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Core i7 8700K vs. Ryzen 7 1800X - Radeon NVIDIA Linux Gaming

New vs home system

Automated Executive Summary

Core i7 8700K: GTX 1080 Ti had the most wins, coming in first place for 76% of the tests.

Based on the geometric mean of all complete results, the fastest (Core i7 8700K: GTX 1080 Ti) was 1.776x the speed of the slowest (Ryzen 7 1800X: GTX 1060). Ryzen 7 1800X: GTX 1080 Ti was 0.935x the speed of Core i7 8700K: GTX 1080 Ti, I7 3770 and Nvidia 980 was 0.856x the speed of Ryzen 7 1800X: GTX 1080 Ti, Core i7 8700K: R9 Fury was 0.942x the speed of I7 3770 and Nvidia 980, Ryzen 7 1800X: R9 Fury was 0.969x the speed of Core i7 8700K: R9 Fury, Core i7 8700K: RX 580 was 0.876x the speed of Ryzen 7 1800X: R9 Fury, Ryzen 7 1800X: RX 580 was 0.976x the speed of Core i7 8700K: RX 580, Core i7 8700K: GTX 1060 was 0.914x the speed of Ryzen 7 1800X: RX 580, Ryzen 7 1800X: GTX 1060 was 0.986x the speed of Core i7 8700K: GTX 1060.

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

Mad Max (Resolution: 3840 x 2160 - Graphics Preset: Default - Renderer: Vulkan - Scene: Hope, Glory, and Dog is Dead) at 2.755x
GpuTest (Test: Triangle - Resolution: 1920 x 1080 - Mode: Fullscreen) at 2.736x
Mad Max (Resolution: 3840 x 2160 - Graphics Preset: Default - Renderer: Vulkan - Scene: Landmover) at 2.625x
Serious Sam 3: BFE (Resolution: 3840 x 2160 - Quality: Ultra - Renderer: Vulkan) at 2.537x

Mad Max (Resolution: 3840 x 2160 - Graphics Preset: Default - Renderer: Vulkan - Scene: Camp Hollow Point) at 2.497x
Unigine Superposition (Resolution: 1920 x 1080 - Mode: Fullscreen - Quality: Ultra) at 2.435x
GpuTest (Test: Furmark - Resolution: 1920 x 1080 - Mode: Fullscreen) at 2.392x
Portal (Resolution: 3840 x 2160) at 2.338x
Deus Ex: Mankind Divided (Preset: 2560 x 1440 - High Quality) at 2.142x
Dawn of War III (Resolution: 1920 x 1080 - Graphics Preset: Maximum - Renderer: Vulkan) at 2.082x.

Test Systems:

Core i7 8700K: RX 580

Processor: Intel Core i7-8700K @ 4.00GHz (6 Cores / 12 Threads), Motherboard: ASUS PRIME Z370-A, Chipset: Intel Device 3ec2, Memory: 16384MB, Disk: 525GB Crucial_CT525MX3 + 120GB Force MP500, Graphics: MSI AMD Radeon RX 580 8192MB, Audio: Realtek ALC1220, Monitor: DELL P2415Q, Network: Intel Connection

OS: Ubuntu 17.04, Kernel: 4.13.7-041307-generic (x86_64), Desktop: Unity 7.5.0, Display Server: X Server 1.19.3, Display Driver: modesetting 1.19.3, OpenGL: 4.5 Mesa 17.3.0-devel- padoka PPA (LLVM 6.0.0), Vulkan: 1.0.42, Compiler: GCC 6.3.0 20170406, File-System: ext4, Screen Resolution: 3840x2160

Processor Notes: Scaling Governor: intel_pstate performance
Graphics Notes: GLAMOR

Core i7 8700K: R9 Fury

Processor: Intel Core i7-8700K @ 4.00GHz (6 Cores / 12 Threads), Motherboard: ASUS PRIME Z370-A, Chipset: Intel Device 3ec2, Memory: 16384MB, Disk: 525GB Crucial_CT525MX3 + 120GB Force MP500, Graphics: Sapphire AMD Radeon 4096MB, Audio: Realtek ALC1220, Monitor: DELL P2415Q, Network: Intel Connection

OS: Ubuntu 17.04, Kernel: 4.13.7-041307-generic (x86_64), Desktop: Unity 7.5.0, Display Server: X Server 1.19.3, Display Driver: modesetting 1.19.3, OpenGL: 4.5 Mesa 17.3.0-devel- padoka PPA (LLVM 6.0.0), Vulkan: 1.0.42, Compiler: GCC 6.3.0 20170406, File-System: ext4, Screen Resolution: 3840x2160

Processor Notes: Scaling Governor: intel_pstate performance
Graphics Notes: GLAMOR

Core i7 8700K: GTX 1060

Processor: Intel Core i7-8700K @ 4.00GHz (6 Cores / 12 Threads), Motherboard: ASUS PRIME Z370-A, Chipset: Intel Device 3ec2, Memory: 16384MB, Disk: 525GB Crucial_CT525MX3 + 120GB Force MP500, Graphics: NVIDIA GeForce GTX 1060 6GB 6144MB (1506/4006MHz), Audio: Realtek ALC1220, Monitor: DELL P2415Q, Network: Intel Connection

OS: Ubuntu 17.04, Kernel: 4.13.7-041307-generic (x86_64), Desktop: Unity 7.5.0, Display Server: X Server 1.19.3, Display Driver: NVIDIA 387.12, OpenGL: 4.5.0, Vulkan: 1.0.42, Compiler: GCC 6.3.0 20170406, File-System: ext4, Screen Resolution: 3840x2160

Processor Notes: Scaling Governor: intel_pstate performance

Core i7 8700K: GTX 1080 Ti

Processor: Intel Core i7-8700K @ 4.00GHz (6 Cores / 12 Threads), Motherboard: ASUS PRIME Z370-A, Chipset: Intel Device 3ec2, Memory: 16384MB, Disk: 525GB Crucial_CT525MX3 + 120GB Force MP500, Graphics: NVIDIA GeForce GTX 1080 Ti 11264MB (1480/5508MHz), Audio: Realtek ALC1220, Monitor: DELL P2415Q, Network: Intel Connection

OS: Ubuntu 17.04, Kernel: 4.13.7-041307-generic (x86_64), Desktop: Unity 7.5.0, Display Server: X Server 1.19.3, Display Driver: NVIDIA 387.12, OpenGL: 4.5.0, Vulkan: 1.0.42, Compiler: GCC 6.3.0 20170406, File-System: ext4, Screen Resolution: 3840x2160

Processor Notes: Scaling Governor: intel_pstate performance

Ryzen 7 1800X: RX 580

Processor: AMD Ryzen 7 1800X Eight-Core @ 3.60GHz (8 Cores / 16 Threads), Motherboard: MSI X370 XPOWER GAMING TITANIUM (MS-7A31) v1.0, Chipset: AMD Family 17h, Memory: 16384MB, Disk: 525GB Crucial_CT525MX3 + 120GB Force MP500, Graphics: MSI AMD Radeon RX 580 8192MB, Audio: AMD Ellesmere, Monitor: DELL P2415Q, Network: Intel I211 Gigabit Connection

OS: Ubuntu 17.04, Kernel: 4.13.7-041307-generic (x86_64), Desktop: Unity 7.5.0, Display Server: X Server 1.19.3, Display Driver: modesetting 1.19.3, OpenGL: 4.5 Mesa 17.3.0-devel- padoka PPA (LLVM 6.0.0), Vulkan: 1.0.42, Compiler: GCC 6.3.0 20170406, File-System: ext4, Screen Resolution: 3840x2160

Processor Notes: Scaling Governor: acpi-cpufreq performance
Graphics Notes: GLAMOR

Ryzen 7 1800X: R9 Fury

Processor: AMD Ryzen 7 1800X Eight-Core @ 3.60GHz (8 Cores / 16 Threads), Motherboard: MSI X370 XPOWER GAMING TITANIUM (MS-7A31) v1.0, Chipset: AMD Family 17h, Memory: 16384MB, Disk: 525GB Crucial_CT525MX3 + 120GB Force MP500, Graphics: Sapphire AMD Radeon 4096MB, Audio: AMD Fiji HDMI/DP, Monitor: DELL P2415Q, Network: Intel I211 Gigabit Connection

OS: Ubuntu 17.04, Kernel: 4.13.7-041307-generic (x86_64), Desktop: Unity 7.5.0, Display Server: X Server 1.19.3, Display Driver: modesetting 1.19.3, OpenGL: 4.5 Mesa 17.3.0-devel- padoka PPA (LLVM 6.0.0), Vulkan: 1.0.42, Compiler: GCC 6.3.0 20170406, File-System: ext4, Screen Resolution: 3840x2160

Processor Notes: Scaling Governor: acpi-cpufreq performance
Graphics Notes: GLAMOR

Ryzen 7 1800X: GTX 1060

Processor: AMD Ryzen 7 1800X Eight-Core @ 3.60GHz (8 Cores / 16 Threads), Motherboard: MSI X370 XPOWER GAMING TITANIUM (MS-7A31) v1.0, Chipset: AMD Family 17h, Memory: 16384MB, Disk: 525GB Crucial_CT525MX3 + 120GB Force MP500, Graphics: NVIDIA GeForce GTX 1060 6GB 6144MB (1506/4006MHz), Audio: NVIDIA GP106 HD Audio, Monitor: DELL P2415Q, Network: Intel I211 Gigabit Connection

OS: Ubuntu 17.04, Kernel: 4.13.7-041307-generic (x86_64), Desktop: Unity 7.5.0, Display Server: X Server 1.19.3, Display Driver: NVIDIA 387.12, OpenGL: 4.5.0, Vulkan: 1.0.42, Compiler: GCC 6.3.0 20170406, File-System: ext4, Screen Resolution: 3840x2160

Processor Notes: Scaling Governor: acpi-cpufreq performance

Ryzen 7 1800X: GTX 1080 Ti

Processor: AMD Ryzen 7 1800X Eight-Core @ 3.60GHz (8 Cores / 16 Threads), Motherboard: MSI X370 XPOWER GAMING TITANIUM (MS-7A31) v1.0, Chipset: AMD Device 1450, Memory: 16384MB, Disk: 525GB Crucial_CT525MX3 + 120GB Force MP500, Graphics: NVIDIA GeForce GTX 1080 Ti 11264MB (1480/5508MHz), Audio: NVIDIA GP102 HDMI Audio, Monitor: DELL P2415Q, Network: Intel I211 Gigabit Connection

OS: Ubuntu 17.04, Kernel: 4.13.7-041307-generic (x86_64), Desktop: Unity 7.5.0, Display Server: X Server 1.19.3, Display Driver: NVIDIA 387.12, OpenGL: 4.5.0, Vulkan: 1.0.42, Compiler: GCC 6.3.0 20170406, File-System: ext4, Screen Resolution: 3840x2160

Processor Notes: Scaling Governor: acpi-cpufreq performance

I7 3770 and Nvidia 980

Processor: Intel Core i7-3770 @ 3.90GHz (8 Cores), Motherboard: MSI Z77A-GD65 (MS-7751) v2.0, Chipset: Intel Xeon E3-1200 v2/3rd, Memory: 4 x 8192 MB DDR3-1333MHz, Disk: 2000GB Western Digital WD2002FAEX-0 + 960GB Micron 000000000 + 1000GB Seagate ST1000DM003-1CH1 + 1000GB Western Digital WD10EZEX-00R, Graphics: eVGA NVIDIA GeForce GTX 980 4096MB (1265/3505MHz), Audio: C-Media CMI8788, Monitor: DELL 2407WFP, Network: Intel 82579V Gigabit Connection

OS: Ubuntu 17.04, Kernel: 4.10.0-37-generic (x86_64), Desktop: KDE Frameworks 5, Display Server: X Server 1.19.3, Display Driver: NVIDIA 387.12, OpenGL: 4.5.0, Compiler: GCC 6.3.0 20170406, File-System: ext4, Screen Resolution: 1920x1200

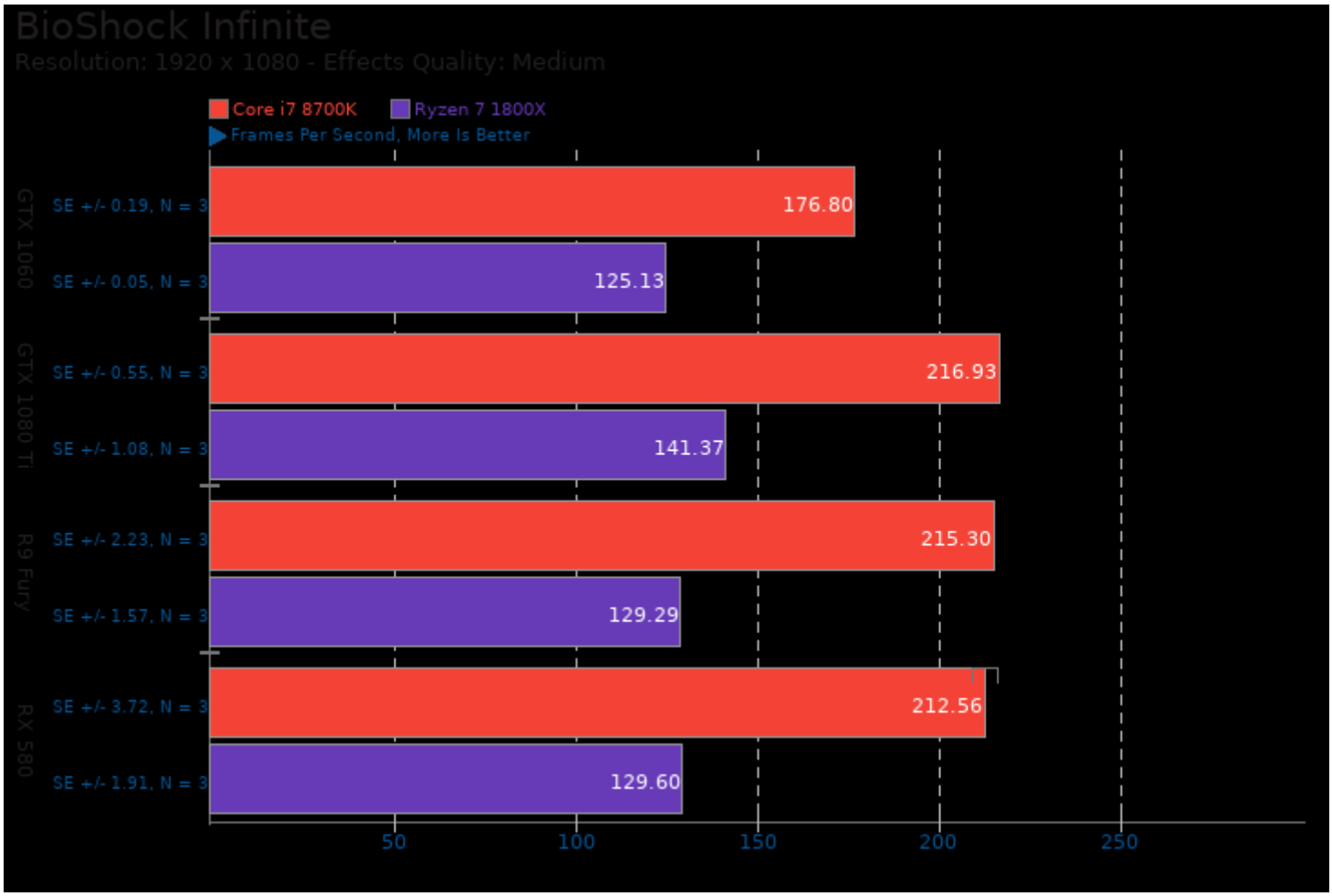
Processor Notes: Scaling Governor: intel_pstate powersave

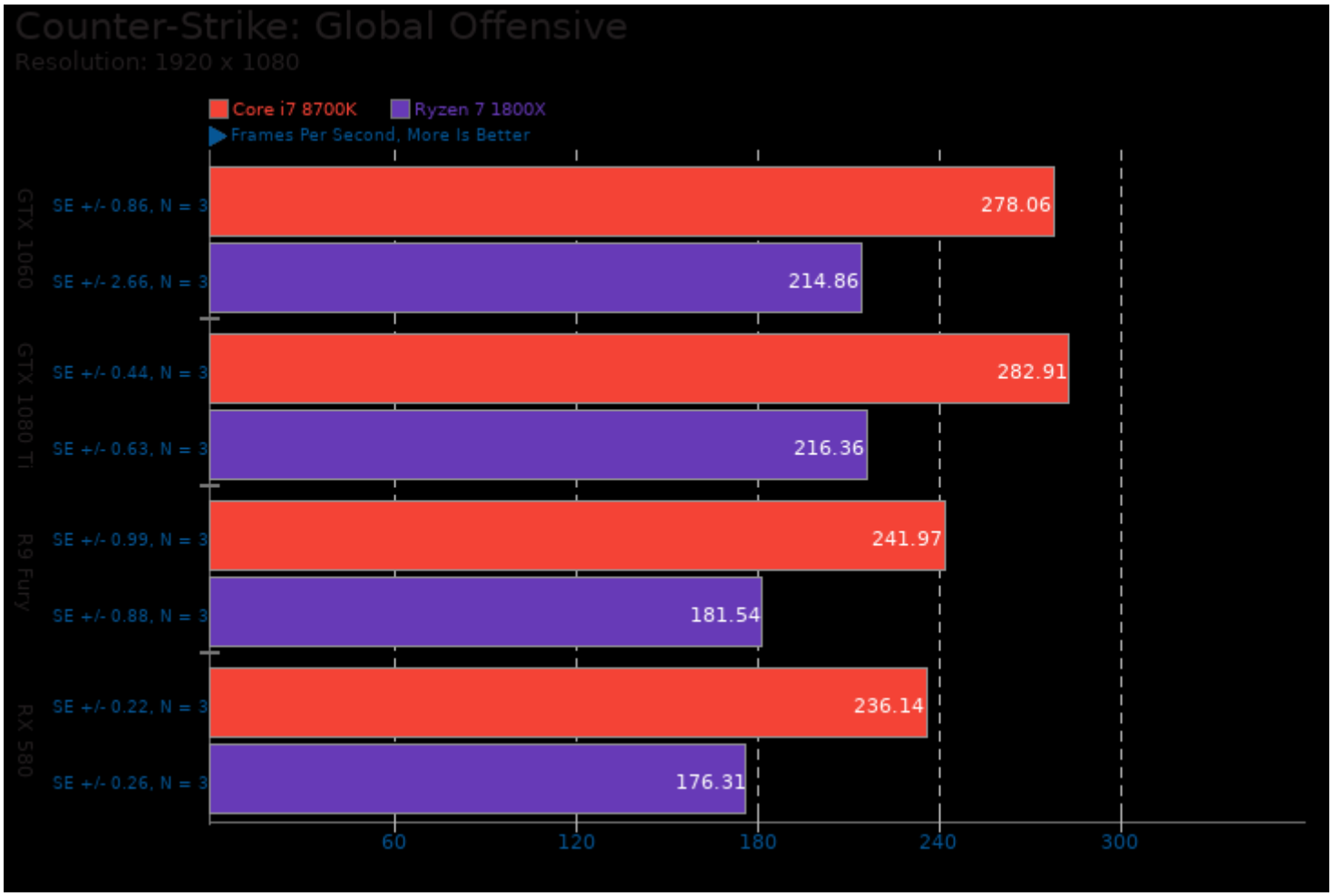
	Core i7 8700K: RX 580	Core i7 8700K: R9 Fury	Core i7 8700K: GTX 1060	Core i7 8700K: GTX 1080 Ti	Ryzen 7 1800X: RX 580	Ryzen 7 1800X: R9 Fury	Ryzen 7 1800X: GTX 1060	Ryzen 7 1800X: GTX 1080 Ti	I7 3770 and Nvidia 980
BioShock Infinite - 1920 x 1080 - Medium (FPS)	212.56	215.30	176.80	**216.93**	129.60	129.29	**125.13**	141.37	
Normalized	97.99%	99.25%	81.5%	100%	59.74%	59.6%	57.68%	65.17%	
Standard Deviation	3%	1.8%	0.2%	0.4%	2.6%	2.1%	0.1%	1.3%	
Counter-Strike: Global Offensive - 1920 x 1080 (FPS)	236.14	241.97	278.06	**282.91**	**176.31**	181.54	214.86	216.36	
Normalized	83.47%	85.53%	98.29%	100%	62.32%	64.17%	75.95%	76.48%	
Standard Deviation	0.2%	0.7%	0.5%	0.3%	0.3%	0.8%	2.1%	0.5%	
Counter-Strike: Global Offensive - 3840 x 2160 (FPS)	150.37	170.38	134.75	**274.84**	**132.07**	157.09	133.20	211.80	
Normalized	54.71%	61.99%	49.03%	100%	48.05%	57.16%	48.46%	77.06%	
Standard Deviation	0.6%	0.5%	0.3%	0.3%	0.7%	0.6%	0.2%	0.2%	

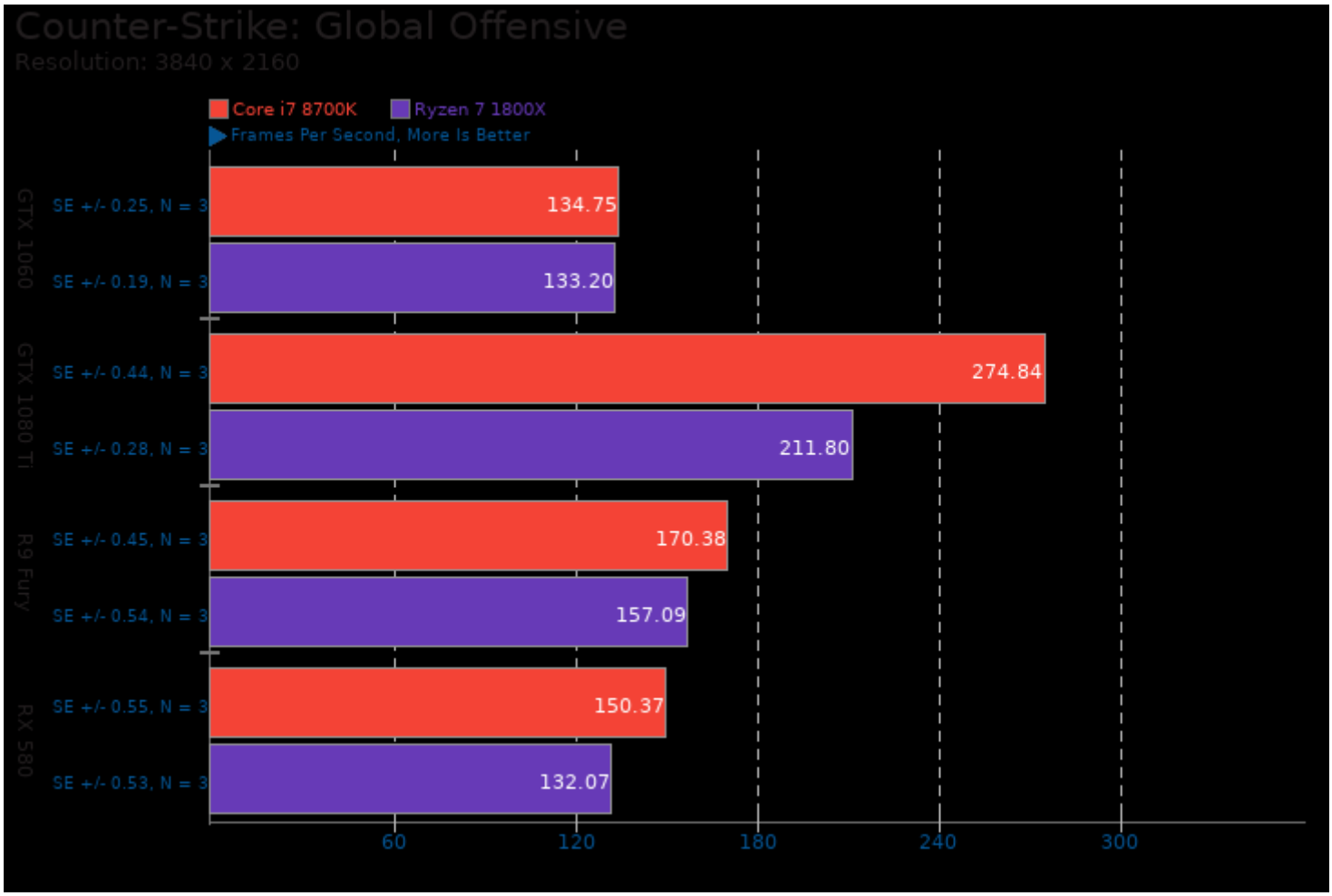
Deus Ex: Mankind Divided - 2560 x 1440 - High Quality (FPS)	38.17	44.57	32.60	**69.33**	38.70	43.87	**32.37**	55.70	
Normalized	55.06%	64.29%	47.02%	100%	55.82%	63.28%	46.69%	80.34%	
Standard Deviation	2.9%	0.1%	0.5%	0.6%	0%	2.7%	0.4%	0.8%	
Dawn of War III - 1920 x 1080 - Low - OpenGL (FPS)	98.25	110.67	99.60	**116.43**	68.05	68.90	**66.45**	69.30	
Normalized	84.39%	95.05%	85.54%	100%	58.45%	59.18%	57.07%	59.52%	
Standard Deviation	1.9%	2.3%	3.3%	3.6%	0.7%	0.9%	4.7%	0.6%	
Dawn of War III - 1920 x 1080 - Low - Vulkan (FPS)	79.13	88.90	99.45	**110.25**	**53.94**	57.74	65.13	67.66	
Normalized	71.77%	80.63%	90.2%	100%	48.93%	52.37%	59.07%	61.37%	
Standard Deviation	1.1%	0.7%	4.3%	5.5%	0.5%	0.5%	6.1%	1.4%	
Dawn of War III - 1920 x 1080 - Maximum - OpenGL	79.37	91.37	71.42	**103.31**	62.39	63.46	**60.44**	63.59	
Normalized	76.83%	88.44%	69.13%	100%	60.39%	61.43%	58.5%	61.55%	
Standard Deviation	1.4%	1.9%	1.3%	2.7%	0.9%	0.6%	1.9%	0.7%	
Dawn of War III - 1920 x 1080 - Maximum - Vulkan	55.58	65.81	70.36	**101.27**	**48.64**	51.24	59.30	62.82	
Normalized	54.88%	64.98%	69.48%	100%	48.03%	50.6%	58.56%	62.03%	
Standard Deviation	1.7%	1.1%	3.1%	3.6%	0.6%	0%	3.6%	1%	
ET: Legacy - Renderer2 - 3840 x 2160 (FPS)	220.27	218.23	**221.70**	220.95	178.43	180.70	196.70	204.13	**165.73**
Normalized	99.35%	98.43%	100%	99.66%	80.48%	81.51%	88.72%	92.07%	74.75%
Standard Deviation	0.7%	8.7%	3.5%	6.3%	0.5%	0.6%	0.1%	0.1%	0.2%
Mad Max - 3840 x 2160 - Default - Vulkan - Camp Hollow Point (FPS)	**69.75**	105.26	77.72	166.36	71.13	98.03	70.64	**174.20**	
Normalized	40.04%	60.42%	44.62%	95.5%	40.83%	56.27%	40.55%	100%	
Mad Max - 3840 x 2160 - Default - Vulkan - Stronghold (FPS)	75.16	97.61	79.46	**115.79**	69.34	**68.25**	79.07	81.84	
Normalized	64.91%	84.3%	68.62%	100%	59.88%	58.94%	68.29%	70.68%	
Mad Max - 3840 x 2160 - Default - Vulkan - H.G.a.D.i.D (FPS)	59.31	83.40	68.30	154.19	**57.68**	82.33	67.74	**158.91**	
Normalized	37.32%	52.48%	42.98%	97.03%	36.3%	51.81%	42.63%	100%	

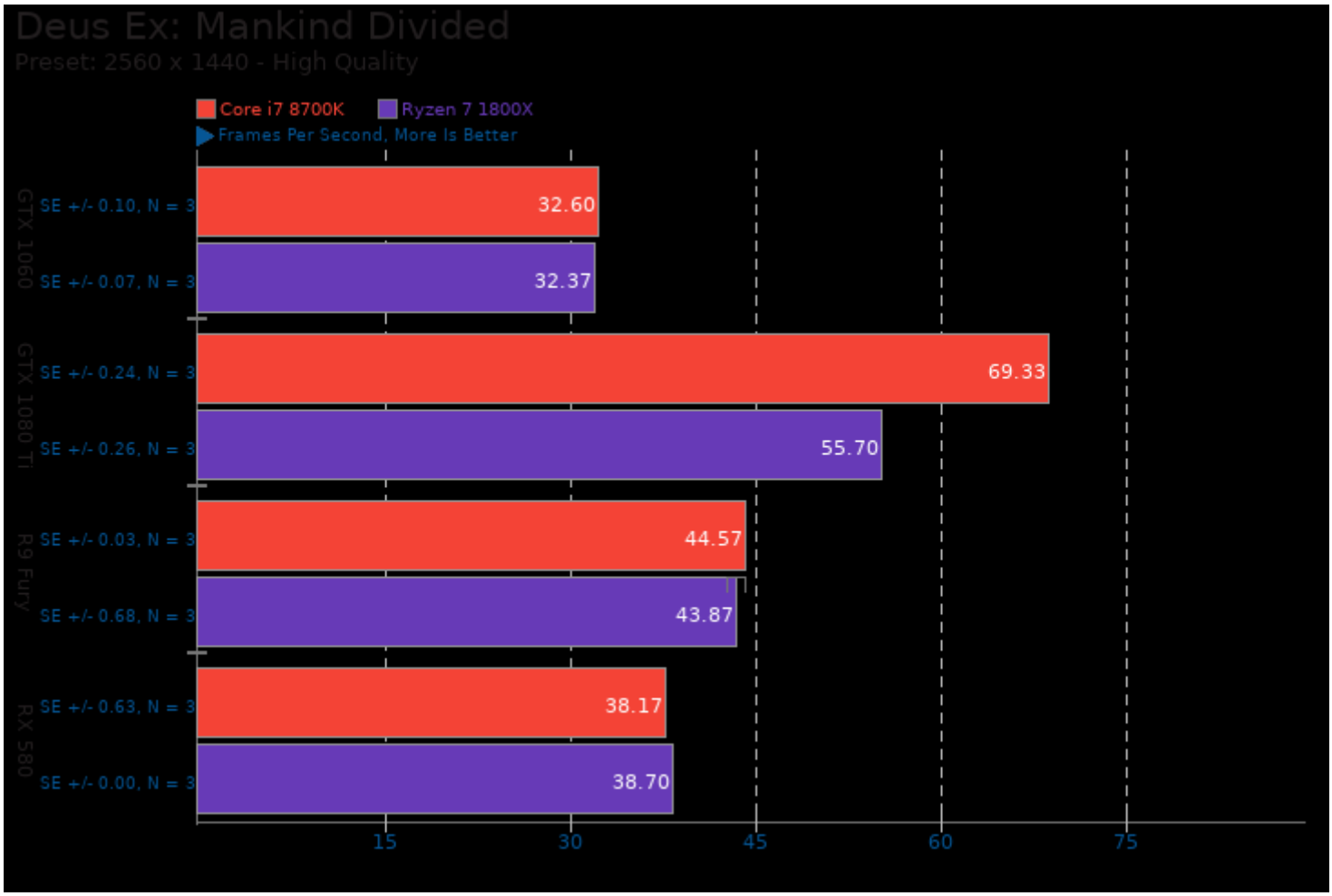
Mad Max - 3840 x 2160 - Default - Vulkan - Landmover (FPS)	72.00	102.06	83.55	182.95	70.40	99.39	81.13	184.79	
Normalized	38.96%	55.23%	45.21%	99%	38.1%	53.79%	43.9%	100%	
Metro: Last Light Redux - 1920 x 1080 (FPS)	173.62	178.57	159.27	198.85	110.56	113.71	116.58	131.47	
Normalized	87.31%	89.8%	80.1%	100%	55.6%	57.18%	58.63%	66.12%	
Standard Deviation	0.8%	0.5%	0.2%	1.3%	1%	1%	0.3%	0.7%	
Portal - 3840 x 2160 (FPS)	289.31	377.36	251.54	581.41	289.23	378.80	248.63	570.38	
Normalized	49.76%	64.9%	43.26%	100%	49.75%	65.15%	42.76%	98.1%	
Standard Deviation	0.2%	0.2%	0.1%	0.3%	0.3%	0%	0.2%	0.9%	
Serious Sam 3: BFE - 3840 x 2160 - Ultra - Vulkan (FPS)	36.77	49.22	37.67	81.50	40.73	52.07	43.13	93.27	
Normalized	39.42%	52.77%	40.39%	87.38%	43.67%	55.83%	46.24%	100%	
Standard Deviation	3.3%	3.2%	2.2%	1.2%	1.2%	1.1%	0.5%	1.4%	
Tesseract - 3840 x 2160 (FPS)	205.91	256.63	191.01	326.32	205.28	244.67	195.26	306.34	296.47
Normalized	63.1%	78.64%	58.53%	100%	62.91%	74.98%	59.84%	93.88%	90.85%
Standard Deviation	0.2%	0.7%	1.1%	1.4%	0.3%	0.6%	0.3%	3%	1.4%
Team Fortress 2 - 3840 x 2160 (FPS)	162.65	170.47	173.16	181.59	123.68	123.98	131.48	133.99	
Normalized	89.57%	93.88%	95.36%	100%	68.11%	68.27%	72.4%	73.79%	
Standard Deviation	1.2%	1.1%	0.3%	0.3%	0.7%	1.8%	0.4%	1.5%	
Tomb Raider - 3840 x 2160 - Normal (FPS)	72.03	90.03	61.67	124.97	71.83	89.77	60.43	119.87	
Normalized	57.64%	72.04%	49.35%	100%	57.48%	71.83%	48.36%	95.92%	
Standard Deviation	0.4%	0.5%	0.3%	0.5%	0.2%	0.4%	0.3%	0.4%	
Unigine Superposition - 1920 x 1080 - Fullscreen - Low (FPS)	92	93.20	120	179.10	91.40	93.20	116.80	131.60	101.20
Normalized	51.37%	52.04%	67%	100%	51.03%	52.04%	65.21%	73.48%	56.5%
Unigine Superposition - 1920 x 1080 - Fullscreen - Ultra (FPS)	16	18.70	14.70	35.80	15.90	18.70	14.70	35.80	17.80
Normalized	44.69%	52.23%	41.06%	100%	44.41%	52.23%	41.06%	100%	49.72%
Xonotic - 3840 x 2160 - Ultimate (FPS)	167.76	209.86	131.75	231.06	178.99	207.64	131.10	223.37	180.29
Normalized	72.6%	90.82%	57.02%	100%	77.46%	89.86%	56.74%	96.67%	78.03%
Standard Deviation	0.8%	0.6%	0.3%	0.1%	0.5%	0.3%	0.1%	1.5%	0.3%
GpuTest - Furmark - 1920 x 1080 - Fullscreen (Points)	2233	3489	2066	4808	2226	3486	2061	4803	4929
Normalized	45.3%	70.79%	41.92%	97.55%	45.16%	70.72%	41.81%	97.44%	100%
Standard Deviation	0.1%	0.2%		0.1%	0.1%	0.1%	0.1%	0.1%	0.1%

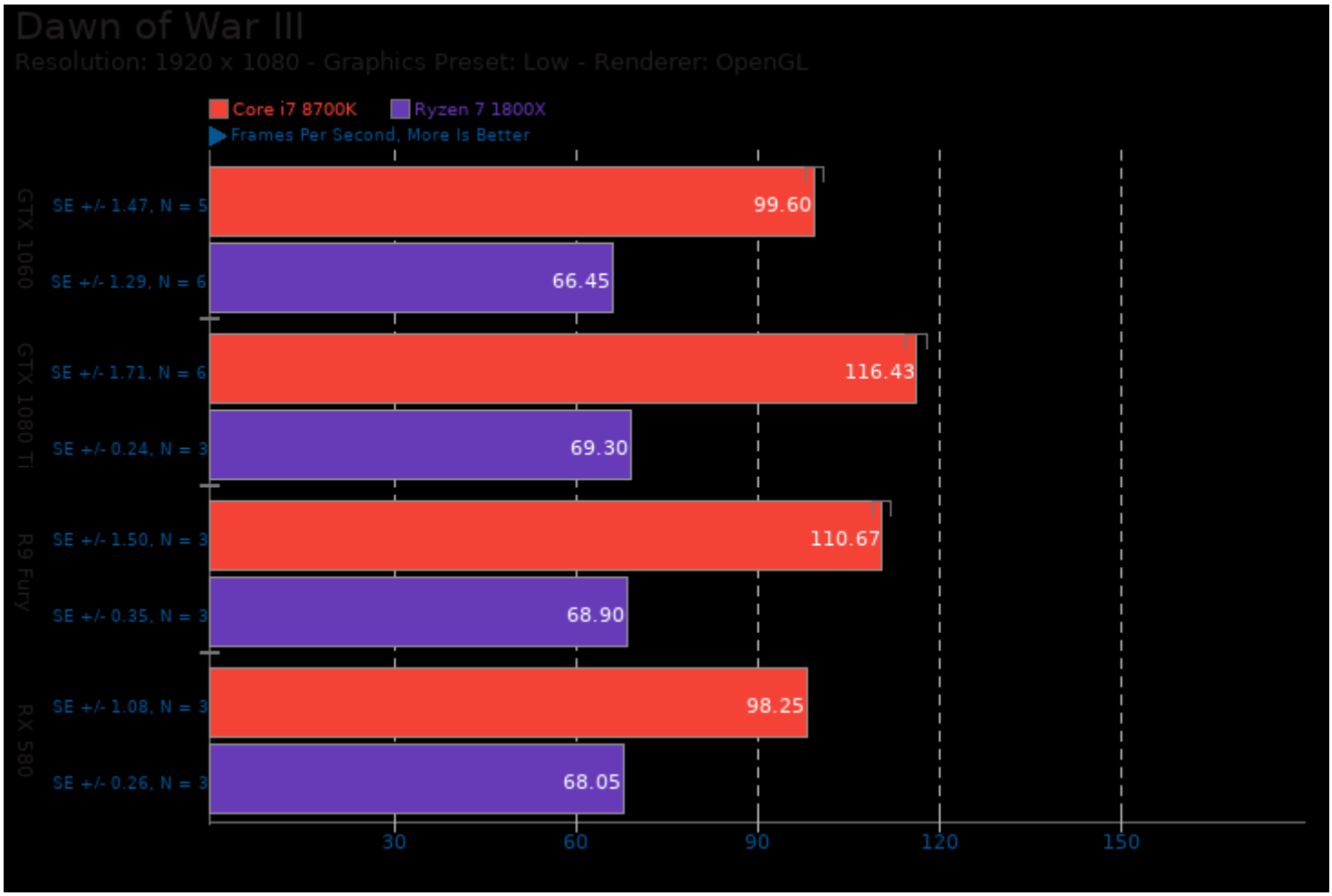
GpuTest - Triangle - 1920 x 1080 - Fullscreen (Points)	244160	268847	**135420**	270251	243437	275552	139777	273394	**370500**
Normalized	65.9%	72.56%	36.55%	72.94%	65.7%	74.37%	37.73%	73.79%	100%
Standard Deviation	0.1%	0.2%	0.6%	0.3%	0.1%	0.2%	0.1%	0.1%	0.1%

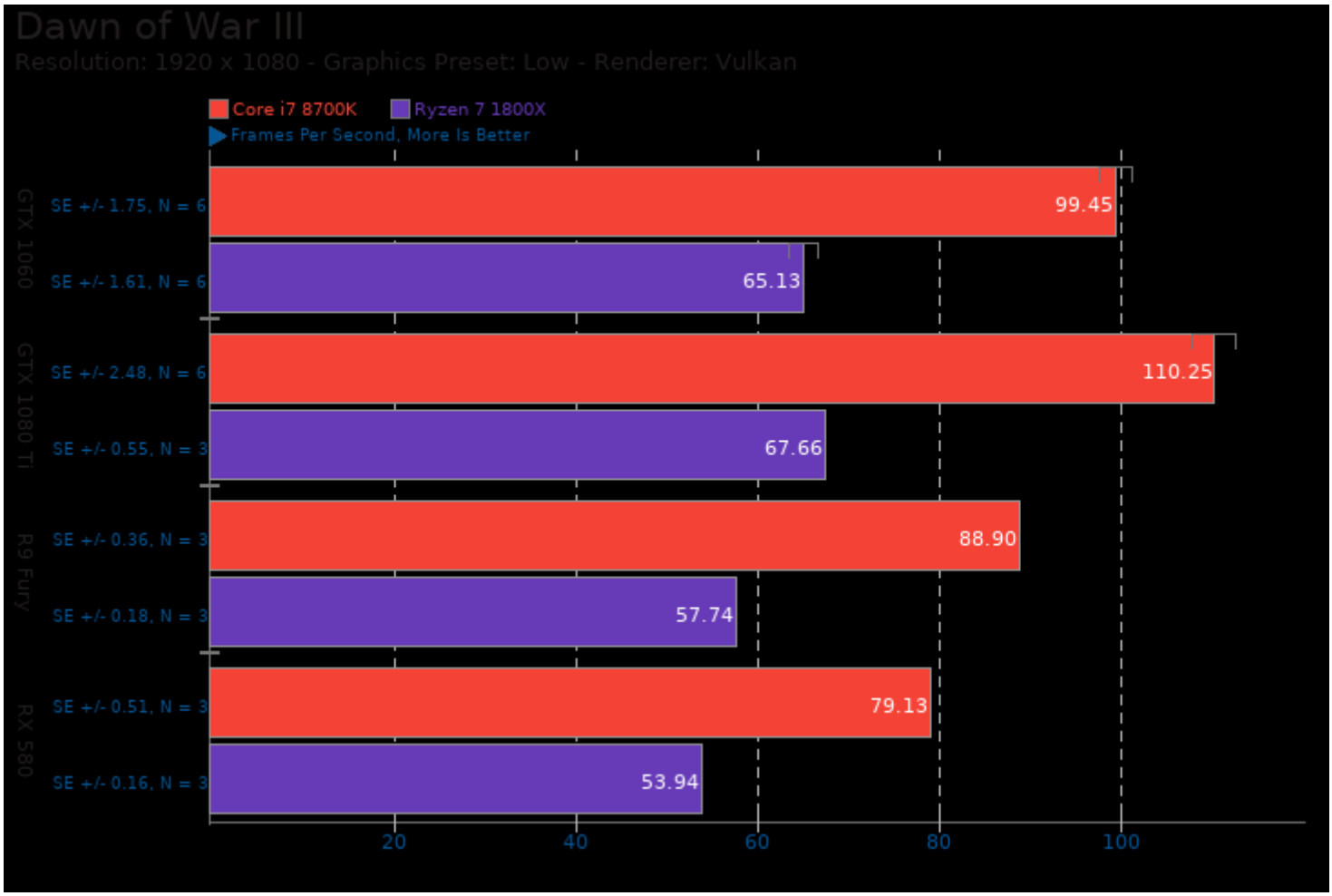

BioShock Infinite
Resolution: 1920 x 1080 - Effects Quality: Medium
Core i7 8700K
Ryzen 7 1800X
Frames Per Second, More Is Better
GTX 1060
SE +/- 0.19, N = 3
176.80
SE +/- 0.05, N = 3
125.13
GTX 1080 Ti
SE +/- 0.55, N = 3
216.93
SE +/- 1.08, N = 3
141.37
R9 Fury
SE +/- 2.23, N = 3
215.30
SE +/- 1.57, N = 3
129.29
RX 580
SE +/- 3.72, N = 3
212.56
SE +/- 1.91, N = 3
129.60
50
100
150
200
250

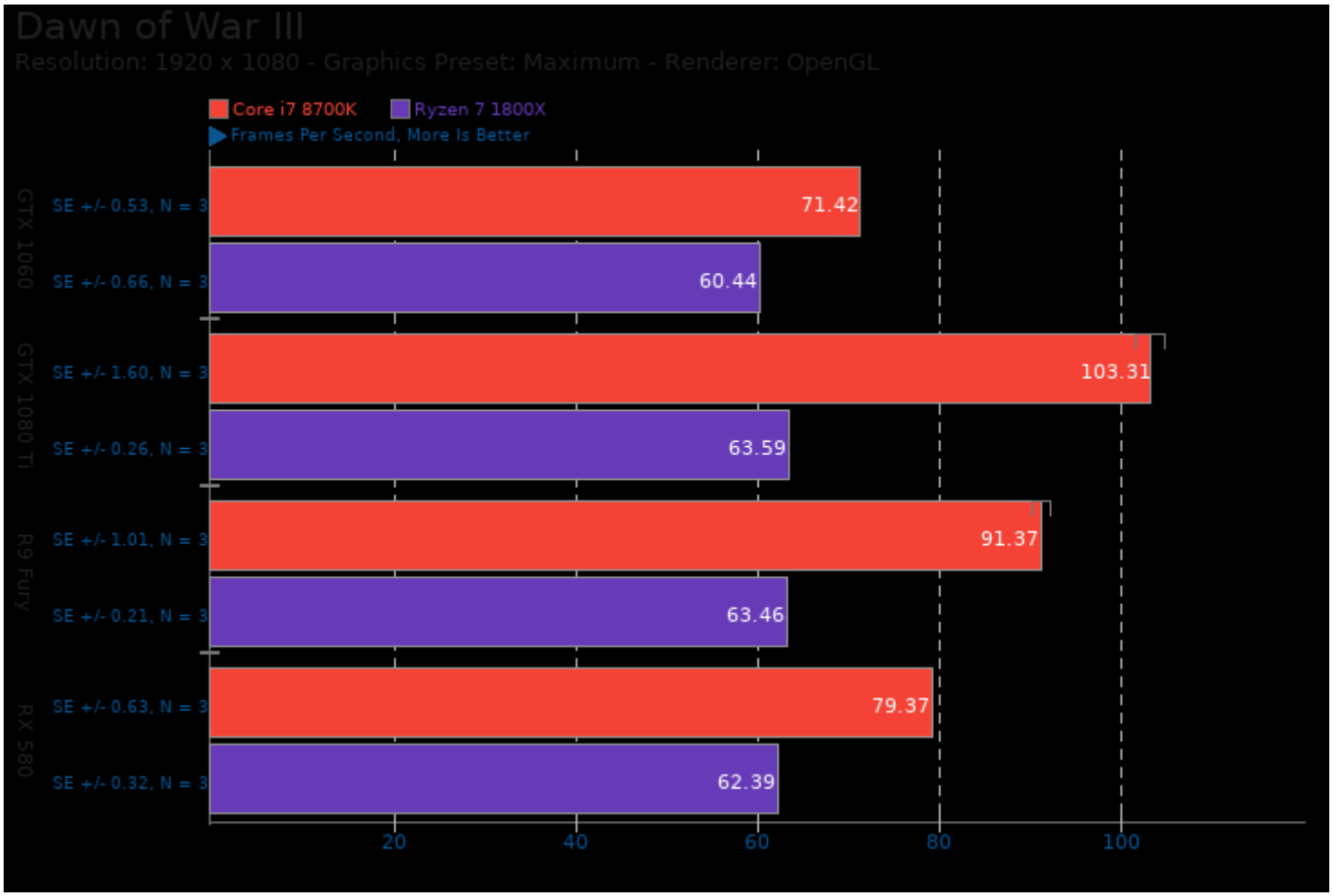

Counter-Strike: Global Offensive
Resolution: 1920 x 1080
Core i7 8700K
Ryzen 7 1800X
Frames Per Second, More Is Better
GTX 1060
SE +/- 0.86, N = 3
278.06
SE +/- 2.66, N = 3
214.86
GTX 1080 Ti
SE +/- 0.44, N = 3
282.91
SE +/- 0.63, N = 3
216.36
R9 Fury
SE +/- 0.99, N = 3
241.97
SE +/- 0.88, N = 3
181.54
RX 580
SE +/- 0.22, N = 3
236.14
SE +/- 0.26, N = 3
176.31
60
120
180
240
300

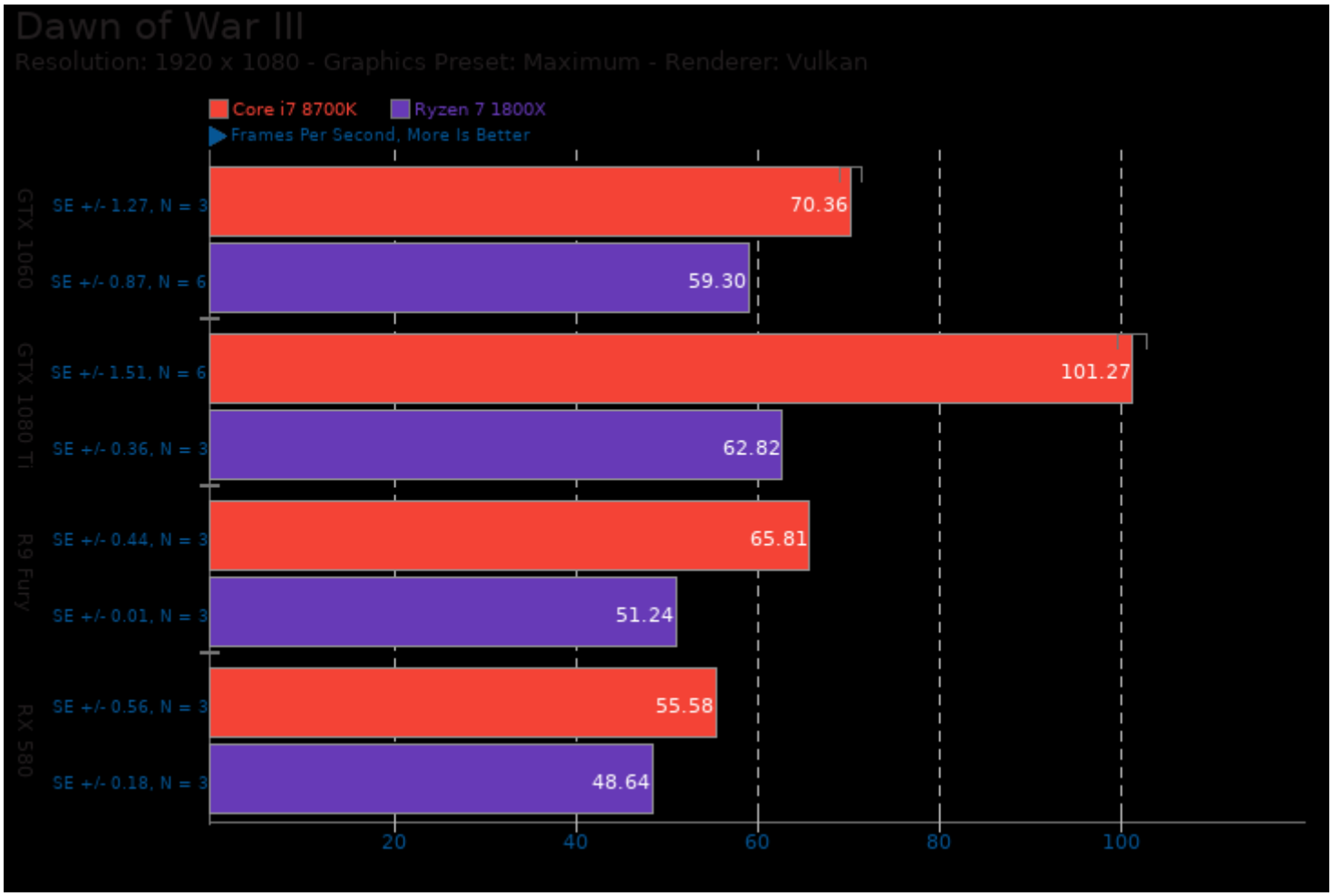

Counter-Strike: Global Offensive
Resolution: 3840 x 2160
Core i7 8700K
Ryzen 7 1800X
Frames Per Second, More Is Better
GTX 1060
SE +/- 0.25, N = 3
134.75
SE +/- 0.19, N = 3
133.20
GTX 1080 Ti
SE +/- 0.44, N = 3
274.84
SE +/- 0.28, N = 3
211.80
R9 Fury
SE +/- 0.45, N = 3
170.38
SE +/- 0.54, N = 3
157.09
RX 580
SE +/- 0.55, N = 3
150.37
SE +/- 0.53, N = 3
132.07
60
120
180
240
300

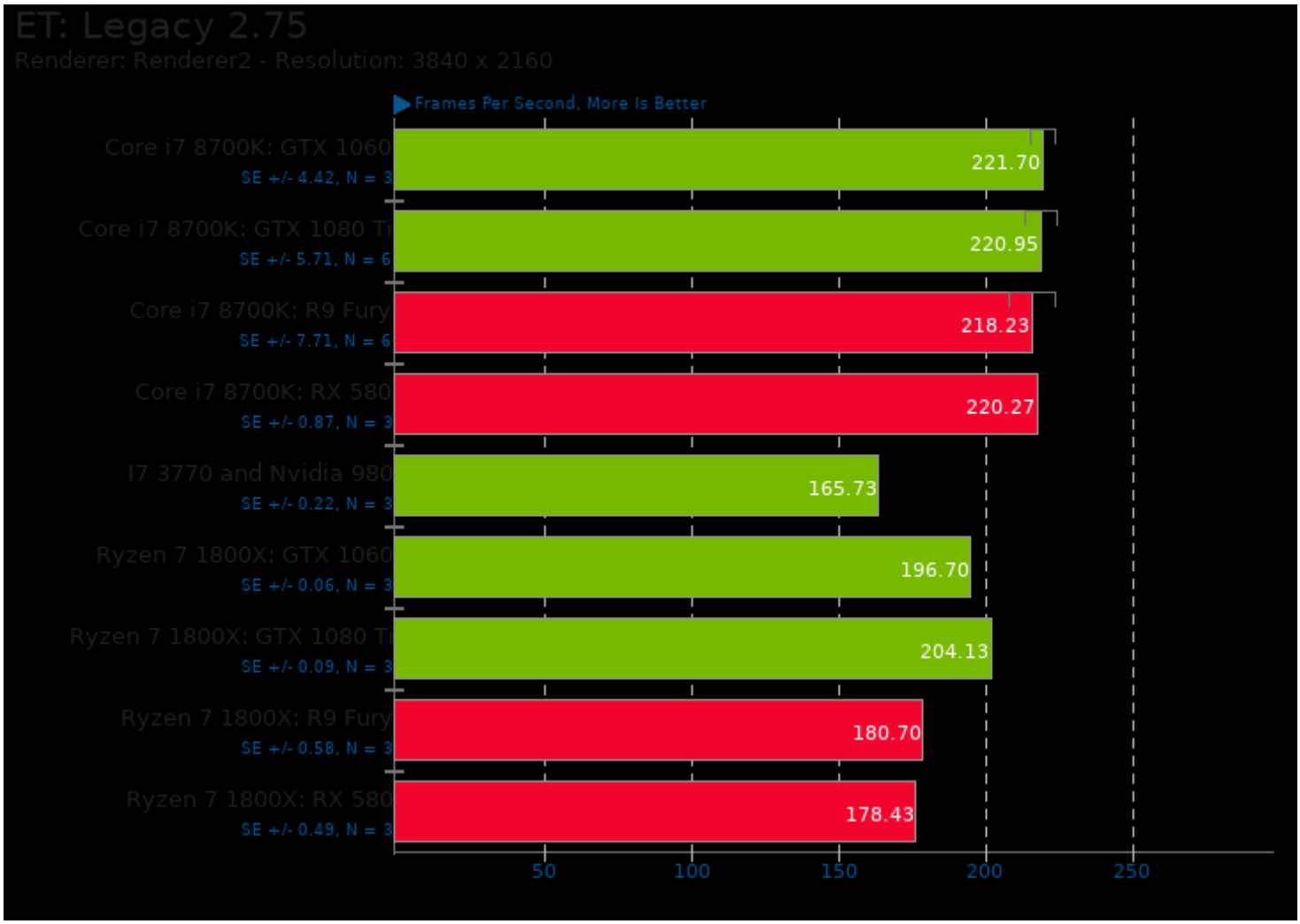

Deus Ex: Mankind Divided
Preset: 2560 x 1440 - High Quality
Core i7 8700K
Ryzen 7 1800X
Frames Per Second, More Is Better
GTX 1060
SE +/- 0.10, N = 3
32.60
SE +/- 0.07, N = 3
32.37
GTX 1080 Ti
SE +/- 0.24, N = 3
69.33
SE +/- 0.26, N = 3
55.70
R9 Fury
SE +/- 0.03, N = 3
44.57
SE +/- 0.68, N = 3
43.87
RX 580
SE +/- 0.63, N = 3
38.17
SE +/- 0.00, N = 3
38.70
15
30
45
60
75

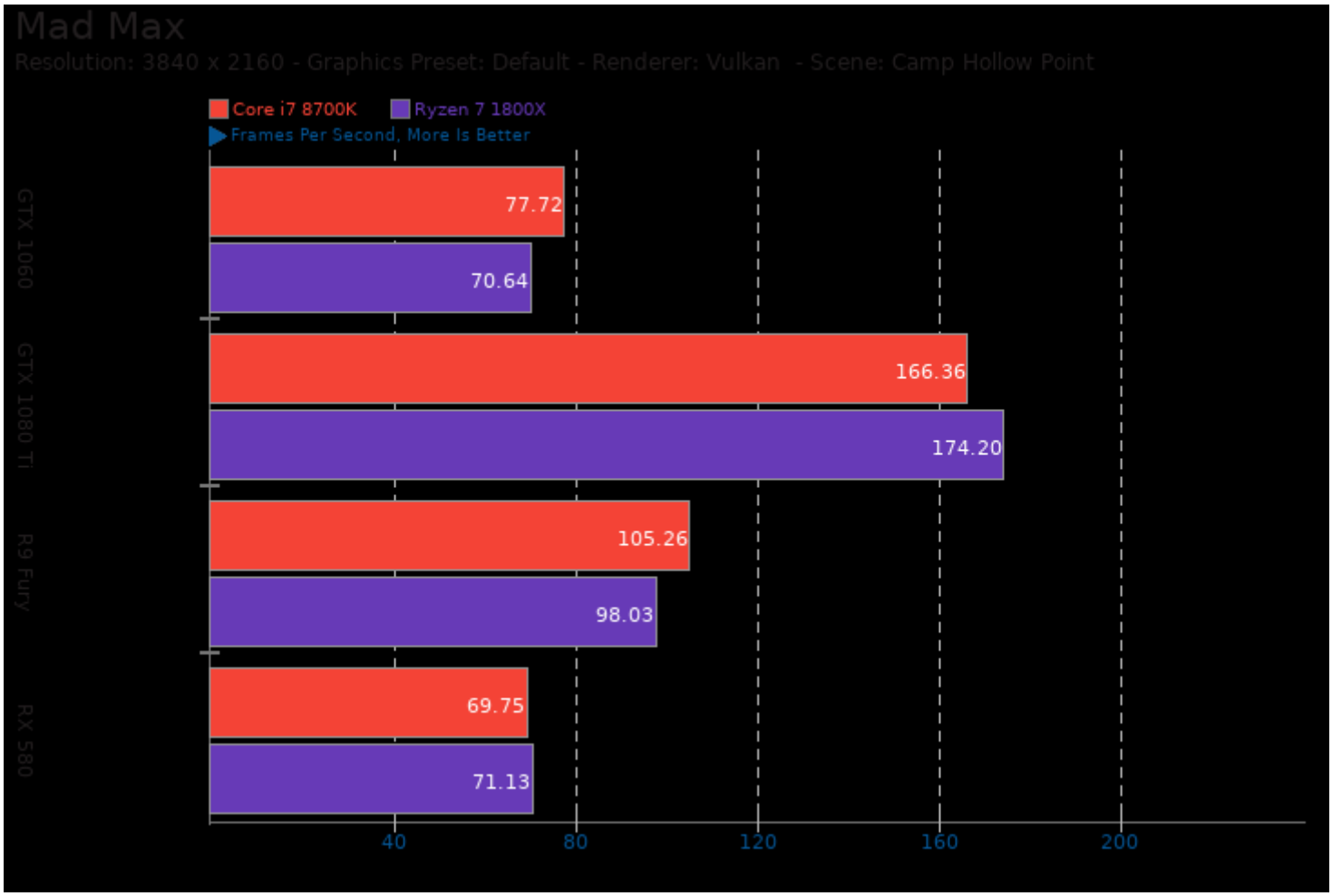

Dawn of War III
Resolution: 1920 x 1080 - Graphics Preset: Low - Renderer: OpenGL
Core i7 8700K
Ryzen 7 1800X
Frames Per Second, More Is Better
GTX 1060
SE +/- 1.47, N = 5
99.60
SE +/- 1.29, N = 6
66.45
GTX 1080 Ti
SE +/- 1.71, N = 6
116.43
SE +/- 0.24, N = 3
69.30
R9 Fury
SE +/- 1.50, N = 3
110.67
SE +/- 0.35, N = 3
68.90
RX 580
SE +/- 1.08, N = 3
98.25
SE +/- 0.26, N = 3
68.05
30
60
90
120
150

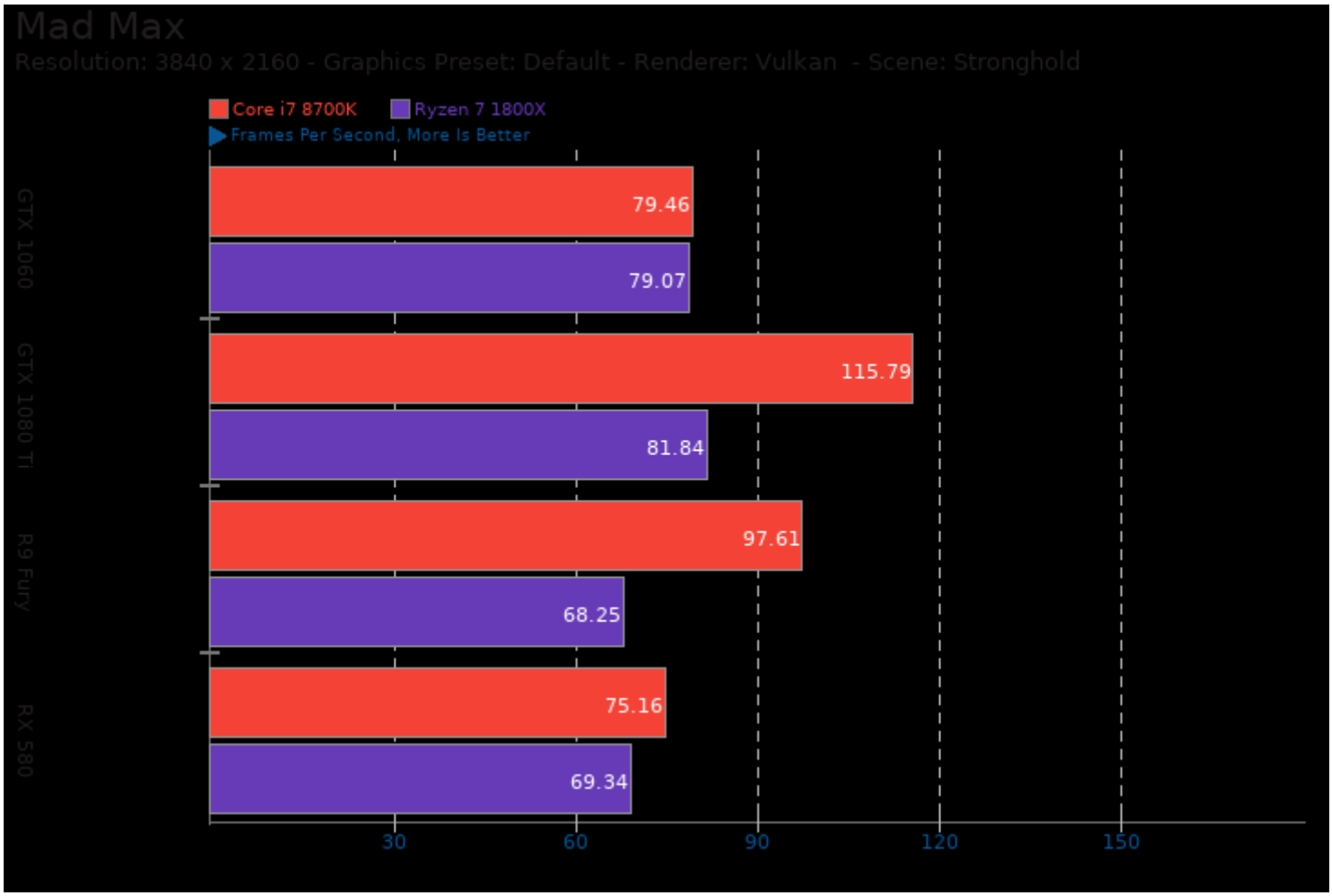

Dawn of War III
Resolution: 1920 x 1080 - Graphics Preset: Low - Renderer: Vulkan
Core i7 8700K
Ryzen 7 1800X
Frames Per Second, More Is Better
GTX 1060
SE +/- 1.75, N = 6
99.45
SE +/- 1.61, N = 6
65.13
GTX 1080 Ti
SE +/- 2.48, N = 6
110.25
SE +/- 0.55, N = 3
67.66
R9 Fury
SE +/- 0.36, N = 3
88.90
SE +/- 0.18, N = 3
57.74
RX 580
SE +/- 0.51, N = 3
79.13
SE +/- 0.16, N = 3
53.94
20
40
60
80
100

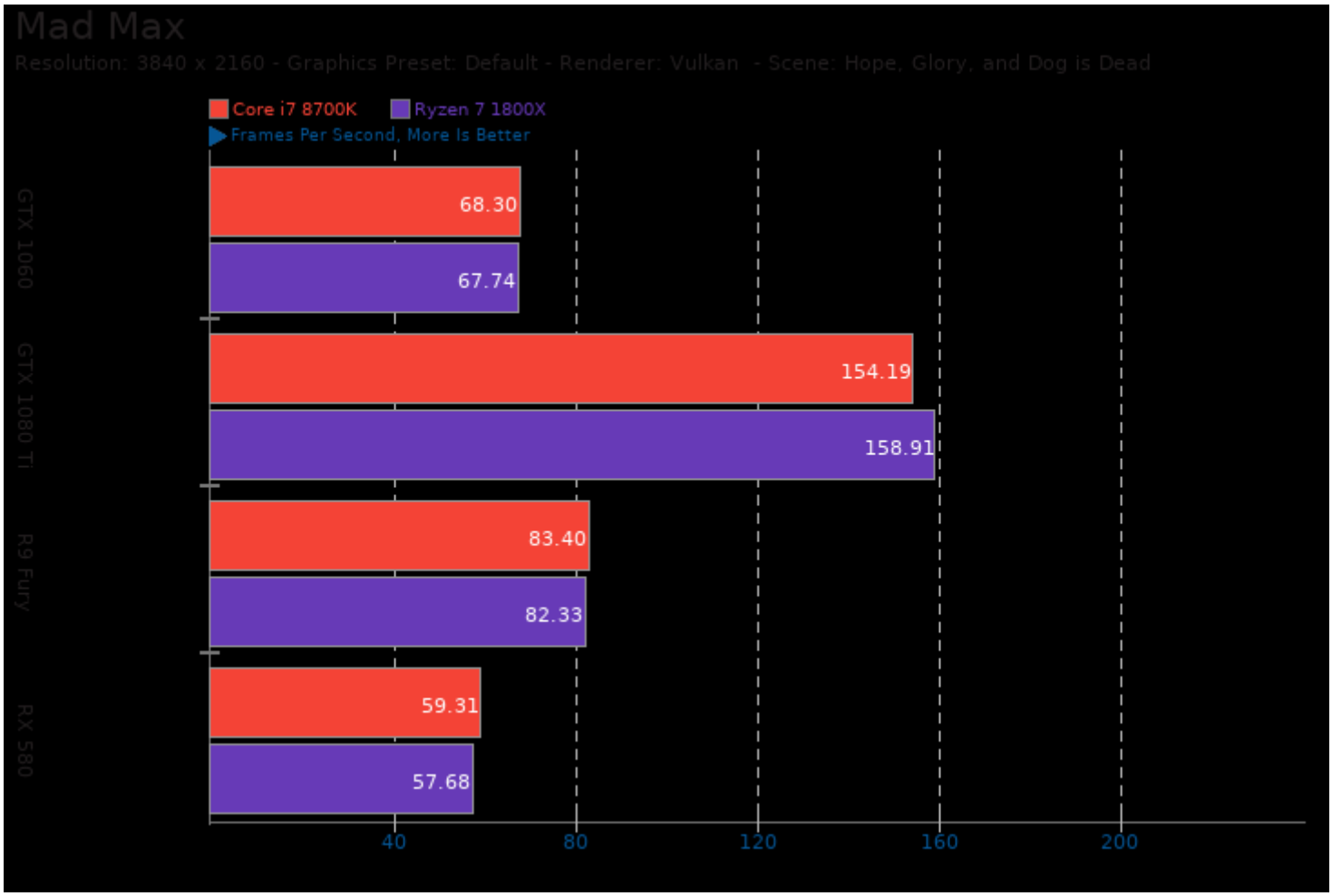

Dawn of War III
Resolution: 1920 x 1080 - Graphics Preset: Maximum - Renderer: OpenGL
Core i7 8700K
Ryzen 7 1800X
Frames Per Second, More Is Better
GTX 1060
SE +/- 0.53, N = 3
71.42
SE +/- 0.66, N = 3
60.44
GTX 1080 Ti
SE +/- 1.60, N = 3
103.31
SE +/- 0.26, N = 3
63.59
R9 Fury
SE +/- 1.01, N = 3
91.37
SE +/- 0.21, N = 3
63.46
RX 580
SE +/- 0.63, N = 3
79.37
SE +/- 0.32, N = 3
62.39
20
40
60
80
100

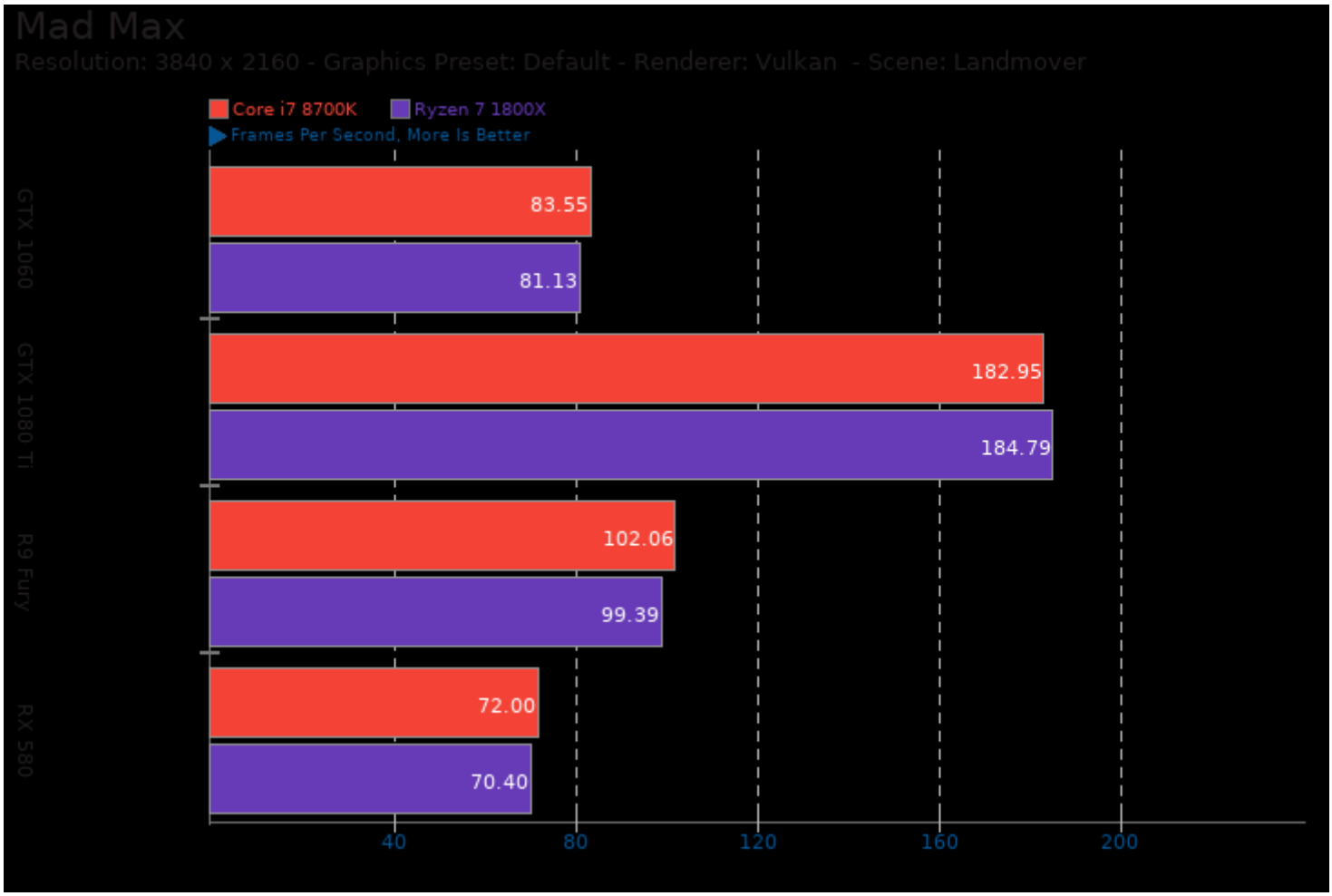

Dawn of War III
Resolution: 1920 x 1080 - Graphics Preset: Maximum - Renderer: Vulkan
Core i7 8700K
Ryzen 7 1800X
Frames Per Second, More Is Better
GTX 1060
SE +/- 1.27, N = 3
70.36
SE +/- 0.87, N = 6
59.30
GTX 1080 Ti
SE +/- 1.51, N = 6
101.27
SE +/- 0.36, N = 3
62.82
R9 Fury
SE +/- 0.44, N = 3
65.81
SE +/- 0.01, N = 3
51.24
RX 580
SE +/- 0.56, N = 3
55.58
SE +/- 0.18, N = 3
48.64
20
40
60
80
100

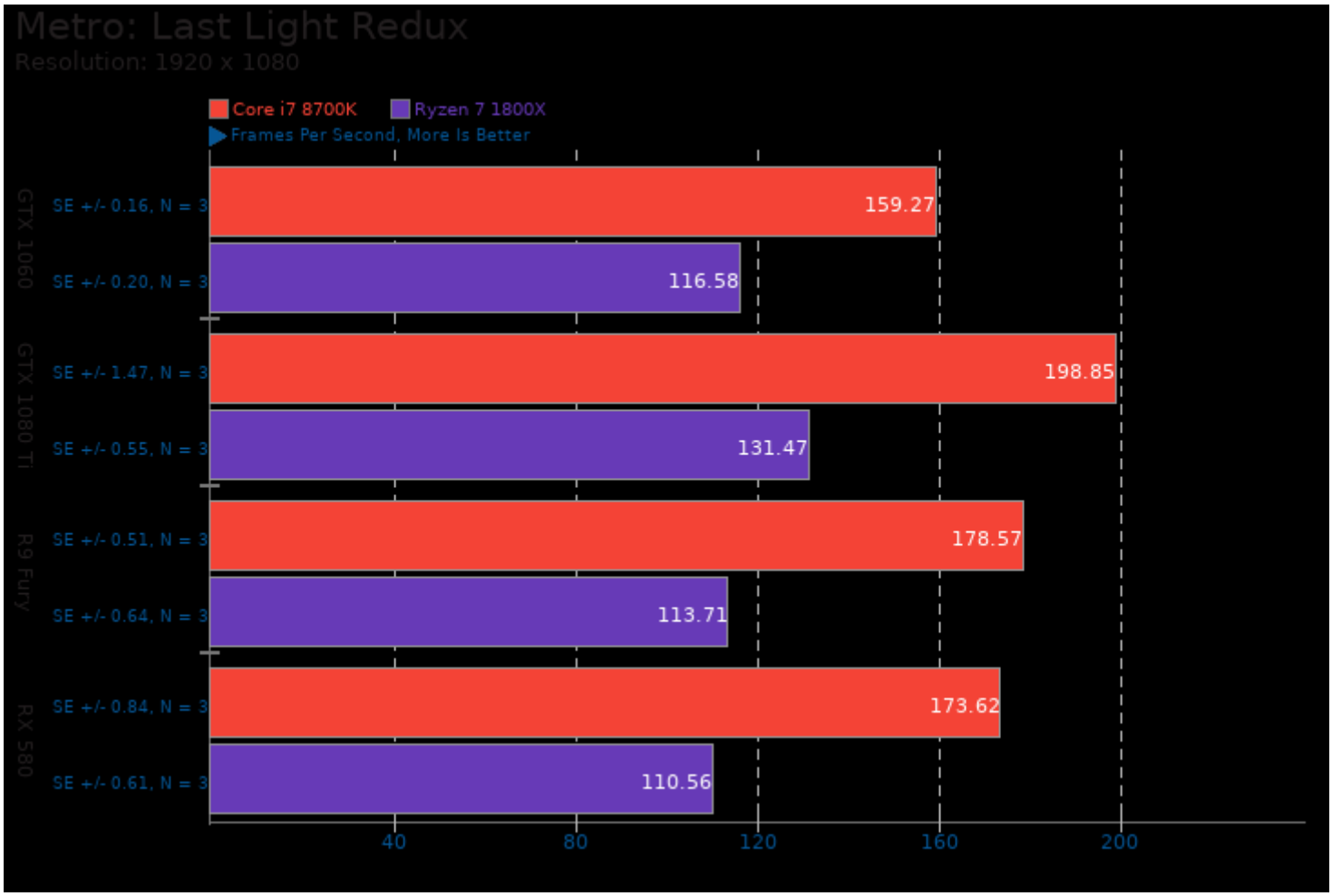

ET: Legacy 2.75
Renderer: Renderer2 - Resolution: 3840 x 2160
Frames Per Second, More Is Better
Core i7 8700K: GTX 1060
SE +/- 4.42, N = 3
221.70
Core i7 8700K: GTX 1080 Ti
SE +/- 5.71, N = 6
220.95
Core i7 8700K: R9 Fury
SE +/- 7.71, N = 6
218.23
Core i7 8700K: RX 580
SE +/- 0.87, N = 3
220.27
I7 3770 and Nvidia 980
SE +/- 0.22, N = 3
165.73
Ryzen 7 1800X: GTX 1060
SE +/- 0.06, N = 3
196.70
Ryzen 7 1800X: GTX 1080 Ti
SE +/- 0.09, N = 3
204.13
Ryzen 7 1800X: R9 Fury
SE +/- 0.58, N = 3
180.70
Ryzen 7 1800X: RX 580
SE +/- 0.49, N = 3
178.43
50
100
150
200
250

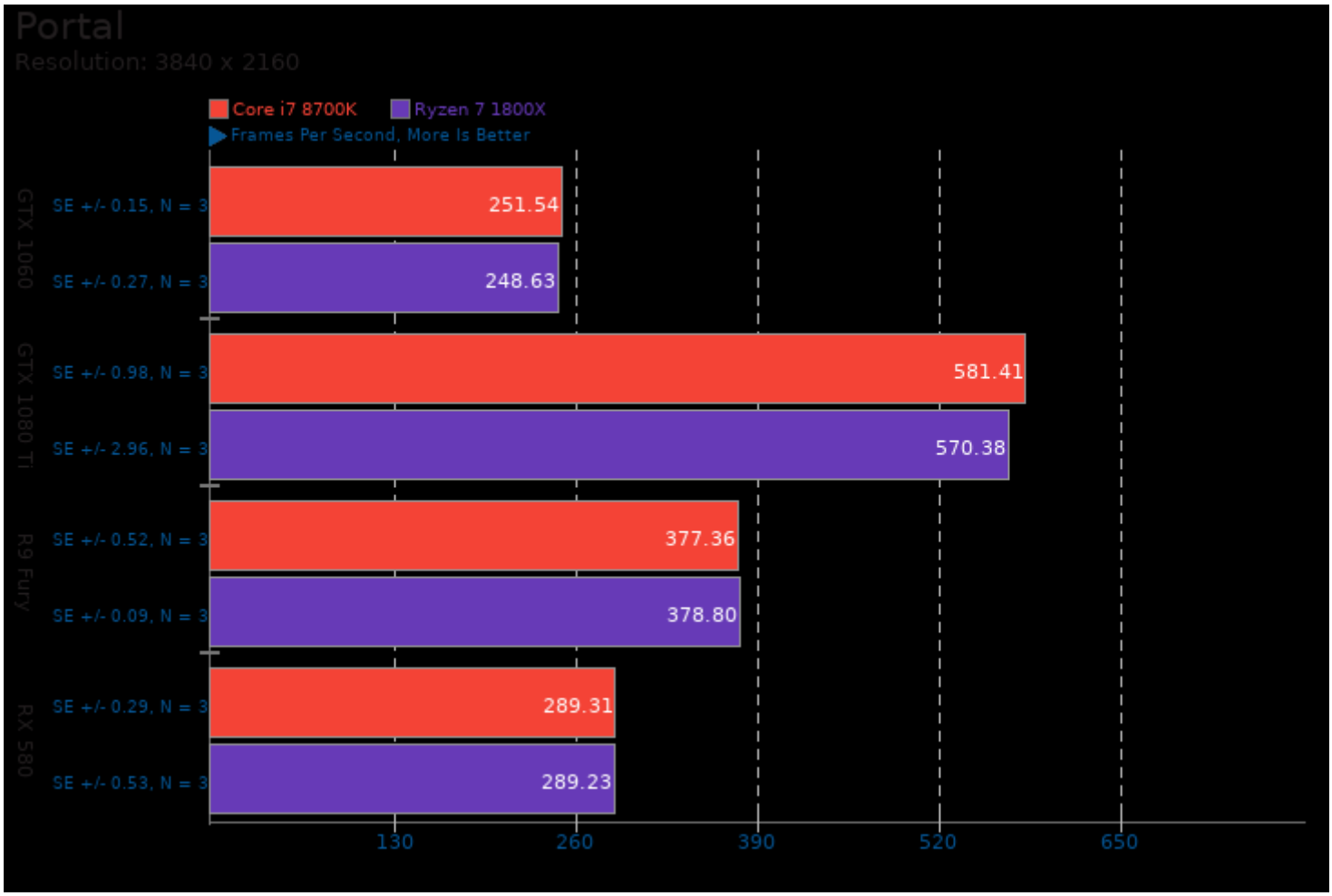

Mad Max
Resolution: 3840 x 2160 - Graphics Preset: Default - Renderer: Vulkan - Scene: Camp Hollow Point
Core i7 8700K
Ryzen 7 1800X
Frames Per Second, More Is Better
GTX 1060
77.72
70.64
GTX 1080 Ti
166.36
174.20
R9 Fury
105.26
98.03
RX 580
69.75
71.13
40
80
120
160
200

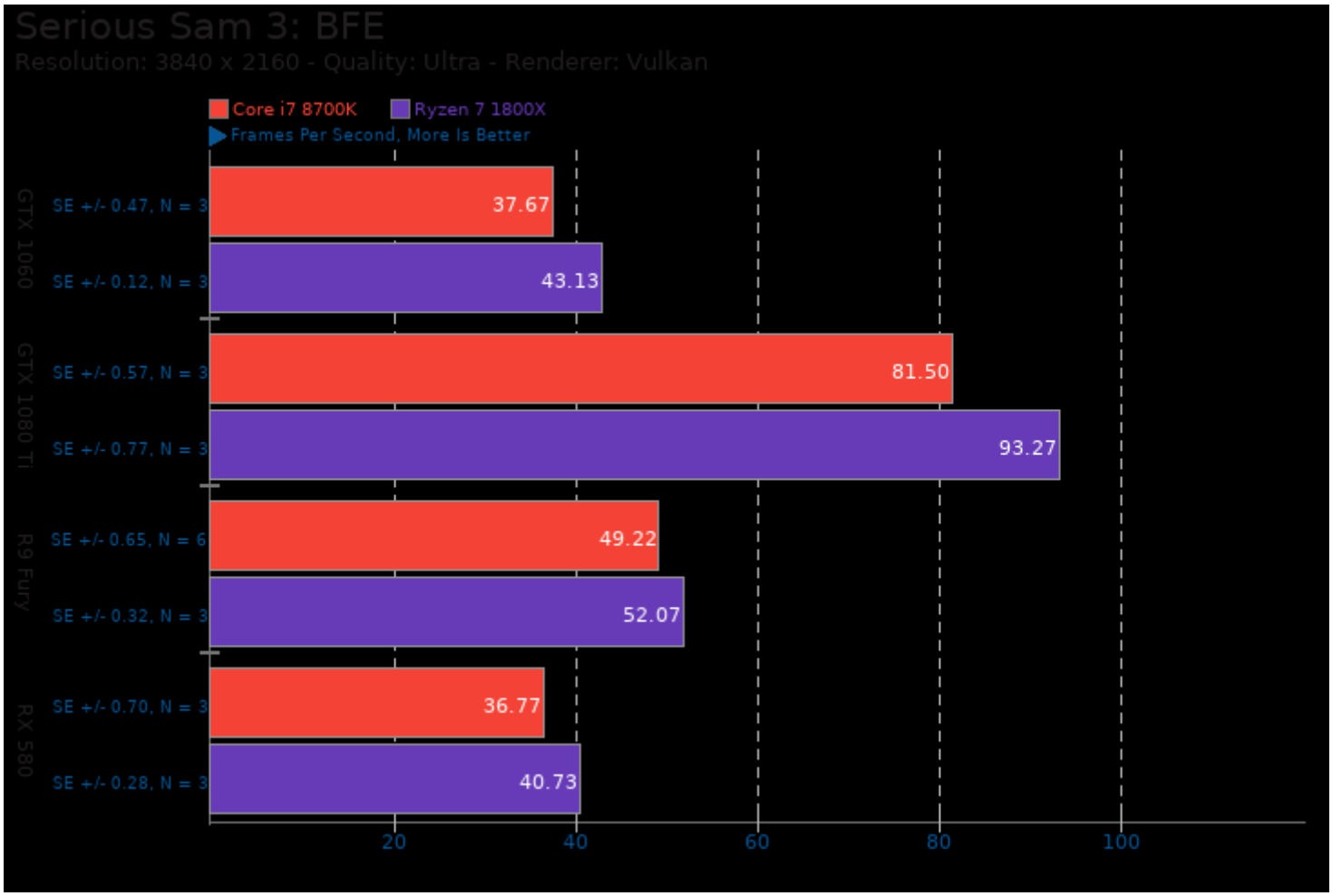

Mad Max
Resolution: 3840 x 2160 - Graphics Preset: Default - Renderer: Vulkan - Scene: Stronghold
Core i7 8700K
Ryzen 7 1800X
Frames Per Second, More Is Better
GTX 1060
GTX 1080 Ti
R9 Fury
RX 580
79.46
79.07
115.79
81.84
97.61
68.25
75.16
69.34
30
60
90
120
150

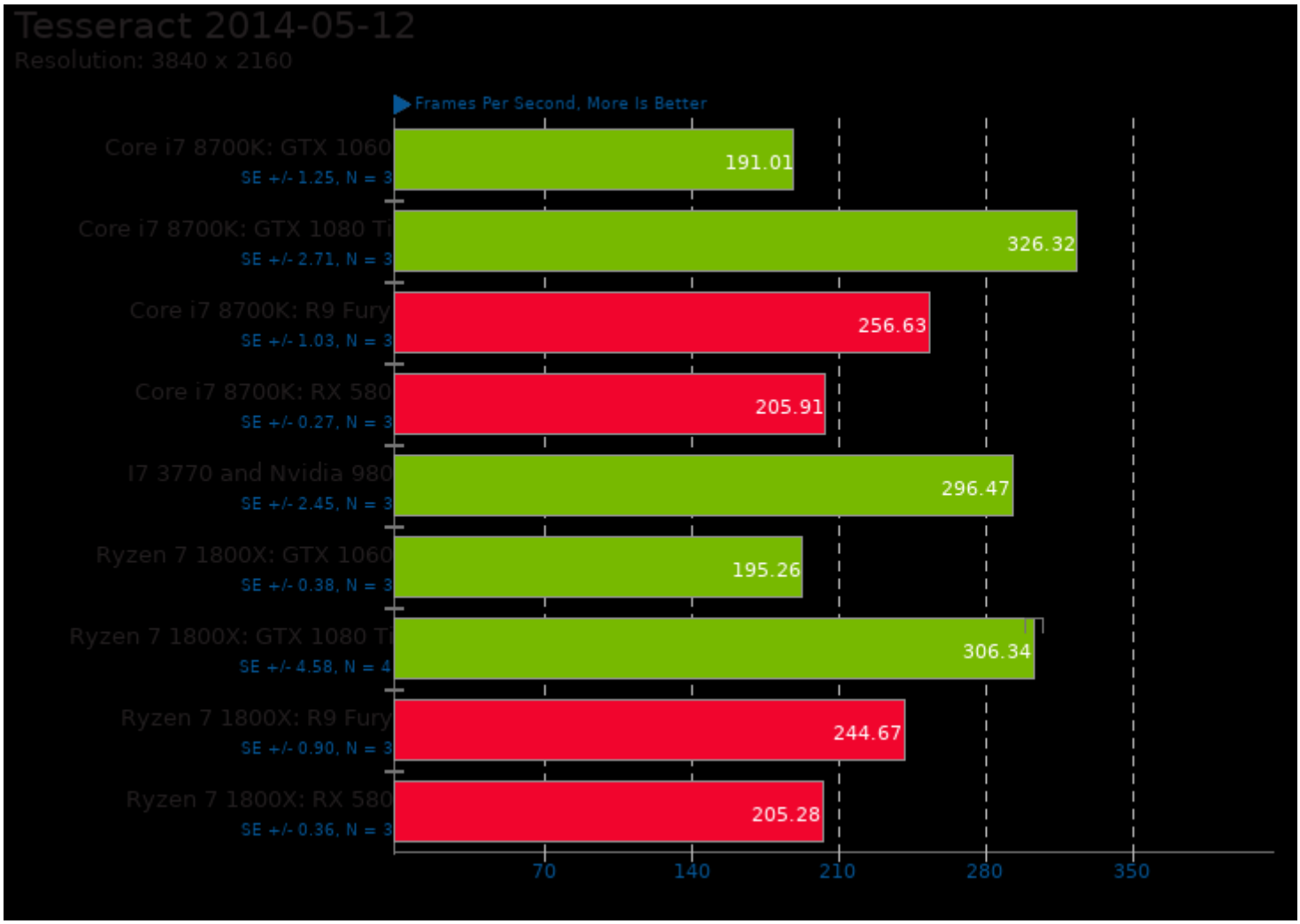

Mad Max
Resolution: 3840 x 2160 - Graphics Preset: Default - Renderer: Vulkan - Scene: Hope, Glory, and Dog is Dead
Core i7 8700K
Ryzen 7 1800X
Frames Per Second, More Is Better
GTX 1060
68.30
67.74
GTX 1080 Ti
154.19
158.91
R9 Fury
83.40
82.33
RX 580
59.31
57.68
40
80
120
160
200

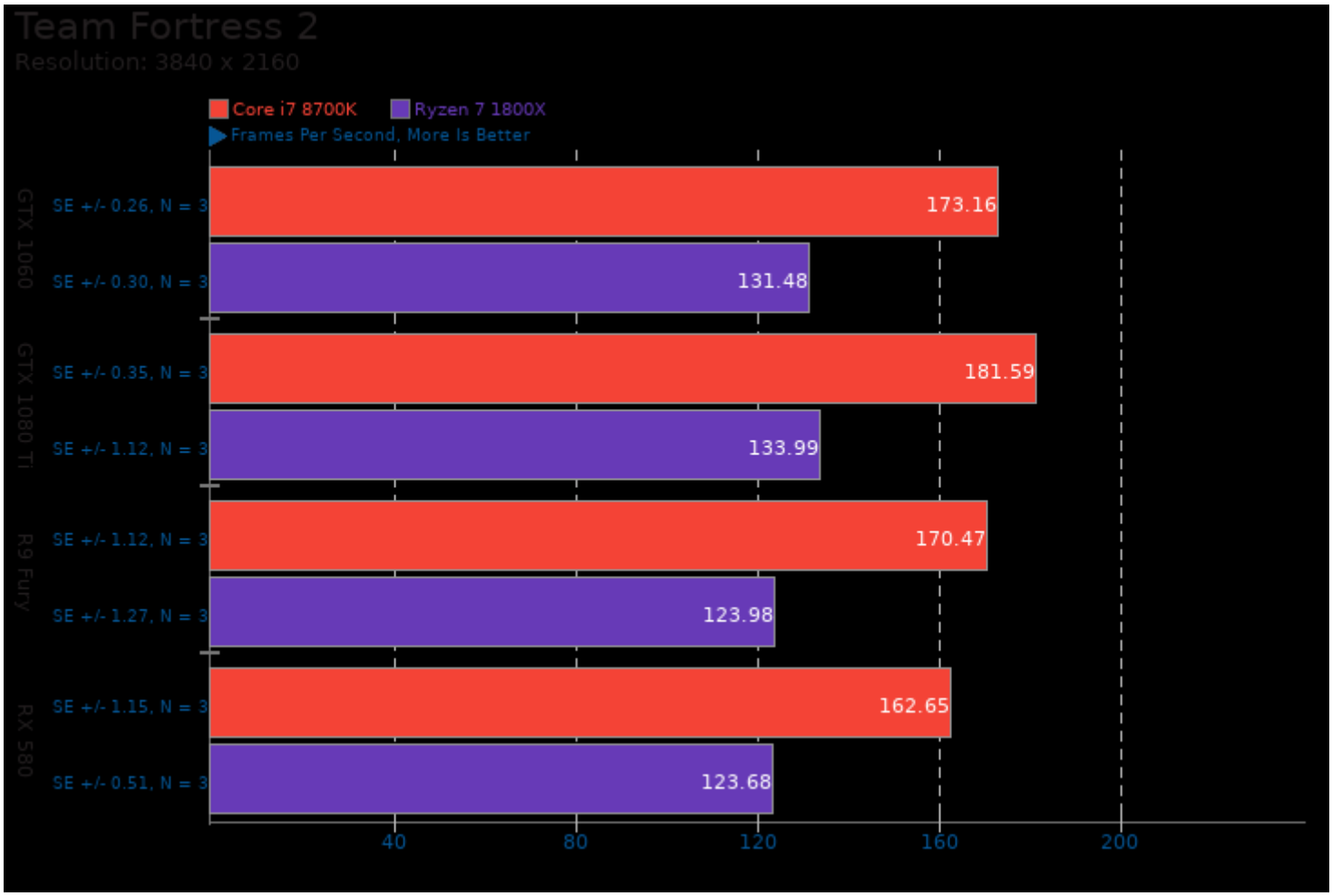

Mad Max
Resolution: 3840 x 2160 - Graphics Preset: Default - Renderer: Vulkan - Scene: Landmover
Core i7 8700K
Ryzen 7 1800X
Frames Per Second, More Is Better
GTX 1060
GTX 1080 Ti
R9 Fury
RX 580
83.55
81.13
182.95
184.79
102.06
99.39
72.00
70.40
40
80
120
160
200

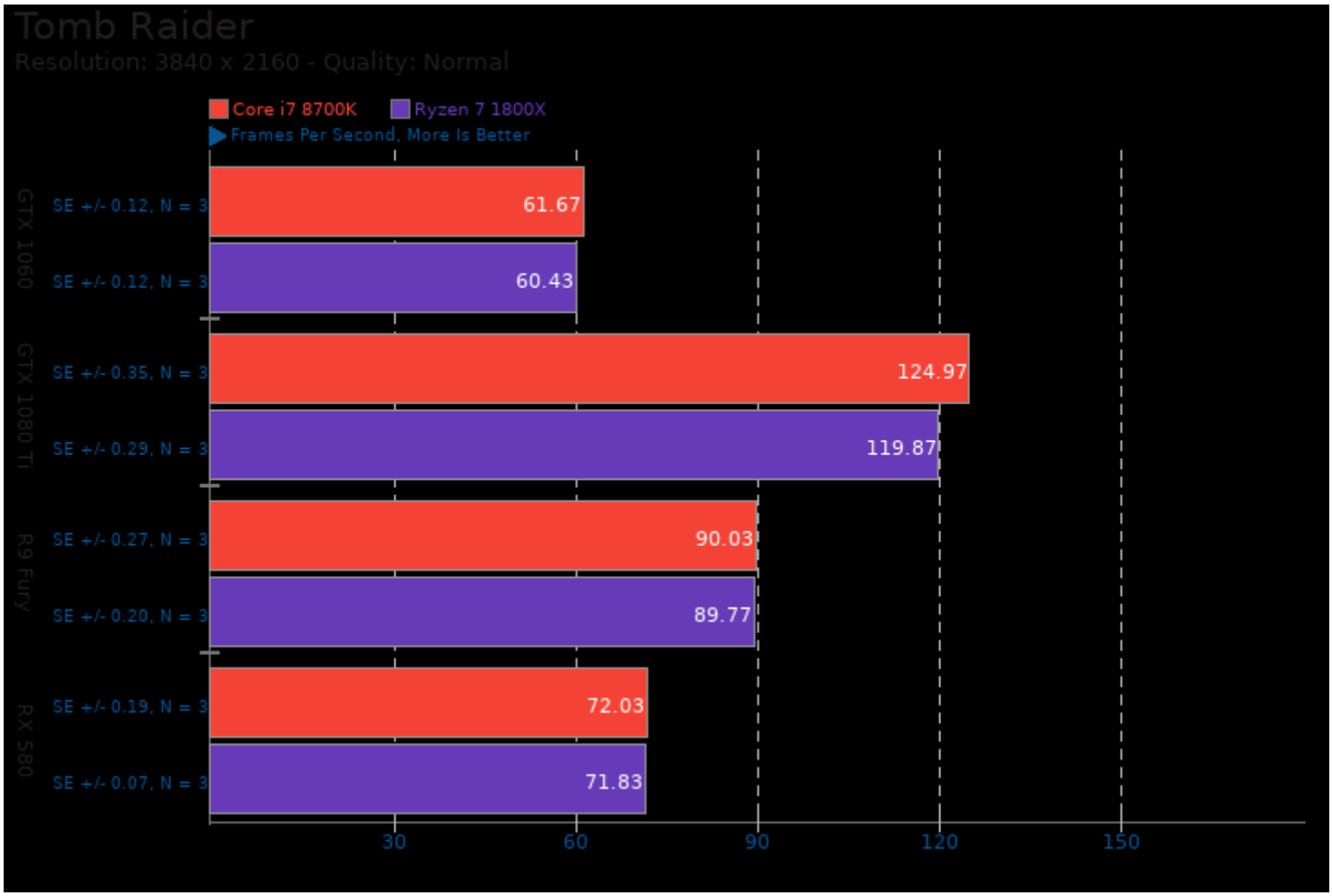

Metro: Last Light Redux
Resolution: 1920 x 1080
Core i7 8700K
Ryzen 7 1800X
Frames Per Second, More Is Better
GTX 1060
SE +/- 0.16, N = 3
159.27
SE +/- 0.20, N = 3
116.58
GTX 1080 Ti
SE +/- 1.47, N = 3
198.85
SE +/- 0.55, N = 3
131.47
R9 Fury
SE +/- 0.51, N = 3
178.57
SE +/- 0.64, N = 3
113.71
RX 580
SE +/- 0.84, N = 3
173.62
SE +/- 0.61, N = 3
110.56
40
80
120
160
200

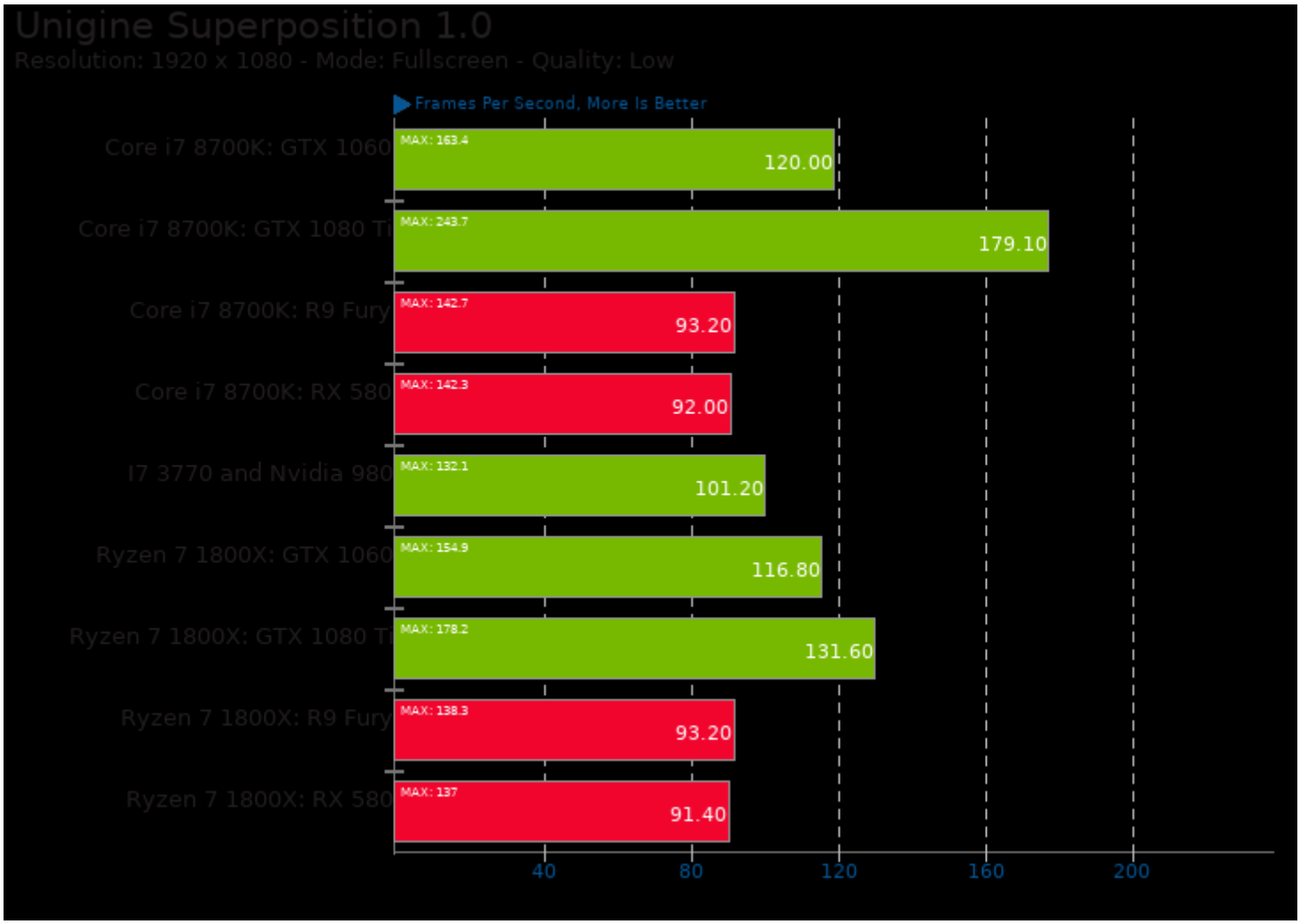

Portal
Resolution: 3840 x 2160
Core i7 8700K
Ryzen 7 1800X
Frames Per Second, More Is Better
GTX 1060
SE +/- 0.15, N = 3
251.54
SE +/- 0.27, N = 3
248.63
GTX 1080 Ti
SE +/- 0.98, N = 3
581.41
SE +/- 2.96, N = 3
570.38
R9 Fury
SE +/- 0.52, N = 3
377.36
SE +/- 0.09, N = 3
378.80
RX 580
SE +/- 0.29, N = 3
289.31
SE +/- 0.53, N = 3
289.23
130
260
390
520
650

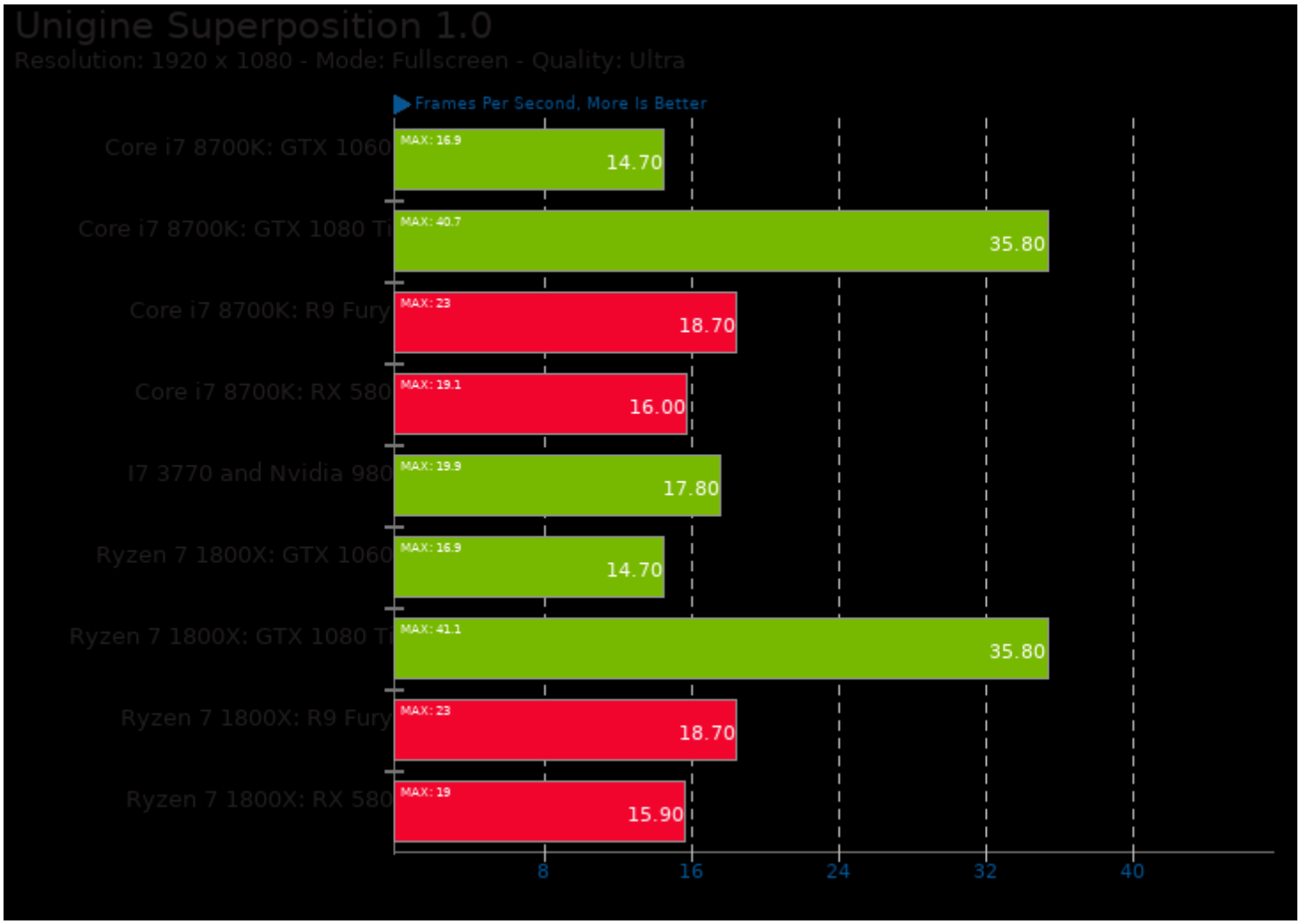

Serious Sam 3: BFE
Resolution: 3840 x 2160 - Quality: Ultra - Renderer: Vulkan
Core i7 8700K
Ryzen 7 1800X
Frames Per Second, More Is Better
GTX 1060
SE +/- 0.47, N = 3
37.67
SE +/- 0.12, N = 3
43.13
GTX 1080 Ti
SE +/- 0.57, N = 3
81.50
SE +/- 0.77, N = 3
93.27
R9 Fury
SE +/- 0.65, N = 6
49.22
SE +/- 0.32, N = 3
52.07
RX 580
SE +/- 0.70, N = 3
36.77
SE +/- 0.28, N = 3
40.73
20
40
60
80
100

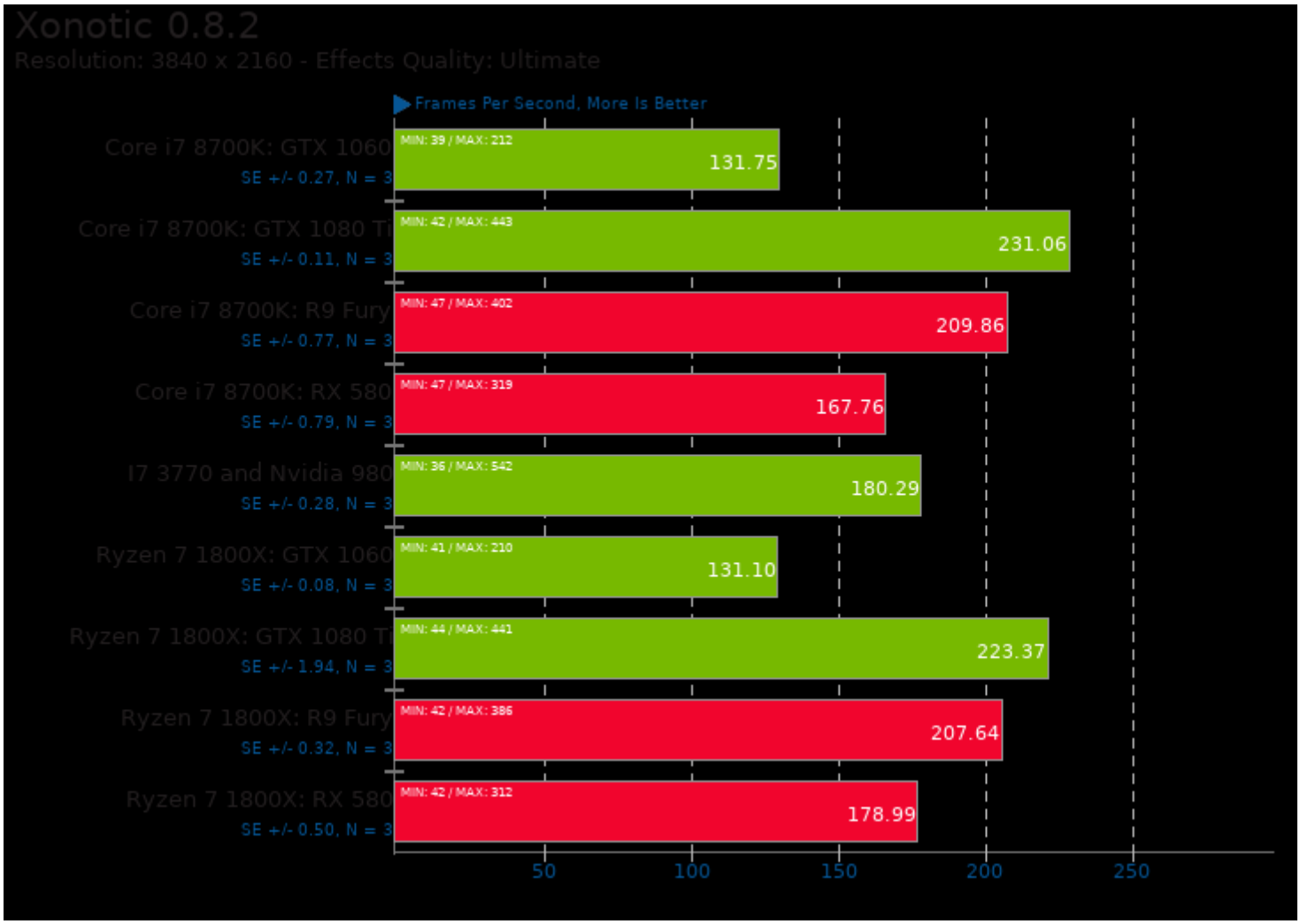

Tesseract 2014-05-12
Resolution: 3840 x 2160
Frames Per Second, More Is Better
Core i7 8700K: GTX 1060
SE +/- 1.25, N = 3
191.01
Core i7 8700K: GTX 1080 Ti
SE +/- 2.71, N = 3
326.32
Core i7 8700K: R9 Fury
SE +/- 1.03, N = 3
256.63
Core i7 8700K: RX 580
SE +/- 0.27, N = 3
205.91
I7 3770 and Nvidia 980
SE +/- 2.45, N = 3
296.47
Ryzen 7 1800X: GTX 1060
SE +/- 0.38, N = 3
195.26
Ryzen 7 1800X: GTX 1080 Ti
SE +/- 4.58, N = 4
306.34
Ryzen 7 1800X: R9 Fury
SE +/- 0.90, N = 3
244.67
Ryzen 7 1800X: RX 580
SE +/- 0.36, N = 3
205.28
70
140
210
280
350

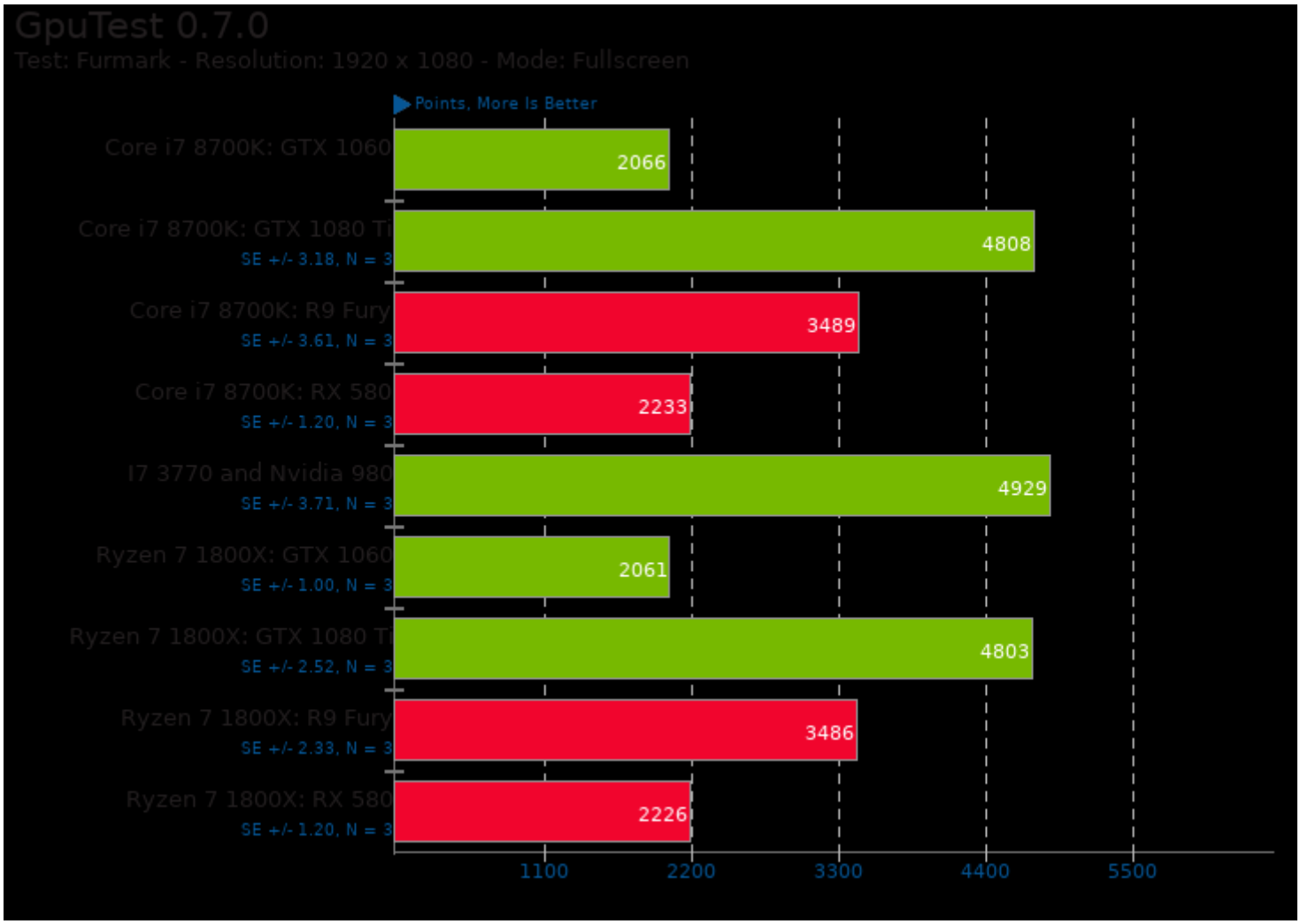

Team Fortress 2
Resolution: 3840 x 2160
Core i7 8700K
Ryzen 7 1800X
Frames Per Second, More Is Better
GTX 1060
SE +/- 0.26, N = 3
173.16
SE +/- 0.30, N = 3
131.48
GTX 1080 Ti
SE +/- 0.35, N = 3
181.59
SE +/- 1.12, N = 3
133.99
R9 Fury
SE +/- 1.12, N = 3
170.47
SE +/- 1.27, N = 3
123.98
RX 580
SE +/- 1.15, N = 3
162.65
SE +/- 0.51, N = 3
123.68
40
80
120
160
200

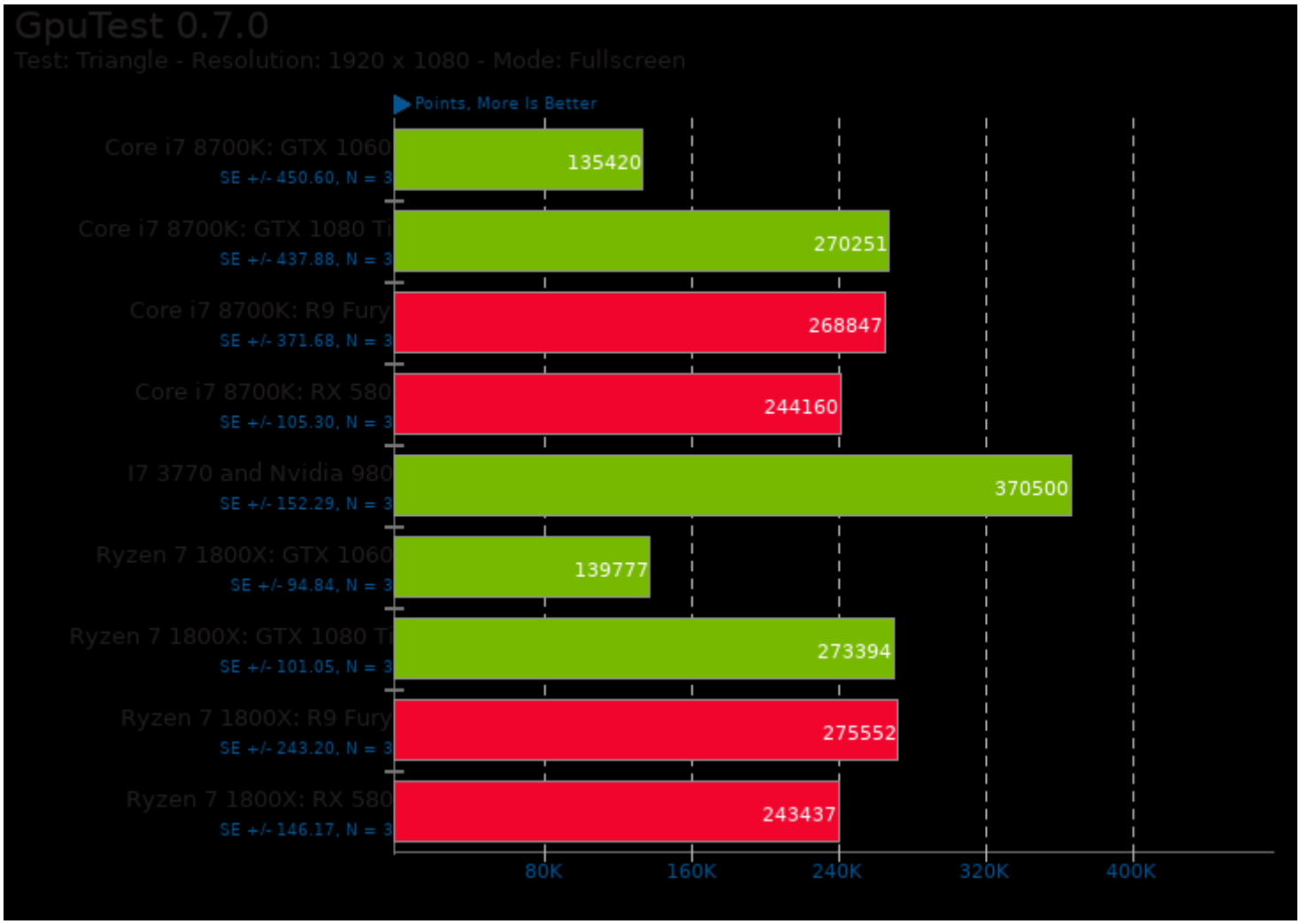

Tomb Raider
Resolution: 3840 x 2160 - Quality: Normal
Core i7 8700K
Ryzen 7 1800X
Frames Per Second, More Is Better
GTX 1060
SE +/- 0.12, N = 3
61.67
SE +/- 0.12, N = 3
60.43
GTX 1080 Ti
SE +/- 0.35, N = 3
124.97
SE +/- 0.29, N = 3
119.87
R9 Fury
SE +/- 0.27, N = 3
90.03
SE +/- 0.20, N = 3
89.77
RX 580
SE +/- 0.19, N = 3
72.03
SE +/- 0.07, N = 3
71.83
30
60
90
120
150


Unigine Superposition 1.0
Resolution: 1920 x 1080 - Mode: Fullscreen - Quality: Low
Frames Per Second, More Is Better
Core i7 8700K: GTX 1060
MAX: 163.4
120.00
Core i7 8700K: GTX 1080 Ti
MAX: 243.7
179.10
Core i7 8700K: R9 Fury
MAX: 142.7
93.20
Core i7 8700K: RX 580
MAX: 142.3
92.00
I7 3770 and Nvidia 980
MAX: 132.1
101.20
Ryzen 7 1800X: GTX 1060
MAX: 154.9
116.80
Ryzen 7 1800X: GTX 1080 Ti
MAX: 178.2
131.60
Ryzen 7 1800X: R9 Fury
MAX: 138.3
93.20
Ryzen 7 1800X: RX 580
MAX: 137
91.40
40
80
120
160
200

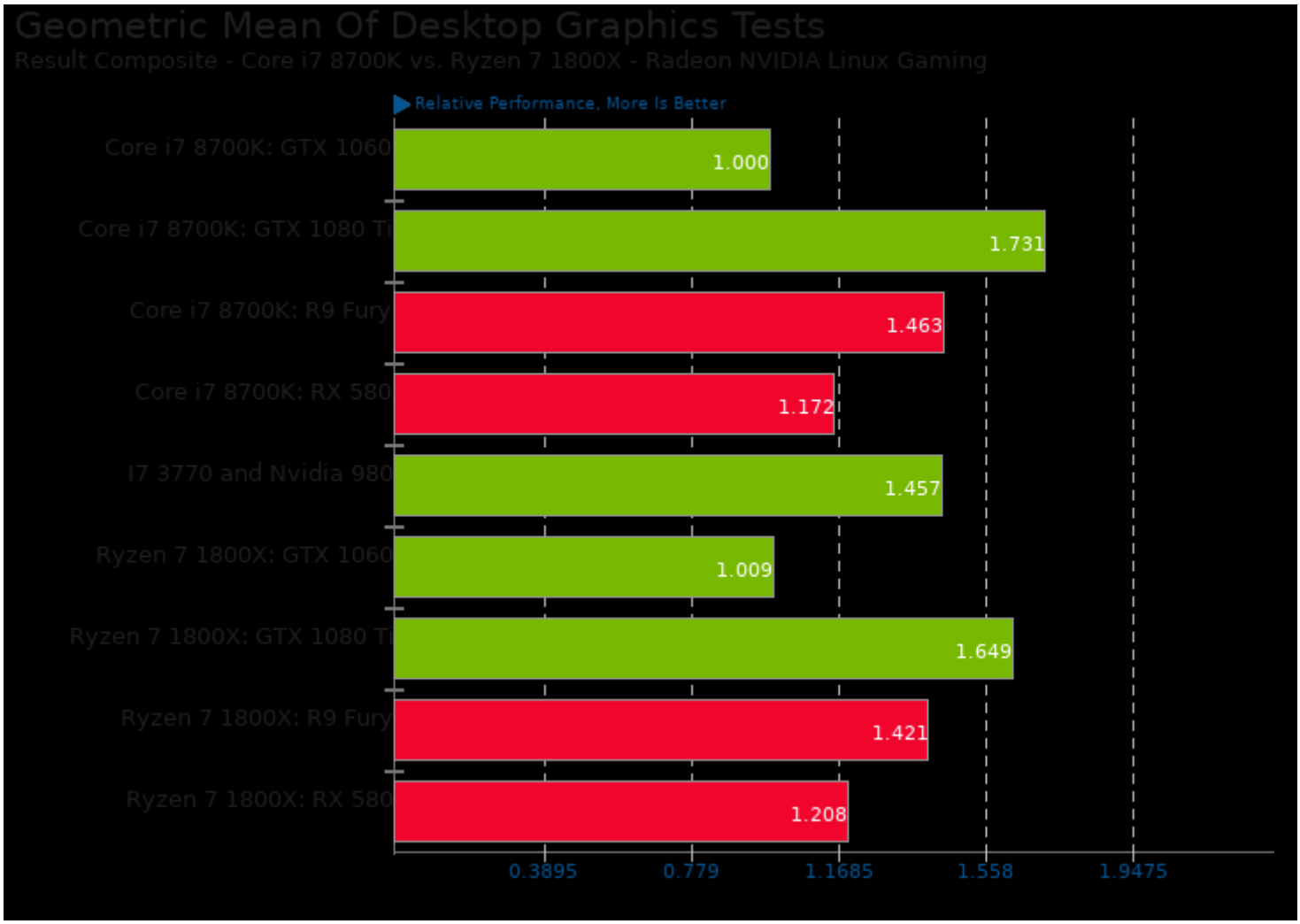

Unigine Superposition 1.0
Resolution: 1920 x 1080 - Mode: Fullscreen - Quality: Ultra
Frames Per Second, More Is Better
Core i7 8700K: GTX 1060
MAX: 16.9
14.70
Core i7 8700K: GTX 1080 Ti
MAX: 40.7
35.80
Core i7 8700K: R9 Fury
MAX: 23
18.70
Core i7 8700K: RX 580
MAX: 19.1
16.00
I7 3770 and Nvidia 980
MAX: 19.9
17.80
Ryzen 7 1800X: GTX 1060
MAX: 16.9
14.70
Ryzen 7 1800X: GTX 1080 Ti
MAX: 41.1
35.80
Ryzen 7 1800X: R9 Fury
MAX: 23
18.70
Ryzen 7 1800X: RX 580
MAX: 19
15.90
8
16
24
32
40


Xonotic 0.8.2
Resolution: 3840 x 2160 - Effects Quality: Ultimate
Frames Per Second, More Is Better
Core i7 8700K: GTX 1060
SE +/- 0.27, N = 3
MIN: 39 / MAX: 212
131.75
Core i7 8700K: GTX 1080 Ti
SE +/- 0.11, N = 3
MIN: 42 / MAX: 443
231.06
Core i7 8700K: R9 Fury
SE +/- 0.77, N = 3
MIN: 47 / MAX: 402
209.86
Core i7 8700K: RX 580
SE +/- 0.79, N = 3
MIN: 47 / MAX: 319
167.76
I7 3770 and Nvidia 980
SE +/- 0.28, N = 3
MIN: 36 / MAX: 542
180.29
Ryzen 7 1800X: GTX 1060
SE +/- 0.08, N = 3
MIN: 41 / MAX: 210
131.10
Ryzen 7 1800X: GTX 1080 Ti
SE +/- 1.94, N = 3
MIN: 44 / MAX: 441
223.37
Ryzen 7 1800X: R9 Fury
SE +/- 0.32, N = 3
MIN: 42 / MAX: 386
207.64
Ryzen 7 1800X: RX 580
SE +/- 0.50, N = 3
MIN: 42 / MAX: 312
178.99
50
100
150
200
250


GpuTest 0.7.0
Test: Furmark - Resolution: 1920 x 1080 - Mode: Fullscreen
Points, More Is Better
Core i7 8700K: GTX 1060
2066
Core i7 8700K: GTX 1080 Ti
SE +/- 3.18, N = 3
4808
Core i7 8700K: R9 Fury
SE +/- 3.61, N = 3
3489
Core i7 8700K: RX 580
SE +/- 1.20, N = 3
2233
I7 3770 and Nvidia 980
SE +/- 3.71, N = 3
4929
Ryzen 7 1800X: GTX 1060
SE +/- 1.00, N = 3
2061
Ryzen 7 1800X: GTX 1080 Ti
SE +/- 2.52, N = 3
4803
Ryzen 7 1800X: R9 Fury
SE +/- 2.33, N = 3
3486
Ryzen 7 1800X: RX 580
SE +/- 1.20, N = 3
2226
1100
2200
3300
4400
5500


GpuTest 0.7.0
Test: Triangle - Resolution: 1920 x 1080 - Mode: Fullscreen
Points, More Is Better
Core i7 8700K: GTX 1060
SE +/- 450.60, N = 3
135420
Core i7 8700K: GTX 1080 Ti
SE +/- 437.88, N = 3
270251
Core i7 8700K: R9 Fury
SE +/- 371.68, N = 3
268847
Core i7 8700K: RX 580
SE +/- 105.30, N = 3
244160
I7 3770 and Nvidia 980
SE +/- 152.29, N = 3
370500
Ryzen 7 1800X: GTX 1060
SE +/- 94.84, N = 3
139777
Ryzen 7 1800X: GTX 1080 Ti
SE +/- 101.05, N = 3
273394
Ryzen 7 1800X: R9 Fury
SE +/- 243.20, N = 3
275552
Ryzen 7 1800X: RX 580
SE +/- 146.17, N = 3
243437
80K
160K
240K
320K
400K

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



Geometric mean based upon tests: pts/xonotic and pts/tesseract

This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 13:16.