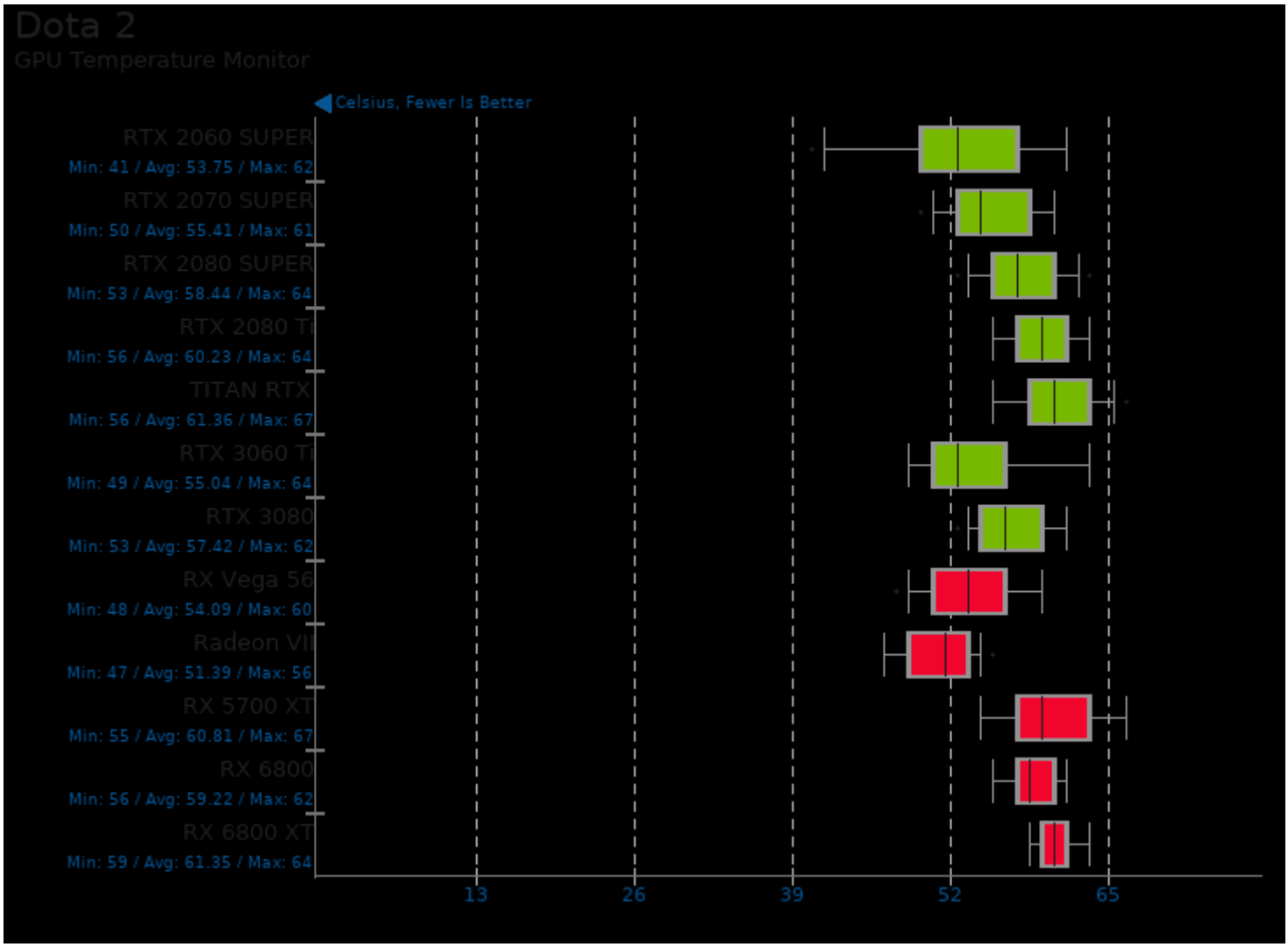

Dawn of War III
GPU Power Consumption Monitor
Watts, Fewer Is Better
RTX 2060 SUPER
Min: 9.9 / Avg: 107.63 / Max: 181.16
RTX 2070 SUPER
Min: 15.27 / Avg: 129.25 / Max: 221.06
RTX 2080 SUPER
Min: 9.64 / Avg: 144.16 / Max: 254.43
RTX 2080 Ti
Min: 8.09 / Avg: 148.39 / Max: 268.64
TITAN RTX
Min: 12.22 / Avg: 168.48 / Max: 288.33
RTX 3060 Ti
Min: 13.47 / Avg: 118.73 / Max: 200.17
RTX 3080
Min: 15.24 / Avg: 189.97 / Max: 316.33
RX Vega 56
Min: 3 / Avg: 101.35 / Max: 166
Radeon VII
Min: 21 / Avg: 125.92 / Max: 253
RX 5700 XT
Min: 30 / Avg: 114.42 / Max: 207
RX 6800
Min: 29 / Avg: 120.38 / Max: 240
RX 6800 XT
Min: 33 / Avg: 147.08 / Max: 318
60
120
180
240
300

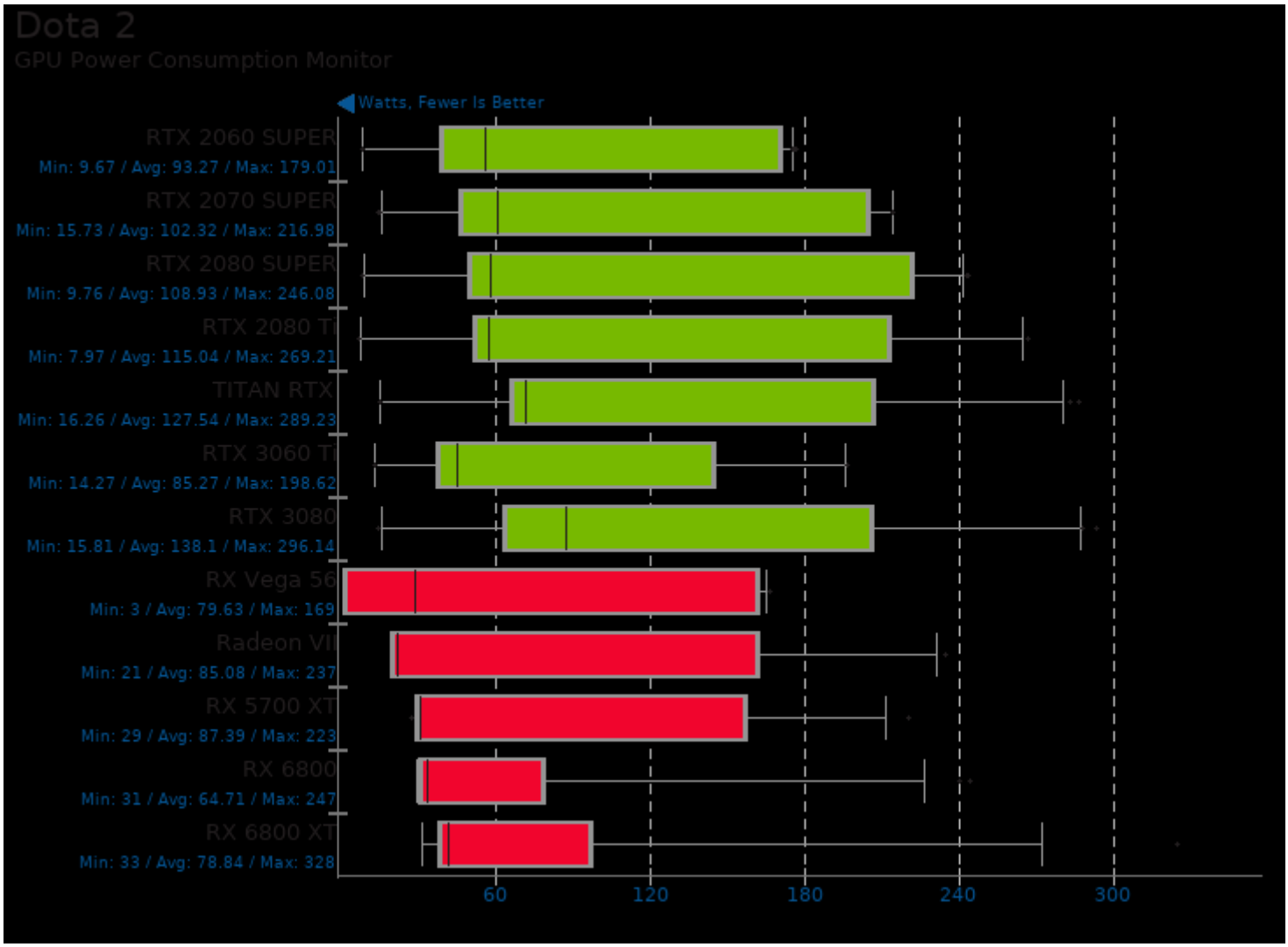

Dawn of War III
Resolution: 3840 x 2160 - Graphics Preset: Ultra - Renderer: Vulkan
Frames Per Second Per Watt, More Is Better
RTX 2060 SUPER
0.46
RTX 2070 SUPER
0.46
RTX 2080 SUPER
0.47
RTX 2080 Ti
0.52
TITAN RTX
0.51
RTX 3060 Ti
0.61
RTX 3080
0.50
RX Vega 56
0.41
Radeon VII
0.50
RX 5700 XT
0.47
RX 6800
0.76
RX 6800 XT
0.66
0.171
0.342
0.513
0.684
0.855

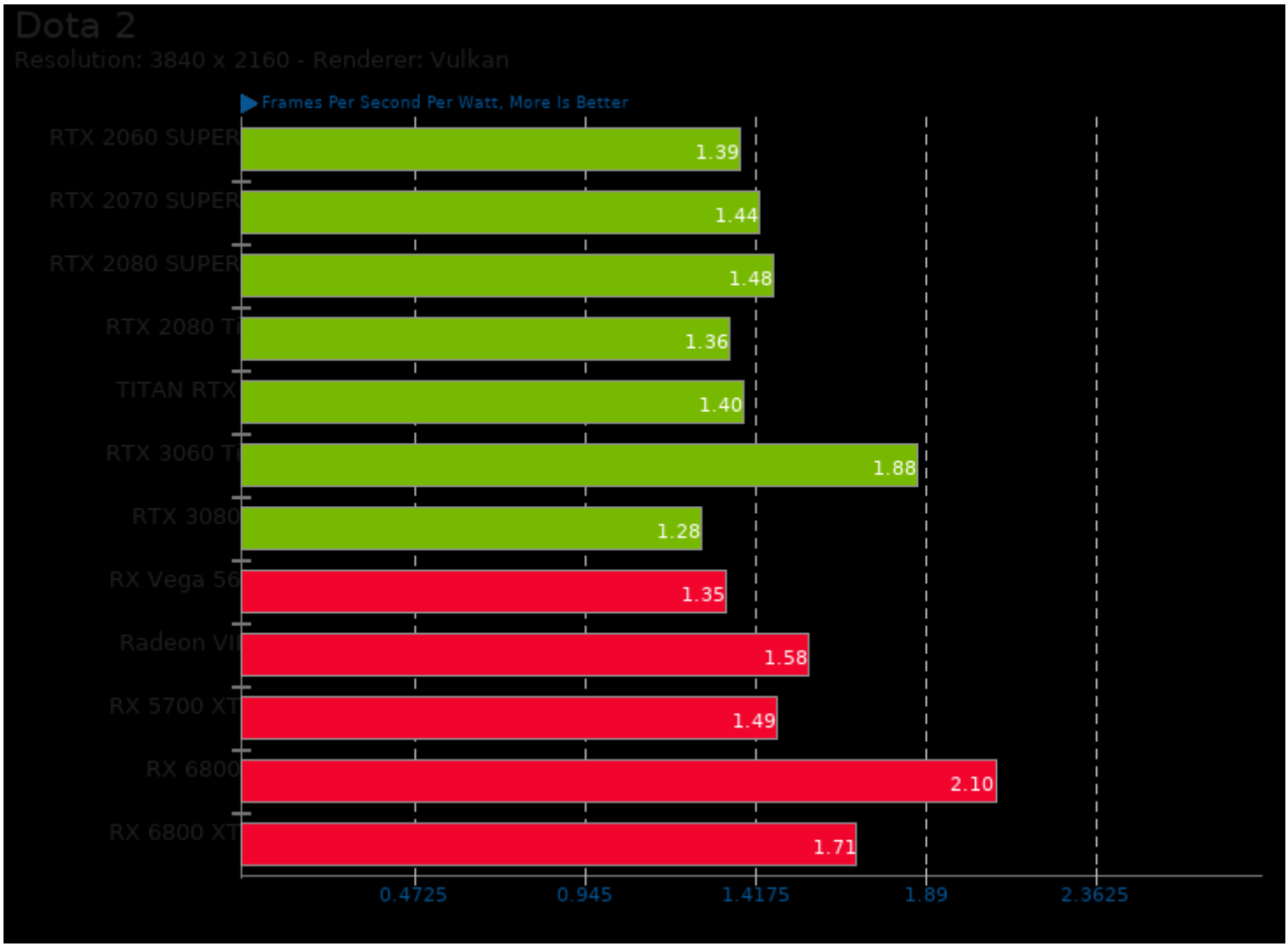

Dawn of War III
GPU Temperature Monitor
Celsius, Fewer Is Better
RTX 2060 SUPER
Min: 46 / Avg: 58.06 / Max: 69
RTX 2070 SUPER
Min: 45 / Avg: 55.78 / Max: 66
RTX 2080 SUPER
Min: 48 / Avg: 59.85 / Max: 70
RTX 2080 Ti
Min: 50 / Avg: 59.96 / Max: 70
TITAN RTX
Min: 51 / Avg: 62.42 / Max: 72
RTX 3060 Ti
Min: 45 / Avg: 58.5 / Max: 70
RTX 3080
Min: 50 / Avg: 59.94 / Max: 69
RX Vega 56
Min: 44 / Avg: 57.22 / Max: 69
Radeon VII
Min: 42 / Avg: 53.54 / Max: 63
RX 5700 XT
Min: 49 / Avg: 61.27 / Max: 72
RX 6800
Min: 57 / Avg: 61.54 / Max: 66
RX 6800 XT
Min: 56 / Avg: 63.49 / Max: 72
14
28
42
56
70

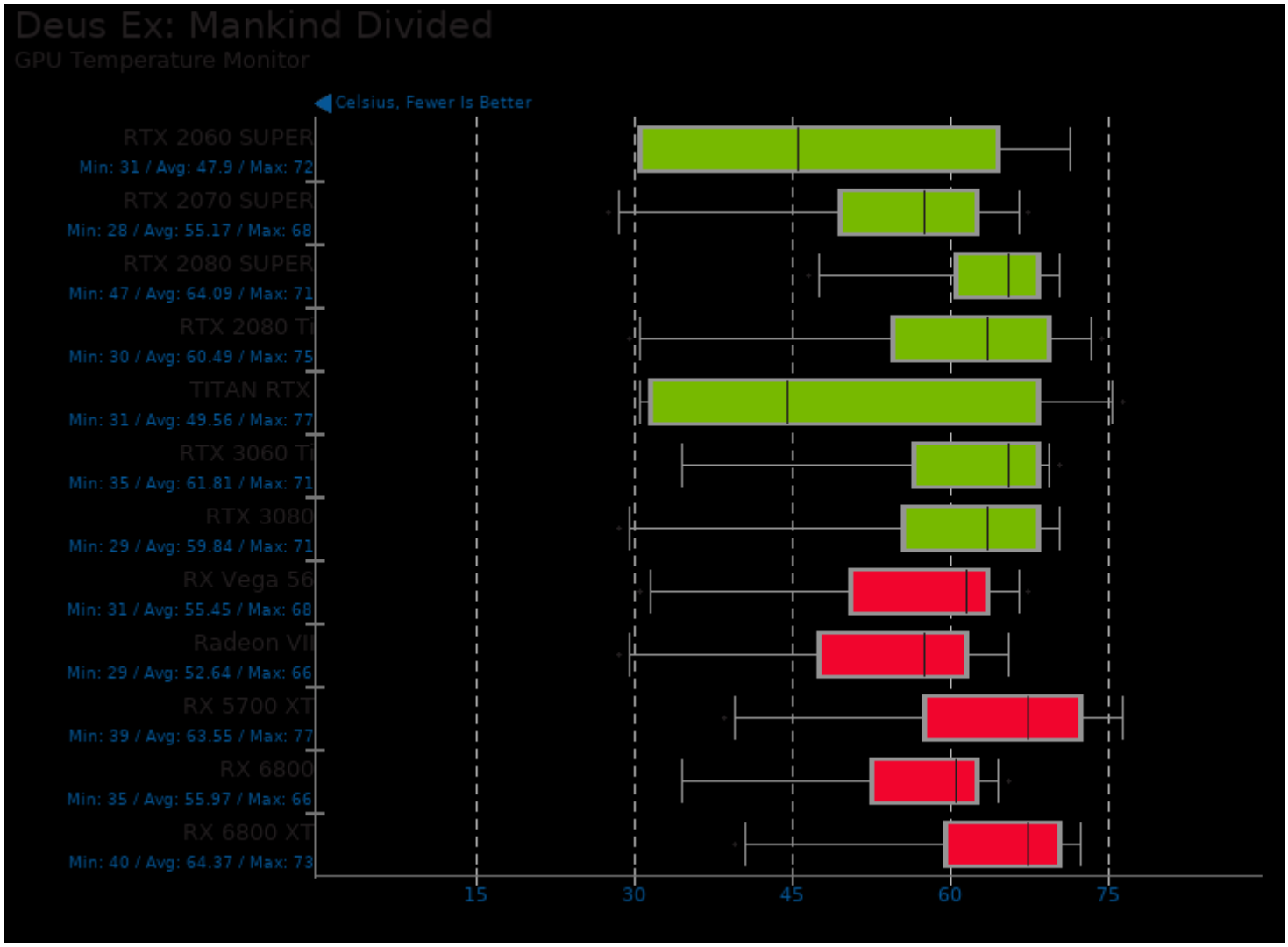

Dawn of War III
GPU Power Consumption Monitor
Watts, Fewer Is Better
RTX 2060 SUPER
Min: 9.91 / Avg: 107.83 / Max: 178.78
RTX 2070 SUPER
Min: 15.32 / Avg: 127.25 / Max: 219.9
RTX 2080 SUPER
Min: 9.52 / Avg: 145.09 / Max: 254.97
RTX 2080 Ti
Min: 7.82 / Avg: 147.63 / Max: 265.7
TITAN RTX
Min: 11.67 / Avg: 171.08 / Max: 292.8
RTX 3060 Ti
Min: 12.98 / Avg: 118.85 / Max: 200.04
RTX 3080
Min: 14.99 / Avg: 185.39 / Max: 317.71
RX Vega 56
Min: 3 / Avg: 100.78 / Max: 167
Radeon VII
Min: 21 / Avg: 126.34 / Max: 253
RX 5700 XT
Min: 28 / Avg: 110.28 / Max: 213
RX 6800
Min: 30 / Avg: 122.2 / Max: 257
RX 6800 XT
Min: 33 / Avg: 143.76 / Max: 322
60
120
180
240
300

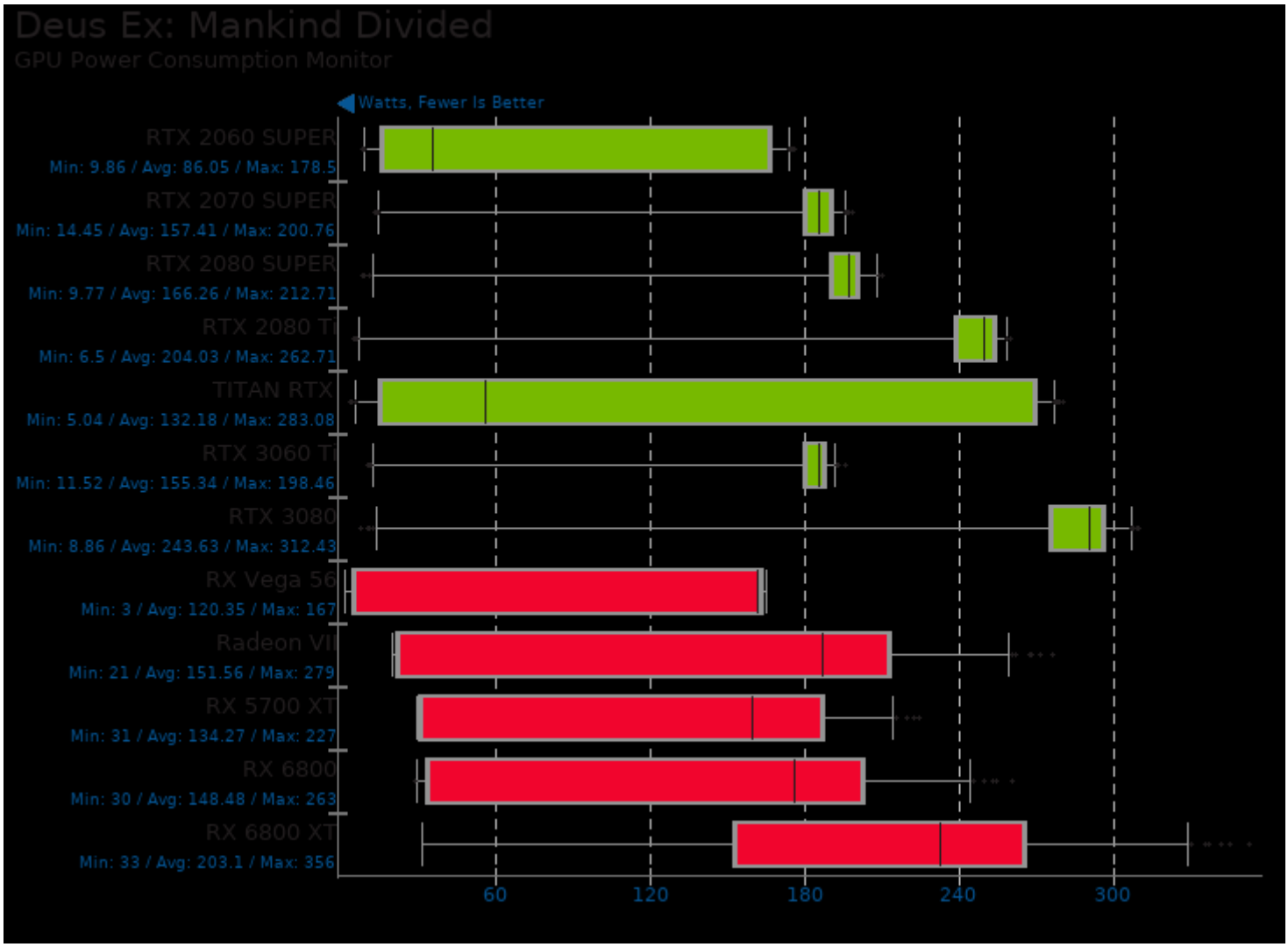

Dawn of War III
Resolution: 3840 x 2160 - Graphics Preset: High - Renderer: Vulkan
Frames Per Second Per Watt, More Is Better
RTX 2060 SUPER
0.50
RTX 2070 SUPER
0.51
RTX 2080 SUPER
0.52
RTX 2080 T
0.56
TITAN RTX
0.54
RTX 3060 T
0.67
RTX 3080
0.54
RX Vega 56
0.45
Radeon VI
0.54
RX 5700 XT
0.53
RX 6800
0.78
RX 6800 XT
0.69
0.1755
0.351
0.5265
0.702
0.8775

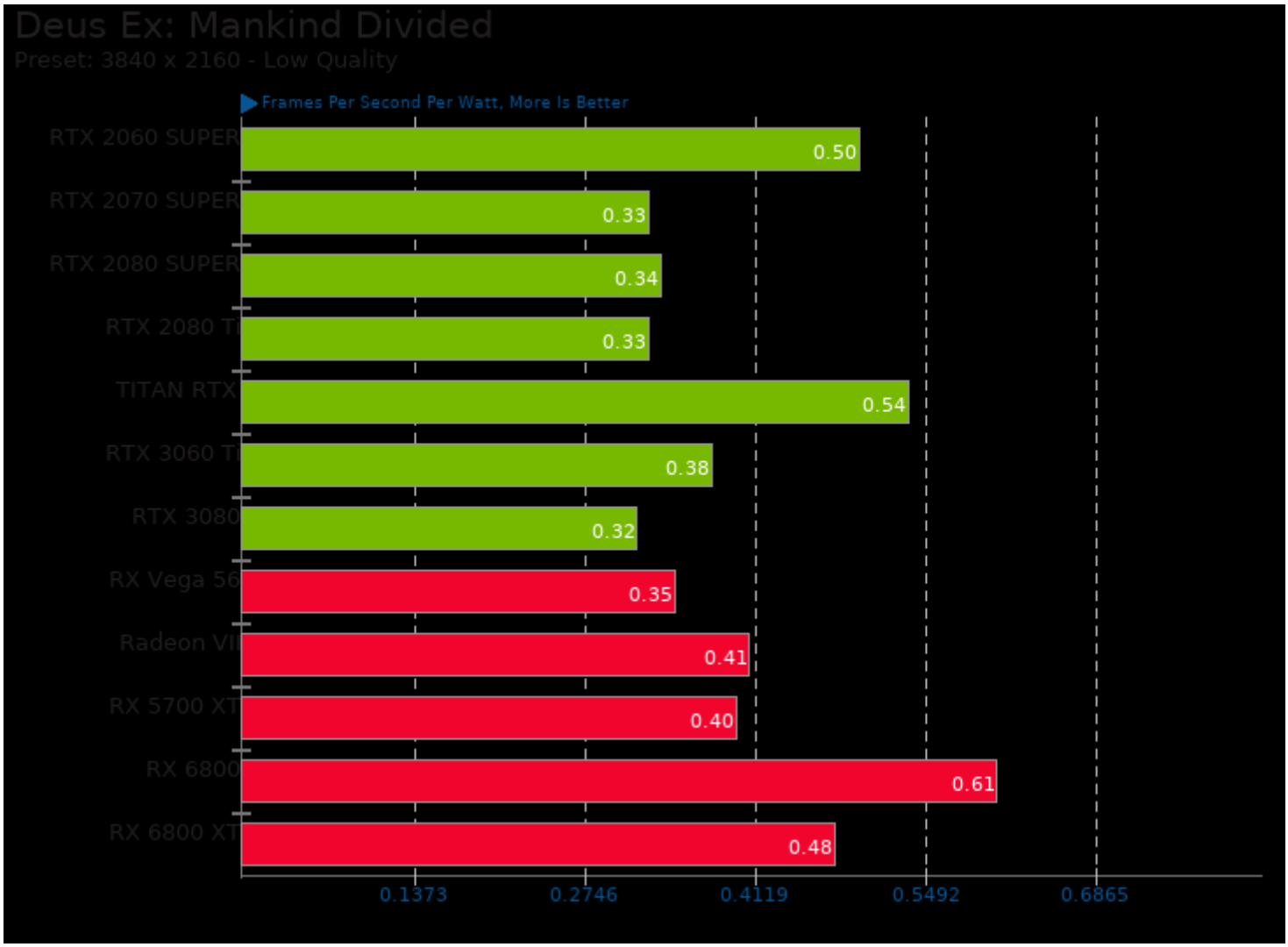

Dota 2
GPU Temperature Monitor
Celsius, Fewer Is Better
RTX 2060 SUPER
Min: 41 / Avg: 53.75 / Max: 62
RTX 2070 SUPER
Min: 50 / Avg: 55.41 / Max: 61
RTX 2080 SUPER
Min: 53 / Avg: 58.44 / Max: 64
RTX 2080 Ti
Min: 56 / Avg: 60.23 / Max: 64
TITAN RTX
Min: 56 / Avg: 61.36 / Max: 67
RTX 3060 Ti
Min: 49 / Avg: 55.04 / Max: 64
RTX 3080
Min: 53 / Avg: 57.42 / Max: 62
RX Vega 56
Min: 48 / Avg: 54.09 / Max: 60
Radeon VII
Min: 47 / Avg: 51.39 / Max: 56
RX 5700 XT
Min: 55 / Avg: 60.81 / Max: 67
RX 6800
Min: 56 / Avg: 59.22 / Max: 62
RX 6800 XT
Min: 59 / Avg: 61.35 / Max: 64
13
26
39
52
65


Dota 2
GPU Power Consumption Monitor
Watts, Fewer Is Better
RTX 2060 SUPER
Min: 9.67 / Avg: 93.27 / Max: 179.01
RTX 2070 SUPER
Min: 15.73 / Avg: 102.32 / Max: 216.98
RTX 2080 SUPER
Min: 9.76 / Avg: 108.93 / Max: 246.08
RTX 2080 Ti
Min: 7.97 / Avg: 115.04 / Max: 269.21
TITAN RTX
Min: 16.26 / Avg: 127.54 / Max: 289.23
RTX 3060 Ti
Min: 14.27 / Avg: 85.27 / Max: 198.62
RTX 3080
Min: 15.81 / Avg: 138.1 / Max: 296.14
RX Vega 56
Min: 3 / Avg: 79.63 / Max: 169
Radeon VII
Min: 21 / Avg: 85.08 / Max: 237
RX 5700 XT
Min: 29 / Avg: 87.39 / Max: 223
RX 6800
Min: 31 / Avg: 64.71 / Max: 247
RX 6800 XT
Min: 33 / Avg: 78.84 / Max: 328
60
120
180
240
300

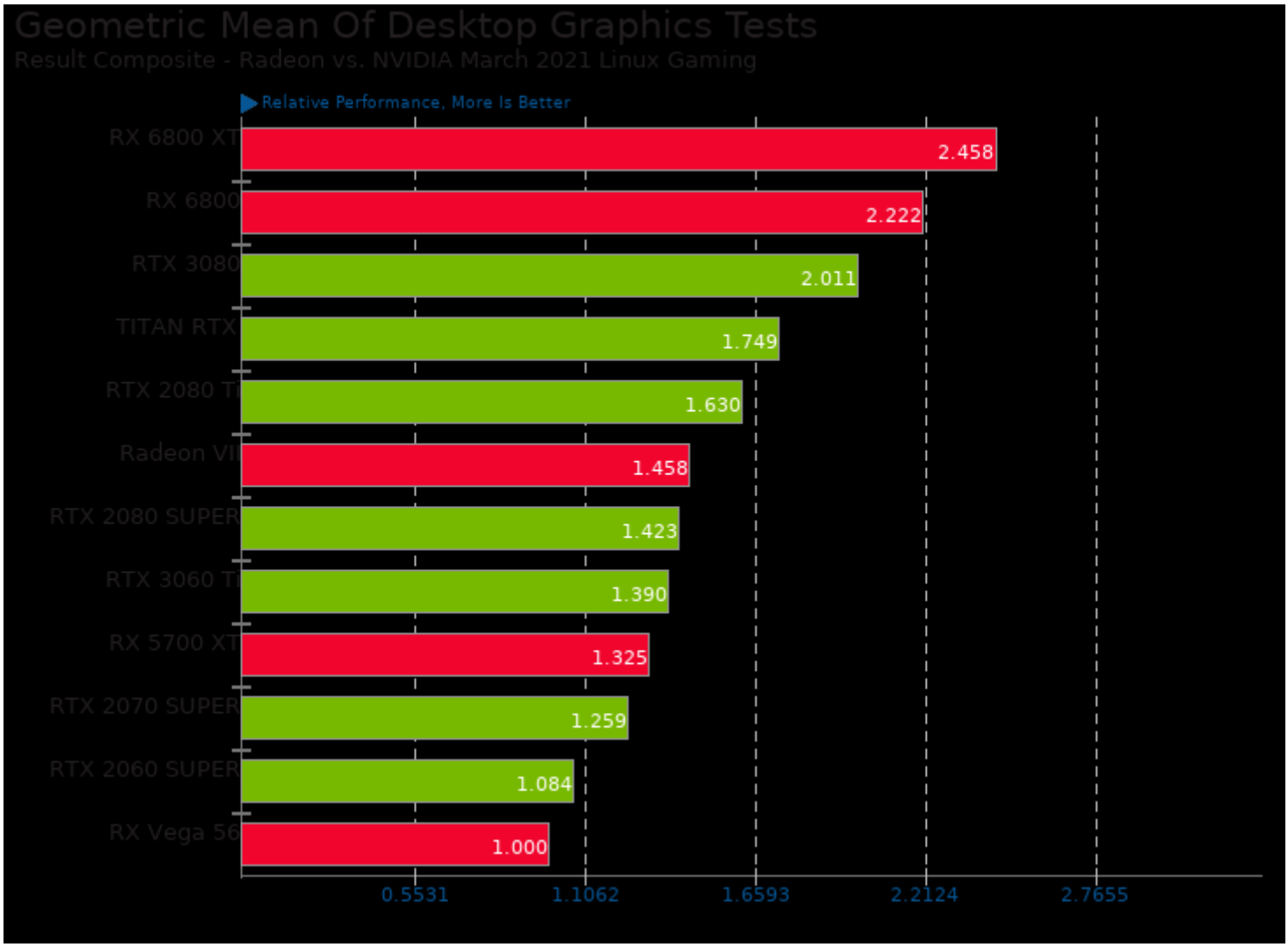

Dota 2
Resolution: 3840 x 2160 - Renderer: Vulkan
Frames Per Second Per Watt, More Is Better
RTX 2060 SUPER
1.39
RTX 2070 SUPER
1.44
RTX 2080 SUPER
1.48
RTX 2080 Ti
1.36
TITAN RTX
1.40
RTX 3060 Ti
1.88
RTX 3080
1.28
RX Vega 56
1.35
Radeon VII
1.58
RX 5700 XT
1.49
RX 6800
2.10
RX 6800 XT
1.71
0.4725
0.945
1.4175
1.89
2.3625


Deus Ex: Mankind Divided
GPU Temperature Monitor
Celsius, Fewer Is Better
RTX 2060 SUPER
Min: 31 / Avg: 47.9 / Max: 72
RTX 2070 SUPER
Min: 28 / Avg: 55.17 / Max: 68
RTX 2080 SUPER
Min: 47 / Avg: 64.09 / Max: 71
RTX 2080 Ti
Min: 30 / Avg: 60.49 / Max: 75
TITAN RTX
Min: 31 / Avg: 49.56 / Max: 77
RTX 3060 Ti
Min: 35 / Avg: 61.81 / Max: 71
RTX 3080
Min: 29 / Avg: 59.84 / Max: 71
RX Vega 56
Min: 31 / Avg: 55.45 / Max: 68
Radeon VII
Min: 29 / Avg: 52.64 / Max: 66
RX 5700 XT
Min: 39 / Avg: 63.55 / Max: 77
RX 6800
Min: 35 / Avg: 55.97 / Max: 66
RX 6800 XT
Min: 40 / Avg: 64.37 / Max: 73
15
30
45
60
75

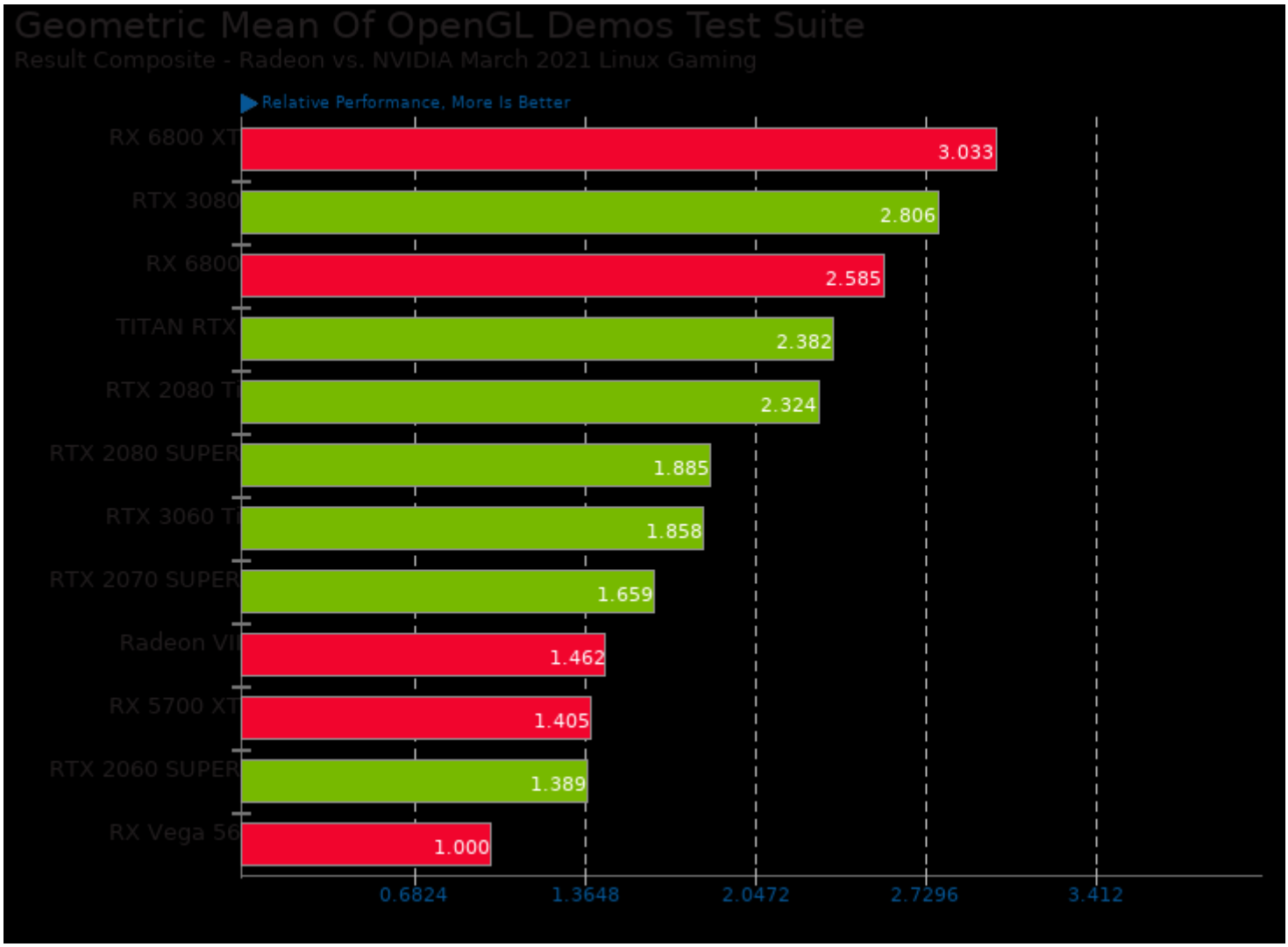

Deus Ex: Mankind Divided
GPU Power Consumption Monitor
Watts, Fewer Is Better
RTX 2060 SUPER
Min: 9.86 / Avg: 86.05 / Max: 178.5
RTX 2070 SUPER
Min: 14.45 / Avg: 157.41 / Max: 200.76
RTX 2080 SUPER
Min: 9.77 / Avg: 166.26 / Max: 212.71
RTX 2080 Ti
Min: 6.5 / Avg: 204.03 / Max: 262.71
TITAN RTX
Min: 5.04 / Avg: 132.18 / Max: 283.08
RTX 3060 Ti
Min: 11.52 / Avg: 155.34 / Max: 198.46
RTX 3080
Min: 8.86 / Avg: 243.63 / Max: 312.43
RX Vega 56
Min: 3 / Avg: 120.35 / Max: 167
Radeon VII
Min: 21 / Avg: 151.56 / Max: 279
RX 5700 XT
Min: 31 / Avg: 134.27 / Max: 227
RX 6800
Min: 30 / Avg: 148.48 / Max: 263
RX 6800 XT
Min: 33 / Avg: 203.1 / Max: 356
60
120
180
240
300


Deus Ex: Mankind Divided
Preset: 3840 x 2160 - Low Quality
Frames Per Second Per Watt, More Is Better
RTX 2060 SUPER
0.50
RTX 2070 SUPER
0.33
RTX 2080 SUPER
0.34
RTX 2080 Ti
0.33
TITAN RTX
0.54
RTX 3060 Ti
0.38
RTX 3080
0.32
RX Vega 56
0.35
Radeon VII
0.41
RX 5700 XT
0.40
RX 6800
0.61
RX 6800 XT
0.48
0.1373
0.2746
0.4119
0.5492
0.6865

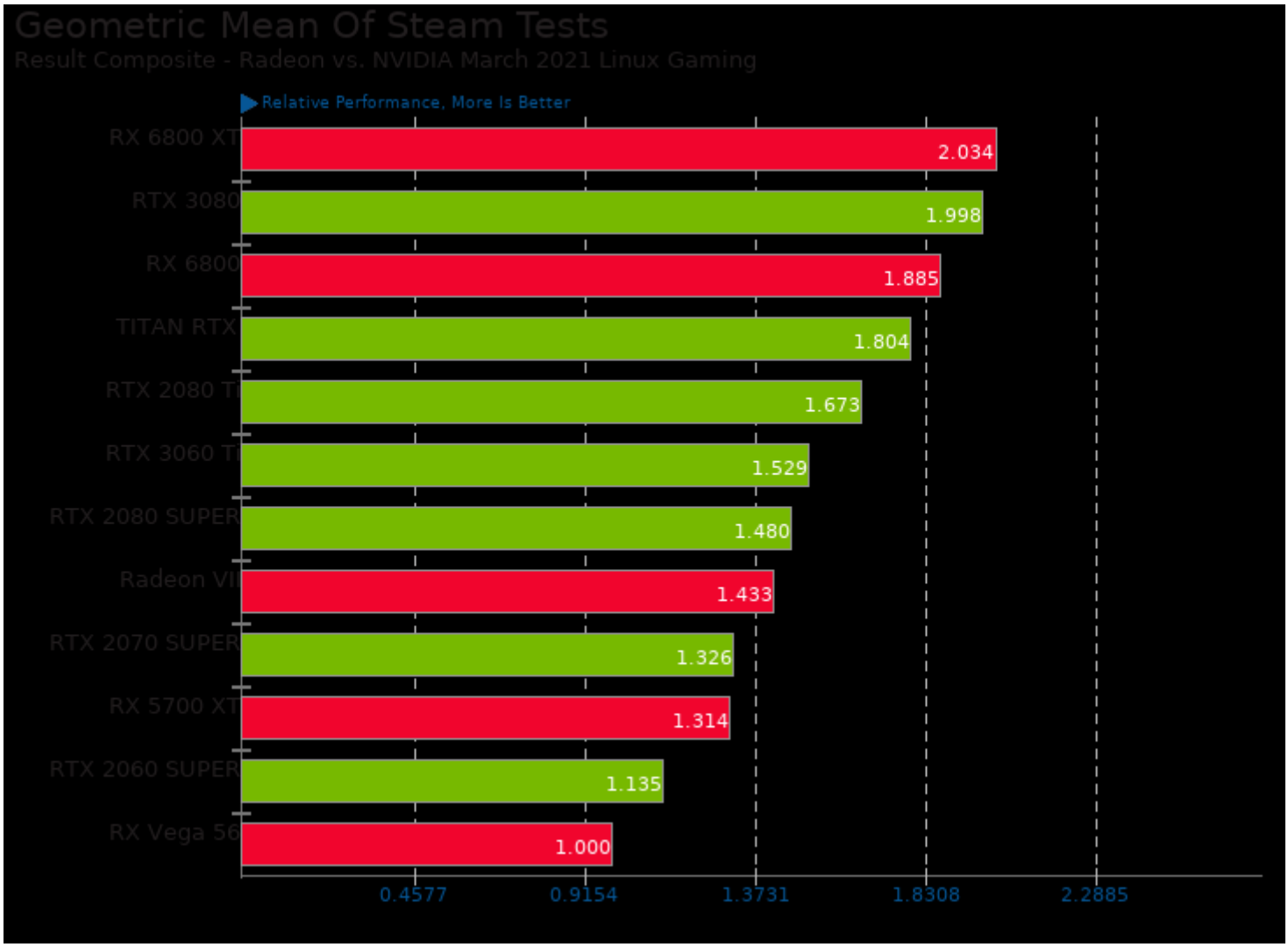
These geometric means are based upon test groupings / test suites for this result file.



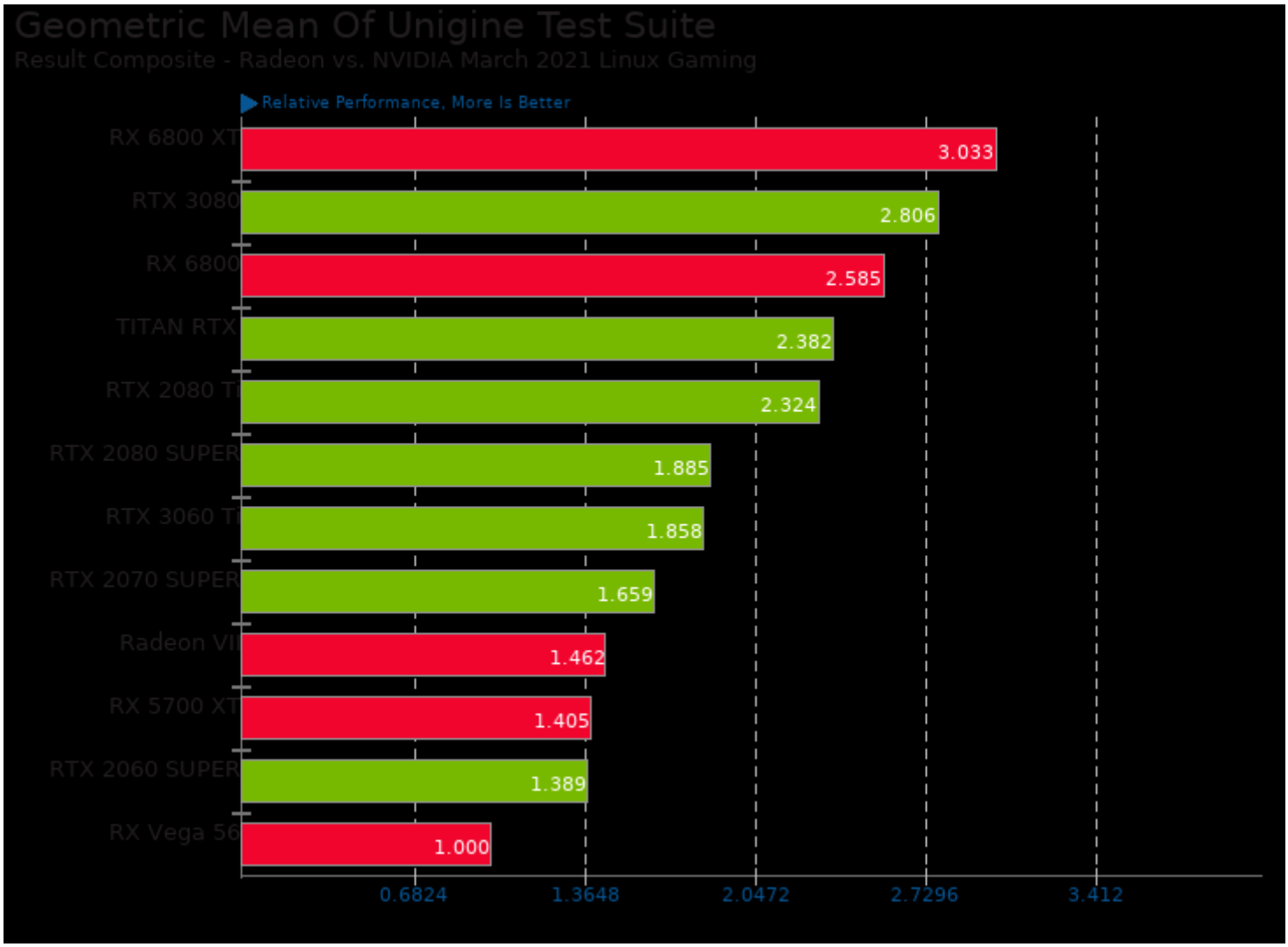
Geometric mean based upon tests: pts/xonotic, pts/tesseract and pts/unigine-heaven



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



Geometric mean based upon tests: pts/dota2, pts/dow3, pts/f12017, pts/hitman, pts/riseofthetombraider, pts/shadowofthetombraider, pts/talos-principle and pts/deus-exmd



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

This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 21:44.