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5700series

AMD Ryzen 9 3900X 12-Core testing with a Gigabyte X570 AORUS MASTER (N9 BIOS) and AMD Radeon RX 5700 XT 8GB on Ubuntu 18.04 via the Phoronix Test Suite.

Automated Executive Summary

5700xt had the most wins, coming in first place for 97% of the tests.

Based on the geometric mean of all complete results, the fastest (5700xt) was 1.09x the speed of the slowest (5700).

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

Counter-Strike: Global Offensive (Resolution: 1920 x 1080 - Total Frame Time) at 3042.747x
Counter-Strike: Global Offensive (Resolution: 2560 x 1440 - Total Frame Time) at 2024.213x
Counter-Strike: Global Offensive (Resolution: 3840 x 2160 - Total Frame Time) at 1566.476x
Rise of the Tomb Raider (Resolution: 3840 x 2160 - Graphics Preset: Very High - Anti Aliasing: SSAA 4x - Scene: Spine Of The Mountain) at 1.151x
Rise of the Tomb Raider (Resolution: 1920 x 1080 - Graphics Preset: Very High - Anti Aliasing: SSAA 4x - Scene: Spine Of The Mountain) at 1.143x
Rise of the Tomb Raider (Resolution: 2560 x 1440 - Graphics Preset: High - Anti Aliasing: FXAA - Scene: Spine Of The Mountain) at 1.143x
Rise of the Tomb Raider (Resolution: 2560 x 1440 - Graphics Preset: High - Anti Aliasing: FXAA - Scene: Prophets

Tomb) at 1.134x
Unigine Superposition (Resolution: 1920 x 1080 - Mode: Fullscreen - Quality: High - Renderer: OpenGL) at 1.129x
Unigine Superposition (Resolution: 3840 x 2160 - Mode: Fullscreen - Quality: Medium - Renderer: OpenGL) at 1.127x
Rise of the Tomb Raider (Resolution: 3840 x 2160 - Graphics Preset: High - Anti Aliasing: SSAA 4x - Scene: Spine Of The Mountain) at 1.127x.

Test Systems:

5700

Processor: AMD Ryzen 9 3900X 12-Core @ 3.80GHz (12 Cores / 24 Threads), Motherboard: Gigabyte X570 AORUS MASTER (N9 BIOS), Chipset: AMD Starship/Matisse, Memory: 16384MB, Disk: PM961 NVMe SAMSUNG 512GB, Graphics: AMD Radeon RX 5700 (1750/875MHz), Audio: AMD Device ab38, Monitor: SAMSUNG, Network: Intel I211 + Realtek Device 8125 + Intel Device 2723 + Intel Dual Band-AC 3168NGW

OS: Ubuntu 18.04, Kernel: 4.18.0-25-generic (x86_64), Desktop: GNOME Shell 3.28.4, Display Server: X Server 1.20.4, Display Driver: modesetting 1.20.4, OpenGL: 4.6.13568, Vulkan: 1.1.109, Compiler: GCC 7.4.0 + Clang 6.0.0-1ubuntu2 + LLVM 6.0.0, File-System: ext4, Screen Resolution: 3840x2160

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: acpi-cpufreq performance
Security Notes: l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of __user pointer sanitization + spectre_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: always-on RSB filling

5700xt

Processor: AMD Ryzen 9 3900X 12-Core @ 3.80GHz (12 Cores / 24 Threads), Motherboard: Gigabyte X570 AORUS MASTER (N9 BIOS), Chipset: AMD Starship/Matisse, Memory: 16384MB, Disk: PM961 NVMe SAMSUNG 512GB, Graphics: AMD Radeon RX 5700 XT 8GB (2100/875MHz), Audio: AMD Navi 10 HDMI Audio, Monitor: SAMSUNG, Network: Intel I211 + Realtek Device 8125 + Intel Device 2723 + Intel Dual Band-AC 3168NGW

OS: Ubuntu 18.04, Kernel: 4.18.0-25-generic (x86_64), Desktop: GNOME Shell 3.28.4, Display Server: X Server 1.20.4, Display Driver: modesetting 1.20.4, OpenGL: 4.6.13568, Vulkan: 1.1.109, Compiler: GCC 7.4.0 + Clang 6.0.0-1ubuntu2 + LLVM 6.0.0, File-System: ext4, Screen Resolution: 3840x2160

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: acpi-cpufreq performance
Security Notes: l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of __user pointer sanitization + spectre_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: always-on RSB filling

5700series

	5700	5700xt
Rise of the Tomb Raider - 3840 x 2160 - Very High - SSAA 4x - S.O.T.M (FPS)	26.50	30.50
Normalized	86.89%	100%
Standard Deviation	2%	0.3%
Rise of the Tomb Raider - 1920 x 1080 - Very High - SSAA 4x - S.O.T.M (FPS)	84.43	96.53
Normalized	87.47%	100%
Standard Deviation	1.2%	0.3%
Rise of the Tomb Raider - 2560 x 1440 - High - FXAA - S.O.T.M (FPS)	119	136
Normalized	87.5%	100%
Standard Deviation	0.9%	1.5%
Rise of the Tomb Raider - 2560 x 1440 - High - FXAA - Prophets Tomb (FPS)	86.20	97.77
Normalized	88.17%	100%
Standard Deviation	0%	2.1%
Unigine Superposition - 1920 x 1080 - Fullscreen - High - OpenGL (FPS)	57.77	65.20
Normalized	88.6%	100%
Standard Deviation	0.1%	0%
Unigine Superposition - 3840 x 2160 - Fullscreen - Medium - OpenGL (FPS)	25.90	29.20
Normalized	88.7%	100%
Standard Deviation	0%	0%
Rise of the Tomb Raider - 3840 x 2160 - High - SSAA 4x - S.O.T.M (FPS)	28.77	32.43
Normalized	88.71%	100%
Standard Deviation	0.8%	0.6%
Rise of the Tomb Raider - 1920 x 1080 - Very High - FXAA - S.O.T.M (FPS)	158	178
Normalized	88.76%	100%
Standard Deviation	0.6%	0.4%
Rise of the Tomb Raider - 3840 x 2160 - Very High - SSAA 4x - Prophets Tomb (FPS)	18.13	20.40
Normalized	88.87%	100%
Standard Deviation	0.3%	0%
Rise of the Tomb Raider - 2560 x 1440 - Very High - FXAA - S.O.T.M (FPS)	112	126
Normalized	88.89%	100%
Standard Deviation	0.7%	0.8%
Unigine Superposition - 2560 x 1440 - Fullscreen - High - OpenGL (FPS)	53.80	60.50
Normalized	88.93%	100%
Standard Deviation	0%	0%
Rise of the Tomb Raider - 2560 x 1440 - Very High - SSAA 4x - Prophets Tomb (FPS)	35.90	40.37
Normalized	88.93%	100%
Standard Deviation	0%	0.1%
Rise of the Tomb Raider - 2560 x 1440 - Very High - SSAA 4x - S.O.T.M (FPS)	54.10	60.83
Normalized	88.94%	100%
Standard Deviation	0.5%	1.1%

Unigine Superposition - 3840 x 2160 - Fullscreen - High - OpenGL (FPS)	**17.97**	**20.20**
Normalized	88.96%	100%
Standard Deviation	0.3%	0%
Unigine Superposition - 1920 x 1080 - Fullscreen - Ultra - OpenGL (FPS)	**26.40**	**29.60**
Normalized	89.19%	100%
Standard Deviation	0%	0.3%
Rise of the Tomb Raider - 3840 x 2160 - Medium - SSAA 4x - Prophets Tomb (FPS)	**19.63**	**21.97**
Normalized	89.35%	100%
Standard Deviation	0.3%	0.3%
Rise of the Tomb Raider - 1920 x 1080 - Very High - SSAA 4x - Prophets Tomb (FPS)	**56.57**	**63.30**
Normalized	89.37%	100%
Standard Deviation	0.3%	0%
Rise of the Tomb Raider - 3840 x 2160 - Very High - FXAA - S.O.T.M (FPS)	**61.70**	**69.03**
Normalized	89.38%	100%
Standard Deviation	1.1%	0.5%
Unigine Superposition - 2560 x 1440 - Fullscreen - Medium - OpenGL (FPS)	**72.80**	**81.40**
Normalized	89.43%	100%
Standard Deviation	0%	0.1%
Rise of the Tomb Raider - 2560 x 1440 - High - SSAA 4x - Prophets Tomb (FPS)	**37.50**	**41.90**
Normalized	89.5%	100%
Standard Deviation	0.3%	0%
Rise of the Tomb Raider - 1920 x 1080 - Very High - FXAA - Prophets Tomb (FPS)	**112**	**125**
Normalized	89.6%	100%
Standard Deviation	0.1%	0%
Rise of the Tomb Raider - 2560 x 1440 - High - SSAA 4x - S.O.T.M (FPS)	**58.33**	**65.10**
Normalized	89.6%	100%
Standard Deviation	0.8%	0.8%
Rise of the Tomb Raider - 3840 x 2160 - High - SSAA 4x - Prophets Tomb (FPS)	**18.77**	**20.93**
Normalized	89.68%	100%
Standard Deviation	0.3%	0.3%
Deus Ex: Mankind Divided - 3840 x 2160 - Low Quality (FPS)	**31.83**	**35.47**
Normalized	89.74%	100%
Standard Deviation	0.2%	0.2%
Rise of the Tomb Raider - 3840 x 2160 - Medium - SSAA 4x - S.O.T.M (FPS)	**32.57**	**36.27**
Normalized	89.8%	100%
Standard Deviation	0.5%	1%
Rise of the Tomb Raider - 3840 x 2160 - High - FXAA - S.O.T.M (FPS)	**65.30**	**72.70**
Normalized	89.82%	100%
Standard Deviation	0.8%	0.6%

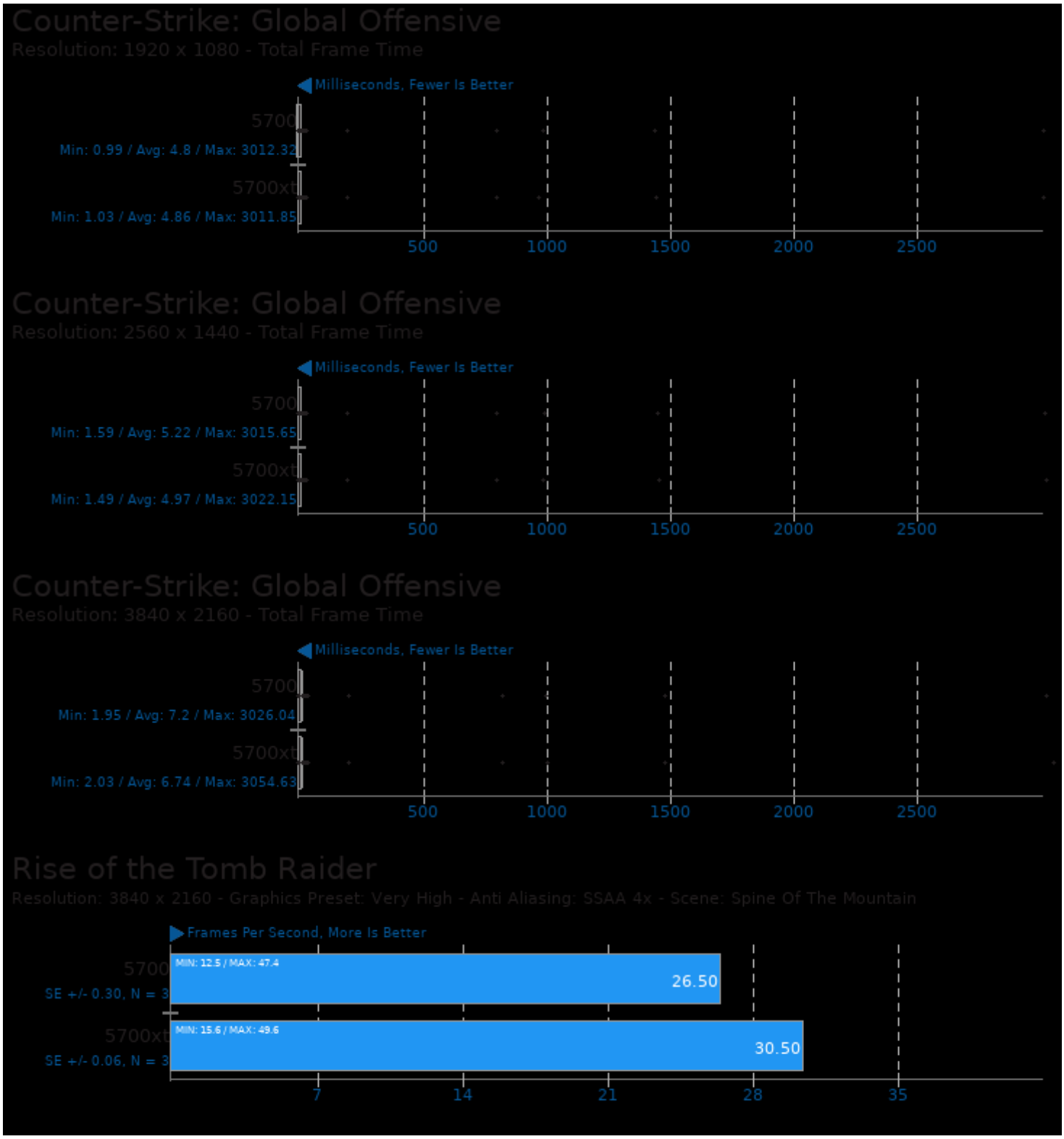
Rise of the Tomb Raider - 3840 x 2160 - Very High - FXAA - Geothermal Valley (FPS)	**42.77**	**47.57**
Normalized	89.91%	100%
Standard Deviation	0.1%	0.4%
Rise of the Tomb Raider - 3840 x 2160 - Very High - FXAA - Prophets Tomb (FPS)	**45.47**	**50.57**
Normalized	89.91%	100%
Standard Deviation	0.1%	0.2%
Rise of the Tomb Raider - 3840 x 2160 - Medium - FXAA - S.O.T.M (FPS)	**71.70**	**79.70**
Normalized	89.96%	100%
Standard Deviation	0.7%	0.5%
Rise of the Tomb Raider - 2560 x 1440 - Very High - FXAA - Prophets Tomb (FPS)	**81.03**	**90.07**
Normalized	89.96%	100%
Standard Deviation	0.1%	0.1%
Rise of the Tomb Raider - 3840 x 2160 - High - FXAA - Prophets Tomb (FPS)	**47.43**	**52.70**
Normalized	90%	100%
Standard Deviation	0.2%	0.4%
Deus Ex: Mankind Divided - 2560 x 1440 - Ultra Quality (FPS)	**33.43**	**37.10**
Normalized	90.11%	100%
Standard Deviation	0.5%	0.8%
Rise of the Tomb Raider - 3840 x 2160 - Medium - FXAA - Prophets Tomb (FPS)	**49.77**	**55.23**
Normalized	90.11%	100%
Standard Deviation	0.1%	0.3%
Rise of the Tomb Raider - 3840 x 2160 - Very High - SSAA 4x - Geothermal Valley (FPS)	**17.80**	**19.73**
Normalized	90.22%	100%
Standard Deviation	0%	0.3%
Unigine Valley - 1920 x 1080 - Fullscreen - OpenGL (FPS)	**132**	**146**
Normalized	90.41%	100%
Standard Deviation	0.1%	0.1%
Rise of the Tomb Raider - 3840 x 2160 - High - SSAA 4x - Geothermal Valley (FPS)	**19.33**	**21.37**
Normalized	90.45%	100%
Standard Deviation	0.3%	0.3%
Deus Ex: Mankind Divided - 3840 x 2160 - High Quality (FPS)	**22.80**	**25.20**
Normalized	90.48%	100%
Standard Deviation	0.4%	0.7%
Rise of the Tomb Raider - 2560 x 1440 - Very High - SSAA 4x - Geothermal Valley (FPS)	**35.17**	**38.87**
Normalized	90.48%	100%
Standard Deviation	0.6%	0.4%
Rise of the Tomb Raider - 2560 x 1440 - High - SSAA 4x - Geothermal Valley (FPS)	**38.37**	**42.37**
Normalized	90.56%	100%
Standard Deviation	0.4%	0.3%

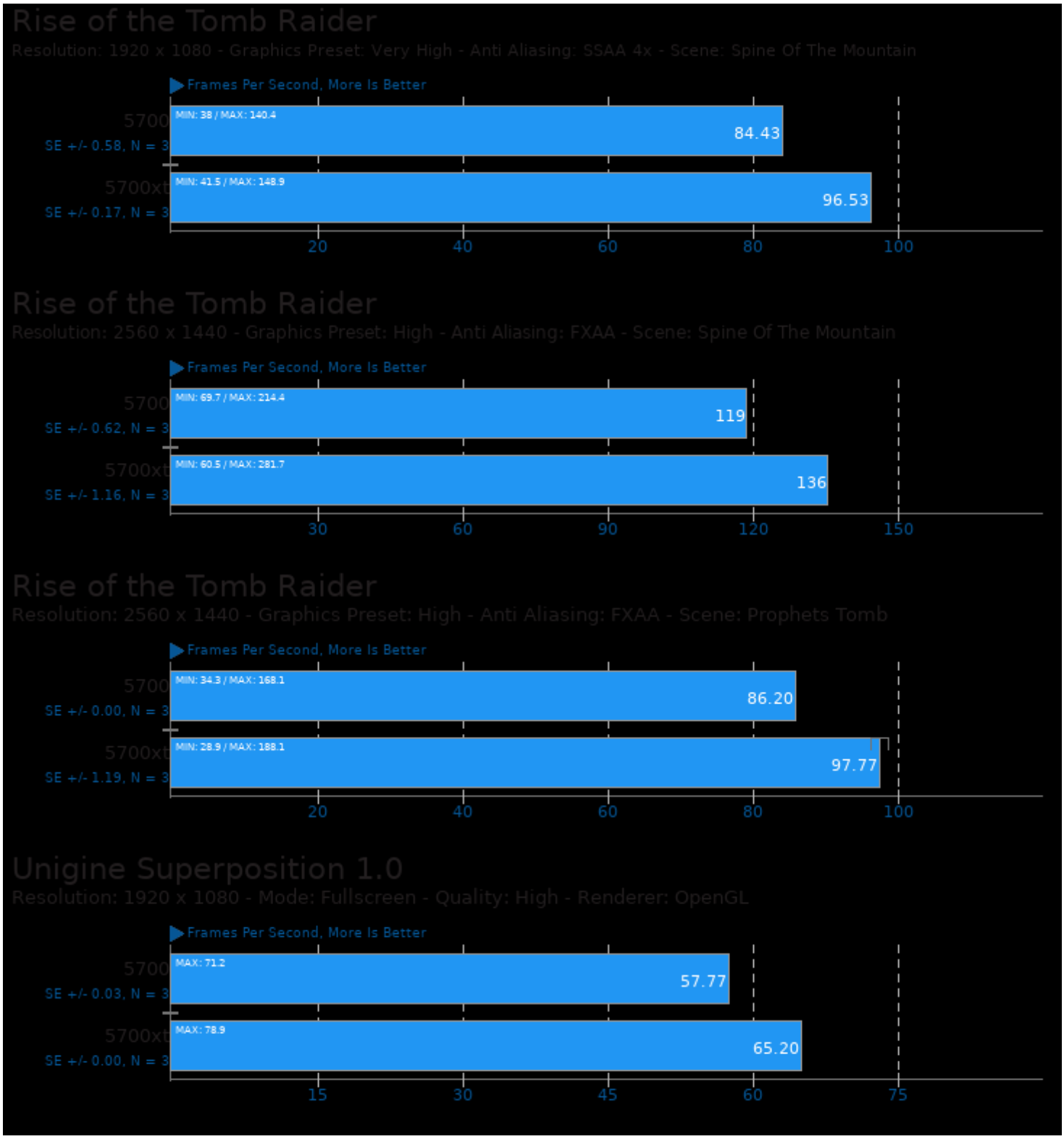
Unigine Valley - 2560 x 1440 - Fullscreen - OpenGL (FPS)	**125**	**138**
Normalized	90.58%	100%
Standard Deviation	0.1%	0.1%
Rise of the Tomb Raider - 3840 x 2160 - High - FXAA - Geothermal Valley (FPS)	**47.53**	**52.47**
Normalized	90.59%	100%
Standard Deviation	0.3%	0.3%
Unigine Valley - 3840 x 2160 - Fullscreen - OpenGL (FPS)	**42.88**	**47.29**
Normalized	90.67%	100%
Standard Deviation	0%	0.1%
Unigine Heaven - 3840 x 2160 - Fullscreen - OpenGL (FPS)	**48.38**	**53.28**
Normalized	90.8%	100%
Standard Deviation	0%	0%
Rise of the Tomb Raider - 2560 x 1440 - Very High - FXAA - Geothermal Valley (FPS)	**75.87**	**83.43**
Normalized	90.94%	100%
Standard Deviation	0.1%	0.4%
Rise of the Tomb Raider - 2560 x 1440 - High - FXAA - Geothermal Valley (FPS)	**85.73**	**94.23**
Normalized	90.98%	100%
Standard Deviation	0.1%	0.2%
Rise of the Tomb Raider - 1920 x 1080 - Very High - SSAA 4x - Geothermal Valley (FPS)	**54.37**	**59.73**
Normalized	91.03%	100%
Standard Deviation	0.3%	0.1%
Unigine Superposition - 3840 x 2160 - Fullscreen - Ultra - OpenGL (FPS)	**6.10**	**6.70**
Normalized	91.04%	100%
Standard Deviation	0%	0%
Rise of the Tomb Raider - 3840 x 2160 - Medium - FXAA - Geothermal Valley (FPS)	**52.37**	**57.50**
Normalized	91.08%	100%
Standard Deviation	0.2%	0%
Rise of the Tomb Raider - 3840 x 2160 - Medium - SSAA 4x - Geothermal Valley (FPS)	**21.20**	**23.20**
Normalized	91.38%	100%
Standard Deviation	0.5%	0.4%
Unigine Heaven - 2560 x 1440 - Fullscreen - OpenGL (FPS)	**149**	**163**
Normalized	91.41%	100%
Standard Deviation	0.2%	0.1%
Counter-Strike: Global Offensive - 3840 x 2160 (FPS)	**167**	**182**
Normalized	91.76%	100%
Standard Deviation	0.3%	0.3%
Unigine Heaven - 1920 x 1080 - Fullscreen - OpenGL (FPS)	**159**	**173**
Normalized	91.91%	100%
Standard Deviation	0.4%	0.4%

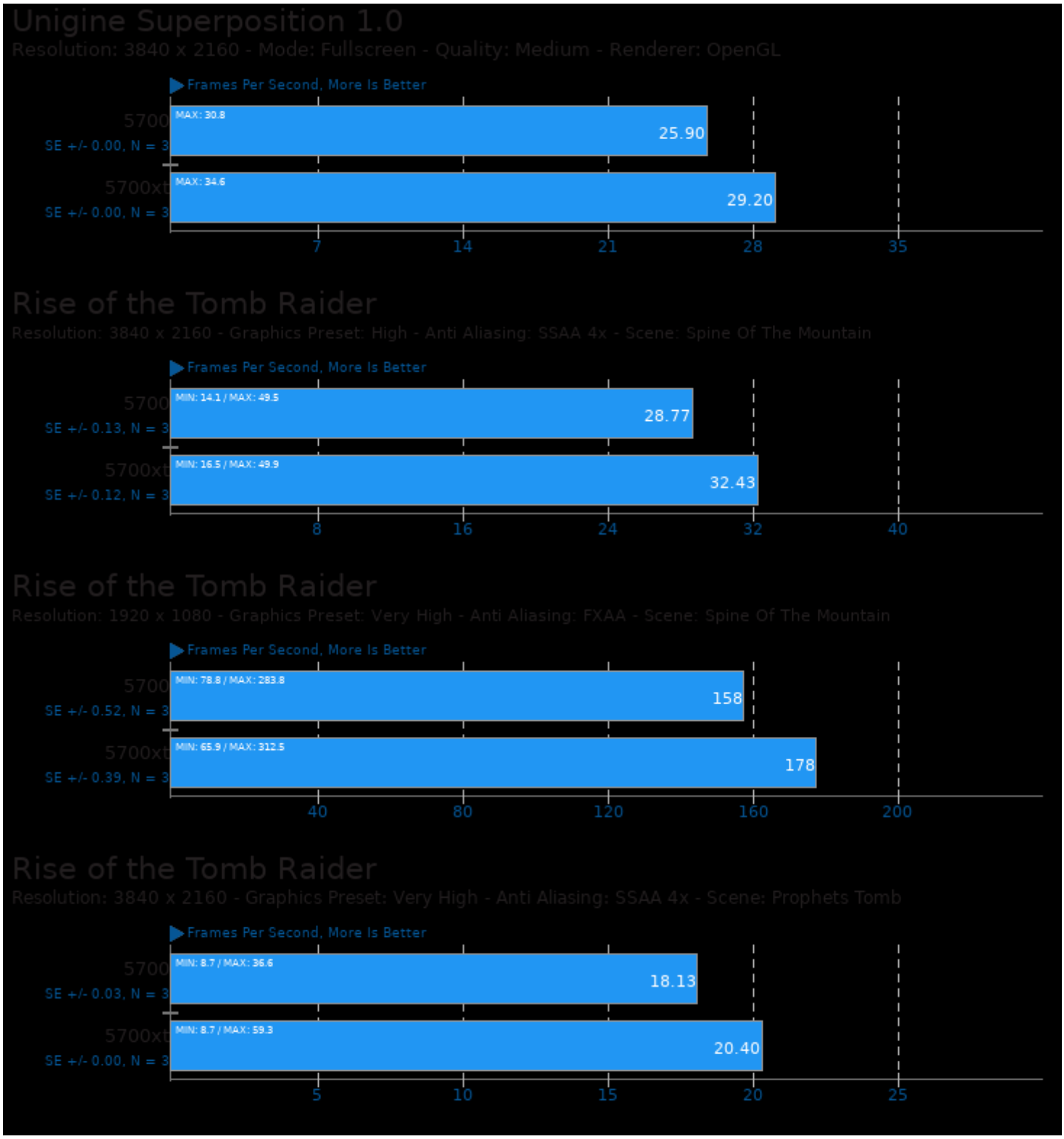
Rise of the Tomb Raider - 1920 x 1080 - Very High - FXAA - Geothermal Valley (FPS)	**102**	**110**
Normalized	92.73%	100%
Standard Deviation	0.4%	0.7%
Tesseract - 3840 x 2160 (FPS)	**223**	**238**
Normalized	93.7%	100%
Standard Deviation	1.3%	0.5%
Counter-Strike: Global Offensive - 2560 x 1440 (FPS)	**248**	**264**
Normalized	93.94%	100%
Standard Deviation	0.3%	0.5%
Deus Ex: Mankind Divided - 2560 x 1440 - High Quality (FPS)	**41.53**	**43.47**
Normalized	95.54%	100%
Standard Deviation	0.3%	0.8%
Tesseract - 2560 x 1440 (FPS)	**316**	**330**
Normalized	95.76%	100%
Standard Deviation	1%	1.5%
Tesseract - 1920 x 1080 (FPS)	**360**	**373**
Normalized	96.51%	100%
Standard Deviation	0.8%	1.4%
BioShock Infinite - 3840 x 2160 - Ultra (FPS)	**121**	**124**
Normalized	97.58%	100%
Standard Deviation	0.2%	0.5%
GpuTest - Triangle - 1920 x 1080 - Fullscreen (Points)	**185992**	**189575**
Normalized	98.11%	100%
Standard Deviation	0.3%	0%
GpuTest - Triangle - 3840 x 2160 - Fullscreen (Points)	**185317**	**188563**
Normalized	98.28%	100%
Standard Deviation	0%	0%
GpuTest - Triangle - 2560 x 1440 - Fullscreen (Points)	**186319**	**189503**
Normalized	98.32%	100%
Standard Deviation	0.1%	0%
GL-vs-VK - Static Scene - OpenGL - Yes (Frame Time - ms)	**186**	**189**
Normalized	100%	98.41%
Standard Deviation	1.4%	0.1%
BioShock Infinite - 1920 x 1080 - Ultra (FPS)	**135**	**137**
Normalized	98.54%	100%
Standard Deviation	1.1%	0.1%
GL-vs-VK - Static Scene - Vulkan - Yes (FPS)	**88.94**	**90.16**
Normalized	98.65%	100%
Standard Deviation	0.1%	1.4%
GL-vs-VK - Static Scene - Vulkan - Yes (Frame Time - ms)	**11.24**	**11.09**
Normalized	98.67%	100%
Standard Deviation	0.1%	1.4%
GL-vs-VK - Static Scene - OpenGL - Yes (FPS)	**5.37**	**5.30**
Normalized	100%	98.7%
Standard Deviation	1.5%	0.1%
Deus Ex: Mankind Divided - 1920 x 1080 - Ultra Quality (FPS)	**42.23**	**42.57**
Normalized	99.2%	100%
Standard Deviation	0.7%	1.5%
BioShock Infinite - 2560 x 1440 - Ultra (FPS)	**140**	**141**

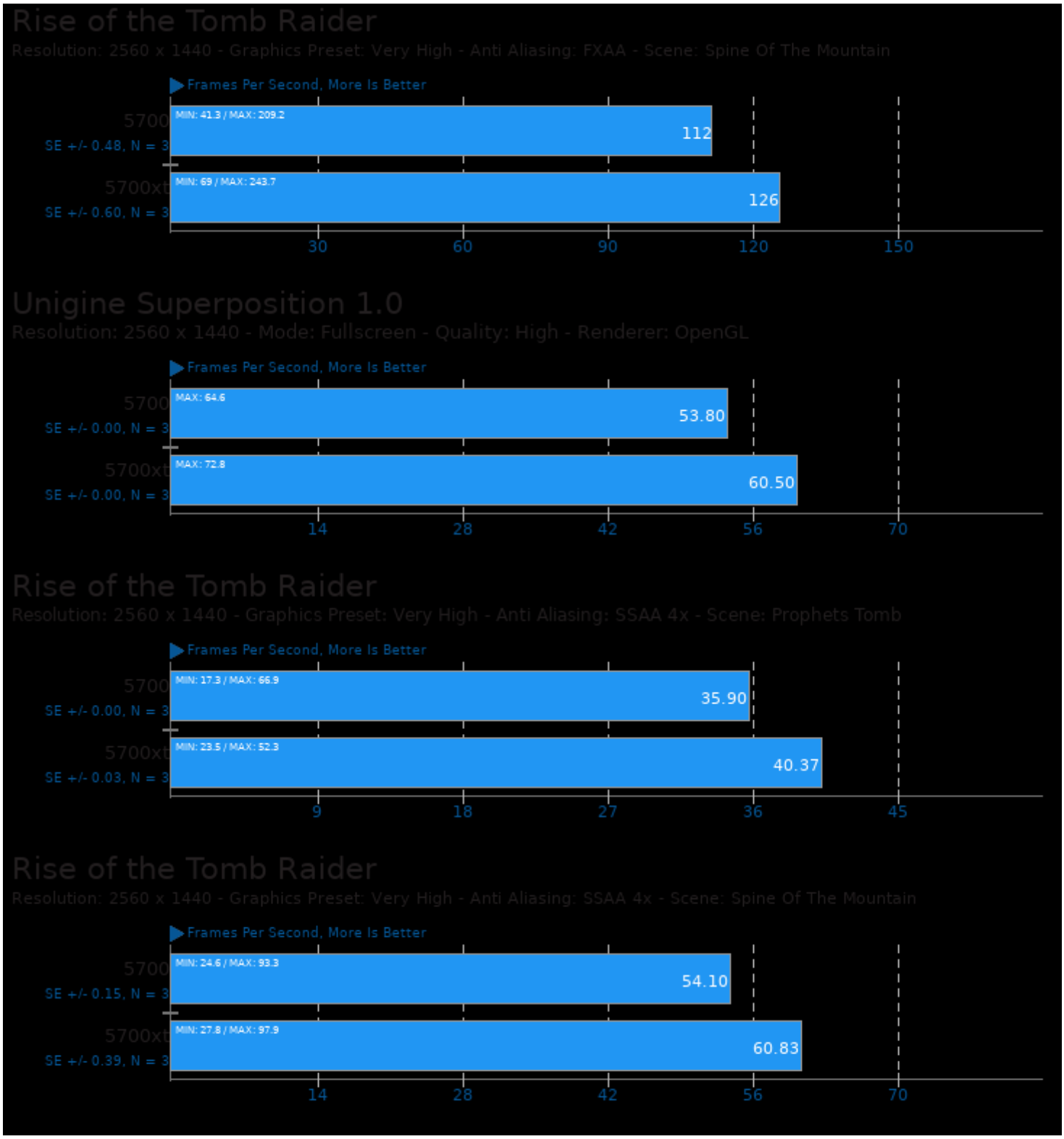
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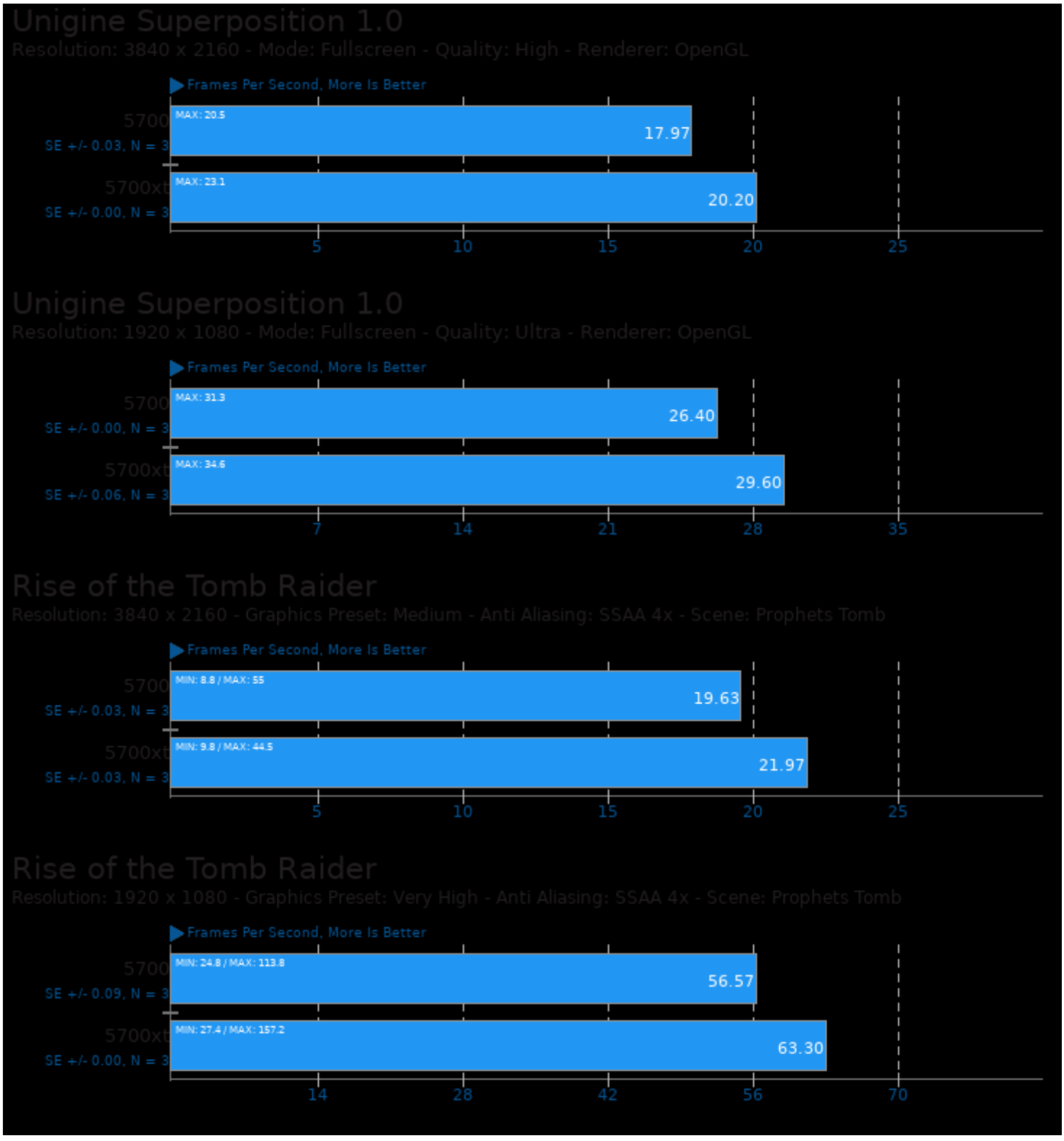
Normalized	99.29%	100%
Standard Deviation	0.6%	0.4%
Counter-Strike: Global Offensive - 1920 x 1080 (FPS)	**276**	**277**
Normalized	99.64%	100%
Standard Deviation	0.9%	1.6%

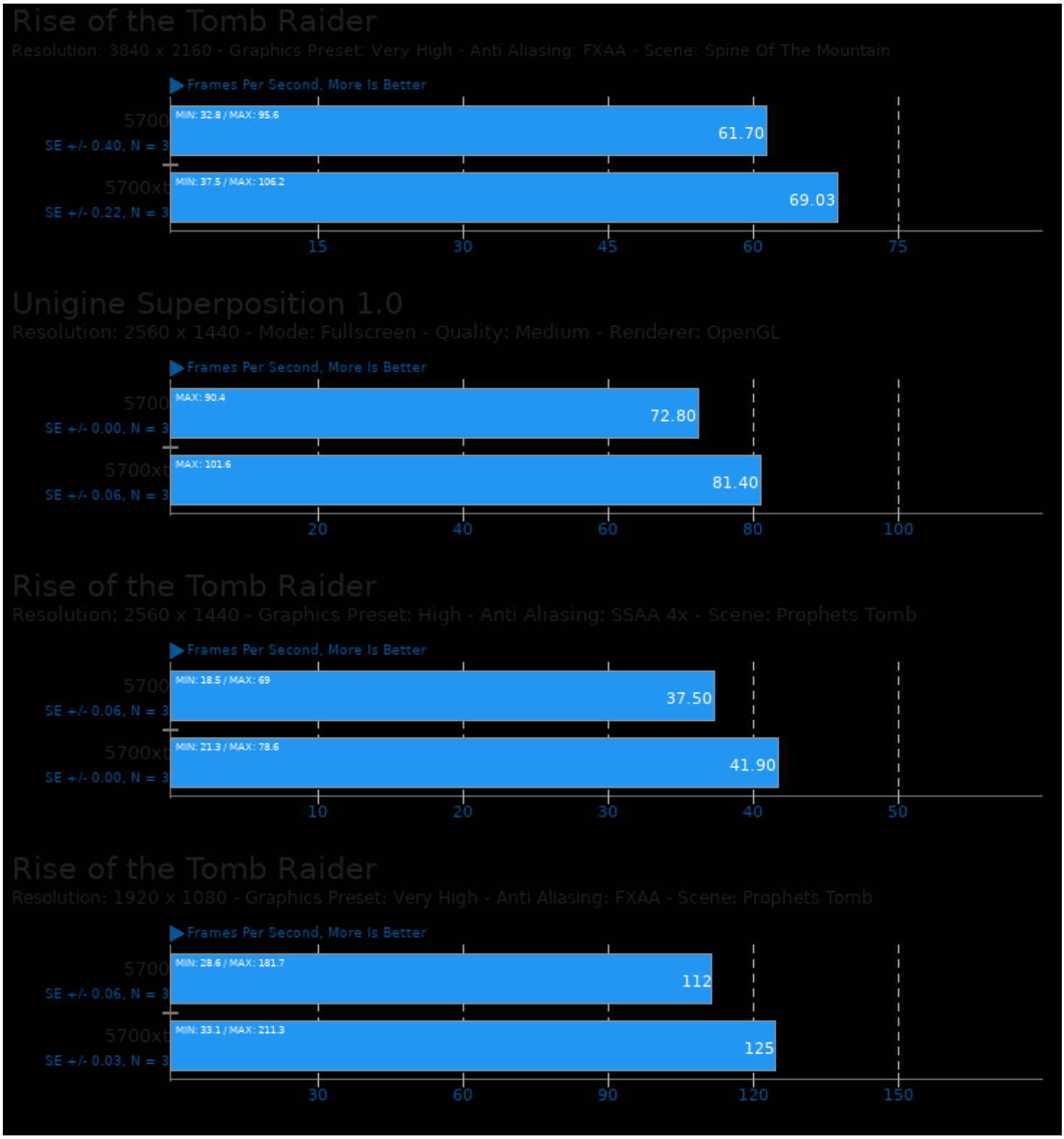

Counter-Strike: Global Offensive
Resolution: 1920 x 1080 - Total Frame Time
Milliseconds, Fewer Is Better
5700
Min: 0.99 / Avg: 4.8 / Max: 3012.32
5700xt
Min: 1.03 / Avg: 4.86 / Max: 3011.85
500
1000
1500
2000
2500
Counter-Strike: Global Offensive
Resolution: 2560 x 1440 - Total Frame Time
Milliseconds, Fewer Is Better
5700
Min: 1.59 / Avg: 5.22 / Max: 3015.65
5700xt
Min: 1.49 / Avg: 4.97 / Max: 3022.15
500
1000
1500
2000
2500
Counter-Strike: Global Offensive
Resolution: 3840 x 2160 - Total Frame Time
Milliseconds, Fewer Is Better
5700
Min: 1.95 / Avg: 7.2 / Max: 3026.04
5700xt
Min: 2.03 / Avg: 6.74 / Max: 3054.63
500
1000
1500
2000
2500
Rise of the Tomb Raider
Resolution: 3840 x 2160 - Graphics Preset: Very High - Anti Aliasing: SSAA 4x - Scene: Spine Of The Mountain
Frames Per Second, More Is Better
5700
SE +/- 0.30, N = 3
MIN: 12.5 / MAX: 47.4
26.50
5700xt
SE +/- 0.06, N = 3
MIN: 15.6 / MAX: 49.6
30.50
7
14
21
28
35

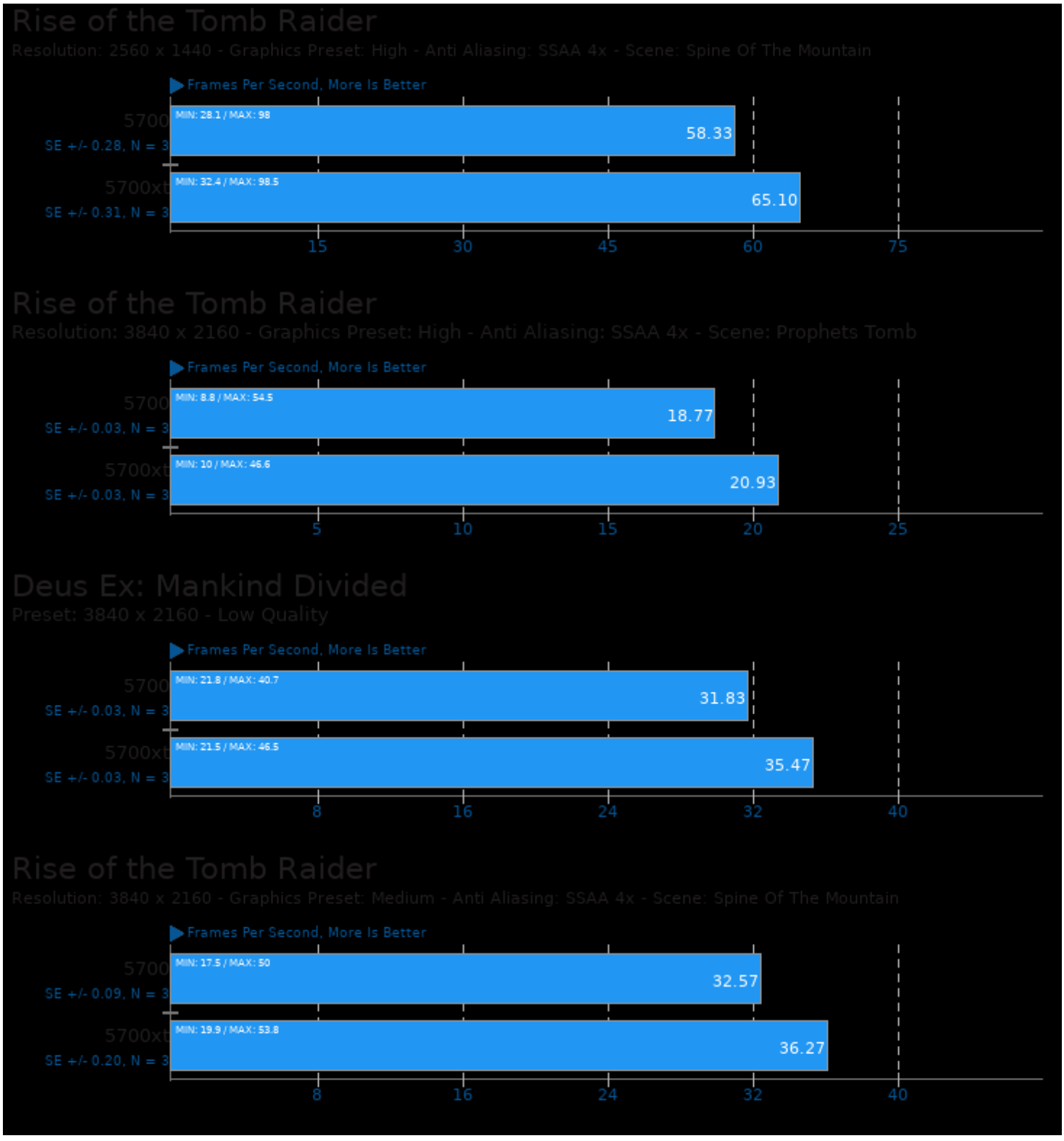

Rise of the Tomb Raider
Resolution: 1920 x 1080 - Graphics Preset: Very High - Anti Aliasing: SSAA 4x - Scene: Spine Of The Mountain
Frames Per Second, More Is Better
5700
SE +/- 0.58, N = 3
MIN: 38 / MAX: 140.4
84.43
5700xt
SE +/- 0.17, N = 3
MIN: 41.5 / MAX: 148.9
96.53
20
40
60
80
100
Rise of the Tomb Raider
Resolution: 2560 x 1440 - Graphics Preset: High - Anti Aliasing: FXAA - Scene: Spine Of The Mountain
Frames Per Second, More Is Better
5700
SE +/- 0.62, N = 3
MIN: 69.7 / MAX: 214.4
119
5700xt
SE +/- 1.16, N = 3
MIN: 60.5 / MAX: 281.7
136
30
60
90
120
150
Rise of the Tomb Raider
Resolution: 2560 x 1440 - Graphics Preset: High - Anti Aliasing: FXAA - Scene: Prophets Tomb
Frames Per Second, More Is Better
5700
SE +/- 0.00, N = 3
MIN: 34.3 / MAX: 168.1
86.20
5700xt
SE +/- 1.19, N = 3
MIN: 28.9 / MAX: 188.1
97.77
20
40
60
80
100
Unigine Superposition 1.0
Resolution: 1920 x 1080 - Mode: Fullscreen - Quality: High - Renderer: OpenGL
Frames Per Second, More Is Better
5700
SE +/- 0.03, N = 3
MAX: 71.2
57.77
5700xt
SE +/- 0.00, N = 3
MAX: 78.9
65.20
15
30
45
60
75

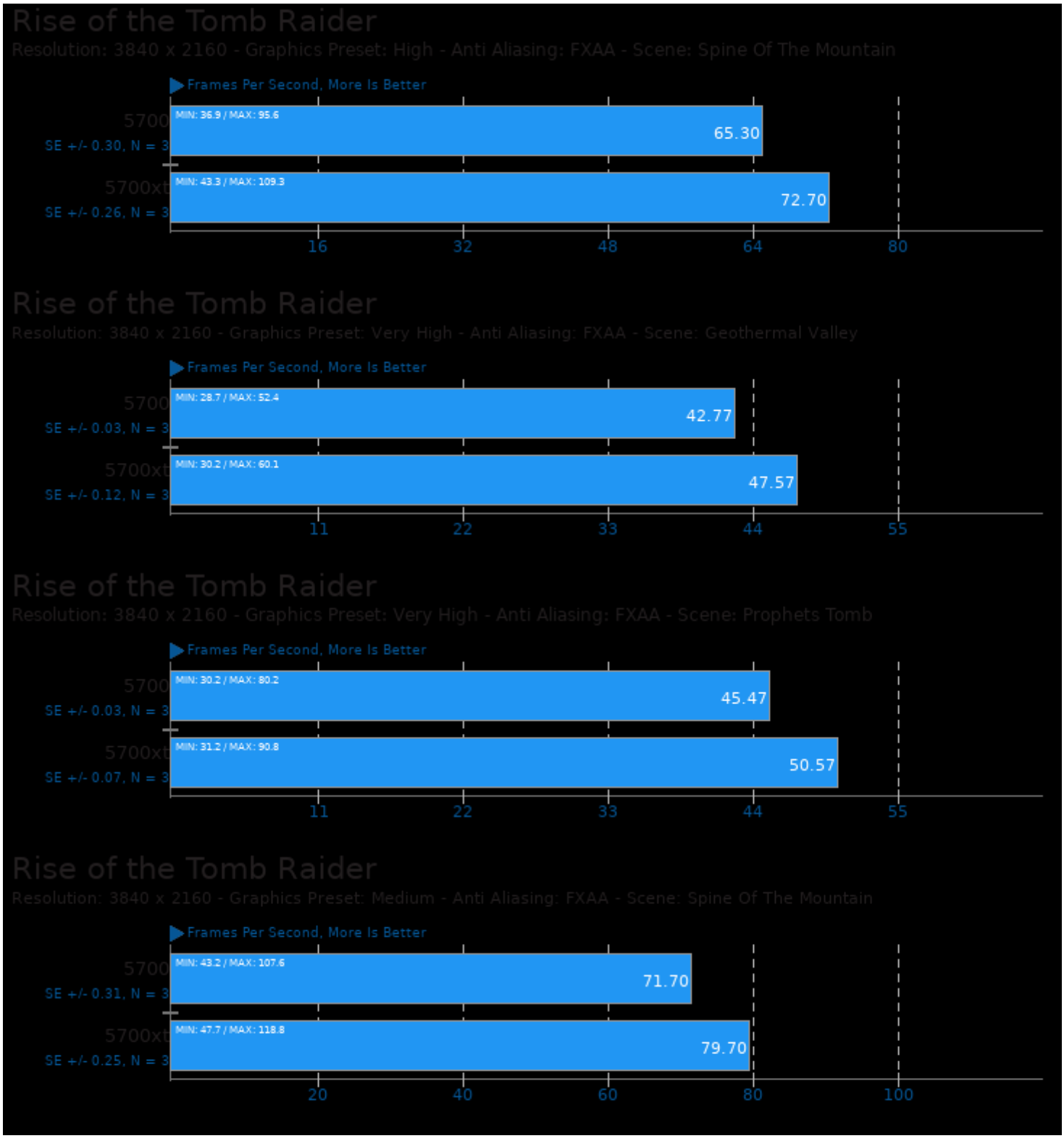

Unigine Superposition 1.0
Resolution: 3840 x 2160 - Mode: Fullscreen - Quality: Medium - Renderer: OpenGL
Frames Per Second, More Is Better
5700
SE +/- 0.00, N = 3
MAX: 30.8
25.90
5700xt
SE +/- 0.00, N = 3
MAX: 34.6
29.20
7
14
21
28
35
Rise of the Tomb Raider
Resolution: 3840 x 2160 - Graphics Preset: High - Anti Aliasing: SSAA 4x - Scene: Spine Of The Mountain
Frames Per Second, More Is Better
5700
SE +/- 0.13, N = 3
MIN: 14.1 / MAX: 49.5
28.77
5700xt
SE +/- 0.12, N = 3
MIN: 16.5 / MAX: 49.9
32.43
8
16
24
32
40
Rise of the Tomb Raider
Resolution: 1920 x 1080 - Graphics Preset: Very High - Anti Aliasing: FXAA - Scene: Spine Of The Mountain
Frames Per Second, More Is Better
5700
SE +/- 0.52, N = 3
MIN: 78.8 / MAX: 283.8
158
5700xt
SE +/- 0.39, N = 3
MIN: 65.9 / MAX: 312.5
178
40
80
120
160
200
Rise of the Tomb Raider
Resolution: 3840 x 2160 - Graphics Preset: Very High - Anti Aliasing: SSAA 4x - Scene: Prophets Tomb
Frames Per Second, More Is Better
5700
SE +/- 0.03, N = 3
MIN: 8.7 / MAX: 36.6
18.13
5700xt
SE +/- 0.00, N = 3
MIN: 8.7 / MAX: 59.3
20.40
5
10
15
20
25

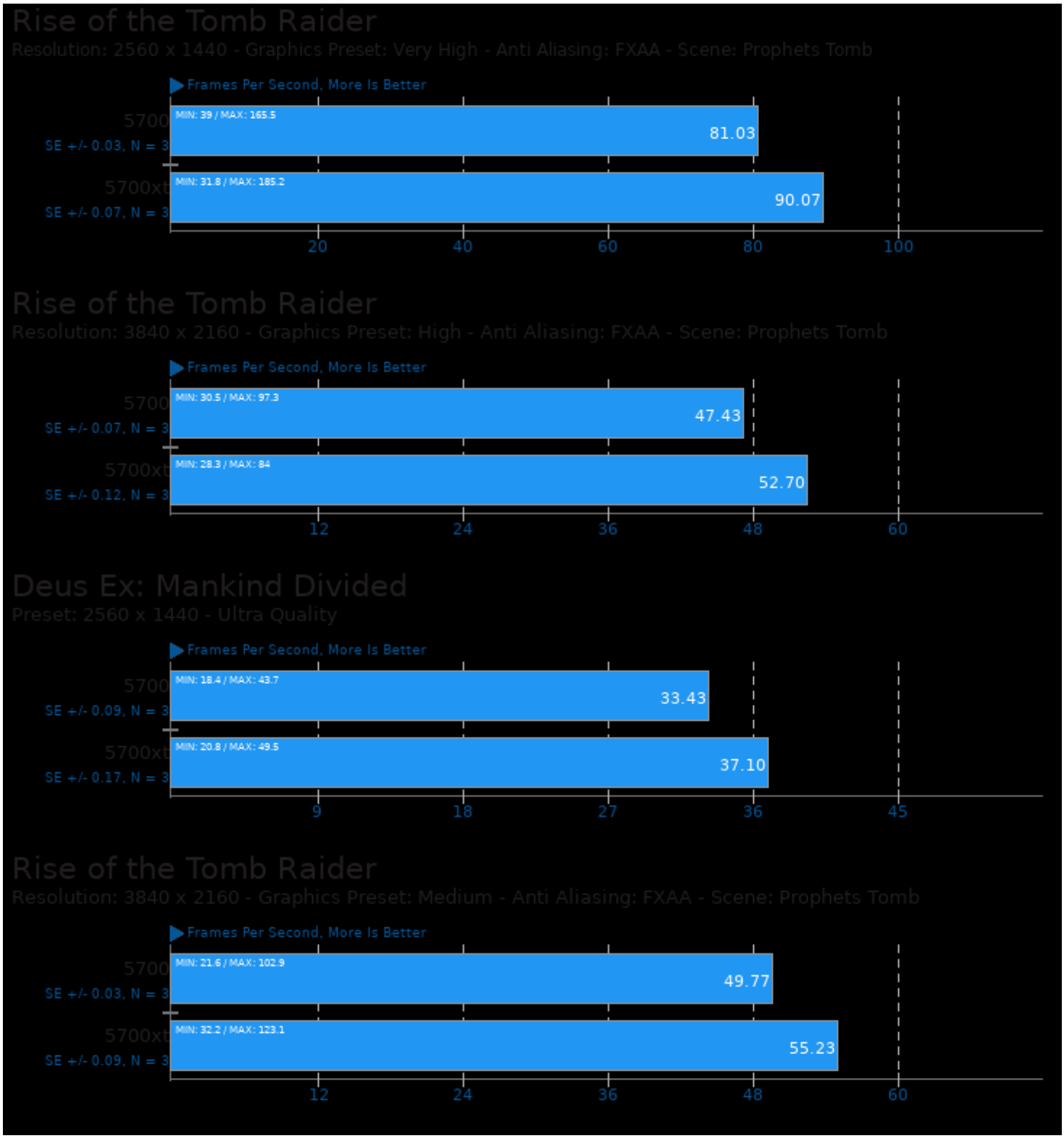

Rise of the Tomb Raider
Resolution: 2560 x 1440 - Graphics Preset: Very High - Anti Aliasing: FXAA - Scene: Spine Of The Mountain
Frames Per Second, More Is Better
5700
SE +/- 0.48, N = 3
MIN: 41.3 / MAX: 209.2
112
5700xt
SE +/- 0.60, N = 3
MIN: 69 / MAX: 243.7
126
30
60
90
120
150
Unigine Superposition 1.0
Resolution: 2560 x 1440 - Mode: Fullscreen - Quality: High - Renderer: OpenGL
Frames Per Second, More Is Better
5700
SE +/- 0.00, N = 3
MAX: 64.6
53.80
5700xt
SE +/- 0.00, N = 3
MAX: 72.8
60.50
14
28
42
56
70
Rise of the Tomb Raider
Resolution: 2560 x 1440 - Graphics Preset: Very High - Anti Aliasing: SSAA 4x - Scene: Prophets Tomb
Frames Per Second, More Is Better
5700
SE +/- 0.00, N = 3
MIN: 17.3 / MAX: 66.9
35.90
5700xt
SE +/- 0.03, N = 3
MIN: 23.5 / MAX: 52.3
40.37
9
18
27
36
45
Rise of the Tomb Raider
Resolution: 2560 x 1440 - Graphics Preset: Very High - Anti Aliasing: SSAA 4x - Scene: Spine Of The Mountain
Frames Per Second, More Is Better
5700
SE +/- 0.15, N = 3
MIN: 24.6 / MAX: 93.3
54.10
5700xt
SE +/- 0.39, N = 3
MIN: 27.8 / MAX: 97.9
60.83
14
28
42
56
70

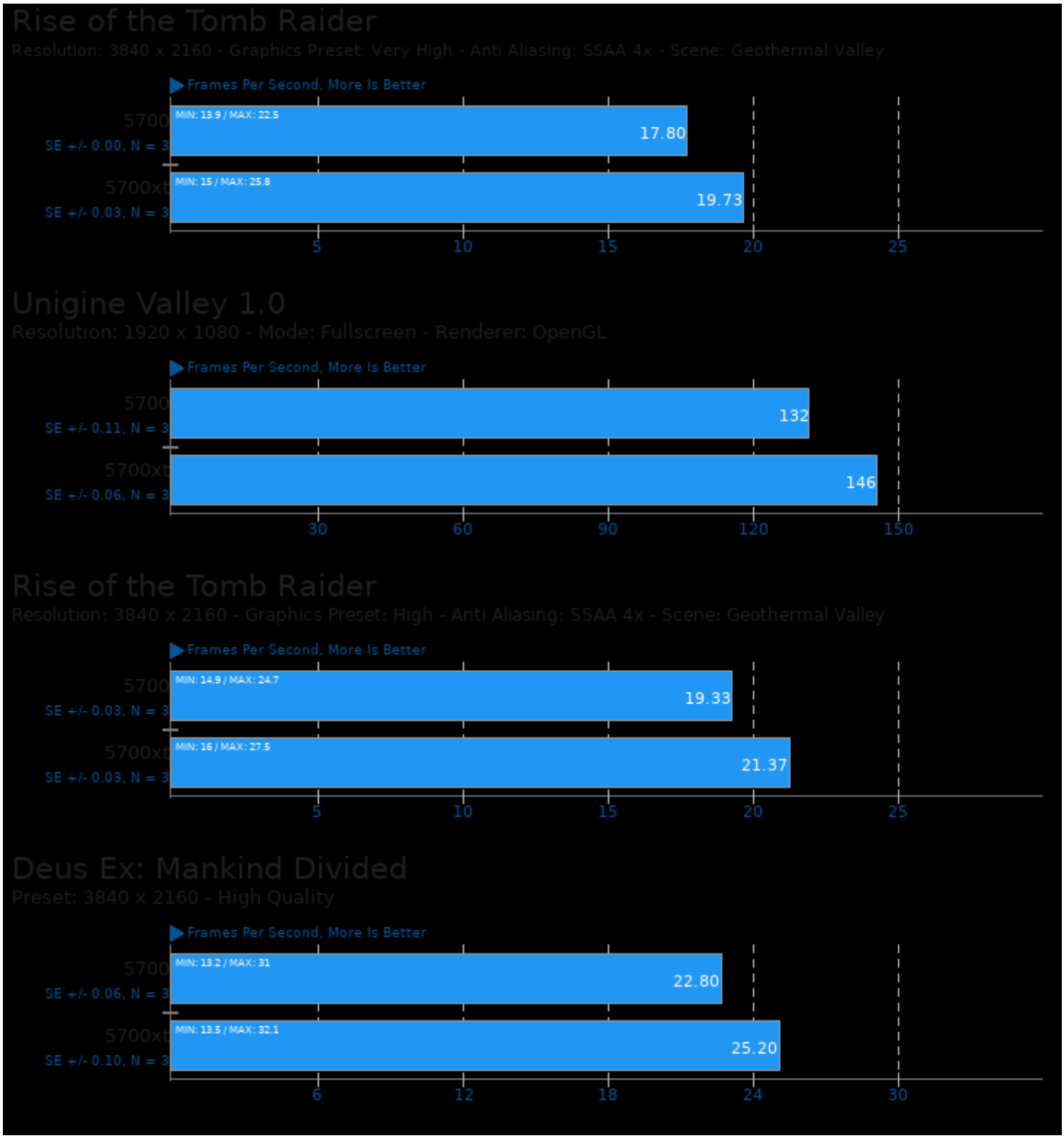

Unigine Superposition 1.0
Resolution: 3840 x 2160 - Mode: Fullscreen - Quality: High - Renderer: OpenGL
Frames Per Second, More Is Better
5700
SE +/- 0.03, N = 3
MAX: 20.5
17.97
5700xt
SE +/- 0.00, N = 3
MAX: 23.1
20.20
5
10
15
20
25
Unigine Superposition 1.0
Resolution: 1920 x 1080 - Mode: Fullscreen - Quality: Ultra - Renderer: OpenGL
Frames Per Second, More Is Better
5700
SE +/- 0.00, N = 3
MAX: 31.3
26.40
5700xt
SE +/- 0.06, N = 3
MAX: 34.6
29.60
7
14
21
28
35
Rise of the Tomb Raider
Resolution: 3840 x 2160 - Graphics Preset: Medium - Anti Aliasing: SSAA 4x - Scene: Prophets Tomb
Frames Per Second, More Is Better
5700
SE +/- 0.03, N = 3
MIN: 8.8 / MAX: 55
19.63
5700xt
SE +/- 0.03, N = 3
MIN: 9.8 / MAX: 44.5
21.97
5
10
15
20
25
Rise of the Tomb Raider
Resolution: 1920 x 1080 - Graphics Preset: Very High - Anti Aliasing: SSAA 4x - Scene: Prophets Tomb
Frames Per Second, More Is Better
5700
SE +/- 0.09, N = 3
MIN: 24.8 / MAX: 113.8
56.57
5700xt
SE +/- 0.00, N = 3
MIN: 27.4 / MAX: 157.2
63.30
14
28
42
56
70

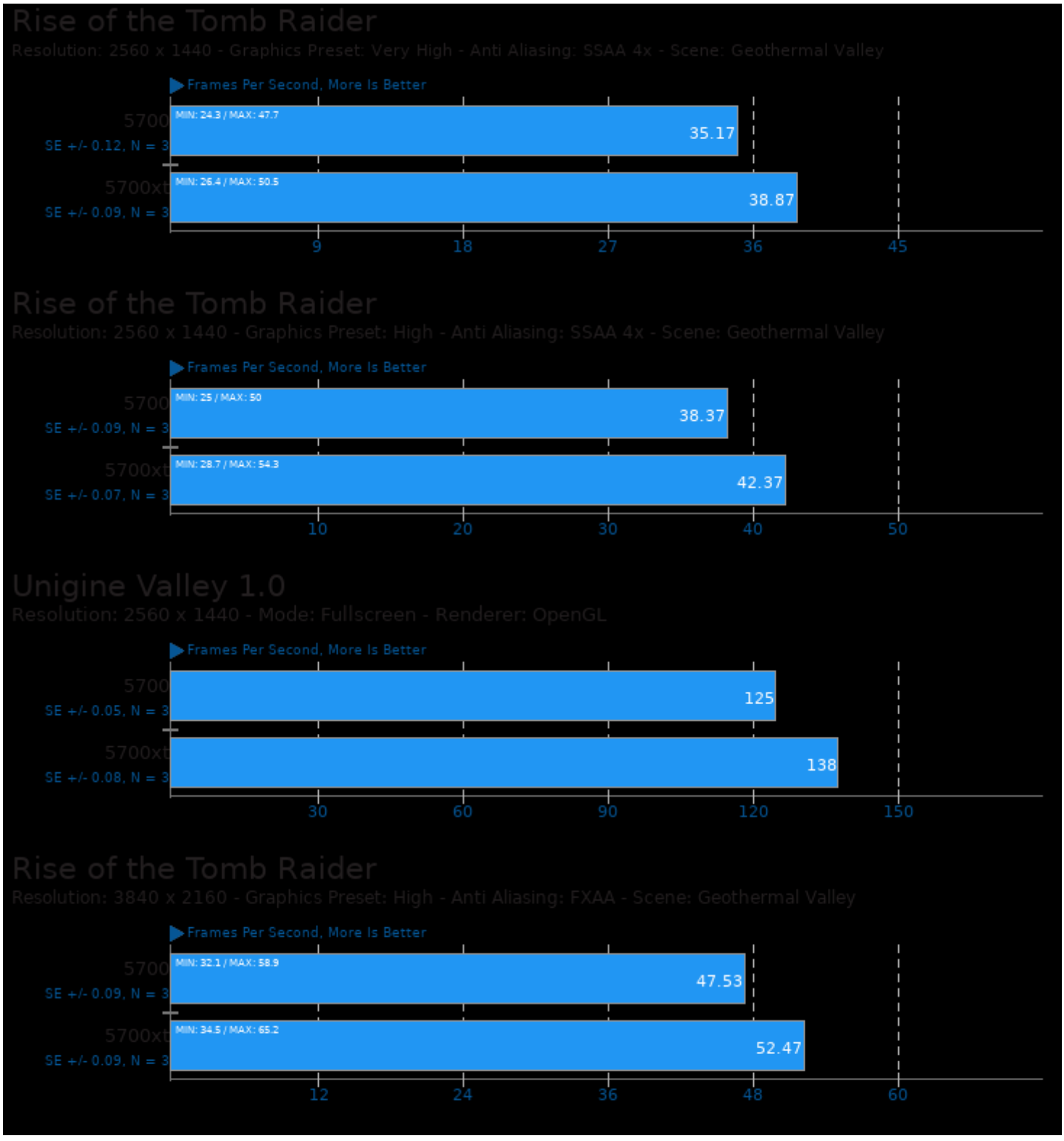

Rise of the Tomb Raider
Resolution: 3840 x 2160 - Graphics Preset: Very High - Anti Aliasing: FXAA - Scene: Spine Of The Mountain
Frames Per Second, More Is Better
5700
SE +/- 0.40, N = 3
MIN: 32.8 / MAX: 95.6
61.70
5700xt
SE +/- 0.22, N = 3
MIN: 37.5 / MAX: 106.2
69.03
15
30
45
60
75
Unigine Superposition 1.0
Resolution: 2560 x 1440 - Mode: Fullscreen - Quality: Medium - Renderer: OpenGL
Frames Per Second, More Is Better
5700
SE +/- 0.00, N = 3
MAX: 90.4
72.80
5700xt
SE +/- 0.06, N = 3
MAX: 101.6
81.40
20
40
60
80
100
Rise of the Tomb Raider
Resolution: 2560 x 1440 - Graphics Preset: High - Anti Aliasing: SSAA 4x - Scene: Prophets Tomb
Frames Per Second, More Is Better
5700
SE +/- 0.06, N = 3
MIN: 18.5 / MAX: 69
37.50
5700xt
SE +/- 0.00, N = 3
MIN: 21.3 / MAX: 78.6
41.90
10
20
30
40
50
Rise of the Tomb Raider
Resolution: 1920 x 1080 - Graphics Preset: Very High - Anti Aliasing: FXAA - Scene: Prophets Tomb
Frames Per Second, More Is Better
5700
SE +/- 0.06, N = 3
MIN: 28.6 / MAX: 181.7
112
5700xt
SE +/- 0.03, N = 3
MIN: 33.1 / MAX: 211.3
125
30
60
90
120
150

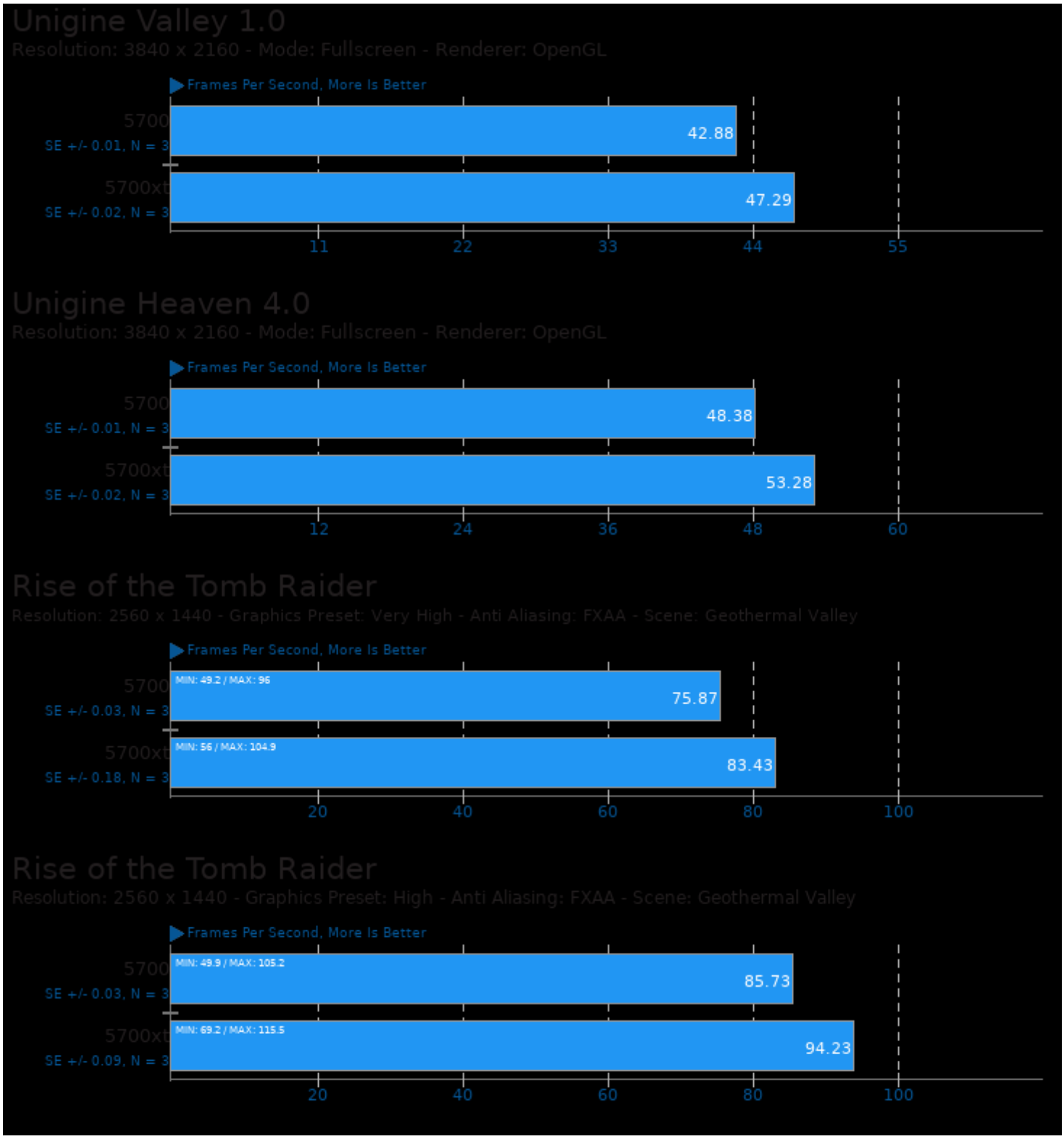

Rise of the Tomb Raider
Resolution: 2560 x 1440 - Graphics Preset: High - Anti Aliasing: SSAA 4x - Scene: Spine Of The Mountain
Frames Per Second, More Is Better
5700
SE +/- 0.28, N = 3
MIN: 28.1 / MAX: 98
58.33
5700xt
SE +/- 0.31, N = 3
MIN: 32.4 / MAX: 98.5
65.10
15
30
45
60
75
Rise of the Tomb Raider
Resolution: 3840 x 2160 - Graphics Preset: High - Anti Aliasing: SSAA 4x - Scene: Prophets Tomb
Frames Per Second, More Is Better
5700
SE +/- 0.03, N = 3
MIN: 8.8 / MAX: 54.5
18.77
5700xt
SE +/- 0.03, N = 3
MIN: 10 / MAX: 46.6
20.93
5
10
15
20
25
Deus Ex: Mankind Divided
Preset: 3840 x 2160 - Low Quality
Frames Per Second, More Is Better
5700
SE +/- 0.03, N = 3
MIN: 21.8 / MAX: 40.7
31.83
5700xt
SE +/- 0.03, N = 3
MIN: 21.5 / MAX: 46.5
35.47
8
16
24
32
40
Rise of the Tomb Raider
Resolution: 3840 x 2160 - Graphics Preset: Medium - Anti Aliasing: SSAA 4x - Scene: Spine Of The Mountain
Frames Per Second, More Is Better
5700
SE +/- 0.09, N = 3
MIN: 17.5 / MAX: 50
32.57
5700xt
SE +/- 0.20, N = 3
MIN: 19.9 / MAX: 53.8
36.27
8
16
24
32
40

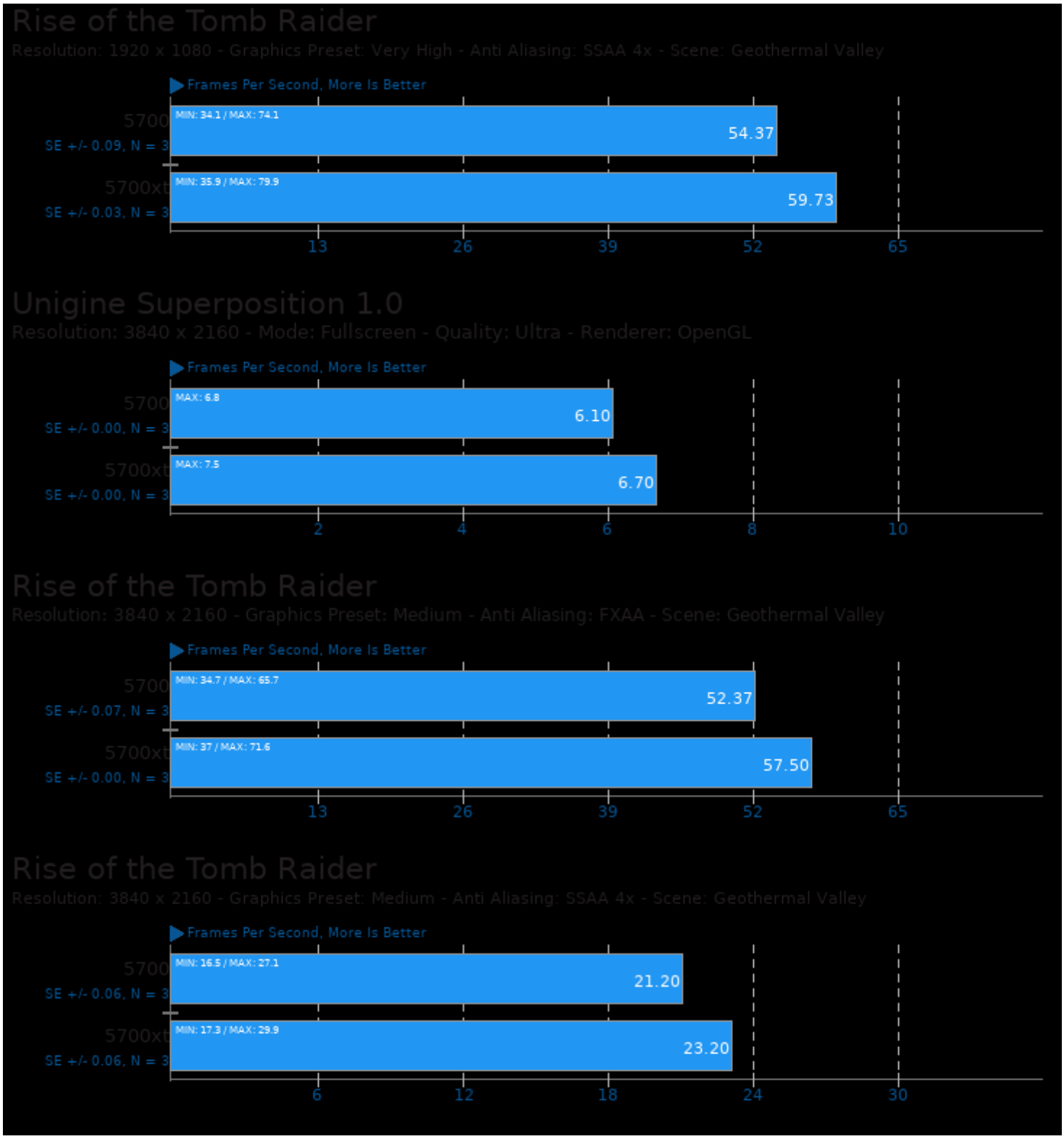

Rise of the Tomb Raider
Resolution: 3840 x 2160 - Graphics Preset: High - Anti Aliasing: FXAA - Scene: Spine Of The Mountain
Frames Per Second, More Is Better
5700
SE +/- 0.30, N = 3
MIN: 36.9 / MAX: 95.6
65.30
5700xt
SE +/- 0.26, N = 3
MIN: 43.3 / MAX: 109.3
72.70
16
32
48
64
80
Rise of the Tomb Raider
Resolution: 3840 x 2160 - Graphics Preset: Very High - Anti Aliasing: FXAA - Scene: Geothermal Valley
Frames Per Second, More Is Better
5700
SE +/- 0.03, N = 3
MIN: 28.7 / MAX: 52.4
42.77
5700xt
SE +/- 0.12, N = 3
MIN: 30.2 / MAX: 60.1
47.57
11
22
33
44
55
Rise of the Tomb Raider
Resolution: 3840 x 2160 - Graphics Preset: Very High - Anti Aliasing: FXAA - Scene: Prophets Tomb
Frames Per Second, More Is Better
5700
SE +/- 0.03, N = 3
MIN: 30.2 / MAX: 80.2
45.47
5700xt
SE +/- 0.07, N = 3
MIN: 31.2 / MAX: 90.8
50.57
11
22
33
44
55
Rise of the Tomb Raider
Resolution: 3840 x 2160 - Graphics Preset: Medium - Anti Aliasing: FXAA - Scene: Spine Of The Mountain
Frames Per Second, More Is Better
5700
SE +/- 0.31, N = 3
MIN: 43.2 / MAX: 107.6
71.70
5700xt
SE +/- 0.25, N = 3
MIN: 47.7 / MAX: 118.8
79.70
20
40
60
80
100

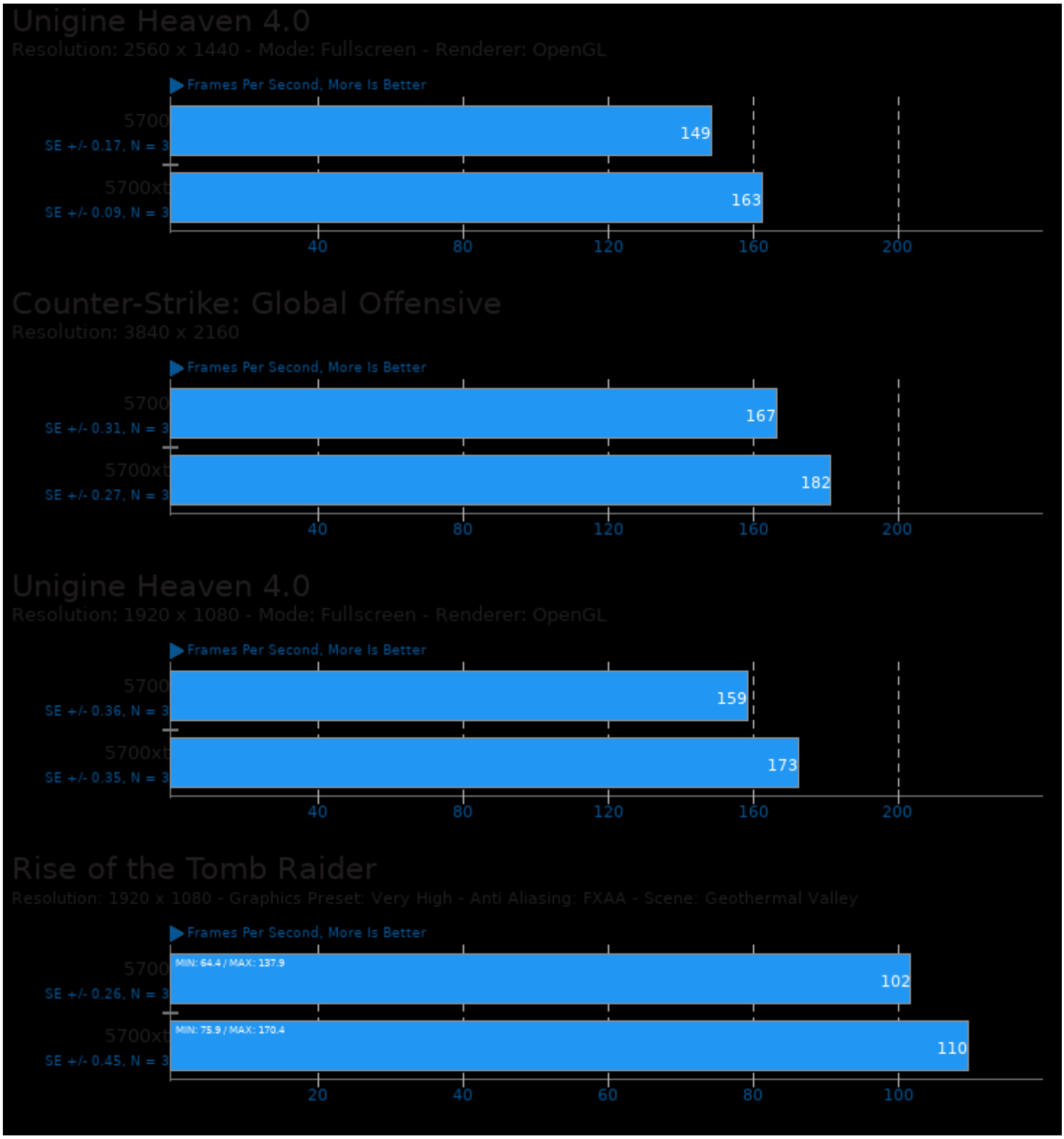

Rise of the Tomb Raider
Resolution: 2560 x 1440 - Graphics Preset: Very High - Anti Aliasing: FXAA - Scene: Prophets Tomb
Frames Per Second, More Is Better
5700
SE +/- 0.03, N = 3
MIN: 39 / MAX: 165.5
81.03
5700xt
SE +/- 0.07, N = 3
MIN: 31.8 / MAX: 185.2
90.07
20
40
60
80
100
Rise of the Tomb Raider
Resolution: 3840 x 2160 - Graphics Preset: High - Anti Aliasing: FXAA - Scene: Prophets Tomb
Frames Per Second, More Is Better
5700
SE +/- 0.07, N = 3
MIN: 30.5 / MAX: 97.3
47.43
5700xt
SE +/- 0.12, N = 3
MIN: 28.3 / MAX: 84
52.70
12
24
36
48
60
Deus Ex: Mankind Divided
Preset: 2560 x 1440 - Ultra Quality
Frames Per Second, More Is Better
5700
SE +/- 0.09, N = 3
MIN: 18.4 / MAX: 43.7
33.43
5700xt
SE +/- 0.17, N = 3
MIN: 20.8 / MAX: 49.5
37.10
9
18
27
36
45
Rise of the Tomb Raider
Resolution: 3840 x 2160 - Graphics Preset: Medium - Anti Aliasing: FXAA - Scene: Prophets Tomb
Frames Per Second, More Is Better
5700
SE +/- 0.03, N = 3
MIN: 21.6 / MAX: 102.9
49.77
5700xt
SE +/- 0.09, N = 3
MIN: 32.2 / MAX: 123.1
55.23
12
24
36
48
60

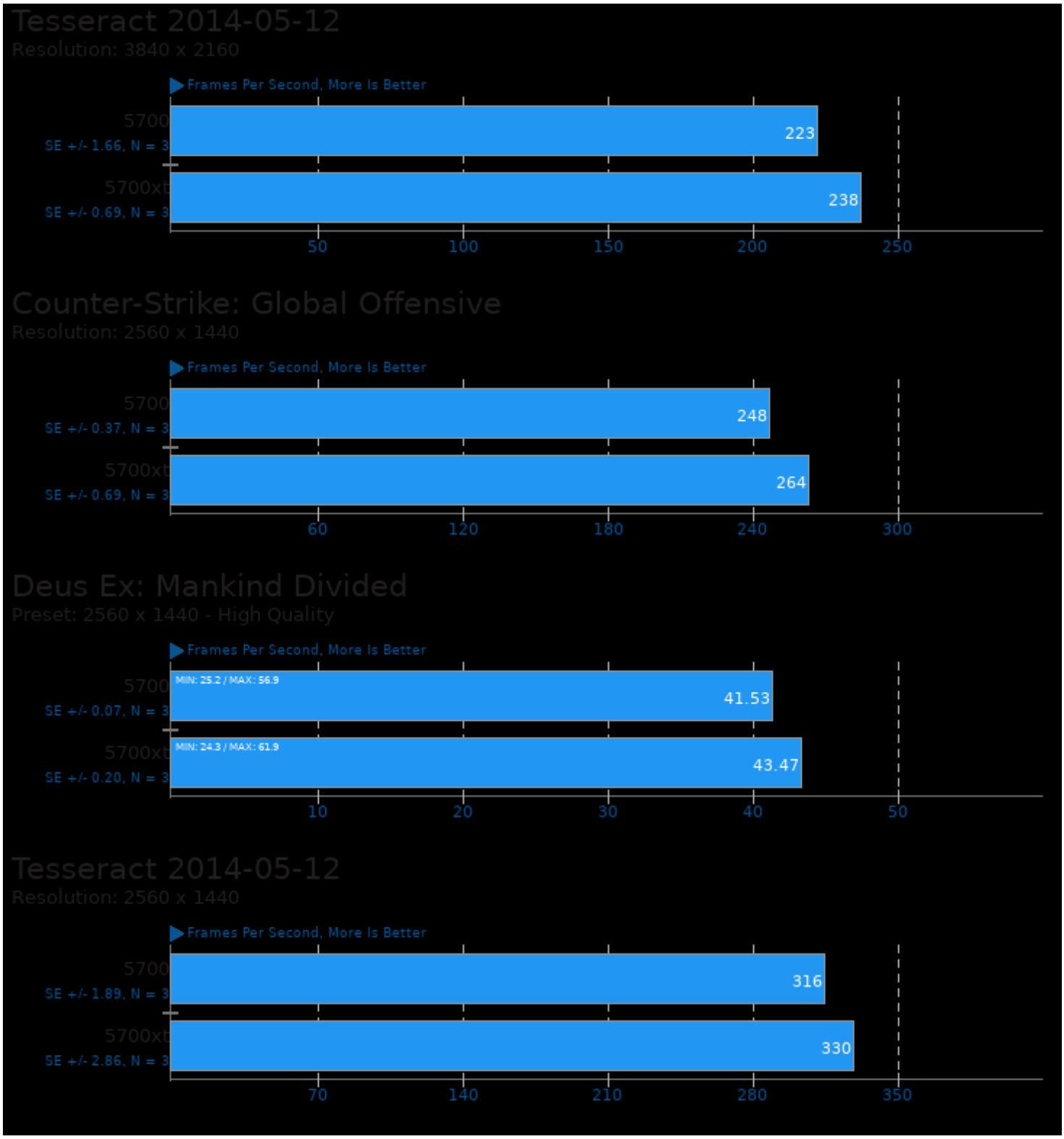

Rise of the Tomb Raider
Resolution: 3840 x 2160 - Graphics Preset: Very High - Anti Aliasing: SSAA 4x - Scene: Geothermal Valley
Frames Per Second, More Is Better
5700
SE +/- 0.00, N = 3
MIN: 13.9 / MAX: 22.5
17.80
5700xt
SE +/- 0.03, N = 3
MIN: 15 / MAX: 25.8
19.73
5
10
15
20
25
Unigine Valley 1.0
Resolution: 1920 x 1080 - Mode: Fullscreen - Renderer: OpenGL
Frames Per Second, More Is Better
5700
SE +/- 0.11, N = 3
132
5700xt
SE +/- 0.06, N = 3
146
30
60
90
120
150
Rise of the Tomb Raider
Resolution: 3840 x 2160 - Graphics Preset: High - Anti Aliasing: SSAA 4x - Scene: Geothermal Valley
Frames Per Second, More Is Better
5700
SE +/- 0.03, N = 3
MIN: 14.9 / MAX: 24.7
19.33
5700xt
SE +/- 0.03, N = 3
MIN: 16 / MAX: 27.5
21.37
5
10
15
20
25
Deus Ex: Mankind Divided
Preset: 3840 x 2160 - High Quality
Frames Per Second, More Is Better
5700
SE +/- 0.06, N = 3
MIN: 13.2 / MAX: 31
22.80
5700xt
SE +/- 0.10, N = 3
MIN: 13.5 / MAX: 32.1
25.20
6
12
18
24
30


Rise of the Tomb Raider
Resolution: 2560 x 1440 - Graphics Preset: Very High - Anti Aliasing: SSAA 4x - Scene: Geothermal Valley
Frames Per Second, More Is Better
5700
SE +/- 0.12, N = 3
MIN: 24.3 / MAX: 47.7
35.17
5700xt
SE +/- 0.09, N = 3
MIN: 26.4 / MAX: 50.5
38.87
9
18
27
36
45
Rise of the Tomb Raider
Resolution: 2560 x 1440 - Graphics Preset: High - Anti Aliasing: SSAA 4x - Scene: Geothermal Valley
Frames Per Second, More Is Better
5700
SE +/- 0.09, N = 3
MIN: 25 / MAX: 50
38.37
5700xt
SE +/- 0.07, N = 3
MIN: 28.7 / MAX: 54.3
42.37
10
20
30
40
50
Unigine Valley 1.0
Resolution: 2560 x 1440 - Mode: Fullscreen - Renderer: OpenGL
Frames Per Second, More Is Better
5700
SE +/- 0.05, N = 3
125
5700xt
SE +/- 0.08, N = 3
138
30
60
90
120
150
Rise of the Tomb Raider
Resolution: 3840 x 2160 - Graphics Preset: High - Anti Aliasing: FXAA - Scene: Geothermal Valley
Frames Per Second, More Is Better
5700
SE +/- 0.09, N = 3
MIN: 32.1 / MAX: 58.9
47.53
5700xt
SE +/- 0.09, N = 3
MIN: 34.5 / MAX: 65.2
52.47
12
24
36
48
60

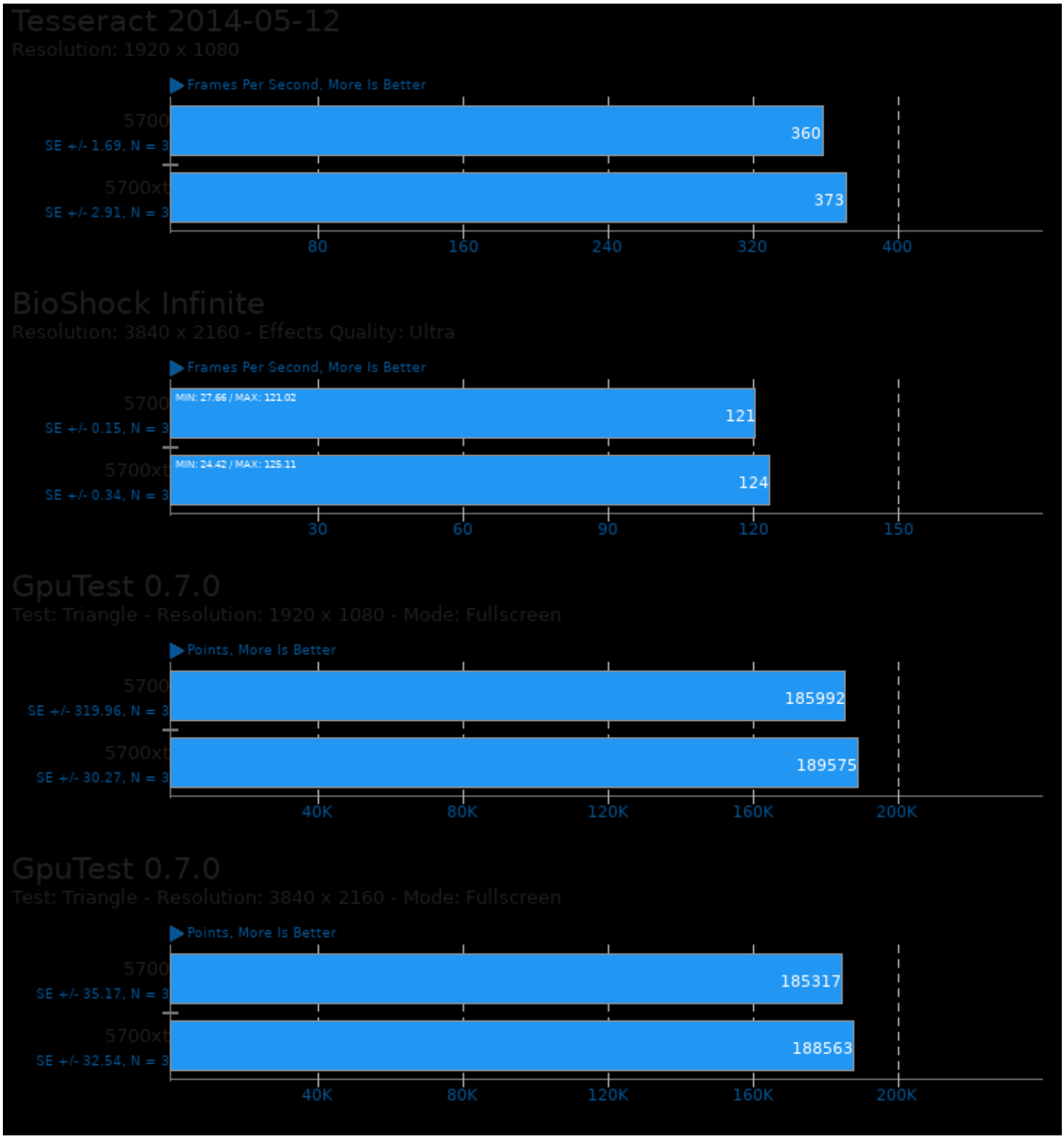

Unigine Valley 1.0
Resolution: 3840 x 2160 - Mode: Fullscreen - Renderer: OpenGL
Frames Per Second, More Is Better
5700
SE +/- 0.01, N = 3
42.88
5700xt
SE +/- 0.02, N = 3
47.29
11
22
33
44
55
Unigine Heaven 4.0
Resolution: 3840 x 2160 - Mode: Fullscreen - Renderer: OpenGL
Frames Per Second, More Is Better
5700
SE +/- 0.01, N = 3
48.38
5700xt
SE +/- 0.02, N = 3
53.28
12
24
36
48
60
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
5700
SE +/- 0.03, N = 3
MIN: 49.2 / MAX: 96
75.87
5700xt
SE +/- 0.18, N = 3
MIN: 56 / MAX: 104.9
83.43
20
40
60
80
100
Rise of the Tomb Raider
Resolution: 2560 x 1440 - Graphics Preset: High - Anti Aliasing: FXAA - Scene: Geothermal Valley
Frames Per Second, More Is Better
5700
SE +/- 0.03, N = 3
MIN: 49.9 / MAX: 105.2
85.73
5700xt
SE +/- 0.09, N = 3
MIN: 69.2 / MAX: 115.5
94.23
20
40
60
80
100

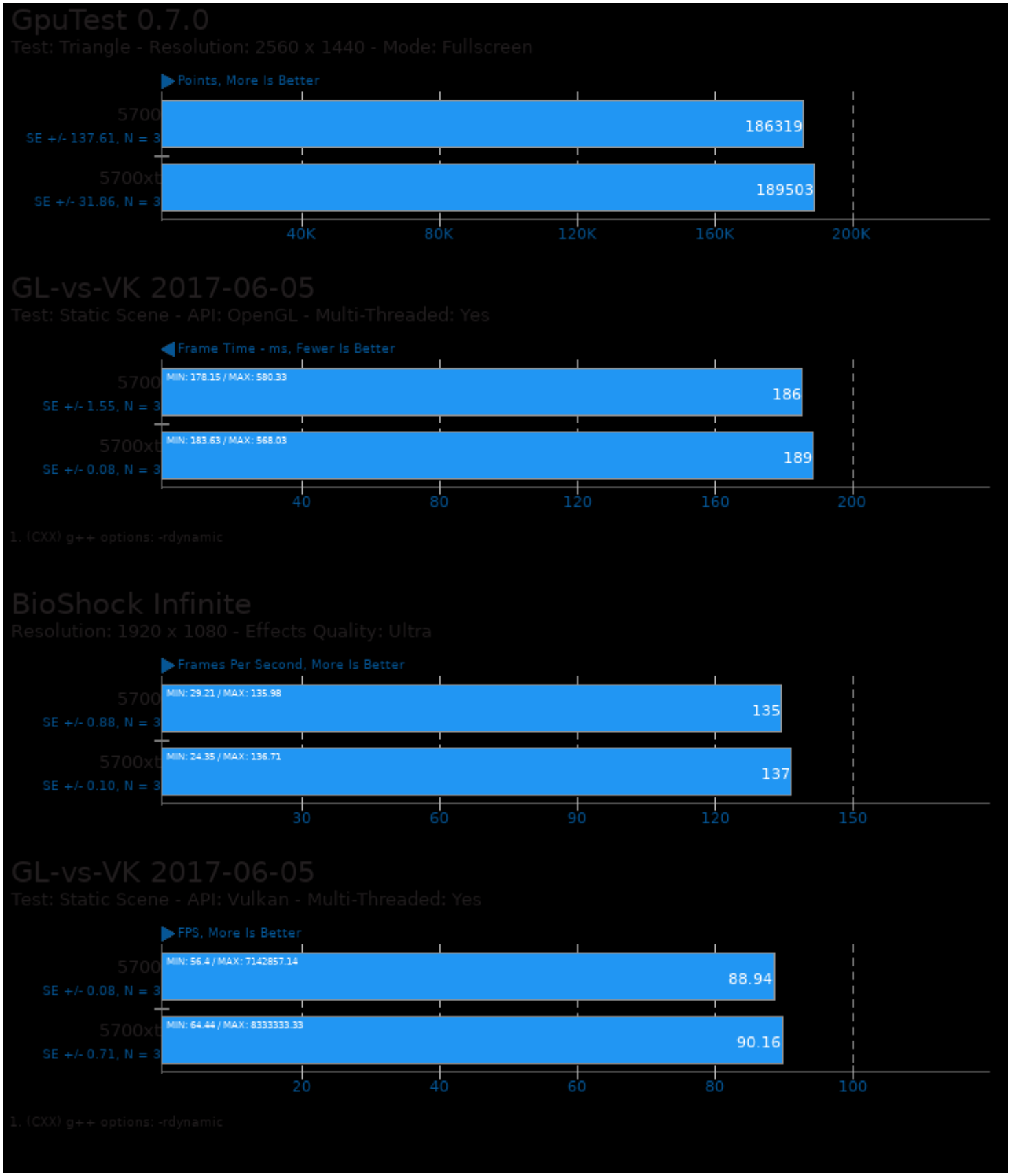

Rise of the Tomb Raider
Resolution: 1920 x 1080 - Graphics Preset: Very High - Anti Aliasing: SSAA 4x - Scene: Geothermal Valley
Frames Per Second, More Is Better
5700
SE +/- 0.09, N = 3
MIN: 34.1 / MAX: 74.1
54.37
5700xt
SE +/- 0.03, N = 3
MIN: 35.9 / MAX: 79.9
59.73
13
26
39
52
65
Unigine Superposition 1.0
Resolution: 3840 x 2160 - Mode: Fullscreen - Quality: Ultra - Renderer: OpenGL
Frames Per Second, More Is Better
5700
SE +/- 0.00, N = 3
MAX: 6.8
6.10
5700xt
SE +/- 0.00, N = 3
MAX: 7.5
6.70
2
4
6
8
10
Rise of the Tomb Raider
Resolution: 3840 x 2160 - Graphics Preset: Medium - Anti Aliasing: FXAA - Scene: Geothermal Valley
Frames Per Second, More Is Better
5700
SE +/- 0.07, N = 3
MIN: 34.7 / MAX: 65.7
52.37
5700xt
SE +/- 0.00, N = 3
MIN: 37 / MAX: 71.6
57.50
13
26
39
52
65
Rise of the Tomb Raider
Resolution: 3840 x 2160 - Graphics Preset: Medium - Anti Aliasing: SSAA 4x - Scene: Geothermal Valley
Frames Per Second, More Is Better
5700
SE +/- 0.06, N = 3
MIN: 16.5 / MAX: 27.1
21.20
5700xt
SE +/- 0.06, N = 3
MIN: 17.3 / MAX: 29.9
23.20
6
12
18
24
30

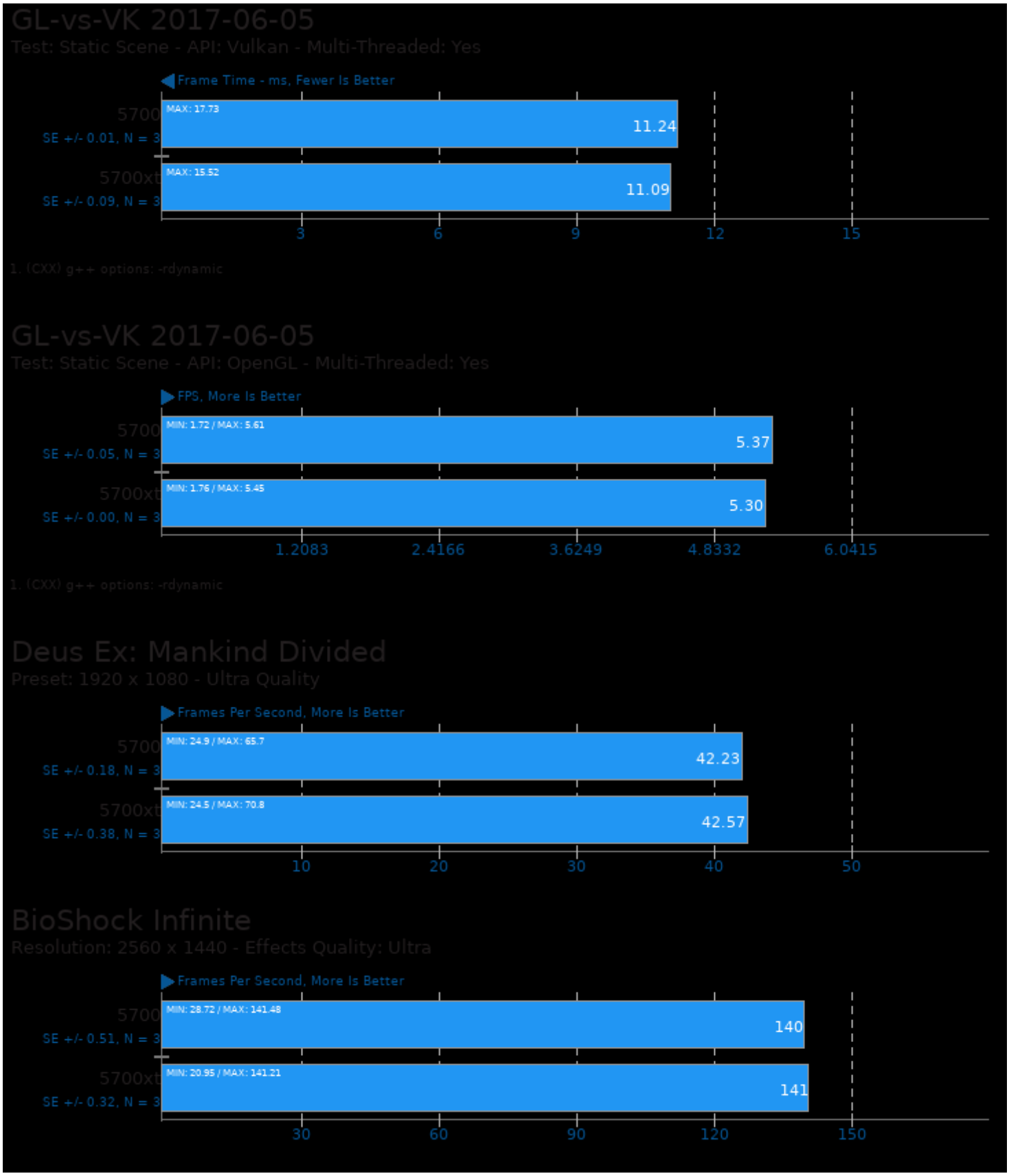

Unigine Heaven 4.0
Resolution: 2560 x 1440 - Mode: Fullscreen - Renderer: OpenGL
Frames Per Second, More Is Better
5700
SE +/- 0.17, N = 3
149
5700xt
SE +/- 0.09, N = 3
163
40
80
120
160
200
Counter-Strike: Global Offensive
Resolution: 3840 x 2160
Frames Per Second, More Is Better
5700
SE +/- 0.31, N = 3
167
5700xt
SE +/- 0.27, N = 3
182
40
80
120
160
200
Unigine Heaven 4.0
Resolution: 1920 x 1080 - Mode: Fullscreen - Renderer: OpenGL
Frames Per Second, More Is Better
5700
SE +/- 0.36, N = 3
159
5700xt
SE +/- 0.35, N = 3
173
40
80
120
160
200
Rise of the Tomb Raider
Resolution: 1920 x 1080 - Graphics Preset: Very High - Anti Aliasing: FXAA - Scene: Geothermal Valley
Frames Per Second, More Is Better
5700
SE +/- 0.26, N = 3
MIN: 64.4 / MAX: 137.9
102
5700xt
SE +/- 0.45, N = 3
MIN: 75.9 / MAX: 170.4
110
20
40
60
80
100

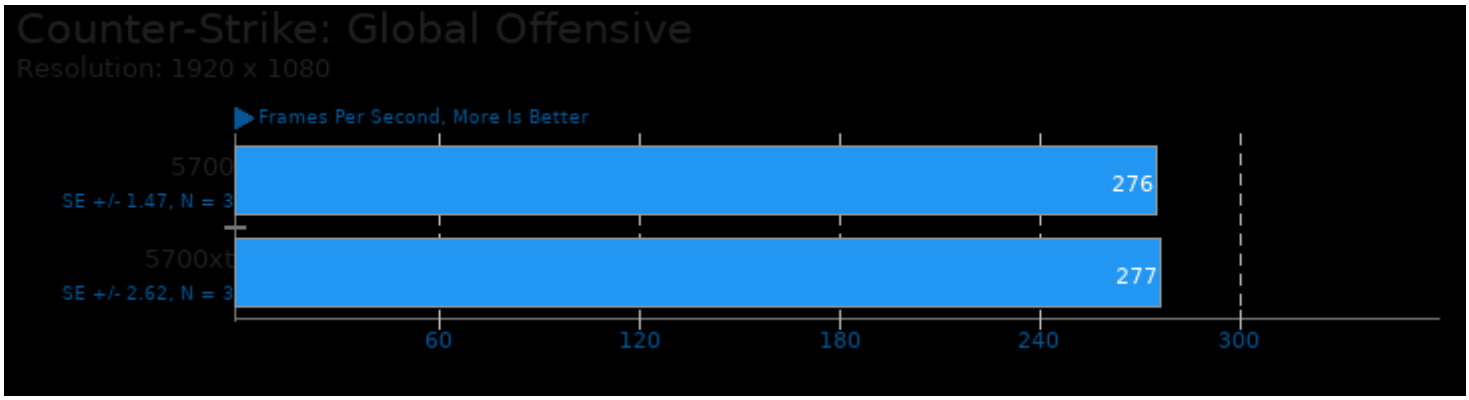

Tesseract 2014-05-12
Resolution: 3840 x 2160
Frames Per Second, More Is Better
5700
SE +/- 1.66, N = 3
223
5700xt
SE +/- 0.69, N = 3
238
50
100
150
200
250
Counter-Strike: Global Offensive
Resolution: 2560 x 1440
Frames Per Second, More Is Better
5700
SE +/- 0.37, N = 3
248
5700xt
SE +/- 0.69, N = 3
264
60
120
180
240
300
Deus Ex: Mankind Divided
Preset: 2560 x 1440 - High Quality
Frames Per Second, More Is Better
5700
SE +/- 0.07, N = 3
MIN: 25.2 / MAX: 56.9
41.53
5700xt
SE +/- 0.20, N = 3
MIN: 24.3 / MAX: 61.9
43.47
10
20
30
40
50
Tesseract 2014-05-12
Resolution: 2560 x 1440
Frames Per Second, More Is Better
5700
SE +/- 1.89, N = 3
316
5700xt
SE +/- 2.86, N = 3
330
70
140
210
280
350

5700series


Tesseract 2014-05-12
Resolution: 1920 x 1080
Frames Per Second, More Is Better
5700
SE +/- 1.69, N = 3
360
5700xt
SE +/- 2.91, N = 3
373
80
160
240
320
400
BioShock Infinite
Resolution: 3840 x 2160 - Effects Quality: Ultra
Frames Per Second, More Is Better
5700
SE +/- 0.15, N = 3
MIN: 27.66 / MAX: 121.02
121
5700xt
SE +/- 0.34, N = 3
MIN: 24.42 / MAX: 125.11
124
30
60
90
120
150
GpuTest 0.7.0
Test: Triangle - Resolution: 1920 x 1080 - Mode: Fullscreen
Points, More Is Better
5700
SE +/- 319.96, N = 3
185992
5700xt
SE +/- 30.27, N = 3
189575
40K
80K
120K
160K
200K
GpuTest 0.7.0
Test: Triangle - Resolution: 3840 x 2160 - Mode: Fullscreen
Points, More Is Better
5700
SE +/- 35.17, N = 3
185317
5700xt
SE +/- 32.54, N = 3
188563
40K
80K
120K
160K
200K

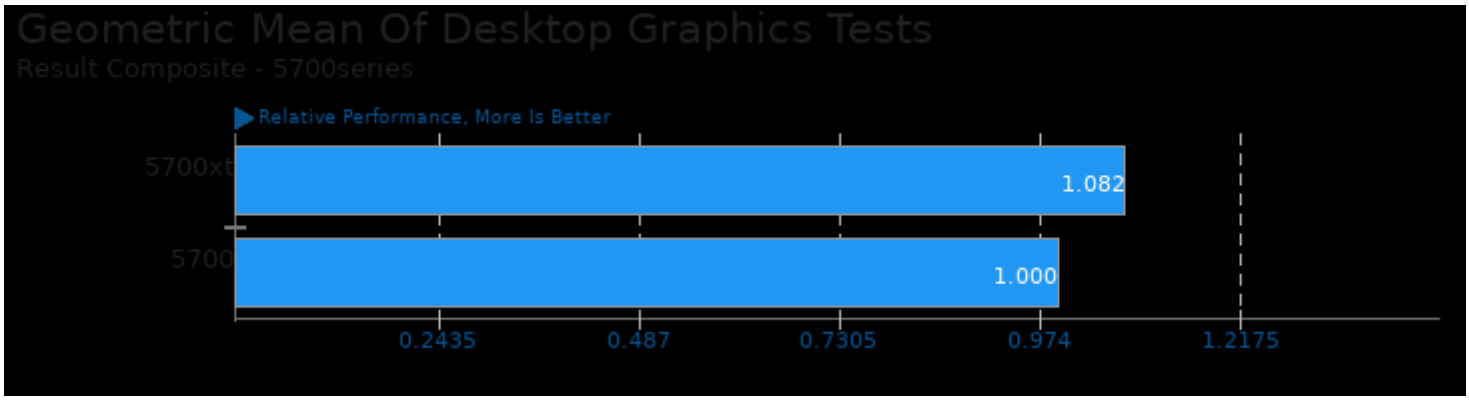

GpuTest 0.7.0
Test: Triangle - Resolution: 2560 x 1440 - Mode: Fullscreen
Points, More Is Better
5700
SE +/- 137.61, N = 3
186319
5700xt
SE +/- 31.86, N = 3
189503
40K
80K
120K
160K
200K
GL-vs-VK 2017-06-05
Test: Static Scene - API: OpenGL - Multi-Threaded: Yes
Frame Time - ms, Fewer Is Better
5700
SE +/- 1.55, N = 3
MIN: 178.15 / MAX: 580.33
186
5700xt
SE +/- 0.08, N = 3
MIN: 183.63 / MAX: 568.03
189
40
80
120
160
200
1. (CXX) g++ options: -rdynamic
BioShock Infinite
Resolution: 1920 x 1080 - Effects Quality: Ultra
Frames Per Second, More Is Better
5700
SE +/- 0.88, N = 3
MIN: 29.21 / MAX: 135.98
135
5700xt
SE +/- 0.10, N = 3
MIN: 24.35 / MAX: 136.71
137
30
60
90
120
150
GL-vs-VK 2017-06-05
Test: Static Scene - API: Vulkan - Multi-Threaded: Yes
FPS, More Is Better
5700
SE +/- 0.08, N = 3
MIN: 56.4 / MAX: 7142857.14
88.94
5700xt
SE +/- 0.71, N = 3
MIN: 64.44 / MAX: 8333333.33
90.16
20
40
60
80
100
1. (CXX) g++ options: -rdynamic


GL-vs-VK 2017-06-05
Test: Static Scene - API: Vulkan - Multi-Threaded: Yes
Frame Time - ms, Fewer Is Better
5700
SE +/- 0.01, N = 3
MAX: 17.73
11.24
5700xt
SE +/- 0.09, N = 3
MAX: 15.52
11.09
3
6
9
12
15
1. (CXX) g++ options: -rdynamic
GL-vs-VK 2017-06-05
Test: Static Scene - API: OpenGL - Multi-Threaded: Yes
FPS, More Is Better
5700
SE +/- 0.05, N = 3
MIN: 1.72 / MAX: 5.61
5.37
5700xt
SE +/- 0.00, N = 3
MIN: 1.76 / MAX: 5.45
5.30
1.2083
2.4166
3.6249
4.8332
6.0415
1. (CXX) g++ options: -rdynamic
Deus Ex: Mankind Divided
Preset: 1920 x 1080 - Ultra Quality
Frames Per Second, More Is Better
5700
SE +/- 0.18, N = 3
MIN: 24.9 / MAX: 65.7
42.23
5700xt
SE +/- 0.38, N = 3
MIN: 24.5 / MAX: 70.8
42.57
10
20
30
40
50
BioShock Infinite
Resolution: 2560 x 1440 - Effects Quality: Ultra
Frames Per Second, More Is Better
5700
SE +/- 0.51, N = 3
MIN: 28.72 / MAX: 141.48
140
5700xt
SE +/- 0.32, N = 3
MIN: 20.95 / MAX: 141.21
141
30
60
90
120
150

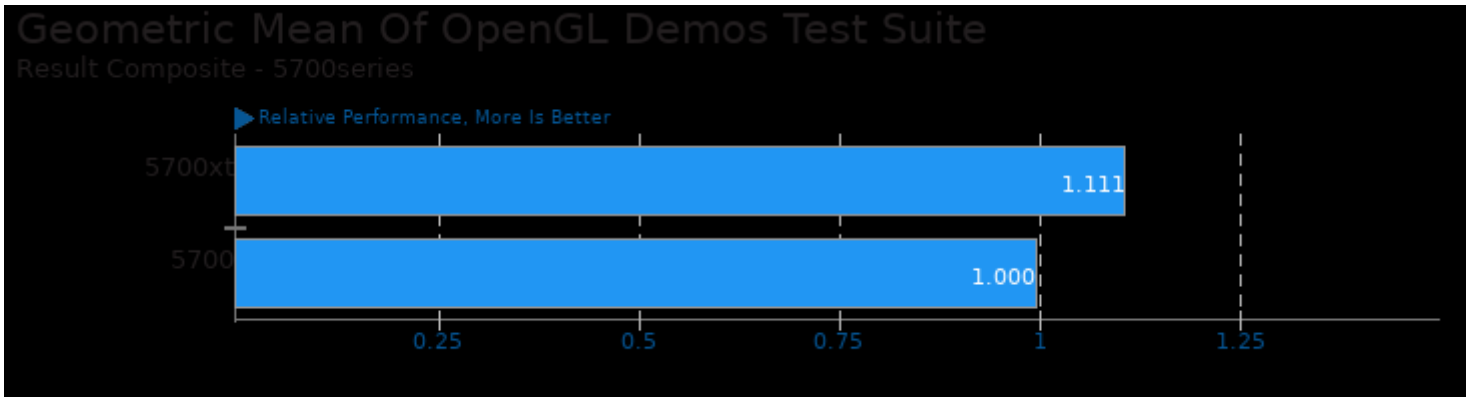

Counter-Strike: Global Offensive
Resolution: 1920 x 1080
Frames Per Second, More Is Better
5700
SE +/- 1.47, N = 3
276
5700xt
SE +/- 2.62, N = 3
277
60
120
180
240
300

5700series

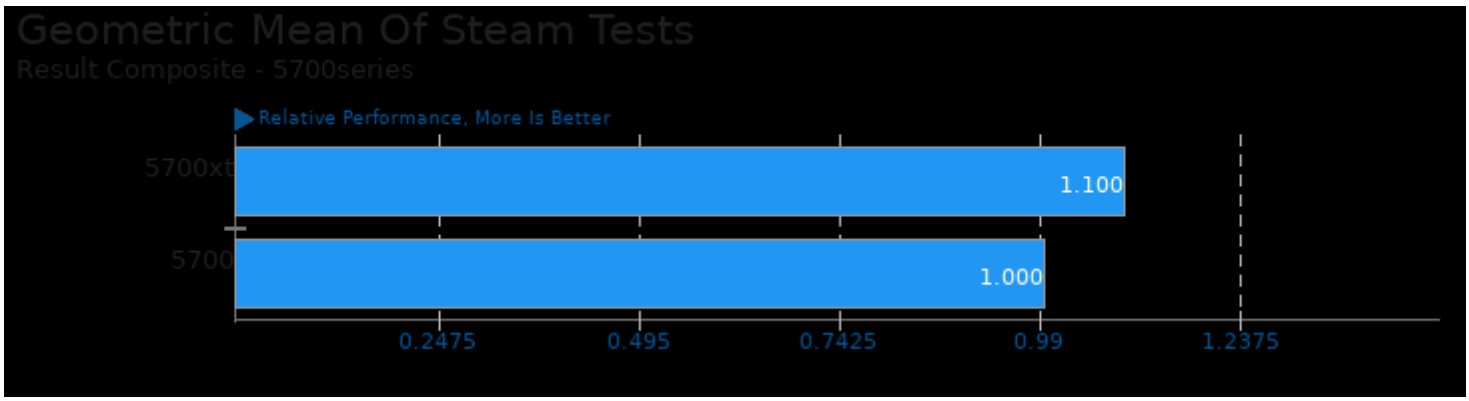
These geometric means are based upon test groupings / test suites for this result file.



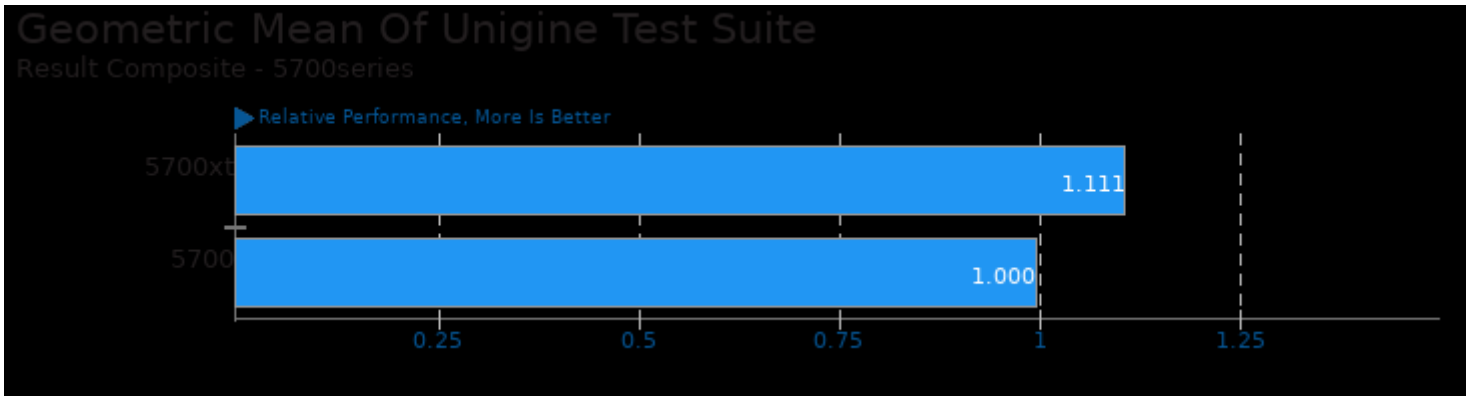
Geometric mean based upon tests: pts/tesseract, pts/unigine-valley and pts/unigine-heaven



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



Geometric mean based upon tests: pts/bioshock-infinite, pts/csgo, pts/riseofthetombraider and pts/deus-exmd



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

This file was automatically generated via the Phoronix Test Suite benchmarking software on Friday, 29 March 2024 00:35.