www.phoronix-test-suite.com

30-Way Ubuntu 14.04 AMD / NVIDIA Linux Graphics Card Comparison

Running pts/unigine-sanctuary-1.5.2, pts/unigine-tropics-1.5.3, pts/unigine-heaven-1.5.3, pts/unigine-valley-1.0.3, pts/xonotic-1.3.1, pts/gputest-1.2.0, pts/cstrike-1.0.0, pts/nexuiz-1.6.1, pts/openarena-1.5.2, pts/reaction-1.0.5, pts/unigine-heaven-1.5.2, pts/unigine-valley-1.0.1, pts/unvanquished-1.1.0, pts/warsow-1.4.1, pts/luxmark-1.0.0, pts/unigine-valley-1.1.1, pts/gputest-1.3.0, pts/csgo-1.0.1, pts/tf2-1.0.3, pts/xonotic-1.4.0, pts/gputest-1.3.1 via the Phoronix Test Suite.

Automated Executive Summary

GeForce GTX 780 Ti had the most wins, coming in first place for 85% of the tests.

Based on the geometric mean of all complete results, the fastest (GeForce GTX 780 Ti) was 50.107x the speed of the slowest (GeForce 8500GT).

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

Unigine Heaven (Resolution: 1280 x 1024) at 75.136x
Unigine Sanctuary (Resolution: 1920 x 1080) at 72.593x
GpuTest (Test: Furmark - Resolution: 1920 x 1080) at 70.488x
Unigine Tropics (Resolution: 1920 x 1080) at 55.512x
Unigine Valley (Resolution: 1280 x 1024) at 53.584x
Xonotic (Resolution: 1920 x 1080 - Effects Quality: Ultimate) at 29.154x

Xonotic (Resolution: 1920 x 1080 - Effects Quality: Ultra) at 23.846x
Reaction Quake 3 (Resolution: 1920 x 1080 - Total Frame Time) at 7.5x
Reaction Quake 3 (Resolution: 2560 x 1600 - Total Frame Time) at 7x
Unvanquished (Resolution: 1920 x 1080 - Total Frame Time) at 5.182x.

Test Systems:

Radeon HD 5830

Processor: AMD FX-8350 Eight-Core @ 4.00GHz (8 Cores), Motherboard: ASUS Crosshair V Formula, Chipset: AMD RD890 bridge, Memory: 8192MB, Disk: 240GB OCZ VERTEX3, Graphics: ATI Radeon HD 5800 1024MB (800/1000MHz), Audio: Realtek ALC889, Monitor: VE228, Network: Intel 82583V Gigabit Connection

OS: Ubuntu 14.04, Kernel: 3.13.0-13-generic (x86_64), Desktop: Unity 7.1.2, Display Server: X Server 1.15.0, Display Driver: fglrx 13.35.5, OpenGL: 4.3.12780, Compiler: GCC 4.8, File-System: ext4, Screen Resolution: 1920x1080

Environment Notes: LIBGL_DRIVERS_PATH=/usr/lib/fglrx/dri:/usr/lib/x86_64-linux-gnu/dri:/usr/lib/dri:/usr/lib32/fglrx/dri:/usr/lib/i386-linux-gnu/dri

Radeon HD 6450

Processor: AMD FX-8350 Eight-Core @ 4.00GHz (8 Cores), Motherboard: ASUS Crosshair V Formula, Chipset: AMD RD890 bridge, Memory: 8192MB, Disk: 240GB OCZ VERTEX3, Graphics: HIS AMD Radeon HD 6450 1024MB (625/667MHz), Audio: Realtek ALC889, Monitor: VE228, Network: Intel 82583V Gigabit Connection

OS: Ubuntu 14.04, Kernel: 3.13.0-13-generic (x86_64), Desktop: Unity 7.1.2, Display Server: X Server 1.15.0, Display Driver: fglrx 13.35.5, OpenGL: 4.3.12780, Compiler: GCC 4.8, File-System: ext4, Screen Resolution: 1920x1080

Environment Notes: LIBGL_DRIVERS_PATH=/usr/lib/fglrx/dri:/usr/lib/x86_64-linux-gnu/dri:/usr/lib/dri:/usr/lib32/fglrx/dri:/usr/lib/i386-linux-gnu/dri

Radeon HD 6770

Processor: AMD FX-8350 Eight-Core @ 4.00GHz (8 Cores), Motherboard: ASUS Crosshair V Formula, Chipset: AMD RD890 bridge, Memory: 8192MB, Disk: 240GB OCZ VERTEX3, Graphics: Sapphire AMD Radeon HD 6700 1024MB (850/1200MHz), Audio: Realtek ALC889, Monitor: VE228, Network: Intel 82583V Gigabit Connection

OS: Ubuntu 14.04, Kernel: 3.13.0-13-generic (x86_64), Desktop: Unity 7.1.2, Display Server: X Server 1.15.0, Display Driver: fglrx 13.35.5, OpenGL: 4.3.12780, Compiler: GCC 4.8, File-System: ext4, Screen Resolution: 1920x1080

Environment Notes: LIBGL_DRIVERS_PATH=/usr/lib/fglrx/dri:/usr/lib/x86_64-linux-gnu/dri:/usr/lib/dri:/usr/lib32/fglrx/dri:/usr/lib/i386-linux-gnu/dri

Radeon HD 6870

Processor: AMD FX-8350 Eight-Core @ 4.00GHz (8 Cores), Motherboard: ASUS Crosshair V Formula, Chipset: AMD RD890 bridge, Memory: 8192MB, Disk: 240GB OCZ VERTEX3, Graphics: Sapphire AMD Radeon HD 6800 1024MB (900/1050MHz), Audio: Realtek ALC889, Monitor: VE228, Network: Intel 82583V Gigabit Connection

OS: Ubuntu 14.04, Kernel: 3.13.0-13-generic (x86_64), Desktop: Unity 7.1.2, Display Server: X Server 1.15.0, Display

Driver: fglrx 13.35.5, OpenGL: 4.3.12780, Compiler: GCC 4.8, File-System: ext4, Screen Resolution: 1920x1080

Environment Notes: LIBGL_DRIVERS_PATH=/usr/lib/fglrx/dri:/usr/lib/x86_64-linux-gnu/dri:/usr/lib/dri:/usr/lib32/fglrx/dri:/usr/lib/i386-linux-gnu/dri

Radeon HD 6950

Processor: AMD FX-8350 Eight-Core @ 4.00GHz (8 Cores), Motherboard: ASUS Crosshair V Formula, Chipset: AMD RD890 bridge, Memory: 8192MB, Disk: 240GB OCZ VERTEX3, Graphics: Sapphire AMD Radeon HD 6900 2048MB (800/1250MHz), Audio: Realtek ALC889, Monitor: VE228, Network: Intel 82583V Gigabit Connection

OS: Ubuntu 14.04, Kernel: 3.13.0-13-generic (x86_64), Desktop: Unity 7.1.2, Display Server: X Server 1.15.0, Display Driver: fglrx 13.35.5, OpenGL: 4.3.12780, Compiler: GCC 4.8, File-System: ext4, Screen Resolution: 1920x1080

Environment Notes: LIBGL_DRIVERS_PATH=/usr/lib/fglrx/dri:/usr/lib/x86_64-linux-gnu/dri:/usr/lib/dri:/usr/lib32/fglrx/dri:/usr/lib/i386-linux-gnu/dri

Radeon HD 7850

Processor: AMD FX-8350 Eight-Core @ 4.00GHz (8 Cores), Motherboard: ASUS Crosshair V Formula, Chipset: AMD RD890 bridge, Memory: 8192MB, Disk: 240GB OCZ VERTEX3, Graphics: ASUS AMD Radeon HD 7800 1024MB (860/1200MHz), Audio: Realtek ALC889, Monitor: VE228, Network: Intel 82583V Gigabit Connection

OS: Ubuntu 14.04, Kernel: 3.13.0-13-generic (x86_64), Desktop: Unity 7.1.2, Display Server: X Server 1.15.0, Display Driver: fglrx 13.35.5, OpenGL: 4.3.12780, Compiler: GCC 4.8, File-System: ext4, Screen Resolution: 1920x1080

Environment Notes: LIBGL_DRIVERS_PATH=/usr/lib/fglrx/dri:/usr/lib/x86_64-linux-gnu/dri:/usr/lib/dri:/usr/lib32/fglrx/dri:/usr/lib/i386-linux-gnu/dri

Radeon HD 7950

Processor: AMD FX-8350 Eight-Core @ 4.00GHz (8 Cores), Motherboard: ASUS Crosshair V Formula, Chipset: AMD RD890 bridge, Memory: 8192MB, Disk: 240GB OCZ VERTEX3, Graphics: XFX AMD Radeon HD 7900 3072MB (900/1375MHz), Audio: Realtek ALC889, Monitor: VE228, Network: Intel 82583V Gigabit Connection

OS: Ubuntu 14.04, Kernel: 3.13.0-13-generic (x86_64), Desktop: Unity 7.1.2, Display Server: X Server 1.15.0, Display Driver: fglrx 13.35.5, OpenGL: 4.3.12780, Compiler: GCC 4.8, File-System: ext4, Screen Resolution: 1920x1080

Environment Notes: LIBGL_DRIVERS_PATH=/usr/lib/fglrx/dri:/usr/lib/x86_64-linux-gnu/dri:/usr/lib/dri:/usr/lib32/fglrx/dri:/usr/lib/i386-linux-gnu/dri

Radeon R7 260X

Processor: AMD FX-8350 Eight-Core @ 4.00GHz (8 Cores), Motherboard: ASUS Crosshair V Formula, Chipset: AMD RD890 bridge, Memory: 8192MB, Disk: 240GB OCZ VERTEX3, Graphics: Sapphire AMD Radeon R7 200 2048MB (1150/1650MHz), Audio: Realtek ALC889, Monitor: VE228, Network: Intel 82583V Gigabit Connection

OS: Ubuntu 14.04, Kernel: 3.13.0-13-generic (x86_64), Desktop: Unity 7.1.2, Display Server: X Server 1.15.0, Display Driver: fglrx 13.35.5, OpenGL: 4.3.12780, Compiler: GCC 4.8, File-System: ext4, Screen Resolution: 1920x1080

Environment Notes: LIBGL_DRIVERS_PATH=/usr/lib/fglrx/dri:/usr/lib/x86_64-linux-gnu/dri:/usr/lib/dri:/usr/lib32/fglrx/dri:/usr/lib/i386-linux-gnu/dri

Radeon R9 270X

Processor: AMD FX-8350 Eight-Core @ 4.00GHz (8 Cores), Motherboard: ASUS Crosshair V Formula, Chipset: AMD RD890 bridge, Memory: 8192MB, Disk: 240GB OCZ VERTEX3, Graphics: Supported device 6810 2048MB (1100/1400MHz), Audio: Realtek ALC889, Monitor: VE228, Network: Intel 82583V Gigabit Connection

OS: Ubuntu 14.04, Kernel: 3.13.0-13-generic (x86_64), Desktop: Unity 7.1.2, Display Server: X Server 1.15.0, Display Driver: fglrx 13.35.5, OpenGL: 4.3.12780, Compiler: GCC 4.8, File-System: ext4, Screen Resolution: 1920x1080

Environment Notes: LIBGL_DRIVERS_PATH=/usr/lib/fglrx/dri:/usr/lib/x86_64-linux-gnu/dri:/usr/lib/dri:/usr/lib32/fglrx/dri:/usr/lib/i386-linux-gnu/dri

Radeon R9 290

Processor: AMD FX-8350 Eight-Core @ 4.00GHz (8 Cores), Motherboard: ASUS Crosshair V Formula, Chipset: AMD RD890 bridge, Memory: 8192MB, Disk: 240GB OCZ VERTEX3, Graphics: XFX AMD Radeon R9 290 4096MB (947/1250MHz), Audio: Realtek ALC889, Monitor: VE228, Network: Intel 82583V Gigabit Connection

OS: Ubuntu 14.04, Kernel: 3.13.0-13-generic (x86_64), Desktop: Unity 7.1.2, Display Server: X Server 1.15.0, Display Driver: fglrx 13.35.5, OpenGL: 4.3.12780, Compiler: GCC 4.8, File-System: ext4, Screen Resolution: 1920x1080

Environment Notes: LIBGL_DRIVERS_PATH=/usr/lib/fglrx/dri:/usr/lib/x86_64-linux-gnu/dri:/usr/lib/dri:/usr/lib32/fglrx/dri:/usr/lib/i386-linux-gnu/dri

GeForce 8500GT

Processor: AMD FX-8350 Eight-Core @ 4.00GHz (8 Cores), Motherboard: ASUS Crosshair V Formula, Chipset: AMD RD890 bridge, Memory: 8192MB, Disk: 240GB OCZ VERTEX3, Graphics: Gigabyte NVIDIA GeForce 8500 GT 256MB (500/400MHz), Audio: Realtek ALC889, Monitor: Ancor VE228, Network: Intel 82583V Gigabit Connection

OS: Ubuntu 14.04, Kernel: 3.13.0-13-generic (x86_64), Desktop: Unity 7.1.2, Display Server: X Server 1.15.0, Display Driver: NVIDIA 334.21, OpenGL: 3.3.0, Compiler: GCC 4.8, File-System: ext4, Screen Resolution: 1920x1080

Environment Notes: LIBGL_DRIVERS_PATH=/usr/lib/fglrx/dri:/usr/lib/x86_64-linux-gnu/dri:/usr/lib/dri:/usr/lib32/fglrx/dri:/usr/lib/i386-linux-gnu/dri

GeForce 8600GT

Processor: AMD FX-8350 Eight-Core @ 4.00GHz (8 Cores), Motherboard: ASUS Crosshair V Formula, Chipset: AMD RD890 bridge, Memory: 8192MB, Disk: 240GB OCZ VERTEX3, Graphics: ASUS NVIDIA GeForce 8600 GT 256MB (540/700MHz), Audio: Realtek ALC889, Monitor: Ancor VE228, Network: Intel 82583V Gigabit Connection

OS: Ubuntu 14.04, Kernel: 3.13.0-13-generic (x86_64), Desktop: Unity 7.1.2, Display Server: X Server 1.15.0, Display Driver: NVIDIA 334.21, OpenGL: 3.3.0, Compiler: GCC 4.8, File-System: ext4, Screen Resolution: 1920x1080

Environment Notes: LIBGL_DRIVERS_PATH=/usr/lib/fglrx/dri:/usr/lib/x86_64-linux-gnu/dri:/usr/lib/dri:/usr/lib32/fglrx/dri:/usr/lib/i386-linux-gnu/dri

GeForce 8800GT

Processor: AMD FX-8350 Eight-Core @ 4.00GHz (8 Cores), Motherboard: ASUS Crosshair V Formula, Chipset: AMD RD890 bridge, Memory: 8192MB, Disk: 240GB OCZ VERTEX3, Graphics: ECS NVIDIA GeForce 8800 GT 256MB (600/700MHz), Audio: Realtek ALC889, Monitor: Ancor VE228, Network: Intel 82583V Gigabit Connection

OS: Ubuntu 14.04, Kernel: 3.13.0-13-generic (x86_64), Desktop: Unity 7.1.2, Display Server: X Server 1.15.0, Display Driver: NVIDIA 334.21, OpenGL: 3.3.0, Compiler: GCC 4.8, File-System: ext4, Screen Resolution: 1920x1080

Environment Notes: LIBGL_DRIVERS_PATH=/usr/lib/fglrx/dri:/usr/lib/x86_64-linux-gnu/dri:/usr/lib/dri:/usr/lib32/fglrx/dri:/usr/lib/i386-linux-gnu/dri

GeForce 9500GT

Processor: AMD FX-8350 Eight-Core @ 4.00GHz (8 Cores), Motherboard: ASUS Crosshair V Formula, Chipset: AMD RD890 bridge, Memory: 8192MB, Disk: 240GB OCZ VERTEX3, Graphics: ASUS NVIDIA GeForce 9500 GT 1024MB

(550/400MHz), Audio: Realtek ALC889, Monitor: Ancor VE228, Network: Intel 82583V Gigabit Connection

OS: Ubuntu 14.04, Kernel: 3.13.0-13-generic (x86_64), Desktop: Unity 7.1.2, Display Server: X Server 1.15.0, Display Driver: NVIDIA 334.21, OpenGL: 3.3.0, Compiler: GCC 4.8, File-System: ext4, Screen Resolution: 1920x1080

Environment Notes: LIBGL_DRIVERS_PATH=/usr/lib/fglrx/dri:/usr/lib/x86_64-linux-gnu/dri:/usr/lib/dri:/usr/lib32/fglrx/dri:/usr/lib/i386-linux-gnu/dri

GeForce 9600GSO

Processor: AMD FX-8350 Eight-Core @ 4.00GHz (8 Cores), Motherboard: ASUS Crosshair V Formula, Chipset: AMD RD890 bridge, Memory: 8192MB, Disk: 240GB OCZ VERTEX3, Graphics: XFX NVIDIA GeForce 9600 GSO 512MB (500/900MHz), Audio: Realtek ALC889, Monitor: Ancor VE228, Network: Intel 82583V Gigabit Connection

OS: Ubuntu 14.04, Kernel: 3.13.0-13-generic (x86_64), Desktop: Unity 7.1.2, Display Server: X Server 1.15.0, Display Driver: NVIDIA 334.21, OpenGL: 3.3.0, Compiler: GCC 4.8, File-System: ext4, Screen Resolution: 1920x1080

Environment Notes: LIBGL_DRIVERS_PATH=/usr/lib/fglrx/dri:/usr/lib/x86_64-linux-gnu/dri:/usr/lib/dri:/usr/lib32/fglrx/dri:/usr/lib/i386-linux-gnu/dri

GeForce 9800GT

Processor: AMD FX-8350 Eight-Core @ 4.00GHz (8 Cores), Motherboard: ASUS Crosshair V Formula, Chipset: AMD RD890 bridge, Memory: 8192MB, Disk: 240GB OCZ VERTEX3, Graphics: MSI NVIDIA GeForce 9800 GT 512MB (660/950MHz), Audio: Realtek ALC889, Monitor: Ancor VE228, Network: Intel 82583V Gigabit Connection

OS: Ubuntu 14.04, Kernel: 3.13.0-13-generic (x86_64), Desktop: Unity 7.1.2, Display Server: X Server 1.15.0, Display Driver: NVIDIA 334.21, OpenGL: 3.3.0, Compiler: GCC 4.8, File-System: ext4, Screen Resolution: 1920x1080

Environment Notes: LIBGL_DRIVERS_PATH=/usr/lib/fglrx/dri:/usr/lib/x86_64-linux-gnu/dri:/usr/lib/dri:/usr/lib32/fglrx/dri:/usr/lib/i386-linux-gnu/dri

GeForce 9800GTX

Processor: AMD FX-8350 Eight-Core @ 4.00GHz (8 Cores), Motherboard: ASUS Crosshair V Formula, Chipset: AMD RD890 bridge, Memory: 8192MB, Disk: 240GB OCZ VERTEX3, Graphics: NVIDIA GeForce 9800 GTX/9800 GTX+ 512MB (675/1100MHz), Audio: Realtek ALC889, Monitor: Ancor VE228, Network: Intel 82583V Gigabit Connection

OS: Ubuntu 14.04, Kernel: 3.13.0-13-generic (x86_64), Desktop: Unity 7.1.2, Display Server: X Server 1.15.0, Display Driver: NVIDIA 334.21, OpenGL: 3.3.0, Compiler: GCC 4.8, File-System: ext4, Screen Resolution: 1920x1080

Environment Notes: LIBGL_DRIVERS_PATH=/usr/lib/fglrx/dri:/usr/lib/x86_64-linux-gnu/dri:/usr/lib/dri:/usr/lib32/fglrx/dri:/usr/lib/i386-linux-gnu/dri

GeForce GT 220

Processor: AMD FX-8350 Eight-Core @ 4.00GHz (8 Cores), Motherboard: ASUS Crosshair V Formula, Chipset: AMD RD890 bridge, Memory: 8192MB, Disk: 240GB OCZ VERTEX3, Graphics: XFX NVIDIA GeForce GT 220 1024MB (625/400MHz), Audio: Realtek ALC889, Monitor: Ancor VE228, Network: Intel 82583V Gigabit Connection

OS: Ubuntu 14.04, Kernel: 3.13.0-13-generic (x86_64), Desktop: Unity 7.1.2, Display Server: X Server 1.15.0, Display Driver: NVIDIA 334.21, OpenGL: 3.3.0, Compiler: GCC 4.8, File-System: ext4, Screen Resolution: 1920x1080

Environment Notes: LIBGL_DRIVERS_PATH=/usr/lib/fglrx/dri:/usr/lib/x86_64-linux-gnu/dri:/usr/lib/dri:/usr/lib32/fglrx/dri:/usr/lib/i386-linux-gnu/dri

GeForce GTX 460

Processor: AMD FX-8350 Eight-Core @ 4.00GHz (8 Cores), Motherboard: ASUS Crosshair V Formula, Chipset: AMD RD890 bridge, Memory: 8192MB, Disk: 240GB OCZ VERTEX3, Graphics: ASUS NVIDIA GeForce GTX 460 768MB (675/1800MHz), Audio: Realtek ALC889, Monitor: Ancor VE228, Network: Intel 82583V Gigabit Connection

OS: Ubuntu 14.04, Kernel: 3.13.0-13-generic (x86_64), Desktop: Unity 7.1.2, Display Server: X Server 1.15.0, Display Driver: NVIDIA 334.21, OpenGL: 4.3.0, Compiler: GCC 4.8, File-System: ext4, Screen Resolution: 1920x1080

Environment Notes: LIBGL_DRIVERS_PATH=/usr/lib/fglrx/dri:/usr/lib/x86_64-linux-gnu/dri:/usr/lib/dri:/usr/lib32/fglrx/dri:/usr/lib/i386-linux-gnu/dri

GeForce GT 520

Processor: AMD FX-8350 Eight-Core @ 4.00GHz (8 Cores), Motherboard: ASUS Crosshair V Formula, Chipset: AMD RD890 bridge, Memory: 8192MB, Disk: 240GB OCZ VERTEX3, Graphics: eVGA NVIDIA GeForce GT 520 1024MB (810/500MHz), Audio: Realtek ALC889, Monitor: Ancor VE228, Network: Intel 82583V Gigabit Connection

OS: Ubuntu 14.04, Kernel: 3.13.0-13-generic (x86_64), Desktop: Unity 7.1.2, Display Server: X Server 1.15.0, Display Driver: NVIDIA 334.21, OpenGL: 4.3.0, Compiler: GCC 4.8, File-System: ext4, Screen Resolution: 1920x1080

Environment Notes: LIBGL_DRIVERS_PATH=/usr/lib/fglrx/dri:/usr/lib/x86_64-linux-gnu/dri:/usr/lib/dri:/usr/lib32/fglrx/dri:/usr/lib/i386-linux-gnu/dri

GeForce GTX 550 Ti

Processor: AMD FX-8350 Eight-Core @ 4.00GHz (8 Cores), Motherboard: ASUS Crosshair V Formula, Chipset: AMD RD890 bridge, Memory: 8192MB, Disk: 240GB OCZ VERTEX3, Graphics: eVGA NVIDIA GeForce GTX 550 Ti 1024MB (951/2178MHz), Audio: Realtek ALC889, Monitor: Ancor VE228, Network: Intel 82583V Gigabit Connection

OS: Ubuntu 14.04, Kernel: 3.13.0-13-generic (x86_64), Desktop: Unity 7.1.2, Display Server: X Server 1.15.0, Display Driver: NVIDIA 334.21, OpenGL: 4.3.0, Compiler: GCC 4.8, File-System: ext4, Screen Resolution: 1920x1080

Environment Notes: LIBGL_DRIVERS_PATH=/usr/lib/fglrx/dri:/usr/lib/x86_64-linux-gnu/dri:/usr/lib/dri:/usr/lib32/fglrx/dri:/usr/lib/i386-linux-gnu/dri

GeForce GT 610

Processor: AMD FX-8350 Eight-Core @ 4.00GHz (8 Cores), Motherboard: ASUS Crosshair V Formula, Chipset: AMD RD890 bridge, Memory: 8192MB, Disk: 240GB OCZ VERTEX3, Graphics: Zotac NVIDIA GeForce GT 610 1024MB (810/533MHz), Audio: Realtek ALC889, Monitor: Ancor VE228, Network: Intel 82583V Gigabit Connection

OS: Ubuntu 14.04, Kernel: 3.13.0-13-generic (x86_64), Desktop: Unity 7.1.2, Display Server: X Server 1.15.0, Display Driver: NVIDIA 334.21, OpenGL: 4.3.0, Compiler: GCC 4.8, File-System: ext4, Screen Resolution: 1920x1080

Environment Notes: LIBGL_DRIVERS_PATH=/usr/lib/fglrx/dri:/usr/lib/x86_64-linux-gnu/dri:/usr/lib/dri:/usr/lib32/fglrx/dri:/usr/lib/i386-linux-gnu/dri

GeForce GTX 650

Processor: AMD FX-8350 Eight-Core @ 4.00GHz (8 Cores), Motherboard: ASUS Crosshair V Formula, Chipset: AMD RD890 bridge, Memory: 8192MB, Disk: 240GB OCZ VERTEX3, Graphics: MSI NVIDIA GeForce GTX 650 1024MB (1084/2500MHz), Audio: Realtek ALC889, Monitor: Ancor VE228, Network: Intel 82583V Gigabit Connection

OS: Ubuntu 14.04, Kernel: 3.13.0-13-generic (x86_64), Desktop: Unity 7.1.2, Display Server: X Server 1.15.0, Display Driver: NVIDIA 334.21, OpenGL: 4.3.0, Compiler: GCC 4.8, File-System: ext4, Screen Resolution: 1920x1080

Environment Notes: LIBGL_DRIVERS_PATH=/usr/lib/fglrx/dri:/usr/lib/x86_64-linux-gnu/dri:/usr/lib/dri:/usr/lib32/fglrx/dri:/usr/lib/i386-linux-gnu/dri

GeForce GTX 680

Processor: AMD FX-8350 Eight-Core @ 4.00GHz (8 Cores), Motherboard: ASUS Crosshair V Formula, Chipset: AMD RD890 bridge, Memory: 8192MB, Disk: 240GB OCZ VERTEX3, Graphics: NVIDIA GeForce GTX 680 2048MB (705/3004MHz), Audio: Realtek ALC889, Monitor: Ancor VE228, Network: Intel 82583V Gigabit Connection

OS: Ubuntu 14.04, Kernel: 3.13.0-13-generic (x86_64), Desktop: Unity 7.1.2, Display Server: X Server 1.15.0, Display Driver: NVIDIA 334.21, OpenGL: 4.3.0, Compiler: GCC 4.8, File-System: ext4, Screen Resolution: 1920x1080

Environment Notes: LIBGL_DRIVERS_PATH=/usr/lib/fglrx/dri:/usr/lib/x86_64-linux-gnu/dri:/usr/lib/dri:/usr/lib32/fglrx/dri:/usr/lib/i386-linux-gnu/dri

GeForce GTX 750

Processor: AMD FX-8350 Eight-Core @ 4.00GHz (8 Cores), Motherboard: ASUS Crosshair V Formula, Chipset: AMD RD890 bridge, Memory: 8192MB, Disk: 240GB OCZ VERTEX3, Graphics: eVGA NVIDIA GeForce GTX 750 1024MB (540/2505MHz), Audio: Realtek ALC889, Monitor: Ancor VE228, Network: Intel 82583V Gigabit Connection

OS: Ubuntu 14.04, Kernel: 3.13.0-13-generic (x86_64), Desktop: Unity 7.1.2, Display Server: X Server 1.15.0, Display Driver: NVIDIA 334.21, OpenGL: 4.3.0, Compiler: GCC 4.8, File-System: ext4, Screen Resolution: 1920x1080

Environment Notes: LIBGL_DRIVERS_PATH=/usr/lib/fglrx/dri:/usr/lib/x86_64-linux-gnu/dri:/usr/lib/dri:/usr/lib32/fglrx/dri:/usr/lib/i386-linux-gnu/dri

GeForce GTX 750 Ti

Processor: AMD FX-8350 Eight-Core @ 4.00GHz (8 Cores), Motherboard: ASUS Crosshair V Formula, Chipset: AMD RD890 bridge, Memory: 8192MB, Disk: 240GB OCZ VERTEX3, Graphics: NVIDIA GeForce GTX 750 Ti 2048MB (540/2700MHz), Audio: Realtek ALC889, Monitor: Ancor VE228, Network: Intel 82583V Gigabit Connection

OS: Ubuntu 14.04, Kernel: 3.13.0-13-generic (x86_64), Desktop: Unity 7.1.2, Display Server: X Server 1.15.0, Display Driver: NVIDIA 334.21, OpenGL: 4.3.0, Compiler: GCC 4.8, File-System: ext4, Screen Resolution: 1920x1080

Environment Notes: LIBGL_DRIVERS_PATH=/usr/lib/fglrx/dri:/usr/lib/x86_64-linux-gnu/dri:/usr/lib/dri:/usr/lib32/fglrx/dri:/usr/lib/i386-linux-gnu/dri

GeForce GTX 760

Processor: AMD FX-8350 Eight-Core @ 4.00GHz (8 Cores), Motherboard: ASUS Crosshair V Formula, Chipset: AMD RD890 bridge, Memory: 8192MB, Disk: 240GB OCZ VERTEX3, Graphics: NVIDIA GeForce GTX 760 2048MB (540/3004MHz), Audio: Realtek ALC889, Monitor: Ancor VE228, Network: Intel 82583V Gigabit Connection

OS: Ubuntu 14.04, Kernel: 3.13.0-13-generic (x86_64), Desktop: Unity 7.1.2, Display Server: X Server 1.15.0, Display Driver: NVIDIA 334.21, OpenGL: 4.3.0, Compiler: GCC 4.8, File-System: ext4, Screen Resolution: 1920x1080

Environment Notes: LIBGL_DRIVERS_PATH=/usr/lib/fglrx/dri:/usr/lib/x86_64-linux-gnu/dri:/usr/lib/dri:/usr/lib32/fglrx/dri:/usr/lib/i386-linux-gnu/dri

GeForce GTX 770

Processor: AMD FX-8350 Eight-Core @ 4.00GHz (8 Cores), Motherboard: ASUS Crosshair V Formula, Chipset: AMD RD890 bridge, Memory: 8192MB, Disk: 240GB OCZ VERTEX3, Graphics: NVIDIA GeForce GTX 770 2048MB (540/3505MHz), Audio: Realtek ALC889, Monitor: Ancor VE228, Network: Intel 82583V Gigabit Connection

OS: Ubuntu 14.04, Kernel: 3.13.0-13-generic (x86_64), Desktop: Unity 7.1.2, Display Server: X Server 1.15.0, Display Driver: NVIDIA 334.21, OpenGL: 4.3.0, Compiler: GCC 4.8, File-System: ext4, Screen Resolution: 1920x1080

Environment Notes: LIBGL_DRIVERS_PATH=/usr/lib/fglrx/dri:/usr/lib/x86_64-linux-gnu/dri:/usr/lib/dri:/usr/lib32/fglrx/dri:/usr/lib/i386-linux-gnu/dri

GeForce GTX 780 Ti

Processor: AMD FX-8350 Eight-Core @ 4.00GHz (8 Cores), Motherboard: ASUS Crosshair V Formula, Chipset: AMD RD890 bridge, Memory: 8192MB, Disk: 240GB OCZ VERTEX3, Graphics: NVIDIA GeForce GTX 780 Ti 3072MB (549/3500MHz), Audio: Realtek ALC889, Monitor: Ancor VE228, Network: Intel 82583V Gigabit Connection

OS: Ubuntu 14.04, Kernel: 3.13.0-13-generic (x86_64), Desktop: Unity 7.1.2, Display Server: X Server 1.15.0, Display Driver: NVIDIA 334.21, OpenGL: 4.3.0, Compiler: GCC 4.8, File-System: ext4, Screen Resolution: 1920x1080

Environment Notes: LIBGL_DRIVERS_PATH=/usr/lib/fglrx/dri:/usr/lib/x86_64-linux-gnu/dri:/usr/lib/dri:/usr/lib32/fglrx/dri:/usr/lib/i386-linux-gnu/dri

GeForce GTX TITAN

Processor: AMD FX-8350 Eight-Core @ 4.00GHz (8 Cores), Motherboard: ASUS Crosshair V Formula, Chipset: AMD RD890 bridge, Memory: 8192MB, Disk: 240GB OCZ VERTEX3, Graphics: NVIDIA GeForce GTX TITAN 6144MB (575/3004MHz), Audio: Realtek ALC889, Monitor: Ancor VE228, Network: Intel 82583V Gigabit Connection

OS: Ubuntu 14.04, Kernel: 3.13.0-13-generic (x86_64), Desktop: Unity 7.1.2, Display Server: X Server 1.15.0, Display Driver: NVIDIA 334.21, OpenGL: 4.3.0, Compiler: GCC 4.8, File-System: ext4, Screen Resolution: 1920x1080

Environment Notes: LIBGL_DRIVERS_PATH=/usr/lib/fglrx/dri:/usr/lib/x86_64-linux-gnu/dri:/usr/lib/dri:/usr/lib32/fglrx/dri:/usr/lib/i386-linux-gnu/dri

lonestar_first_test

Processor: Intel Core i5 750 @ 2.67GHz (4 Cores), Motherboard: ASUS P7P55D, Chipset: Intel Core DMI, Memory: 12288MB, Disk: 250GB HDS722525VLSA80 + 1500GB SAMSUNG HD154UI + 200GB Seagate ST3200822AS, Graphics: ASUS NVIDIA GeForce 9500 GT 1024MB (550/400MHz), Audio: VIA VT1828S, Monitor: DELL 2209WA, Network: Realtek RTL8111/8168/8411 + Qualcomm Atheros AR922X Wireless

OS: Ubuntu 12.04, Kernel: 3.8.0-39-generic (x86_64), Desktop: Xfce 4.8, Display Server: X Server 1.14.5, Display Driver: NVIDIA 331.20, OpenGL: 3.3.0, Compiler: GCC 4.6.3 + CUDA 5.5, File-System: ext4, Screen Resolution: 1680x1050

Environment Notes: LIBGLADE_MODULE_PATH=:

GTS450

Processor: Intel Pentium G3258 @ 3.20GHz (2 Cores), Motherboard: MSI H81M-P33 (MS-7817) v1.0, Chipset: Intel 4th Gen Core DRAM, Memory: 16384MB, Disk: 320GB Hitachi HDT72103 + 500GB Western Digital WD5000AADS-6, Graphics: NVIDIA GeForce GTS 450 1024MB (405/324MHz), Audio: Realtek ALC887-VD, Network: Realtek RTL8111/8168/8411

OS: Ubuntu 16.04, Kernel: 4.4.0-21-generic (x86_64), Desktop: Unity 7.4.0, Display Server: X Server 1.18.3, Display Driver: NVIDIA 364.19, OpenGL: 4.5.0, Compiler: GCC 5.3.1 20160413 + CUDA 7.5, File-System: ext4, Screen Resolution: 1680x1050

Compiler Notes: --build=x86_64-linux-gnu --disable-browser-plugin --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-gnu-unique-object --enable-gtk-cairo --enable-java-awt=gtk --enable-java-home --enable-languages=c,ada,c++,java,go,d,fortran,objc,obj-c++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-arch-directory=amd64 --with-default-libstdcxx-abi=new --with-multilib-list=m32,m64,mx32 --with-tune=generic -v
Processor Notes: Scaling Governor: intel_pstate powersave
Graphics Notes: 2x

OpenCL Notes: GPU Compute Cores: 192
System Notes: GPU Compute Cores: 192. Anisotropic Filtering: 2x.

	Radeon HD 5830	Radeon HD 6450	Radeon HD 6770	Radeon HD 6870	Radeon HD 6950	Radeon HD 7850	Radeon HD 7950	Radeon R7 260X	Radeon R9 270X	Radeon R9 290	GeForce 8500 GT	GeForce 8600 GT	GeForce 8800 GT	GeForce 9500 GT	GeForce 9600 GSO	GeForce 9800 GT	GeForce 9800 GTX	GeForce GT 220	GeForce GTX 460	GeForce GT 520	GeForce GTX 550 Ti	GeForce GT 610	GeForce GTX 650	GeForce GTX 680	GeForce GTX 750	GeForce GTX 750 Ti	GeForce GTX 760	GeForce GTX 770	GeForce GTX 780 Ti	GeForce GTX TITAN	lonestar_first_test	G T S 5
GpuTest - Triangle - 1920 x 1080 - Fullscreen (Points)																															9 4 0
Standard Deviation																															0 %

GpuTest - Furmark - 1920 x 1080 - Fullscreen (Points)	6
Standard Deviation	5 0 %
GpuTest - Plot3D - 1920 x 1080 - Fullscreen (Points)	2 1 6
Standard Deviation	0 %
Xonotic - 1920 x 1080 - Ultra (FPS)	1 1 7
Standard Deviation	0
Xonotic - 1920 x 1080 - High (FPS)	1 8 2
Standard Deviation	0 %

OpenArena - 1920 x 1080 (FPS)	2 3 9
Standard Deviation	0 %
GpuTest - Furmark - 2560 x 1600 (Points)	6 4
Standard Deviation	0 %
Unigine Valley - 1920 x 1080 (FPS)	1 . 8
Standard Deviation	0 %
GpuTest - Triangle - 1920 x 1080 (Points)	9 9 6
Standard Deviation	0

GpuTest - TessMark - 1920 x 1080 (Points)	1
Standard Deviation	9 0
GpuTest - GiMark - 1920 x 1080 (Points)	2
Standard Deviation	5 1 %
Xonotic - 1920 x 1080 - High (FPS)	1
Standard Deviation	9 1 0 %
Unvanquished - 1920 x 1080 (FPS)	4 . 0
Standard Deviation	0

Reaction Quake 3 - 1920 x 1080 (FPS)	1 9 6
Standard Deviatio	0
Xonotic - 2560 x 1600 - Ultra (FPS)	9 . 9
Standard Deviatio	0 %
LuxMark - GPU - Luxball HDR (Score)	1 1
Standard Deviatio	0
LuxMark - GPU - Sala (Score)	1
Standard Deviation	0

LuxMark - GPU - Room (Score)	2
Standard Deviation	0
GpuTest - Pixmark Volplosion - 2560 x 1600 (Points)	5 9
Standard Deviation	0
GpuTest - Pixmark Piano - 2560 x 1600 (Points)	2 3
Standard Deviation	0

GpuTest - TessMark - 2560 x 1600 (Points)	1
Standard Deviation	9 0
GpuTest - Furmark - 2560 x 1600 (Points)	6
Standard Deviation	4 0 %
GpuTest - GiMark - 2560 x 1600 (Points)	1
Standard Deviation	2 7 %
Xonotic - 2560 x 1600 - Ultimate (FPS)	6 . 2
Standard Deviation	0 %

Unvanquished - 2560 x 1600 (FPS)	3
Standard Deviation	0
Unigine Valley - 1920 x 1080 (FPS)	1
Normalized	9
Standard Deviation	0
Unigine Tropics - 2560 x 1600 (FPS)	1
Standard Deviation	0
Unigine Sanctuary - 2560 x 1600 (FPS)	2
Standard Deviation	0

Unigine Heaven - 1920 x 1080 (FPS)	9
	6
Standard Deviation	0
Reaction Quake 3 - 2560 x 1600 (FPS)	1
	9
	6
Standard Deviation	0
	%
Open Arena - 2560 x 1600 (FPS)	2
	0
	4
Standard Deviation	3
	%
Nexuiz - 2560 x 1600 - Yes - Off	9
	.
	5
Standard Deviation	0
	%

GpuTest - Furmark - 1920 x 1080 (Points)	1940	197	1257	2428	2477	2114	2913	1810	3825	4786	**86**	220	769	209	335	928	1109	248	1571	163	1414	167	1241	3102	1948	1887	3229	3360	**6062**	5637	237	65
Normalized	32%	3.25%	20.74%	40.05%	40.86%	34.87%	48.05%	29.86%	63.1%	78.95%	1.42%	3.63%	12.69%	3.45%	5.53%	15.31%	18.29%	4.09%	25.92%	2.69%	23.33%	2.75%	20.47%	51.17%	32.13%	31.13%	53.27%	55.43%	100%	92.99%	3.91%	13
Standard Deviation	0%	0%	0%	0%	0%	2%	3.3%	0%	0%	0.9%	0%	0.3%	0.1%	0%	0%	0.1%	0%	0.2%	0%	0%	0%	0%	0%	0%	0.1%	0.1%	0.1%	0.4%	0.4%	0.2%	0%	0%
Xonotic - 1920 x 1080 - Ultimate (FPS)	85.40	19.12	79.43	91.76	94.96	86.37	88.72	85.07	88.68	87.64	**5.44**	13.24	42.28	13.18	17.94	50.91	58.31	20.49	106.68	19.31	96.20	19.44	97.44	154.83	107.93	119.08	151.62	154.89	**158.60**	158.07	15.12	6.7
Normalized	53.85%	12.06%	50.08%	57.86%	59.87%	54.46%	55.94%	53.64%	55.91%	55.26%	3.43%	8.35%	26.66%	8.31%	11.31%	32.1%	36.77%	12.92%	67.26%	12.18%	60.66%	12.26%	61.44%	97.62%	68.05%	75.08%	95.6%	97.66%	100%	99.67%	9.53%	45
Standard Deviation	0.7%	0.1%	0.4%	0.3%	0.8%	0.7%	1.1%	0.9%	2%	0.2%	0%	0.5%	0.4%	0%	0%	0%	0.3%	0%	0.6%	0.1%	0.1%	0%	0.5%	0.3%	0.2%	0.6%	1.2%	1.3%	0.3%	0.8%	0%	0%
Xonotic - 1920 x 1080 - Ultra (FPS)	118.76	27.24	112.04	122.11	124.24	114.84	116.60	113.07	116.60	114.90	**9.25**	21.83	67.12	21.24	29.29	82.40	94.04	31.86	164.98	27.43	151.48	27.76	151.38	218.51	169.83	184.23	217.80	219.76	**220.58**	219.55	24.37	9.6
Normalized	53.84%	12.35%	50.79%	55.36%	56.32%	52.06%	52.86%	51.26%	52.86%	52.09%	4.19%	9.9%	30.43%	9.63%	13.28%	37.36%	42.63%	14.44%	74.79%	12.44%	68.67%	12.59%	68.63%	99.06%	76.99%	83.52%	98.74%	99.63%	100%	99.53%	11.05%	48
Standard Deviation	0.2%	0.1%	0.2%	0.2%	0.2%	0.5%	0.4%	0.6%	0.7%	0.5%	0.1%	0.3%	0.4%	0%	0.5%	0.5%	0.4%	0%	0.6%	0%	0.6%	0%	0.4%	1%	0.5%	0.1%	0.1%	0.4%	1.1%	1.4%	0%	0

30-Way Ubuntu 14.04 AMD / NVIDIA Linux Graphics Card Comparison

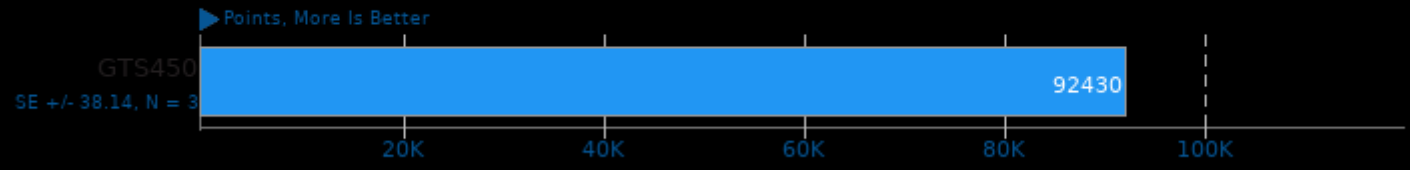
Unigine Valley - 1280 x 1024 (FPS)	30.86	4.18	25.31	40.85	45.89	42.07	52.59	39.62	52.71	53.86	**1.54**	2.94	6.65	4.16	5.22	14.90	16.94	5.93	30.86	5.17	26.88	5.22	28.57	77.68	42.34	48.44	70.82	80.59	**82.52**	81.75	4.14	1.2
Normalized	37.4%	5.07%	30.67%	49.5%	55.61%	50.98%	63.73%	48.01%	63.88%	65.27%	1.87%	3.56%	8.06%	5.04%	6.33%	18.06%	20.53%	7.19%	37.4%	6.27%	32.57%	6.33%	34.62%	94.13%	51.31%	58.82%	85.82%	97.66%	100%	99.07%	5.02%	2.8%
Standard Deviation	0.1%	0%	0.1%	0.1%	0.4%	0%	0%	0.5%	1.7%	2.1%	0.6%	0.2%	1%	0.1%	0%	0.1%	0%	0.1%	0.2%	0.1%	0%	0.1%	0.3%	0.7%	0.2%	0%	0.2%	0.3%	1.3%	1.5%	0.1%	0%
Unigine Heaven - 1280 x 1024 (FPS)	16.87	2.11	13.03	20.45	30.87	34.22	58.46	35.18	52.05	71.02	**1.54**	2.15	4.24	4.28	4.85	11.14	11.80	4.96	26.19	3.72	23.08	3.73	25.25	71.67	40.82	47.23	63.80	75.35	**11.5.71**	11.2.83	4.26	1.4
Normalized	14.58%	1.82%	11.26%	17.67%	26.68%	29.57%	50.52%	30.4%	44.98%	61.38%	1.33%	1.86%	3.66%	3.7%	4.19%	9.63%	10.2%	4.29%	22.63%	3.21%	19.95%	3.22%	21.82%	61.94%	35.28%	40.82%	55.14%	65.12%	100%	97.51%	3.68%	1.8%
Standard Deviation	0%	0.1%	0.1%	0.1%	0.1%	0.1%	0%	0.1%	0.1%	0%	3.5%	5.2%	10.6%	0.3%	0.2%	7.2%	8%	0.3%	0.5%	0.2%	0.4%	0%	0.4%	0.6%	0.5%	0.1%	0.3%	0.3%	0.8%	0.6%	0.3%	0%
Unigine Tropics - 1920 x 1080 (FPS)	63.99	8.84	53.35	84.54	101.56	91.75	130.80	81.95	121.64	146.71	**3.75**	5.20	8.41	10.25	13.65	40.90	46.71	11.02	66.79	9.31	57.14	9.42	56.67	17.356	82.7	94.18	15.294	18.403	20.72	**20.8.17**	10.85	3.0
Normalized	30.74%	4.25%	25.63%	40.61%	48.79%	44.07%	62.83%	39.37%	58.43%	70.48%	1.8%	2.5%	4.04%	4.92%	6.56%	19.65%	22.44%	5.29%	32.08%	4.47%	27.45%	4.53%	27.22%	83.37%	39.76%	45.24%	73.47%	88.4%	99.78%	100%	5.21%	1.7%
Standard Deviation	0.1%	0.1%	0.1%	0%	0.5%	0.1%	0.1%	0.2%	0%	0.4%	0.1%	6.2%	5.8%	0%	0%	0%	0%	0%	0.1%	0%	0.1%	0%	0.1%	0.1%	0%	0%	0.4%	0.2%	0.3%	1%	0.3%	0%

30-Way Ubuntu 14.04 AMD / NVIDIA Linux Graphics Card Comparison

Unigine Sanctuary - 1920 x 1080 (FPS)	81.03	10.68	63.14	10.17	12.688	11.659	18.578	11.589	16.829	20.505	**4.32**	8.16	15.94	10.30	13.69	38.16	44.02	13.94	80.45	11.26	63.99	11.30	66.13	21.738	88.33	10.460	18.196	23.281	**31.360**	30.61	10.43	3
Normalized	25.84%	3.41%	20.13%	31.94%	40.46%	37.18%	59.24%	36.95%	53.66%	65.39%	1.38%	2.65%	5.08%	3.28%	4.37%	12.17%	14.04%	4.45%	25.65%	3.59%	20.49%	3.60%	21.09%	69.32%	28.17%	33.35%	58.02%	74.24%	10.40%	97.45%	3.33%	1
Standard Deviation	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	0.1%	0.0%	0.0%	0.7%	0.4%	5.3%	7%	0.2%	0.1%	0.1%	0.1%	0.0%	0.1%	0.1%	0.1%	0.1%	0.0%	0.5%	0.0%	0.1%	0.2%	0.8%	0.4%	1.4%	0.0%	0

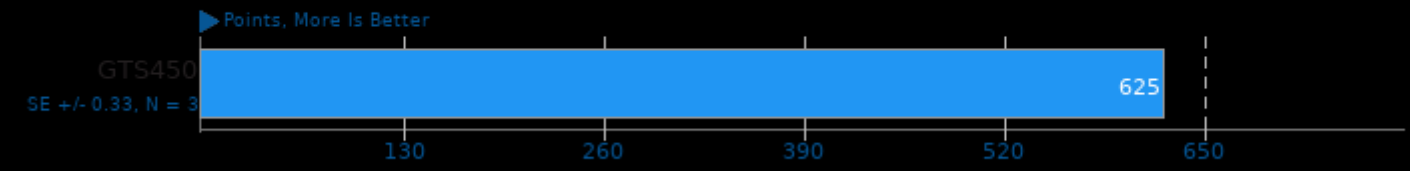
GpuTest 0.7.0

Test: Triangle - Resolution: 1920 x 1080 - Mode: Fullscreen



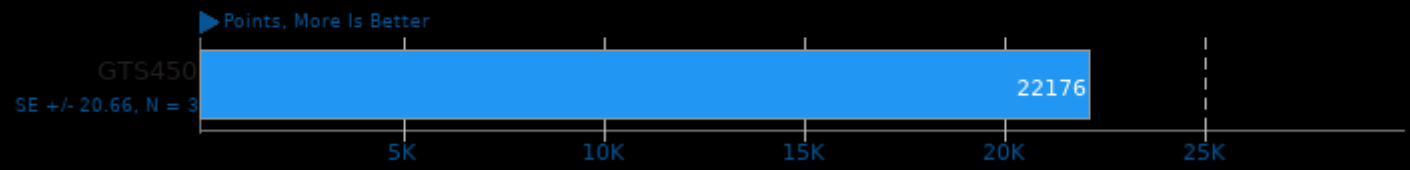
GpuTest 0.7.0

Test: Furmark - Resolution: 1920 x 1080 - Mode: Fullscreen



GpuTest 0.7.0

Test: Plot3D - Resolution: 1920 x 1080 - Mode: Fullscreen



Xonotic 0.8

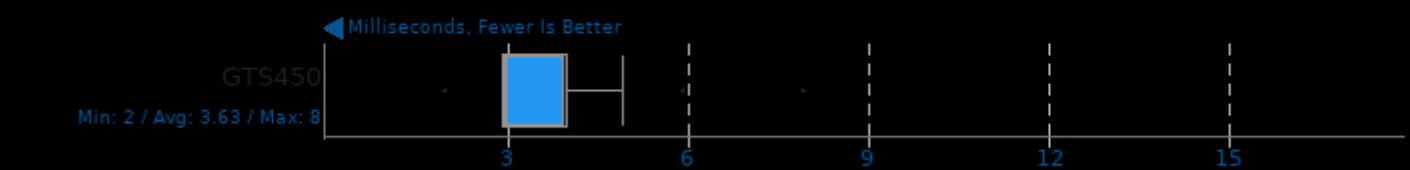
Resolution: 1920 x 1080 - Effects Quality: Ultra

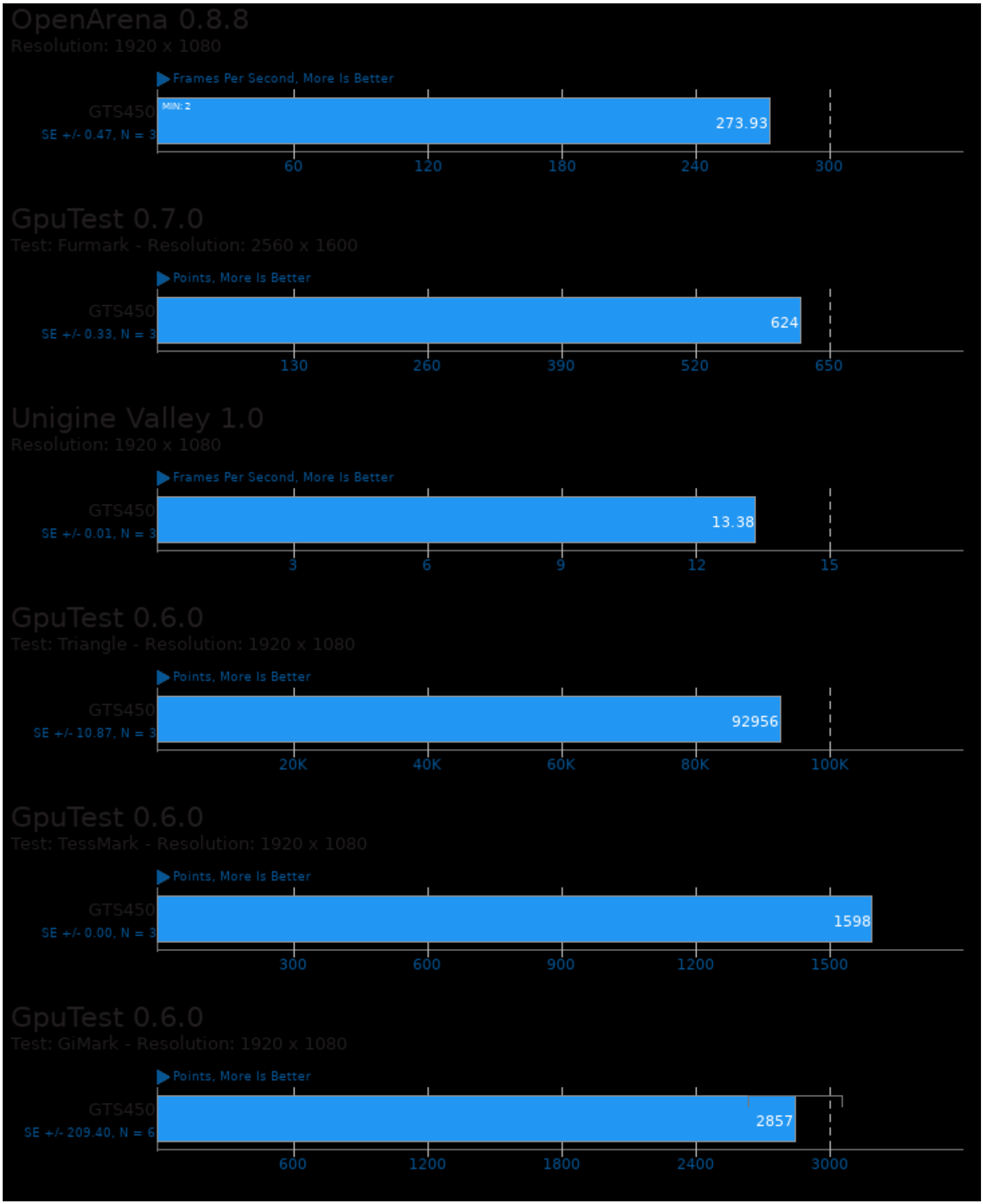
Xonotic 0.8

Resolution: 1920 x 1080 - Effects Quality: High

OpenArena 0.8.8

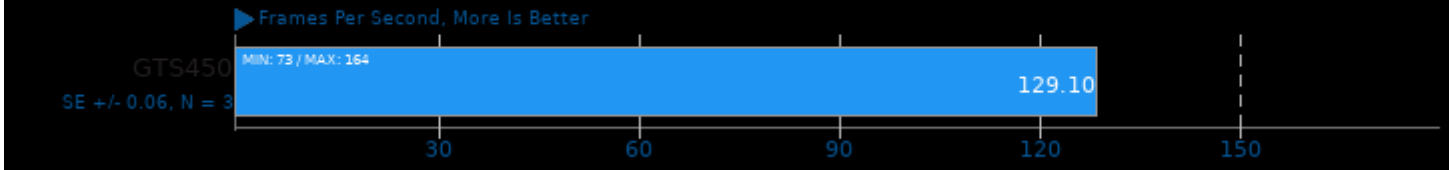
Resolution: 1920 x 1080 - Total Frame Time




OpenArena 0.8.8
Resolution: 1920 x 1080
Frames Per Second, More Is Better
GTS450
SE +/- 0.47, N = 3
MIN: 2
273.93
60
120
180
240
300
GpuTest 0.7.0
Test: Furmark - Resolution: 2560 x 1600
Points, More Is Better
GTS450
SE +/- 0.33, N = 3
624
130
260
390
520
650
Unigine Valley 1.0
Resolution: 1920 x 1080
Frames Per Second, More Is Better
GTS450
SE +/- 0.01, N = 3
13.38
3
6
9
12
15
GpuTest 0.6.0
Test: Triangle - Resolution: 1920 x 1080
Points, More Is Better
GTS450
SE +/- 10.87, N = 3
92956
20K
40K
60K
80K
100K
GpuTest 0.6.0
Test: TessMark - Resolution: 1920 x 1080
Points, More Is Better
GTS450
SE +/- 0.00, N = 3
1598
300
600
900
1200
1500
GpuTest 0.6.0
Test: GiMark - Resolution: 1920 x 1080
Points, More Is Better
GTS450
SE +/- 209.40, N = 6
2857
600
1200
1800
2400
3000

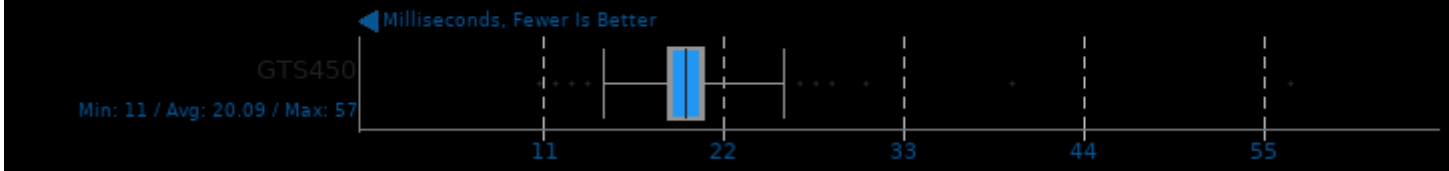
Xonotic 0.7

Resolution: 1920 x 1080 - Effects Quality: High



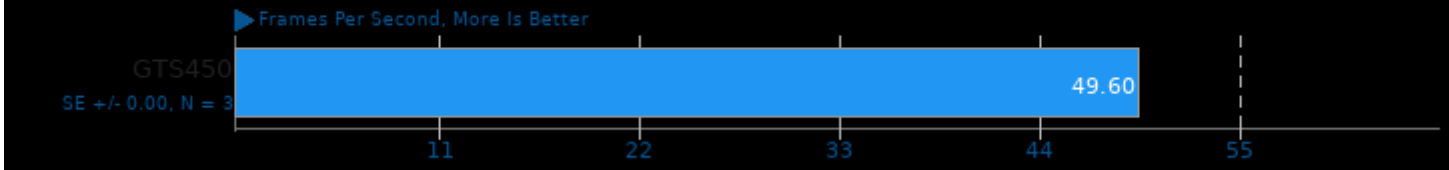
Unvanquished Alpha 21

Resolution: 1920 x 1080 - Total Frame Time



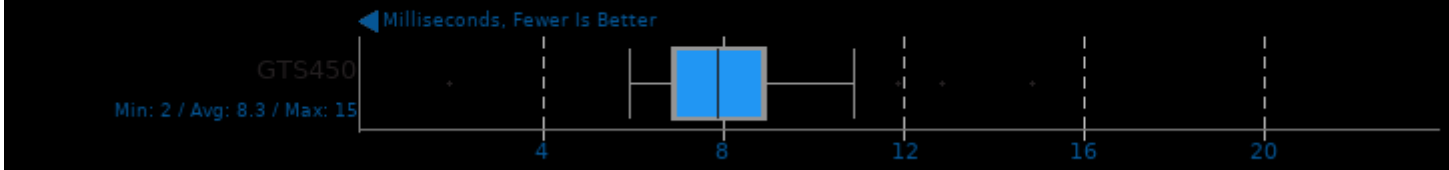
Unvanquished Alpha 21

Resolution: 1920 x 1080



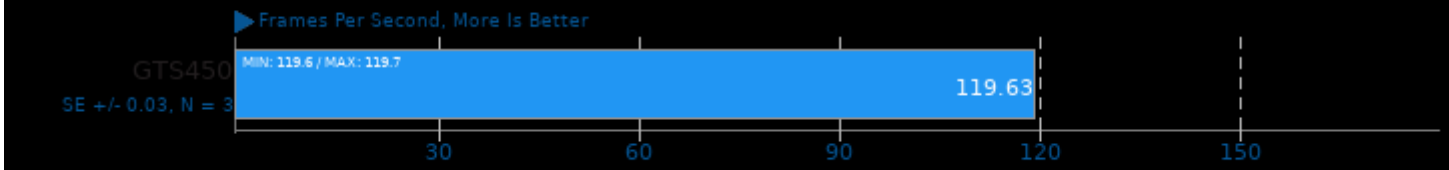
Reaction Quake 3 1.0 Beta

Resolution: 1920 x 1080 - Total Frame Time



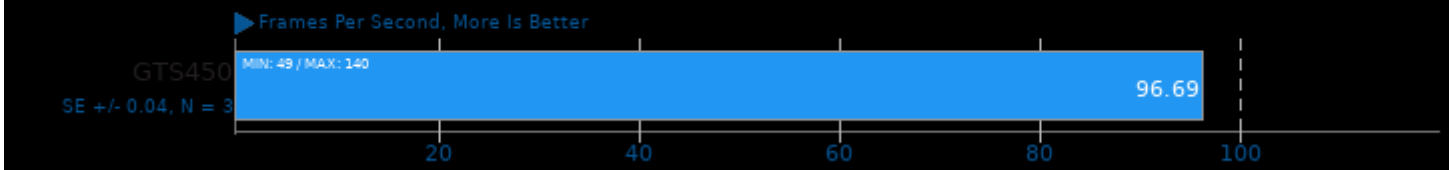
Reaction Quake 3 1.0 Beta

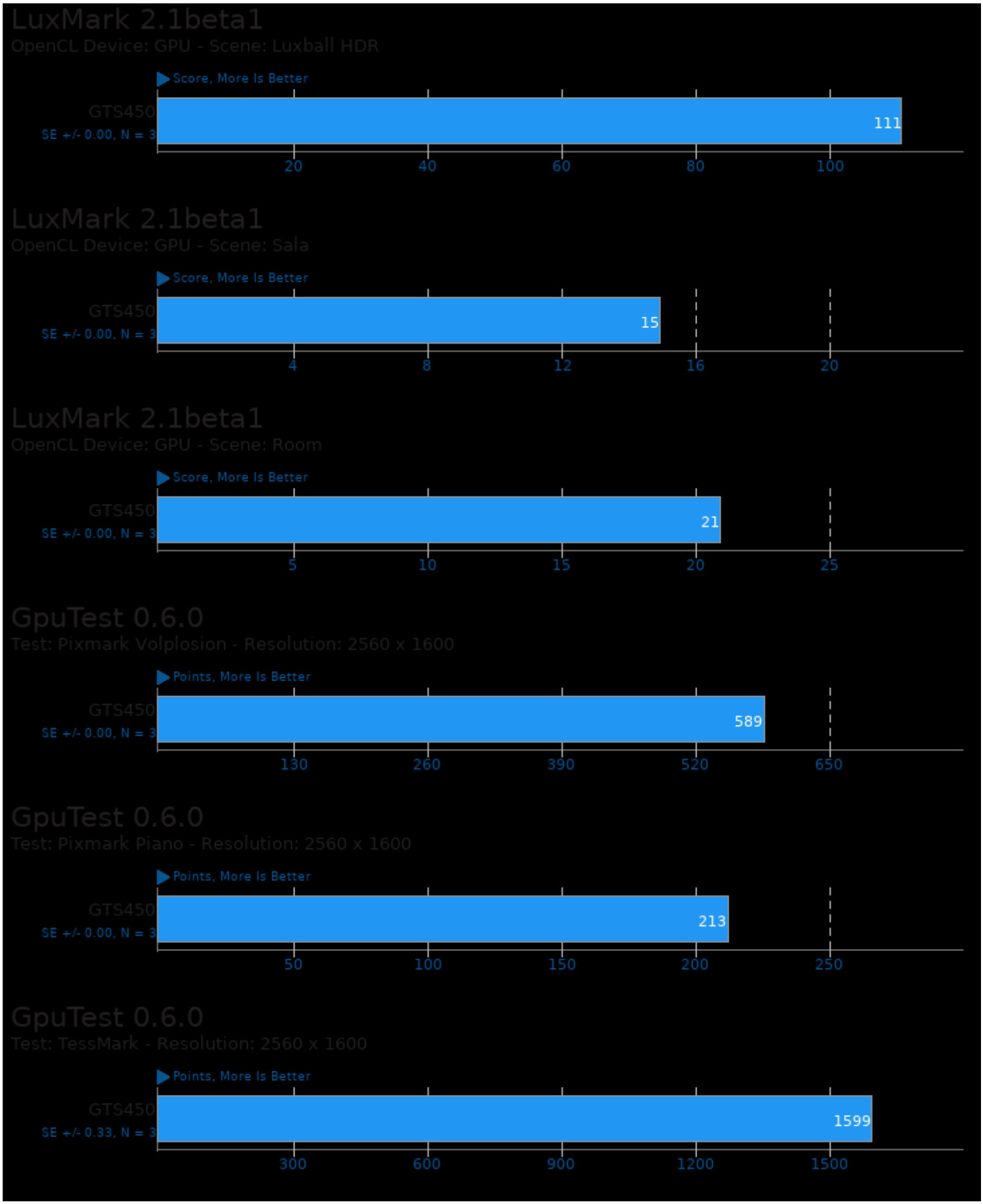
Resolution: 1920 x 1080



Xonotic 0.7

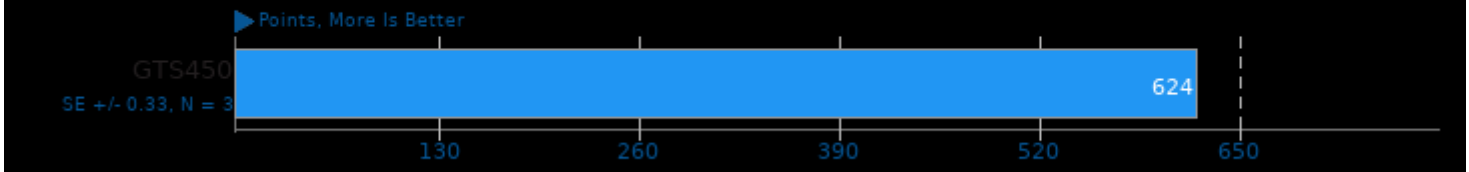
Resolution: 2560 x 1600 - Effects Quality: Ultra




LuxMark 2.1beta1
OpenCL Device: GPU - Scene: Luxball HDR
Score, More Is Better
GTS450
SE +/- 0.00, N = 3
111
20
40
60
80
100
LuxMark 2.1beta1
OpenCL Device: GPU - Scene: Sala
Score, More Is Better
GTS450
SE +/- 0.00, N = 3
15
4
8
12
16
20
LuxMark 2.1beta1
OpenCL Device: GPU - Scene: Room
Score, More Is Better
GTS450
SE +/- 0.00, N = 3
21
5
10
15
20
25
GpuTest 0.6.0
Test: Pixmark Volplosion - Resolution: 2560 x 1600
Points, More Is Better
GTS450
SE +/- 0.00, N = 3
589
130
260
390
520
650
GpuTest 0.6.0
Test: Pixmark Piano - Resolution: 2560 x 1600
Points, More Is Better
GTS450
SE +/- 0.00, N = 3
213
50
100
150
200
250
GpuTest 0.6.0
Test: TessMark - Resolution: 2560 x 1600
Points, More Is Better
GTS450
SE +/- 0.33, N = 3
1599
300
600
900
1200
1500

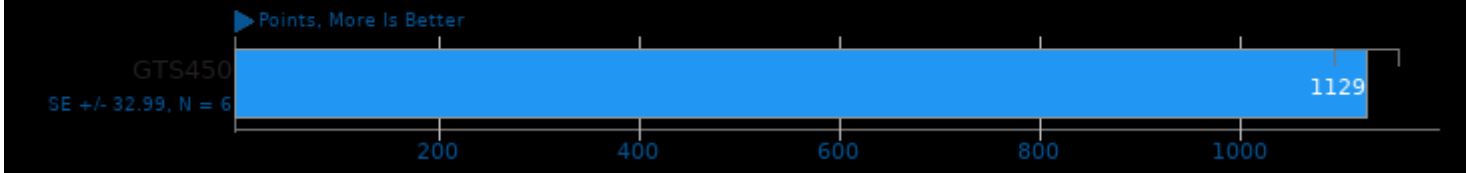
GpuTest 0.6.0

Test: Furmark - Resolution: 2560 x 1600



GpuTest 0.6.0

Test: GiMark - Resolution: 2560 x 1600

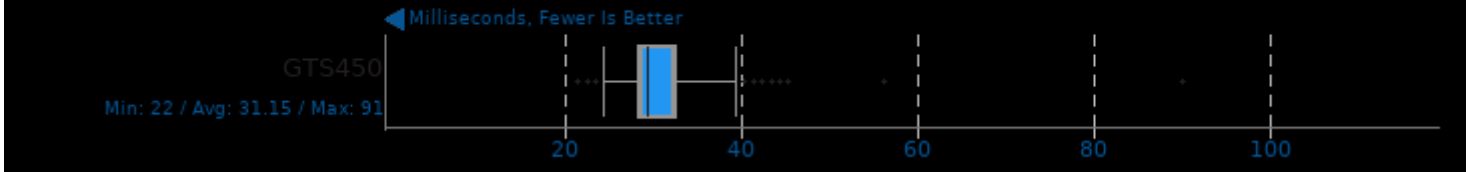


Xonotic 0.7

Resolution: 2560 x 1600 - Effects Quality: Ultimate

Unvanquished Alpha 21

Resolution: 2560 x 1600 - Total Frame Time



Unvanquished Alpha 21

Resolution: 2560 x 1600

Unigine Valley 1.0

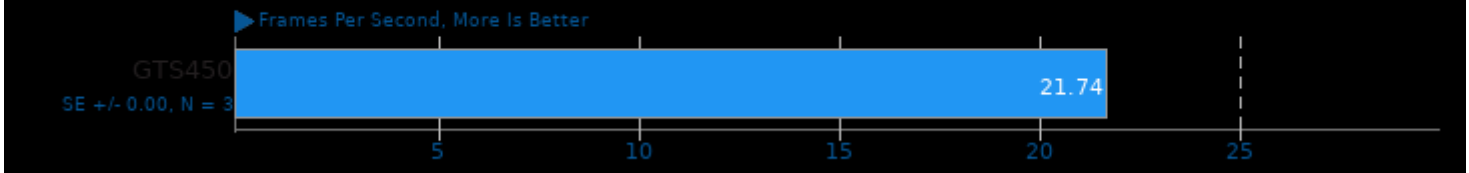
Resolution: 1920 x 1080

Unigine Tropics 1.3

Resolution: 2560 x 1600

Unigine Sanctuary 2.3

Resolution: 2560 x 1600

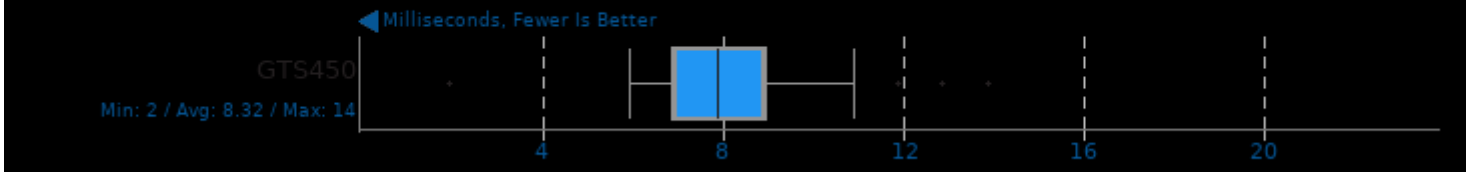


Unigine Heaven 4.0

Resolution: 1920 x 1080

Reaction Quake 3 1.0 Beta

Resolution: 2560 x 1600 - Total Frame Time

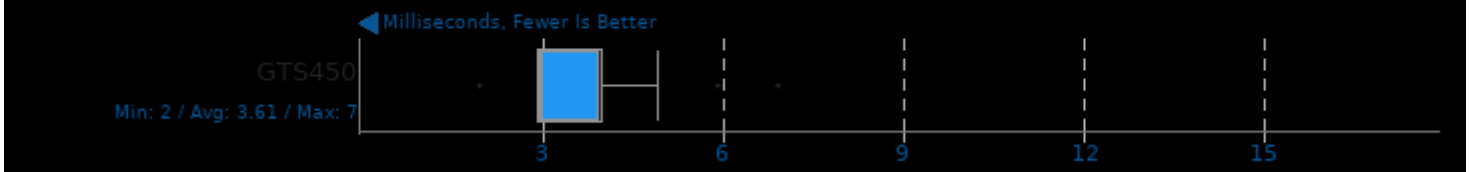


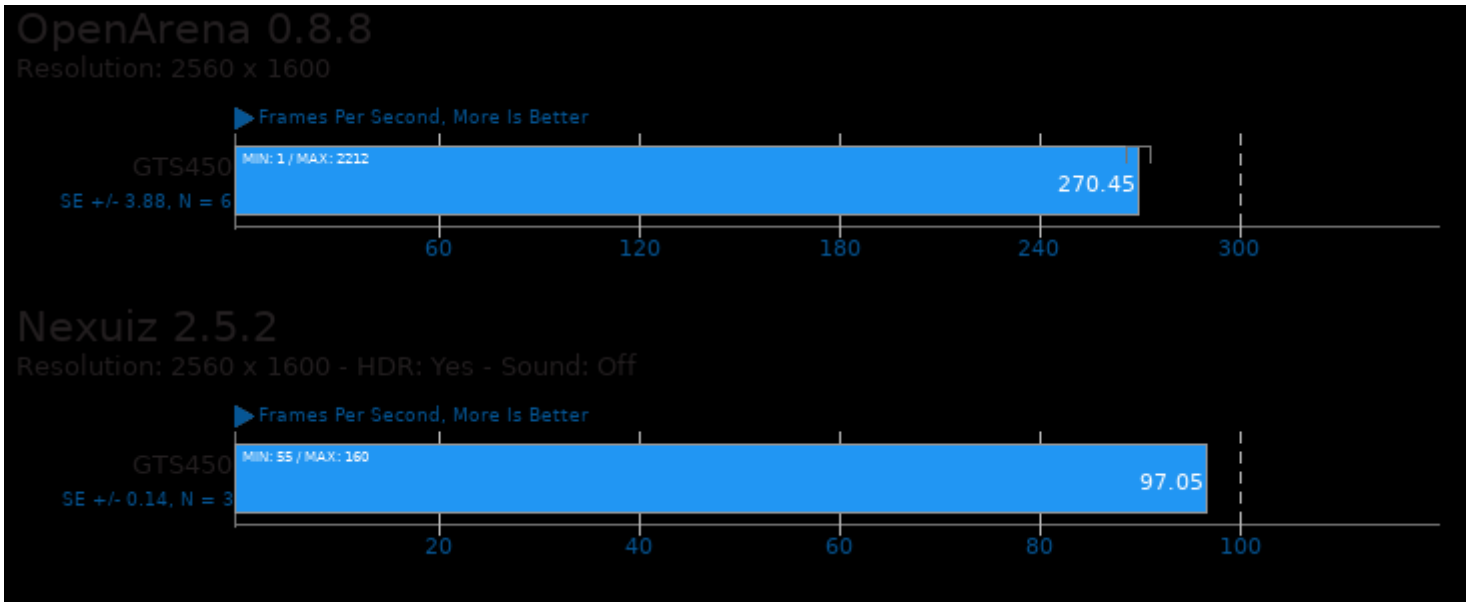
Reaction Quake 3 1.0 Beta

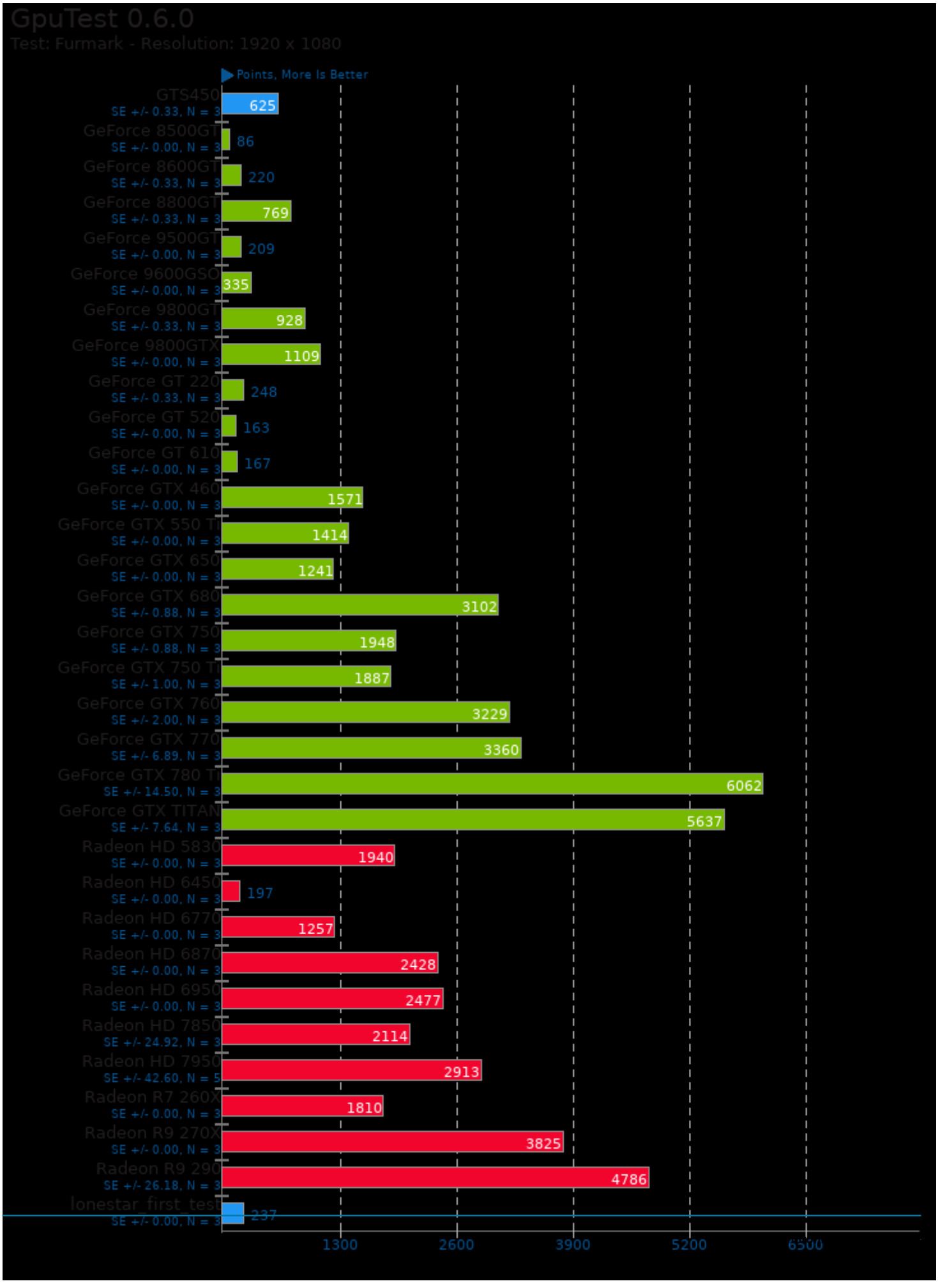
Resolution: 2560 x 1600

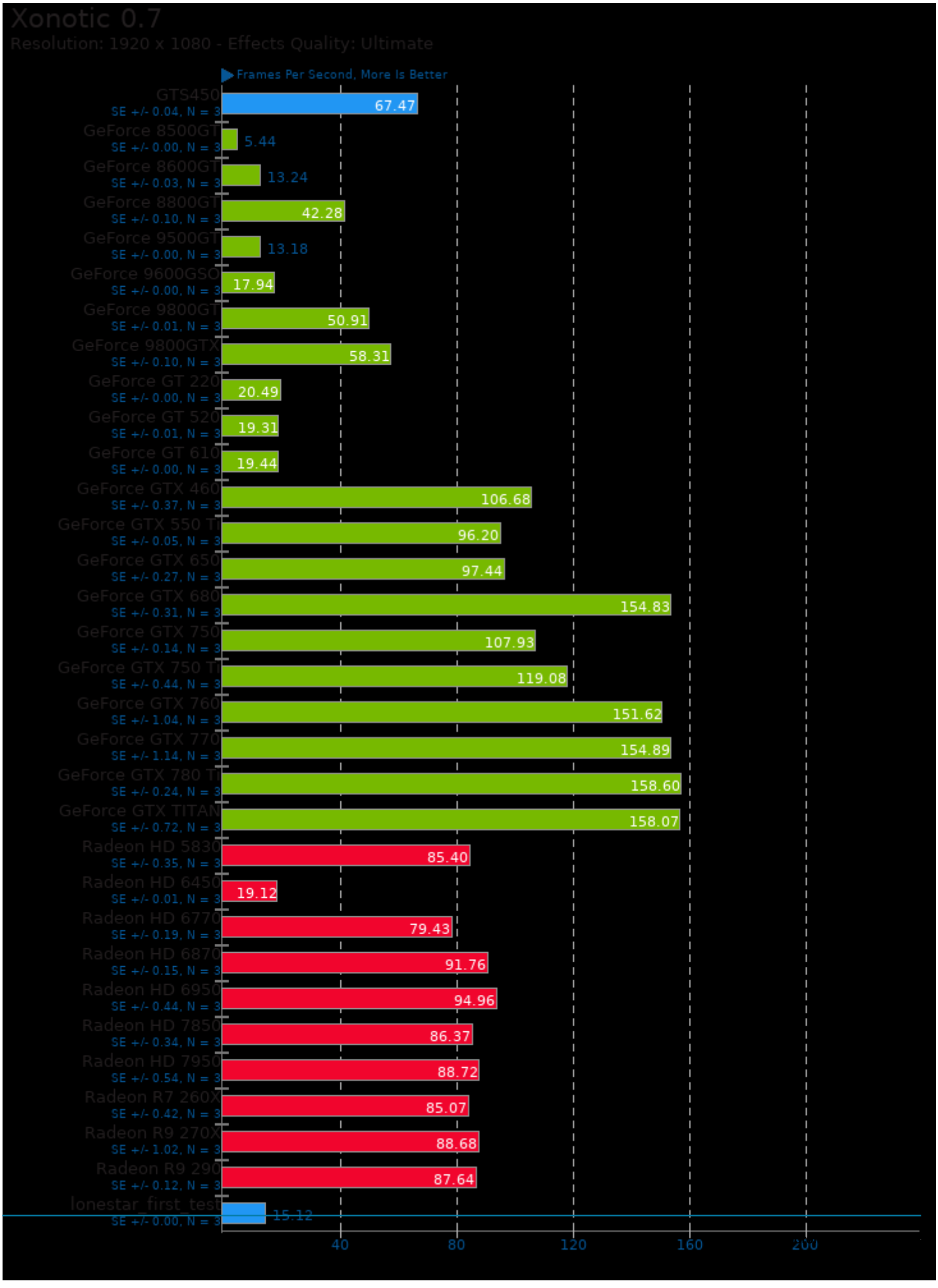
OpenArena 0.8.8

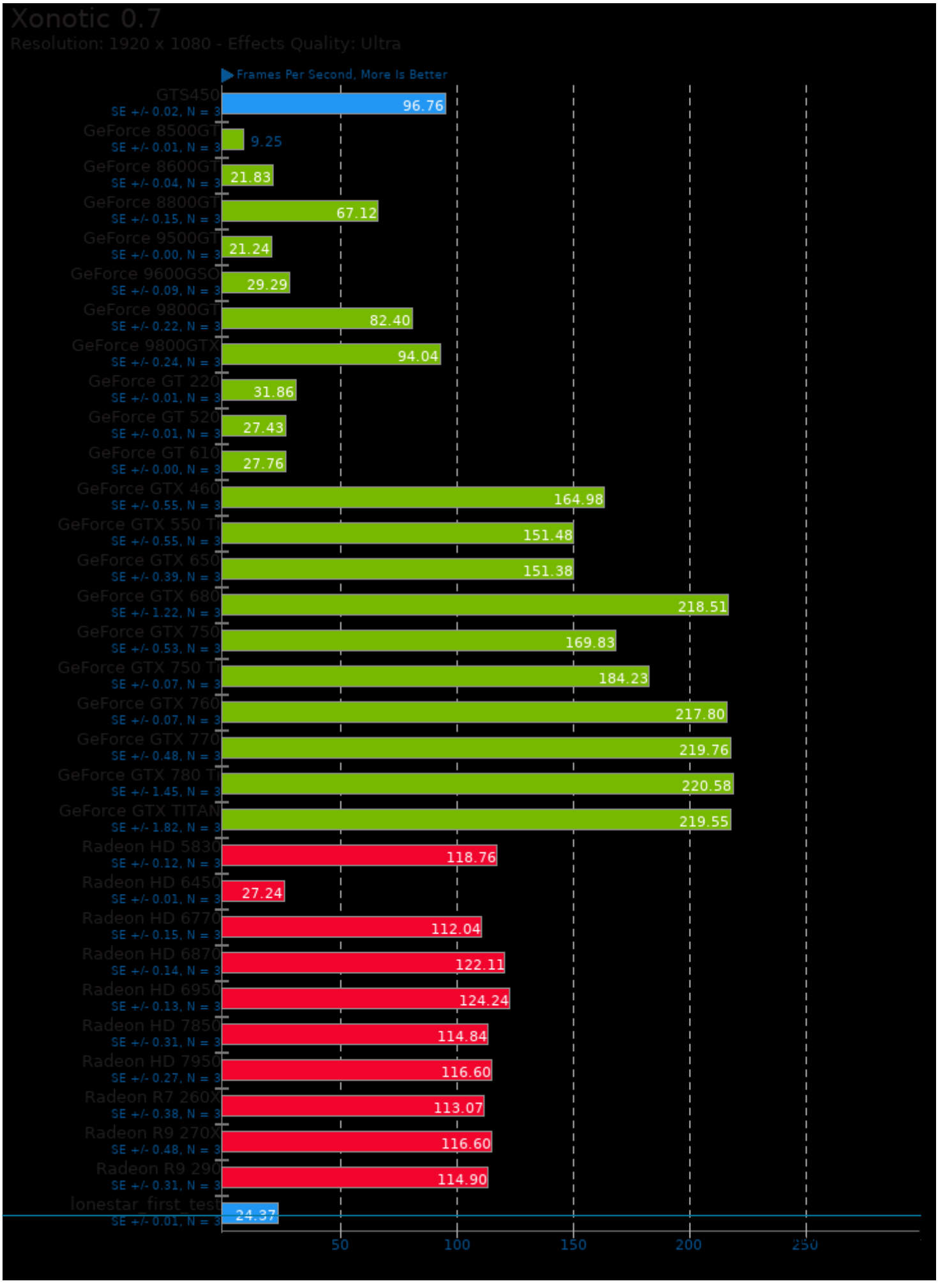
Resolution: 2560 x 1600 - Total Frame Time

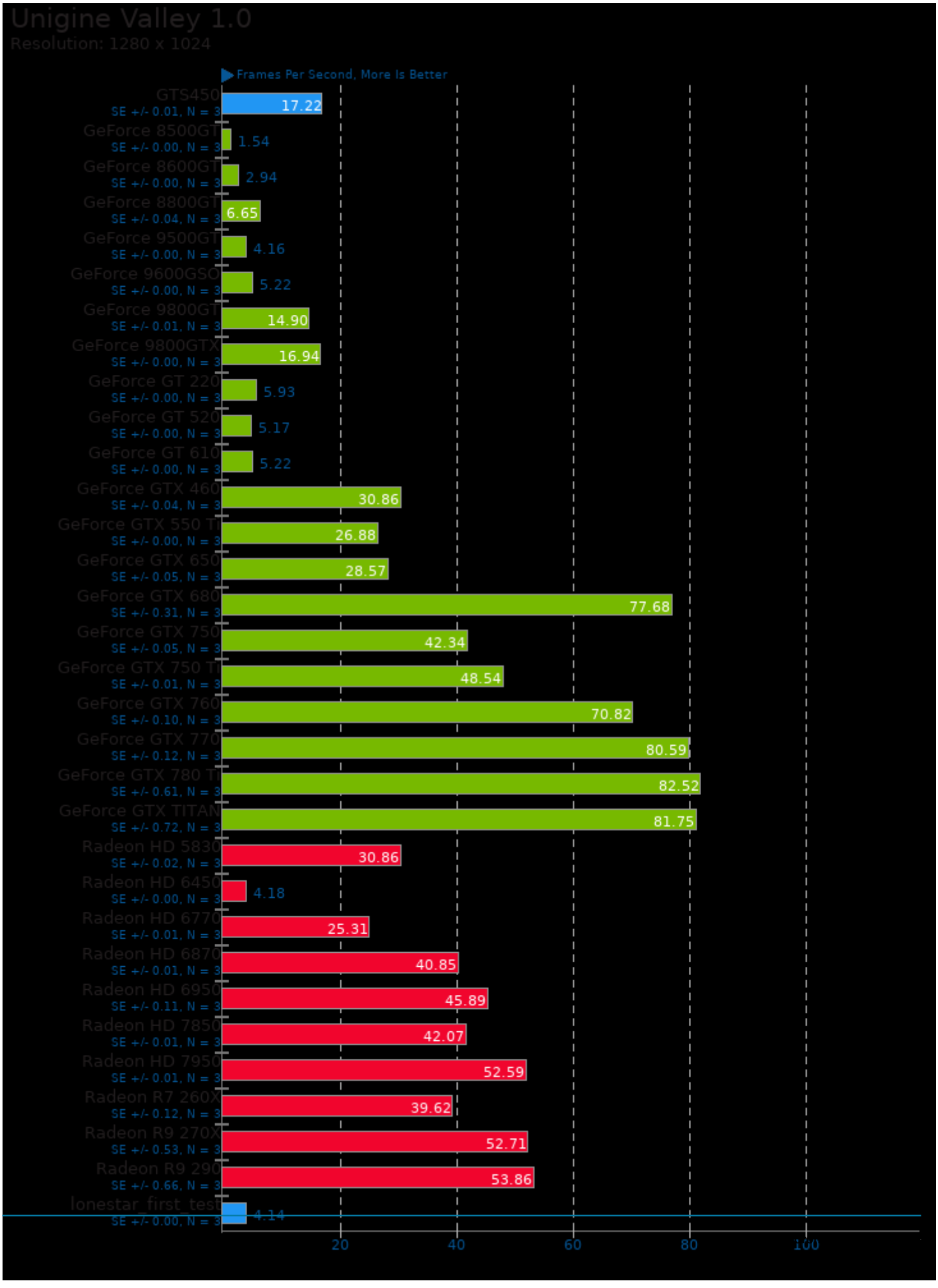


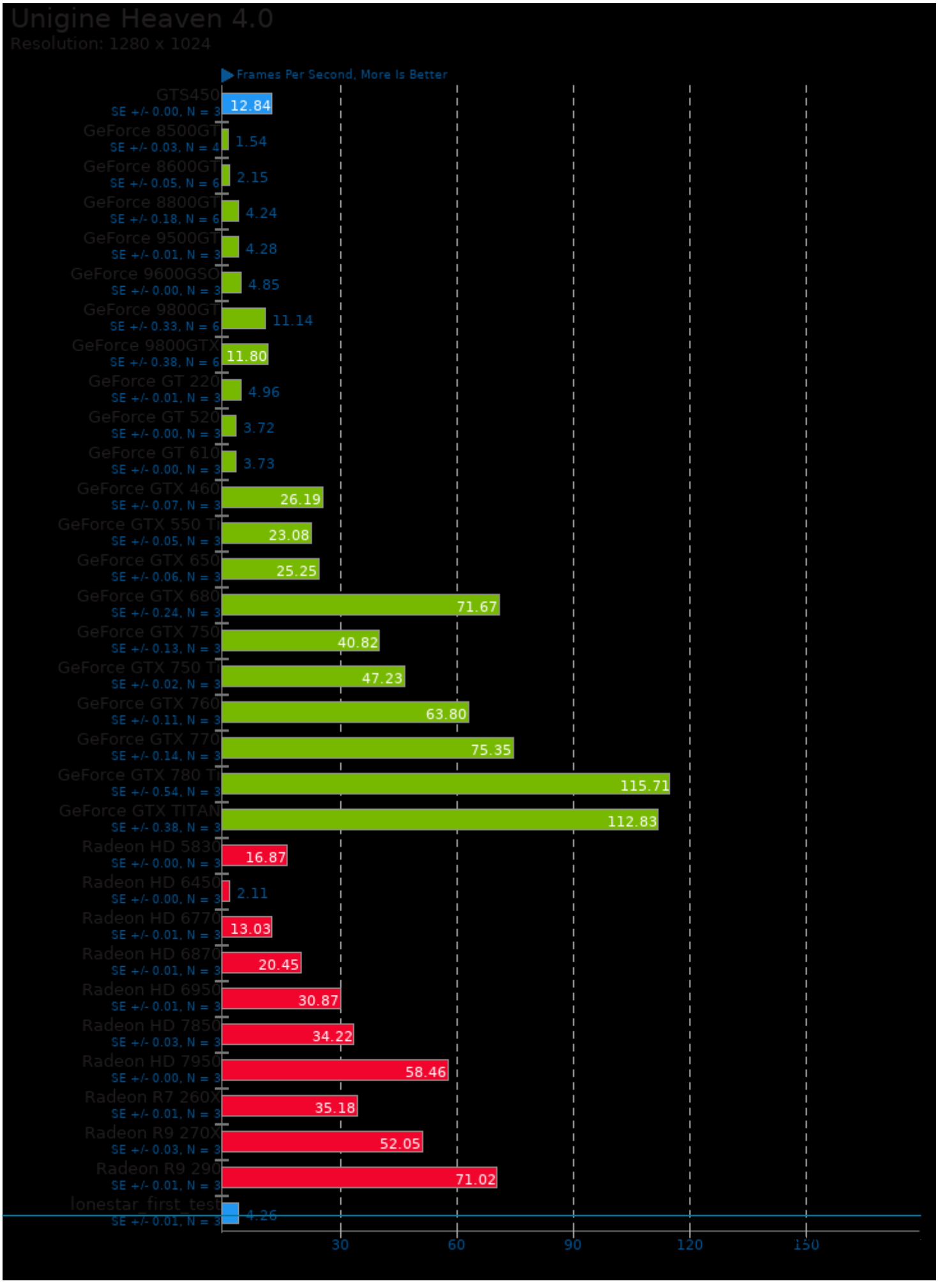

OpenArena 0.8.8
Resolution: 2560 x 1600
Frames Per Second, More Is Better
GTS450
SE +/- 3.88, N = 6
MIN: 1 / MAX: 2212
270.45
60
120
180
240
300
Nexuiz 2.5.2
Resolution: 2560 x 1600 - HDR: Yes - Sound: Off
Frames Per Second, More Is Better
GTS450
SE +/- 0.14, N = 3
MIN: 55 / MAX: 160
97.05
20
40
60
80
100

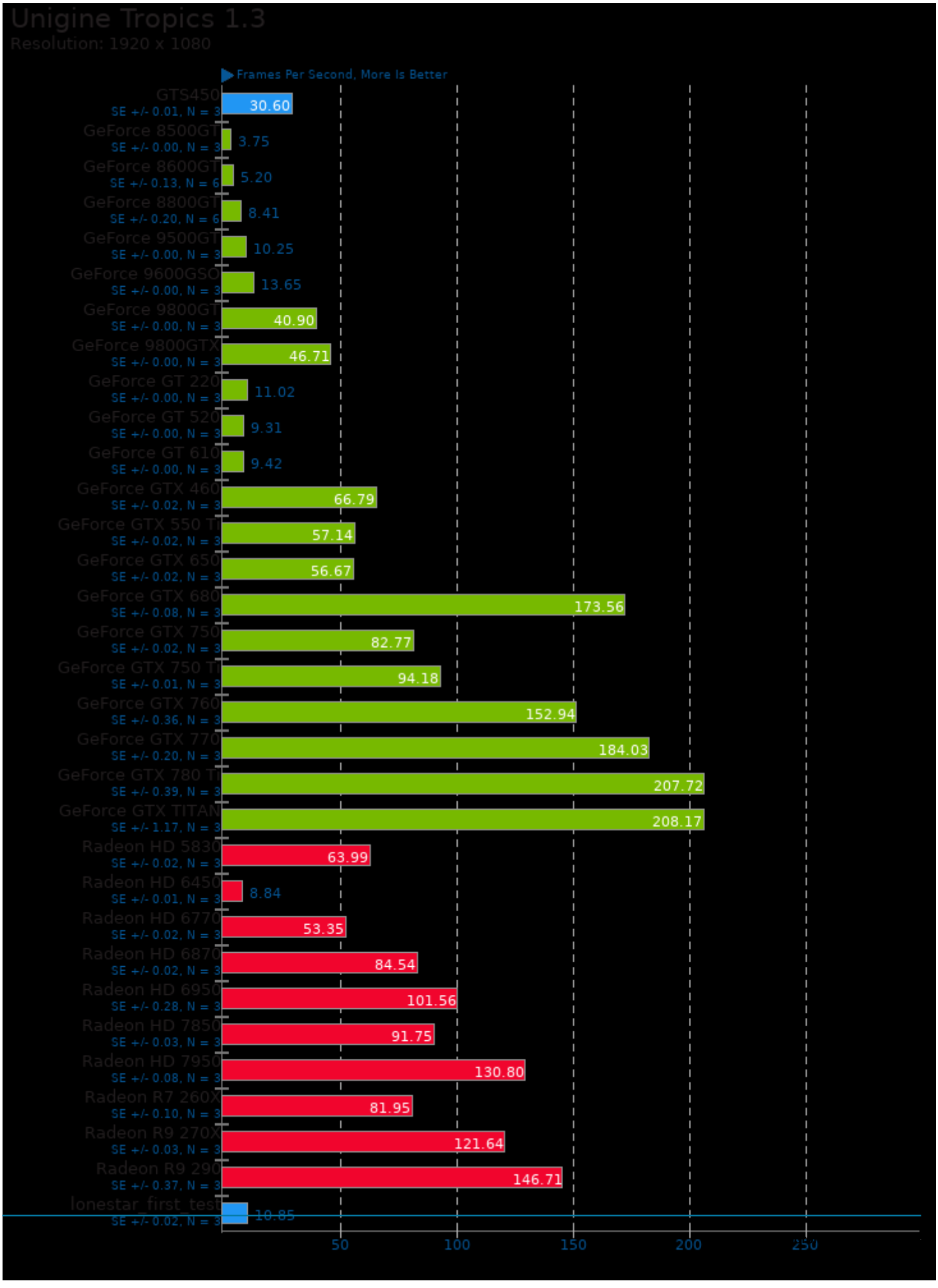

GpuTest 0.6.0
Test: Furmark - Resolution: 1920 x 1080
Points, More Is Better
GTS450
SE +/- 0.33, N = 3
625
GeForce 8500GT
SE +/- 0.00, N = 3
86
GeForce 8600GT
SE +/- 0.33, N = 3
220
GeForce 8800GT
SE +/- 0.33, N = 3
769
GeForce 9500GT
SE +/- 0.00, N = 3
209
GeForce 9600GSO
SE +/- 0.00, N = 3
335
GeForce 9800GT
SE +/- 0.33, N = 3
928
GeForce 9800GTX
SE +/- 0.00, N = 3
1109
GeForce GT 220
SE +/- 0.33, N = 3
248
GeForce GT 520
SE +/- 0.00, N = 3
163
GeForce GT 610
SE +/- 0.00, N = 3
167
GeForce GTX 460
SE +/- 0.00, N = 3
1571
GeForce GTX 550 Ti
SE +/- 0.00, N = 3
1414
GeForce GTX 650
SE +/- 0.00, N = 3
1241
GeForce GTX 680
SE +/- 0.88, N = 3
3102
GeForce GTX 750
SE +/- 0.88, N = 3
1948
GeForce GTX 750 Ti
SE +/- 1.00, N = 3
1887
GeForce GTX 760
SE +/- 2.00, N = 3
3229
GeForce GTX 770
SE +/- 6.89, N = 3
3360
GeForce GTX 780 Ti
SE +/- 14.50, N = 3
6062
GeForce GTX TITAN
SE +/- 7.64, N = 3
5637
Radeon HD 5830
SE +/- 0.00, N = 3
1940
Radeon HD 6450
SE +/- 0.00, N = 3
197
Radeon HD 6770
SE +/- 0.00, N = 3
1257
Radeon HD 6870
SE +/- 0.00, N = 3
2428
Radeon HD 6950
SE +/- 0.00, N = 3
2477
Radeon HD 7850
SE +/- 24.92, N = 3
2114
Radeon HD 7950
SE +/- 42.60, N = 5
2913
Radeon R7 260X
SE +/- 0.00, N = 3
1810
Radeon R9 270X
SE +/- 0.00, N = 3
3825
Radeon R9 290
SE +/- 26.18, N = 3
4786
lonestar_first_test
SE +/- 0.00, N = 3
237
1300
2600
3900
5200
6500

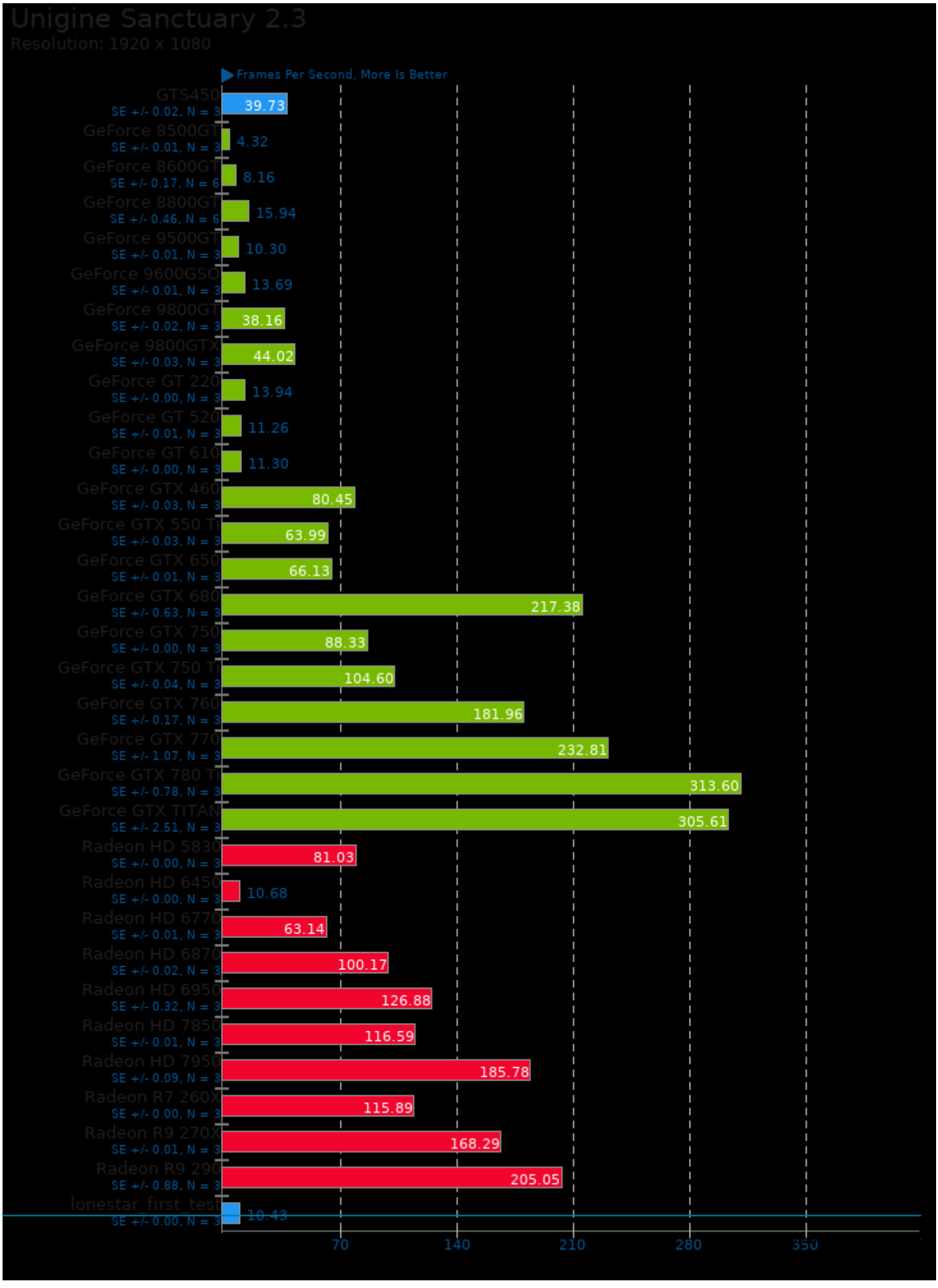

Xonotic 0.7
Resolution: 1920 x 1080 - Effects Quality: Ultimate
Frames Per Second, More Is Better
GTS450
SE +/- 0.04, N = 3
67.47
GeForce 8500GT
SE +/- 0.00, N = 3
5.44
GeForce 8600GT
SE +/- 0.03, N = 3
13.24
GeForce 8800GT
SE +/- 0.10, N = 3
42.28
GeForce 9500GT
SE +/- 0.00, N = 3
13.18
GeForce 9600GSO
SE +/- 0.00, N = 3
17.94
GeForce 9800GT
SE +/- 0.01, N = 3
50.91
GeForce 9800GTX
SE +/- 0.10, N = 3
58.31
GeForce GT 220
SE +/- 0.00, N = 3
20.49
GeForce GT 520
SE +/- 0.01, N = 3
19.31
GeForce GT 610
SE +/- 0.00, N = 3
19.44
GeForce GTX 460
SE +/- 0.37, N = 3
106.68
GeForce GTX 550 Ti
SE +/- 0.05, N = 3
96.20
GeForce GTX 650
SE +/- 0.27, N = 3
97.44
GeForce GTX 680
SE +/- 0.31, N = 3
154.83
GeForce GTX 750
SE +/- 0.14, N = 3
107.93
GeForce GTX 750 Ti
SE +/- 0.44, N = 3
119.08
GeForce GTX 760
SE +/- 1.04, N = 3
151.62
GeForce GTX 770
SE +/- 1.14, N = 3
154.89
GeForce GTX 780 Ti
SE +/- 0.24, N = 3
158.60
GeForce GTX TITAN
SE +/- 0.72, N = 3
158.07
Radeon HD 5830
SE +/- 0.35, N = 3
85.40
Radeon HD 6450
SE +/- 0.01, N = 3
19.12
Radeon HD 6770
SE +/- 0.19, N = 3
79.43
Radeon HD 6870
SE +/- 0.15, N = 3
91.76
Radeon HD 6950
SE +/- 0.44, N = 3
94.96
Radeon HD 7850
SE +/- 0.34, N = 3
86.37
Radeon HD 7950
SE +/- 0.54, N = 3
88.72
Radeon R7 260X
SE +/- 0.42, N = 3
85.07
Radeon R9 270X
SE +/- 1.02, N = 3
88.68
Radeon R9 290
SE +/- 0.12, N = 3
87.64
lonestar_first_test
SE +/- 0.00, N = 3
15.12
40
80
120
160
200


Xonotic 0.7
Resolution: 1920 x 1080 - Effects Quality: Ultra
Frames Per Second, More Is Better
GTS450
SE +/- 0.02, N = 3
96.76
GeForce 8500GT
SE +/- 0.01, N = 3
9.25
GeForce 8600GT
SE +/- 0.04, N = 3
21.83
GeForce 8800GT
SE +/- 0.15, N = 3
67.12
GeForce 9500GT
SE +/- 0.00, N = 3
21.24
GeForce 9600GSO
SE +/- 0.09, N = 3
29.29
GeForce 9800GT
SE +/- 0.22, N = 3
82.40
GeForce 9800GTX
SE +/- 0.24, N = 3
94.04
GeForce GT 220
SE +/- 0.01, N = 3
31.86
GeForce GT 520
SE +/- 0.01, N = 3
27.43
GeForce GT 610
SE +/- 0.00, N = 3
27.76
GeForce GTX 460
SE +/- 0.55, N = 3
164.98
GeForce GTX 550 Ti
SE +/- 0.55, N = 3
151.48
GeForce GTX 650
SE +/- 0.39, N = 3
151.38
GeForce GTX 680
SE +/- 1.22, N = 3
218.51
GeForce GTX 750
SE +/- 0.53, N = 3
169.83
GeForce GTX 750 Ti
SE +/- 0.07, N = 3
184.23
GeForce GTX 760
SE +/- 0.07, N = 3
217.80
GeForce GTX 770
SE +/- 0.48, N = 3
219.76
GeForce GTX 780 Ti
SE +/- 1.45, N = 3
220.58
GeForce GTX TITAN
SE +/- 1.82, N = 3
219.55
Radeon HD 5830
SE +/- 0.12, N = 3
118.76
Radeon HD 6450
SE +/- 0.01, N = 3
27.24
Radeon HD 6770
SE +/- 0.15, N = 3
112.04
Radeon HD 6870
SE +/- 0.14, N = 3
122.11
Radeon HD 6950
SE +/- 0.13, N = 3
124.24
Radeon HD 7850
SE +/- 0.31, N = 3
114.84
Radeon HD 7950
SE +/- 0.27, N = 3
116.60
Radeon R7 260X
SE +/- 0.38, N = 3
113.07
Radeon R9 270X
SE +/- 0.48, N = 3
116.60
Radeon R9 290
SE +/- 0.31, N = 3
114.90
lonestar_first_test
SE +/- 0.01, N = 3
24.37
50
100
150
200
250

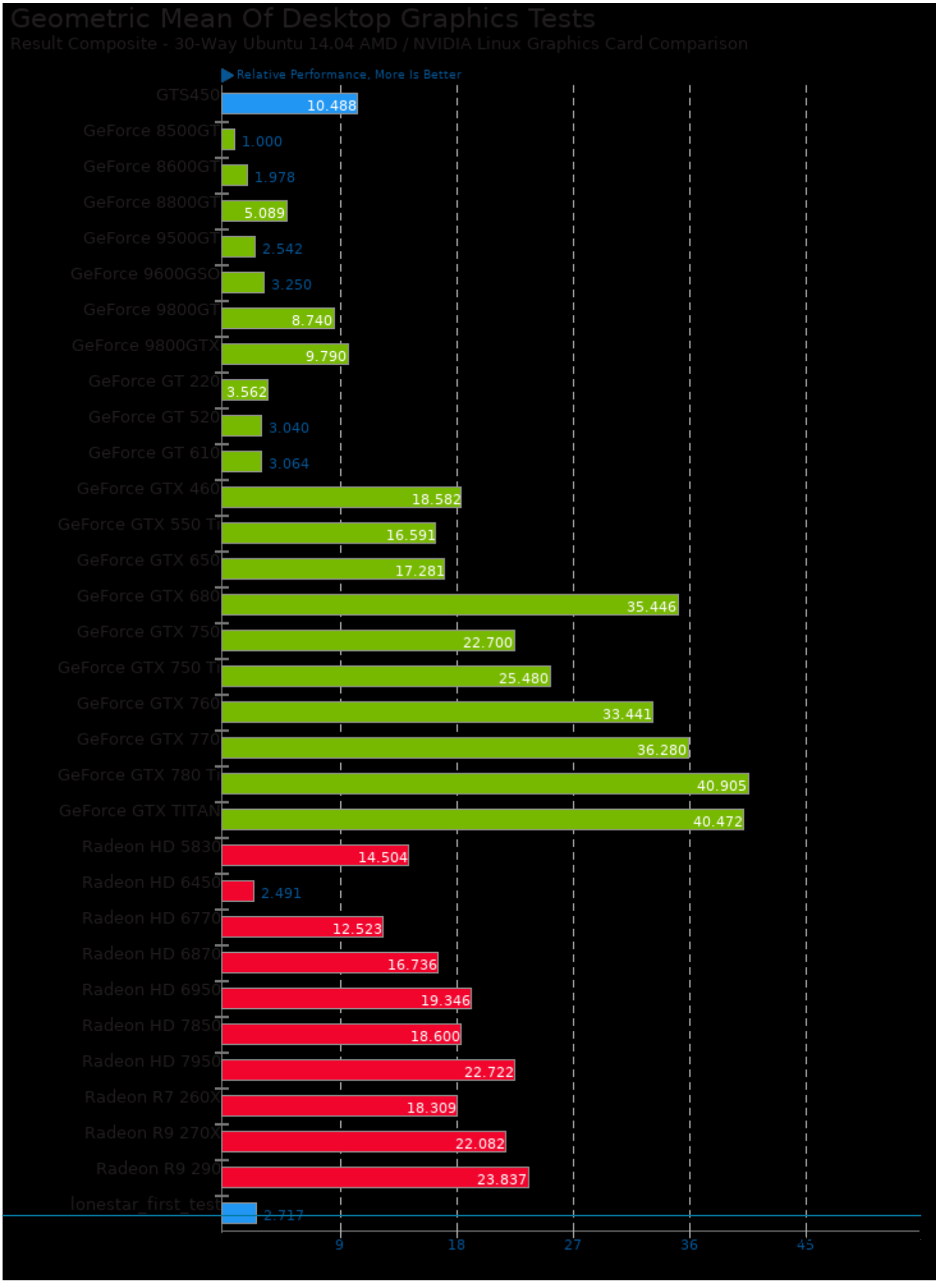

Unigine Valley 1.0
Resolution: 1280 x 1024
Frames Per Second, More Is Better
GTS450
SE +/- 0.01, N = 3
17.22
GeForce 8500GT
SE +/- 0.00, N = 3
1.54
GeForce 8600GT
SE +/- 0.00, N = 3
2.94
GeForce 8800GT
SE +/- 0.04, N = 3
6.65
GeForce 9500GT
SE +/- 0.00, N = 3
4.16
GeForce 9600GSO
SE +/- 0.00, N = 3
5.22
GeForce 9800GT
SE +/- 0.01, N = 3
14.90
GeForce 9800GTX
SE +/- 0.00, N = 3
16.94
GeForce GT 220
SE +/- 0.00, N = 3
5.93
GeForce GT 520
SE +/- 0.00, N = 3
5.17
GeForce GT 610
SE +/- 0.00, N = 3
5.22
GeForce GTX 460
SE +/- 0.04, N = 3
30.86
GeForce GTX 550 Ti
SE +/- 0.00, N = 3
26.88
GeForce GTX 650
SE +/- 0.05, N = 3
28.57
GeForce GTX 680
SE +/- 0.31, N = 3
77.68
GeForce GTX 750
SE +/- 0.05, N = 3
42.34
GeForce GTX 750 Ti
SE +/- 0.01, N = 3
48.54
GeForce GTX 760
SE +/- 0.10, N = 3
70.82
GeForce GTX 770
SE +/- 0.12, N = 3
80.59
GeForce GTX 780 Ti
SE +/- 0.61, N = 3
82.52
GeForce GTX TITAN
SE +/- 0.72, N = 3
81.75
Radeon HD 5830
SE +/- 0.02, N = 3
30.86
Radeon HD 6450
SE +/- 0.00, N = 3
4.18
Radeon HD 6770
SE +/- 0.01, N = 3
25.31
Radeon HD 6870
SE +/- 0.01, N = 3
40.85
Radeon HD 6950
SE +/- 0.11, N = 3
45.89
Radeon HD 7850
SE +/- 0.01, N = 3
42.07
Radeon HD 7950
SE +/- 0.01, N = 3
52.59
Radeon R7 260X
SE +/- 0.12, N = 3
39.62
Radeon R9 270X
SE +/- 0.53, N = 3
52.71
Radeon R9 290
SE +/- 0.66, N = 3
53.86
lonestar_first_test
SE +/- 0.00, N = 3
4.14
20
40
60
80
100


Unigine Heaven 4.0
Resolution: 1280 x 1024
Frames Per Second, More Is Better
GTS450
SE +/- 0.00, N = 3
12.84
GeForce 8500GT
SE +/- 0.03, N = 4
1.54
GeForce 8600GT
SE +/- 0.05, N = 6
2.15
GeForce 8800GT
SE +/- 0.18, N = 6
4.24
GeForce 9500GT
SE +/- 0.01, N = 3
4.28
GeForce 9600GSO
SE +/- 0.00, N = 3
4.85
GeForce 9800GT
SE +/- 0.33, N = 6
11.14
GeForce 9800GTX
SE +/- 0.38, N = 6
11.80
GeForce GT 220
SE +/- 0.01, N = 3
4.96
GeForce GT 520
SE +/- 0.00, N = 3
3.72
GeForce GT 610
SE +/- 0.00, N = 3
3.73
GeForce GTX 460
SE +/- 0.07, N = 3
26.19
GeForce GTX 550 Ti
SE +/- 0.05, N = 3
23.08
GeForce GTX 650
SE +/- 0.06, N = 3
25.25
GeForce GTX 680
SE +/- 0.24, N = 3
71.67
GeForce GTX 750
SE +/- 0.13, N = 3
40.82
GeForce GTX 750 Ti
SE +/- 0.02, N = 3
47.23
GeForce GTX 760
SE +/- 0.11, N = 3
63.80
GeForce GTX 770
SE +/- 0.14, N = 3
75.35
GeForce GTX 780 Ti
SE +/- 0.54, N = 3
115.71
GeForce GTX TITAN
SE +/- 0.38, N = 3
112.83
Radeon HD 5830
SE +/- 0.00, N = 3
16.87
Radeon HD 6450
SE +/- 0.00, N = 3
2.11
Radeon HD 6770
SE +/- 0.01, N = 3
13.03
Radeon HD 6870
SE +/- 0.01, N = 3
20.45
Radeon HD 6950
SE +/- 0.01, N = 3
30.87
Radeon HD 7850
SE +/- 0.03, N = 3
34.22
Radeon HD 7950
SE +/- 0.00, N = 3
58.46
Radeon R7 260X
SE +/- 0.01, N = 3
35.18
Radeon R9 270X
SE +/- 0.03, N = 3
52.05
Radeon R9 290
SE +/- 0.01, N = 3
71.02
lonestar_first_test
SE +/- 0.01, N = 3
4.26
30
60
90
120
150

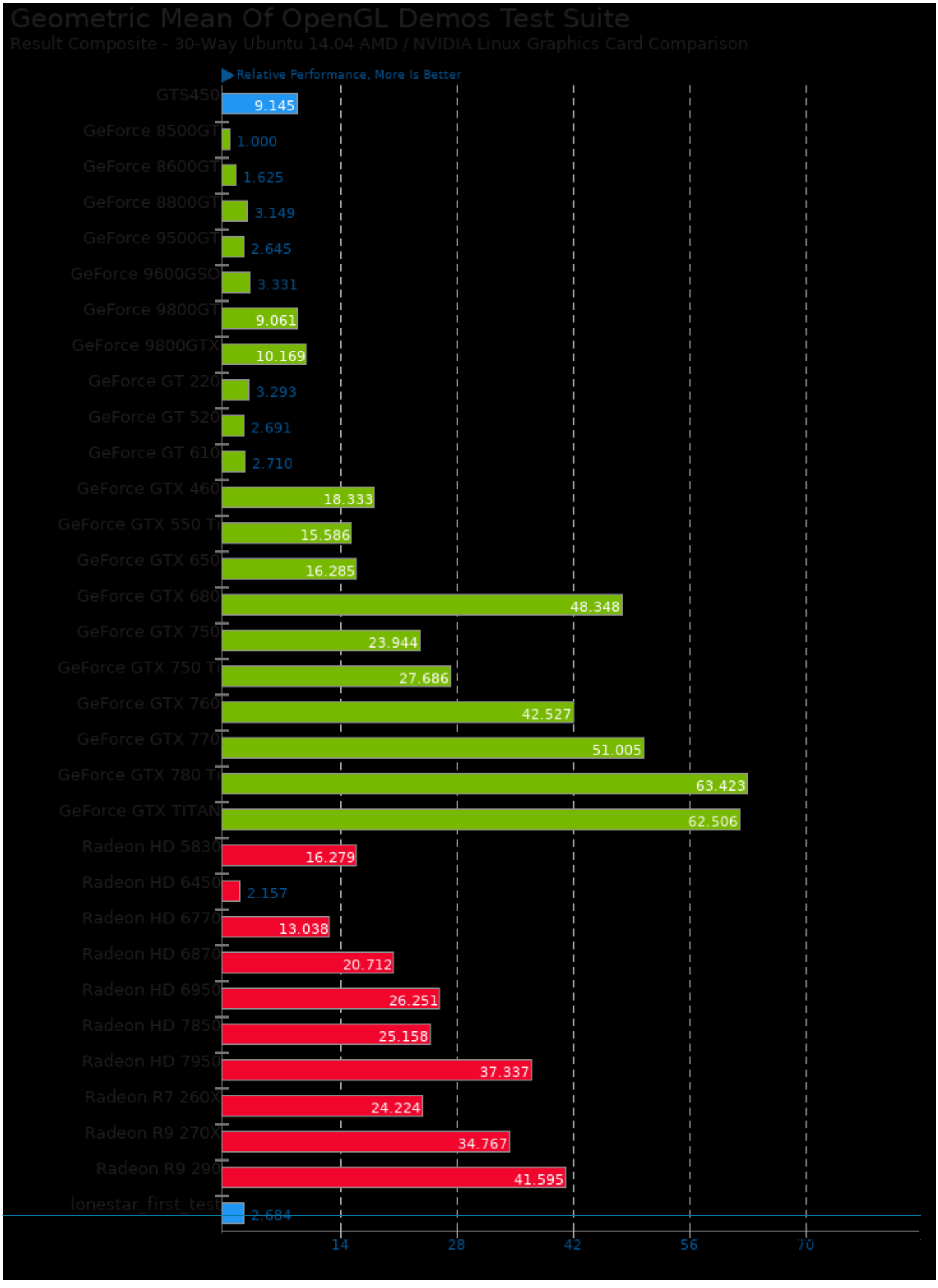

Unigine Tropics 1.3
Resolution: 1920 x 1080
Frames Per Second, More Is Better
GTS450
SE +/- 0.01, N = 3
30.60
GeForce 8500GT
SE +/- 0.00, N = 3
3.75
GeForce 8600GT
SE +/- 0.13, N = 6
5.20
GeForce 8800GT
SE +/- 0.20, N = 6
8.41
GeForce 9500GT
SE +/- 0.00, N = 3
10.25
GeForce 9600GSO
SE +/- 0.00, N = 3
13.65
GeForce 9800GT
SE +/- 0.00, N = 3
40.90
GeForce 9800GTX
SE +/- 0.00, N = 3
46.71
GeForce GT 220
SE +/- 0.00, N = 3
11.02
GeForce GT 520
SE +/- 0.00, N = 3
9.31
GeForce GT 610
SE +/- 0.00, N = 3
9.42
GeForce GTX 460
SE +/- 0.02, N = 3
66.79
GeForce GTX 550 Ti
SE +/- 0.02, N = 3
57.14
GeForce GTX 650
SE +/- 0.02, N = 3
56.67
GeForce GTX 680
SE +/- 0.08, N = 3
173.56
GeForce GTX 750
SE +/- 0.02, N = 3
82.77
GeForce GTX 750 Ti
SE +/- 0.01, N = 3
94.18
GeForce GTX 760
SE +/- 0.36, N = 3
152.94
GeForce GTX 770
SE +/- 0.20, N = 3
184.03
GeForce GTX 780 Ti
SE +/- 0.39, N = 3
207.72
GeForce GTX TITAN
SE +/- 1.17, N = 3
208.17
Radeon HD 5830
SE +/- 0.02, N = 3
63.99
Radeon HD 6450
SE +/- 0.01, N = 3
8.84
Radeon HD 6770
SE +/- 0.02, N = 3
53.35
Radeon HD 6870
SE +/- 0.02, N = 3
84.54
Radeon HD 6950
SE +/- 0.28, N = 3
101.56
Radeon HD 7850
SE +/- 0.03, N = 3
91.75
Radeon HD 7950
SE +/- 0.08, N = 3
130.80
Radeon R7 260X
SE +/- 0.10, N = 3
81.95
Radeon R9 270X
SE +/- 0.03, N = 3
121.64
Radeon R9 290
SE +/- 0.37, N = 3
146.71
lonestar_first_test
SE +/- 0.02, N = 3
10.85
50
100
150
200
250


Unigine Sanctuary 2.3
Resolution: 1920 x 1080
Frames Per Second, More Is Better
GTS450
SE +/- 0.02, N = 3
39.73
GeForce 8500GT
SE +/- 0.01, N = 3
4.32
GeForce 8600GT
SE +/- 0.17, N = 6
8.16
GeForce 8800GT
SE +/- 0.46, N = 6
15.94
GeForce 9500GT
SE +/- 0.01, N = 3
10.30
GeForce 9600GSO
SE +/- 0.01, N = 3
13.69
GeForce 9800GT
SE +/- 0.02, N = 3
38.16
GeForce 9800GTX
SE +/- 0.03, N = 3
44.02
GeForce GT 220
SE +/- 0.00, N = 3
13.94
GeForce GT 520
SE +/- 0.01, N = 3
11.26
GeForce GT 610
SE +/- 0.00, N = 3
11.30
GeForce GTX 460
SE +/- 0.03, N = 3
80.45
GeForce GTX 550 Ti
SE +/- 0.03, N = 3
63.99
GeForce GTX 650
SE +/- 0.01, N = 3
66.13
GeForce GTX 680
SE +/- 0.63, N = 3
217.38
GeForce GTX 750
SE +/- 0.00, N = 3
88.33
GeForce GTX 750 Ti
SE +/- 0.04, N = 3
104.60
GeForce GTX 760
SE +/- 0.17, N = 3
181.96
GeForce GTX 770
SE +/- 1.07, N = 3
232.81
GeForce GTX 780 Ti
SE +/- 0.78, N = 3
313.60
GeForce GTX TITAN
SE +/- 2.51, N = 3
305.61
Radeon HD 5830
SE +/- 0.00, N = 3
81.03
Radeon HD 6450
SE +/- 0.00, N = 3
10.68
Radeon HD 6770
SE +/- 0.01, N = 3
63.14
Radeon HD 6870
SE +/- 0.02, N = 3
100.17
Radeon HD 6950
SE +/- 0.32, N = 3
126.88
Radeon HD 7850
SE +/- 0.01, N = 3
116.59
Radeon HD 7950
SE +/- 0.09, N = 3
185.78
Radeon R7 260X
SE +/- 0.00, N = 3
115.89
Radeon R9 270X
SE +/- 0.01, N = 3
168.29
Radeon R9 290
SE +/- 0.88, N = 3
205.05
lonestar_first_test
SE +/- 0.00, N = 3
10.43
70
140
210
280
350

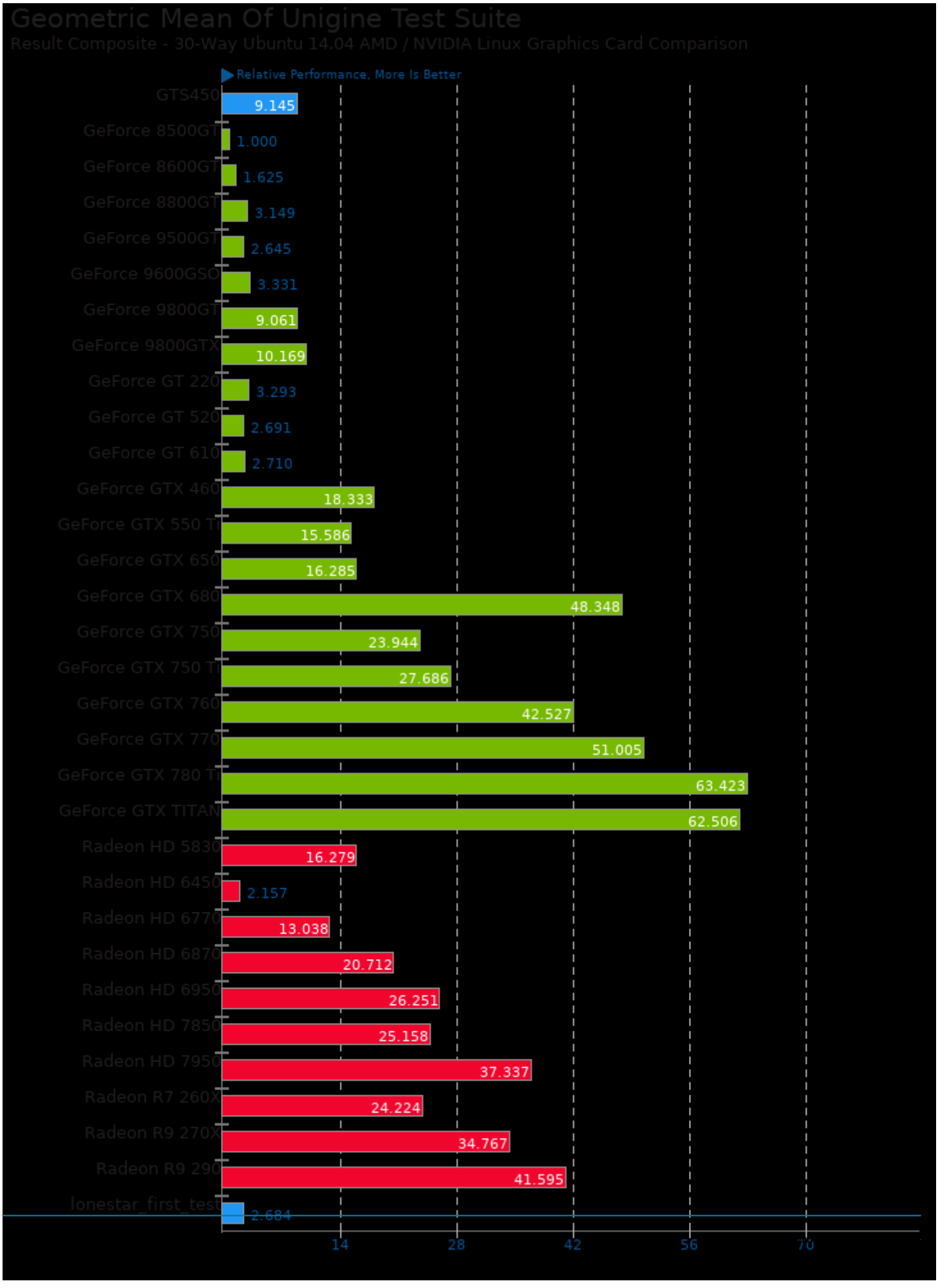
These geometric means are based upon test groupings / test suites for this result file.


Geometric Mean Of Desktop Graphics Tests
Result Composite - 30-Way Ubuntu 14.04 AMD / NVIDIA Linux Graphics Card Comparison
Relative Performance, More Is Better
GTS450 10.488
GeForce 8500GT 1.000
GeForce 8600GT 1.978
GeForce 8800GT 5.089
GeForce 9500GT 2.542
GeForce 9600GSO 3.250
GeForce 9800GT 8.740
GeForce 9800GTX 9.790
GeForce GT 220 3.562
GeForce GT 520 3.040
GeForce GT 610 3.064
GeForce GTX 460 18.582
GeForce GTX 550 Ti 16.591
GeForce GTX 650 17.281
GeForce GTX 680 35.446
GeForce GTX 750 22.700
GeForce GTX 750 Ti 25.480
GeForce GTX 760 33.441
GeForce GTX 770 36.280
GeForce GTX 780 Ti 40.905
GeForce GTX TITAN 40.472
Radeon HD 5830 14.504
Radeon HD 6450 2.491
Radeon HD 6770 12.523
Radeon HD 6870 16.736
Radeon HD 6950 19.346
Radeon HD 7850 18.600
Radeon HD 7950 22.722
Radeon R7 260X 18.309
Radeon R9 270X 22.082
Radeon R9 290 23.837
lonestar_first_test 2.717
9
18
27
36
45

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


Geometric Mean Of OpenGL Demos Test Suite
Result Composite - 30-Way Ubuntu 14.04 AMD / NVIDIA Linux Graphics Card Comparison
Relative Performance, More Is Better
GTS450 9.145
GeForce 8500GT 1.000
GeForce 8600GT 1.625
GeForce 8800GT 3.149
GeForce 9500GT 2.645
GeForce 9600GSO 3.331
GeForce 9800GT 9.061
GeForce 9800GTX 10.169
GeForce GT 220 3.293
GeForce GT 520 2.691
GeForce GT 610 2.710
GeForce GTX 460 18.333
GeForce GTX 550 Ti 15.586
GeForce GTX 650 16.285
GeForce GTX 680 48.348
GeForce GTX 750 23.944
GeForce GTX 750 Ti 27.686
GeForce GTX 760 42.527
GeForce GTX 770 51.005
GeForce GTX 780 Ti 63.423
GeForce GTX TITAN 62.506
Radeon HD 5830 16.279
Radeon HD 6450 2.157
Radeon HD 6770 13.038
Radeon HD 6870 20.712
Radeon HD 6950 26.251
Radeon HD 7850 25.158
Radeon HD 7950 37.337
Radeon R7 260X 24.224
Radeon R9 270X 34.767
Radeon R9 290 41.595
lonestar_first_test 2.684
14
28
42
56
70

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


Geometric Mean Of Unigine Test Suite
Result Composite - 30-Way Ubuntu 14.04 AMD / NVIDIA Linux Graphics Card Comparison
Relative Performance, More Is Better
GTS450 9.145
GeForce 8500GT 1.000
GeForce 8600GT 1.625
GeForce 8800GT 3.149
GeForce 9500GT 2.645
GeForce 9600GSO 3.331
GeForce 9800GT 9.061
GeForce 9800GTX 10.169
GeForce GT 220 3.293
GeForce GT 520 2.691
GeForce GT 610 2.710
GeForce GTX 460 18.333
GeForce GTX 550 Ti 15.586
GeForce GTX 650 16.285
GeForce GTX 680 48.348
GeForce GTX 750 23.944
GeForce GTX 750 Ti 27.686
GeForce GTX 760 42.527
GeForce GTX 770 51.005
GeForce GTX 780 Ti 63.423
GeForce GTX TITAN 62.506
Radeon HD 5830 16.279
Radeon HD 6450 2.157
Radeon HD 6770 13.038
Radeon HD 6870 20.712
Radeon HD 6950 26.251
Radeon HD 7850 25.158
Radeon HD 7950 37.337
Radeon R7 260X 24.224
Radeon R9 270X 34.767
Radeon R9 290 41.595
lonestar_first_test 2.684
14
28
42
56
70

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

This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 11:25.