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5950x_curve_optimizer_stability

AMD Ryzen 9 5950X 16-Core testing with a Gigabyte X570 AORUS XTREME (F33i BIOS) and MSI AMD Radeon R9 290X/390X on Arch rolling via the Phoronix Test Suite.

Automated Executive Summary

XMP, Boost 0, CCD1 0/-5/-5/0/-5/-5/-5/0, CCD2 -30 run1 had the most wins, coming in first place for 38% of the tests.

Based on the geometric mean of all complete results, the fastest (XMP, Boost 0, CCD1 0/-10/-10/0/-10/-10/-5/0, CCD2 -30 run2) was 1.142x the speed of the slowest (stock, no PBO). XMP, Boost 0, CCD1 0/-5/-5/0/-5/-5/-5/0, CCD2 -30 run1 was 0.999x the speed of XMP, Boost 0, CCD1 0/-10/-10/0/-10/-10/-5/0, CCD2 -30 run2, XMP, Boost 0, CCD1 0/-5/-5/0/-5/-5/-5/0, CCD2 -30 run2 was 0.996x the speed of XMP, Boost 0, CCD1 0/-5/-5/0/-5/-5/-5/0, CCD2 -30 run1, XMP, Boost 0, CCD1 0/-15/-15/0/-10/-10/-5/0, CCD2 -30 run2 was 0.999x the speed of XMP, Boost 0, CCD1 0/-5/-5/0/-5/-5/-5/0, CCD2 -30 run2, XMP, Boost 0, CCD1 0/-10/-10/0/-10/-10/-5/0, CCD2 -30 run1 was 0.999x the speed of XMP, Boost 0, CCD1 0/-15/-15/0/-10/-10/-5/0, CCD2 -30 run2, XMP, Boost 0, CCD1 0/-15/-15/0/-10/-10/-5/0, CCD2 -30 run1 was 0.999x the speed of XMP, Boost 0, CCD1 0/-10/-10/0/-10/-10/-5/0, CCD2 -30 run1, XMP, Boost 0, CCD1 0/-5/-5/0/-5/-5/-5/0, CCD2 -30 run3 was 0.994x the speed of XMP, Boost 0, CCD1 0/-15/-15/0/-10/-10/-5/0, CCD2 -30 run1, XMP, Boost 100, CCD1 0/-15/-15/0/-10/-10/-5/0, CCD2 -30 run1 was 1x the speed of XMP, Boost 0, CCD1 0/-5/-5/0/-5/-5/-5/0, CCD2 -30 run3, XMP, Boost 100, CCD1 +0, CCD2 -30 was 0.994x the speed of XMP, Boost 100, CCD1 0/-15/-15/0/-10/-10/-5/0, CCD2 -30 run1, XMP, no PBO was 0.966x the speed of XMP, Boost 100, CCD1 +0, CCD2 -30, stock, no PBO was 0.925x the speed of XMP, no PBO.

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

Timed ImageMagick Compilation (Time To Compile) at 1.23x
Timed LLVM Compilation (Build System: Ninja) at 1.212x
Timed Mesa Compilation (Time To Compile) at 1.21x
Timed LLVM Compilation (Build System: Unix Makefiles) at 1.197x
Timed Node.js Compilation (Time To Compile) at 1.195x
Timed Godot Game Engine Compilation (Time To Compile) at 1.189x
Timed Linux Kernel Compilation (Time To Compile) at 1.189x
Build2 (Time To Compile) at 1.16x
Timed MPlayer Compilation (Time To Compile) at 1.156x
Timed Wasmer Compilation (Time To Compile) at 1.132x.

Test Systems:

stock, no PBO

XMP, no PBO

XMP, Boost 100, CCD1 +0, CCD2 -30

XMP, Boost 0, CCD1 0/-5/-5/0/-5/-5/-5/0, CCD2 -30 run1

XMP, Boost 0, CCD1 0/-15/-15/0/-10/-10/-5/0, CCD2 -30 run1

Processor: AMD Ryzen 9 5950X 16-Core @ 3.40GHz (16 Cores / 32 Threads), Motherboard: Gigabyte X570 AORUS XTREME (F33i BIOS), Chipset: AMD Starship/Matisse, Memory: 32GB, Disk: 1000GB GIGABYTE GP-AG41TB, Graphics: MSI AMD Radeon R9 290X/390X 4GB (1080/1250MHz), Audio: AMD Hawaii HDMI Audio, Monitor: DELL U2719D + S220HQL, Network: Aquantia AQC107 NBase-T/IEEE + Intel I211 + Intel Wi-Fi 6 AX200

OS: Arch rolling, Kernel: 5.12.0 (x86_64), Desktop: Sway, Display Server: Wayland, OpenGL: 4.6 Mesa 21.2.0-devel (git-a02a0df2a2) (LLVM 13.0.0), Vulkan: 1.2.175, Compiler: GCC 10.2.0 + Clang 13.0.0 + LLVM 13.0.0, File-System: btrfs, Screen Resolution: 4480x1440

Kernel Notes: amdgpu.cik_support=1 amdgpu.dpm=1 amdgpu.dc=1 amdgpu.ppfeaturemask=0xffffffff - Transparent Huge Pages: madvise
Environment Notes: MESA_DISK_CACHE_SINGLE_FILE=1
Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-__cxa_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-libiberty --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu
Processor Notes: Scaling Governor: acpi-cpufreq schedutil (Boost: Enabled) - CPU Microcode: 0xa201009
Python Notes: Python 3.9.4
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Vulnerable + spectre_v1: Vulnerable: __user pointer sanitization and usercopy barriers only; no swapgs barriers + spectre_v2: Vulnerable IBPB: disabled STIBP: disabled + srbds: Not affected + tsx_async_abort: Not affected

XMP, Boost 0, CCD1 0/-15/-15/0/-10/-10/-5/0, CCD2 -30 run2

Processor: AMD Ryzen 9 5950X 16-Core @ 3.40GHz (16 Cores / 32 Threads), Motherboard: Gigabyte X570 AORUS

XTREME (F33i BIOS), Chipset: AMD Starship/Matisse, Memory: 32GB, Disk: 1000GB GIGABYTE GP-AG41TB, Graphics: MSI AMD Radeon R9 290X/390X (1080/1250MHz), Audio: AMD Hawaii HDMI Audio, Monitor: DELL U2719D + S220HQL, Network: Aquantia AQC107 NBase-T/IEEE + Intel I211 + Intel Wi-Fi 6 AX200

OS: Arch rolling, Kernel: 5.12.0 (x86_64), Vulkan: 1.1.177, Compiler: GCC 10.2.0 + Clang 13.0.0 + LLVM 13.0.0, File-System: btrfs, Screen Resolution: 2560x1440

Kernel Notes: amdgpu.cik_support=1 amdgpu.dpm=1 amdgpu.dc=1 amdgpu.ppfeaturemask=0xffffffff - Transparent Huge Pages: madvise
Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-__cxa_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-libiberty --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu
Processor Notes: Scaling Governor: acpi-cpufreq schedutil (Boost: Enabled) - CPU Microcode: 0xa201009
Python Notes: Python 3.9.4
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Vulnerable + spectre_v1: Vulnerable: __user pointer sanitization and usercopy barriers only; no swapgs barriers + spectre_v2: Vulnerable IBPB: disabled STIBP: disabled + srbds: Not affected + tsx_async_abort: Not affected

XMP, Boost 100, CCD1 0/-15/-15/0/-10/-10/-5/0, CCD2 -30 run1

Processor: AMD Ryzen 9 5950X 16-Core @ 3.40GHz (16 Cores / 32 Threads), Motherboard: Gigabyte X570 AORUS XTREME (F33i BIOS), Chipset: AMD Starship/Matisse, Memory: 32GB, Disk: 1000GB GIGABYTE GP-AG41TB, Graphics: MSI AMD Radeon R9 290X/390X 4GB (1080/1250MHz), Audio: AMD Hawaii HDMI Audio, Monitor: DELL U2719D + S220HQL, Network: Aquantia AQC107 NBase-T/IEEE + Intel I211 + Intel Wi-Fi 6 AX200

OS: Arch rolling, Kernel: 5.12.0 (x86_64), Desktop: Sway, Display Server: Wayland, OpenGL: 4.6 Mesa 21.2.0-devel (git-41a42955d5) (LLVM 13.0.0), Vulkan: 1.2.177, Compiler: GCC 10.2.0 + Clang 13.0.0 + LLVM 13.0.0, File-System: btrfs, Screen Resolution: 4480x1440

Kernel Notes: amdgpu.cik_support=1 amdgpu.dpm=1 amdgpu.dc=1 amdgpu.ppfeaturemask=0xffffffff - Transparent Huge Pages: madvise
Environment Notes: MESA_DISK_CACHE_SINGLE_FILE=1
Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-__cxa_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-libiberty --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu
Processor Notes: Scaling Governor: acpi-cpufreq schedutil (Boost: Enabled) - CPU Microcode: 0xa201009
Python Notes: Python 3.9.4
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Vulnerable + spectre_v1: Vulnerable: __user pointer sanitization and usercopy barriers only; no swapgs barriers + spectre_v2: Vulnerable IBPB: disabled STIBP: disabled + srbds: Not affected + tsx_async_abort: Not affected

XMP, Boost 0, CCD1 0/-5/-5/0/-5/-5/-5/0, CCD2 -30 run2

Processor: AMD Ryzen 9 5950X 16-Core @ 3.40GHz (16 Cores / 32 Threads), Motherboard: Gigabyte X570 AORUS XTREME (F33i BIOS), Chipset: AMD Starship/Matisse, Memory: 32GB, Disk: 1000GB GIGABYTE GP-AG41TB, Graphics: MSI AMD Radeon R9 290X/390X (1080/1250MHz), Audio: AMD Hawaii HDMI Audio, Monitor: DELL U2719D + S220HQL, Network: Aquantia AQC107 NBase-T/IEEE + Intel I211 + Intel Wi-Fi 6 AX200

OS: Arch rolling, Kernel: 5.12.0 (x86_64), Vulkan: 1.1.177, Compiler: GCC 10.2.0 + Clang 13.0.0 + LLVM 13.0.0, File-System: btrfs, Screen Resolution: 2560x1440

Kernel Notes: amdgpu.cik_support=1 amdgpu.dpm=1 amdgpu.dc=1 amdgpu.ppfeaturemask=0xffffffff - Transparent Huge Pages: madvise
Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-__cxa_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-libiberty --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu
Processor Notes: Scaling Governor: acpi-cpufreq schedutil (Boost: Enabled) - CPU Microcode: 0xa201009
Python Notes: Python 3.9.4
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Vulnerable + spectre_v1: Vulnerable: __user pointer sanitization and usercopy barriers only; no swapgs barriers + spectre_v2: Vulnerable IBPB: disabled STIBP: disabled + srbds: Not affected + tsx_async_abort: Not affected

XMP, Boost 0, CCD1 0/-5/-5/0/-5/-5/-5/0, CCD2 -30 run3

XMP, Boost 0, CCD1 0/-10/-10/0/-10/-10/-5/0, CCD2 -30 run1

Processor: AMD Ryzen 9 5950X 16-Core @ 3.40GHz (16 Cores / 32 Threads), Motherboard: Gigabyte X570 AORUS XTREME (F33i BIOS), Chipset: AMD Starship/Matisse, Memory: 32GB, Disk: 1000GB GIGABYTE GP-AG41TB, Graphics: MSI AMD Radeon R9 290X/390X 4GB (1080/1250MHz), Audio: AMD Hawaii HDMI Audio, Monitor: DELL U2719D + S220HQL, Network: Aquantia AQC107 NBase-T/IEEE + Intel I211 + Intel Wi-Fi 6 AX200

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Kernel Notes: amdgpu.cik_support=1 amdgpu.dpm=1 amdgpu.dc=1 amdgpu.ppfeaturemask=0xffffffff - Transparent Huge Pages: madvise
Environment Notes: MESA_DISK_CACHE_SINGLE_FILE=1
Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-__cxa_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-libiberty --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu
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Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Vulnerable + spectre_v1: Vulnerable: __user pointer sanitization and usercopy barriers only; no swapgs barriers + spectre_v2: Vulnerable IBPB: disabled STIBP: disabled + srbds: Not affected + tsx_async_abort: Not affected

XMP, Boost 0, CCD1 0/-10/-10/0/-10/-10/-5/0, CCD2 -30 run2

Processor: AMD Ryzen 9 5950X 16-Core @ 3.40GHz (16 Cores / 32 Threads), Motherboard: Gigabyte X570 AORUS XTREME (F33i BIOS), Chipset: AMD Starship/Matisse, Memory: 32GB, Disk: 1000GB GIGABYTE GP-AG41TB, Graphics: MSI AMD Radeon R9 290X/390X (1080/1250MHz), Audio: AMD Hawaii HDMI Audio, Monitor: DELL U2719D + S220HQL, Network: Aquantia AQC107 NBase-T/IEEE + Intel I211 + Intel Wi-Fi 6 AX200

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Kernel Notes: amdgpu.cik_support=1 amdgpu.dpm=1 amdgpu.dc=1 amdgpu.ppfeaturemask=0xffffffff - Transparent Huge Pages: madvise
Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-__cxa_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-libiberty --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu
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Python Notes: Python 3.9.4
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Vulnerable + spectre_v1: Vulnerable: __user pointer sanitization and usercopy barriers only; no swapgs barriers + spectre_v2: Vulnerable IBPB: disabled STIBP: disabled + srbds: Not affected + tsx_async_abort: Not affected

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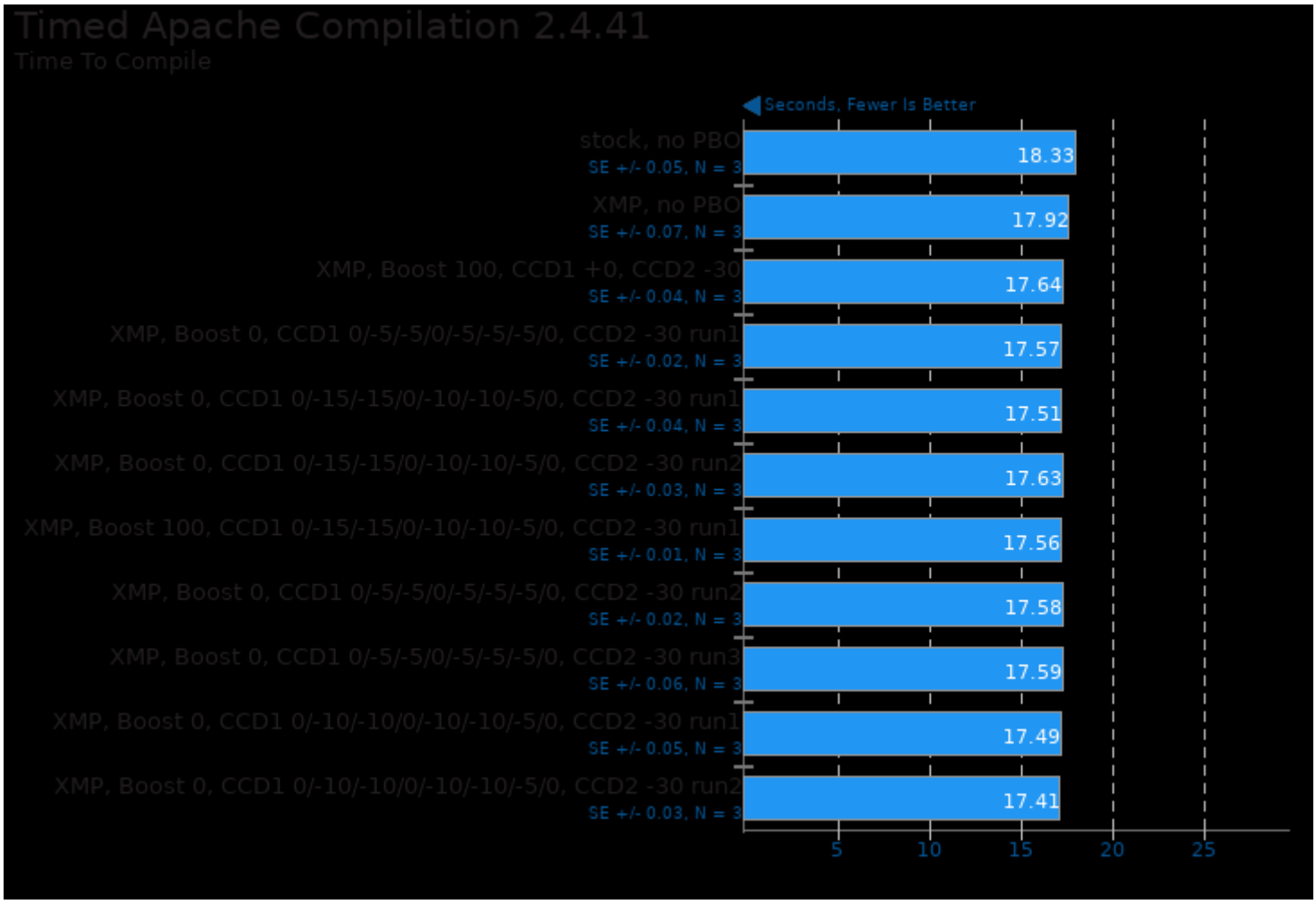
	stock, no PBO	XMP, no PBO	XMP, Boost 100, CCD1 +0, CCD2 -30	XMP, Boost 0, CCD1 0/-5/-5/0/-5/-5/-5/0, CCD2 -30 run1	XMP, Boost 0, CCD1 0/-15/-15/0/-10/-10/-5/0, CCD2 -30 run1	XMP, Boost 0, CCD1 0/-15/-15/0/-10/-10/-5/0, CCD2 -30 run2	XMP, Boost 100, CCD1 0/-15/-15/0/-10/-10/-5/0, CCD2 -30 run1	XMP, Boost 0, CCD1 0/-5/-5/0/-5/-5/-5/0, CCD2 -30 run2	XMP, Boost 0, CCD1 0/-5/-5/0/-5/-5/-5/0, CCD2 -30 run3	XMP, Boost 0, CCD1 0/-10/-10/0/-10/-10/-5/0, CCD2 -30 run1	XMP, Boost 0, CCD1 0/-10/-10/0/-10/-10/-5/0, CCD2 -30 run2
Timed Apache Compilation - Time To Compile	18.329	17.918	17.638	17.568	17.506	17.627	17.561	17.582	17.594	17.494	17.411
Normalized	94.99%	97.17%	98.71%	99.11%	99.46%	98.77%	99.15%	99.03%	98.96%	99.53%	100%
Standard Deviation	0.5%	0.7%	0.4%	0.2%	0.4%	0.3%	0.1%	0.2%	0.6%	0.5%	0.3%
Timed Clash Compilation - Time To Compile	323.746	299.476	297.253	296.504	293.574	294.640	295.785	295.844	297.501	294.477	295.376
Normalized	90.68%	98.03%	98.76%	99.01%	100%	99.64%	99.25%	99.23%	98.68%	99.69%	99.39%
Standard Deviation	0.7%	0.1%	0.4%	0.4%	0.5%	0.3%	0.4%	0.2%	1.1%	1%	0.8%
Timed FFmpeg Compilation - Time To Compile	29.558	28.239	26.575	26.219	26.342	26.376	26.534	26.136	26.214	26.436	26.150
Normalized	88.42%	92.55%	98.35%	99.68%	99.22%	99.09%	98.5%	100%	99.7%	98.87%	99.95%
Standard Deviation	0.4%	0.2%	0.5%	0.5%	0.4%	0.4%	0.4%	0%	0.1%	0.2%	0.3%
Timed GCC Compilation - Time To Compile	625.359	604.954	579.818	573.716	575.300	575.945	576.315	574.223	578.716	576.454	571.539
Normalized	91.39%	94.48%	98.57%	99.62%	99.35%	99.23%	99.17%	99.53%	98.76%	99.15%	100%
Standard Deviation	0.1%	0.1%	0.2%	0.1%	0.1%	0.3%	0.1%	0.1%	0.1%	0.2%	0.1%
Timed GDB GNU Debugger Compilation - Time To Compile	69.201	64.533	63.010	61.559	62.057	62.164	62.359	61.903	62.750	61.910	61.389
Normalized	88.71%	95.13%	97.43%	99.72%	98.92%	98.75%	98.44%	99.17%	97.83%	99.16%	100%
Standard Deviation	0.1%	0.2%	0.5%	0.2%	0.2%	0.5%	0.2%	0.2%	0.2%	0.2%	0%
Timed Godot Game Engine Compilation - Time To Compile	86.344	78.596	74.166	72.594	73.150	73.373	73.456	73.319	73.773	73.412	72.780
Normalized	84.08%	92.36%	97.88%	100%	99.24%	98.94%	98.83%	99.01%	98.4%	98.89%	99.74%
Standard Deviation	0.7%	0.9%	0.2%	0.3%	0.1%	0.1%	0.4%	0.3%	0.5%	0.4%	0.2%
Timed ImageMagick Compilation - Time To Compile	20.270	17.628	16.834	16.595	16.777	16.559	16.861	16.566	16.723	16.637	16.482
Normalized	81.31%	93.5%	97.91%	99.32%	98.24%	99.53%	97.75%	99.49%	98.56%	99.07%	100%
Standard Deviation	1.9%	1.3%	0.6%	0.7%	1.1%	0.5%	0.2%	0.9%	0.4%	0.3%	0.4%

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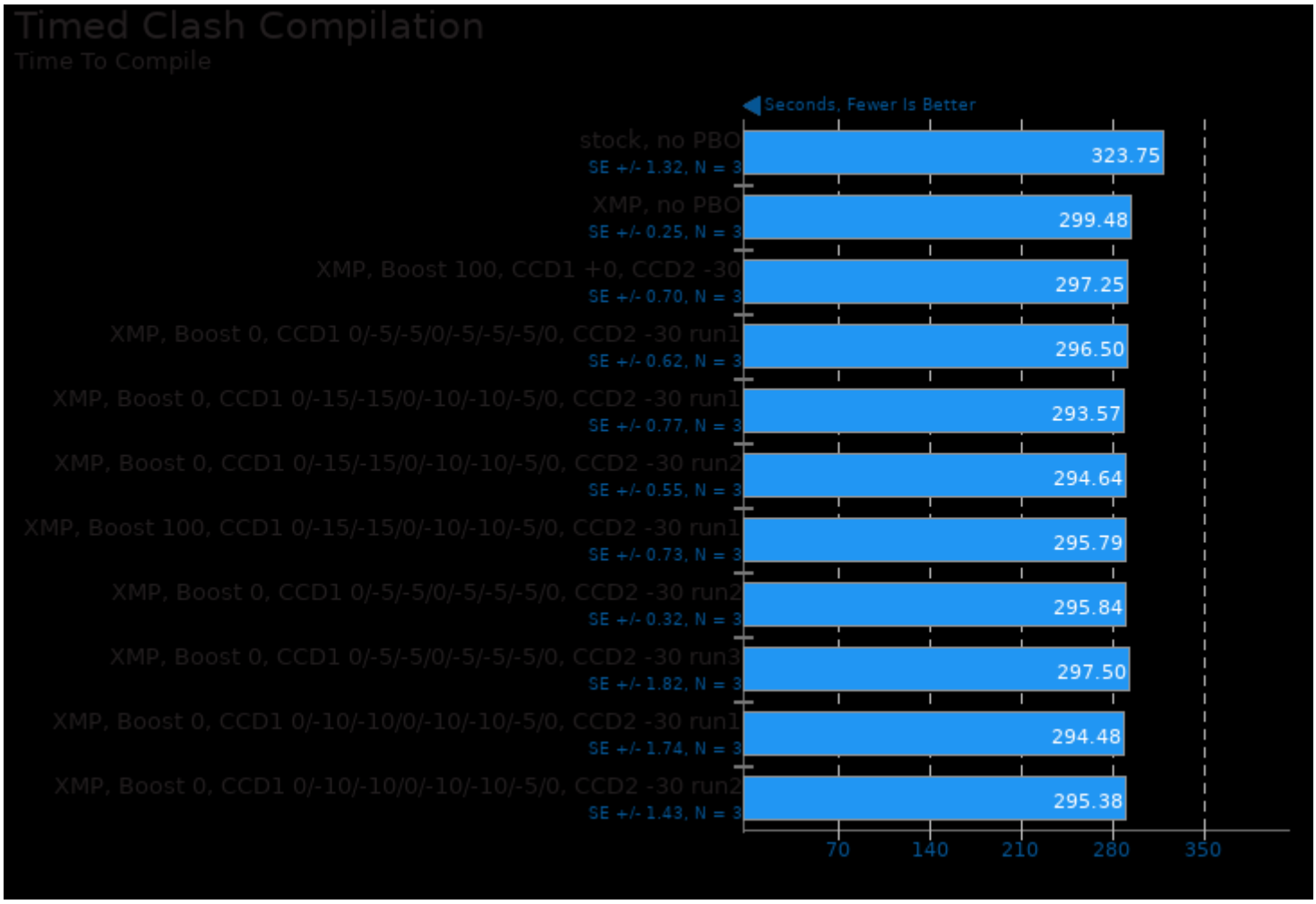
Timed Linux Kernel Compilation -	**55.569**	50.731	47.838	**46.732**	47.474	47.273	47.667	47.161	47.843	47.356	47.065
Normalized	84.1%	92.12%	97.69%	100%	98.44%	98.86%	98.04%	99.09%	97.68%	98.68%	99.29%
Standard Deviation	2.1%	2.3%	2.2%	2.3%	2.1%	2.3%	2.1%	2.1%	2.1%	2.4%	2.3%
Timed LLVM Compilation - Ninja (sec)	**429.117**	376.049	364.006	**354.145**	360.121	358.322	361.676	359.299	360.717	359.264	355.310
Normalized	82.53%	94.18%	97.29%	100%	98.34%	98.83%	97.92%	98.57%	98.18%	98.58%	99.67%
Standard Deviation	0.4%	0%	0.1%	0.3%	0.3%	0.1%	0.2%	0.1%	0.5%	0.5%	0.1%
Timed LLVM Compilation - Unix Makefiles	**459.308**	411.013	398.709	390.748	390.369	**383.784**	397.939	388.210	391.398	387.218	384.631
Normalized	83.56%	93.38%	96.26%	98.22%	98.31%	100%	96.44%	98.86%	98.05%	99.11%	99.78%
Standard Deviation	2.1%	0.3%	0.2%	0.6%	2.4%	2.1%	0.1%	2.3%	1.9%	2.1%	1.2%
Timed Mesa Compilation - Time To Compile	**33.910**	29.873	28.796	**28.035**	28.450	28.411	28.744	28.235	28.854	28.559	28.307
Normalized	82.67%	93.85%	97.36%	100%	98.54%	98.68%	97.53%	99.29%	97.16%	98.17%	99.04%
Standard Deviation	1%	0.2%	0.2%	0.1%	0.7%	0.6%	0.3%	0.6%	0.3%	0.2%	0.1%
Timed MPlayer Compilation - Time To Compile	**20.452**	19.543	18.127	17.713	17.899	17.864	18.037	**17.698**	18.079	17.852	17.712
Normalized	86.53%	90.56%	97.63%	99.92%	98.88%	99.07%	98.12%	100%	97.89%	99.14%	99.92%
Standard Deviation	0.3%	0.7%	0.4%	0.2%	0.1%	0.2%	0.1%	0.5%	1%	0.6%	0.5%
Timed Node.js Compilation - Time To Compile	**270.388**	239.871	232.397	**226.345**	230.395	228.652	232.861	229.394	232.007	229.835	227.274
Normalized	83.71%	94.36%	97.4%	100%	98.24%	98.99%	97.2%	98.67%	97.56%	98.48%	99.59%
Standard Deviation	0.2%	0.2%	0.1%	0.1%	0.3%	0.1%	0.4%	0.1%	0.7%	0.5%	0%
Timed PHP Compilation - Time To Compile	**40.161**	37.989	37.231	36.419	36.726	36.572	36.977	**36.370**	36.832	36.801	36.511
Normalized	90.56%	95.74%	97.69%	99.87%	99.03%	99.45%	98.36%	100%	98.75%	98.83%	99.61%
Standard Deviation	0.9%	0.6%	0.1%	0.3%	0.2%	0.7%	0.8%	0.5%	0.4%	0.4%	0.3%
Build2 - Time To Compile (sec)	**84.075**	77.619	74.358	**72.462**	73.498	73.328	73.791	73.392	74.150	72.941	72.492
Normalized	86.19%	93.36%	97.45%	100%	98.59%	98.82%	98.2%	98.73%	97.72%	99.34%	99.96%
Standard Deviation	0.6%	0.4%	0%	0.2%	0%	0.3%	0.2%	0.6%	0.5%	0.2%	0.8%
Timed Eigen Compilation - Time To Compile	**63.359**	61.493	62.592	**60.591**	61.448	61.393	61.211	61.784	61.722	61.806	60.702
Normalized	95.63%	98.53%	96.8%	100%	98.61%	98.69%	98.99%	98.07%	98.17%	98.03%	99.82%
Standard Deviation	1.2%	0.2%	0.5%	0.2%	0.4%	1.3%	0.7%	0.3%	0.7%	0.3%	0.9%
Timed Erlang/OTP Compilation - Time To Compile	**87.284**	83.398	81.879	80.800	81.227	81.080	81.487	81.247	81.336	80.944	**80.671**
Normalized	92.42%	96.73%	98.52%	99.84%	99.32%	99.5%	99%	99.29%	99.18%	99.66%	100%
Standard Deviation	0.3%	0.2%	0.3%	0.3%	0.2%	0.7%	0.3%	0.2%	0.4%	0.2%	0.3%

5950x_curve_optimizer_stability

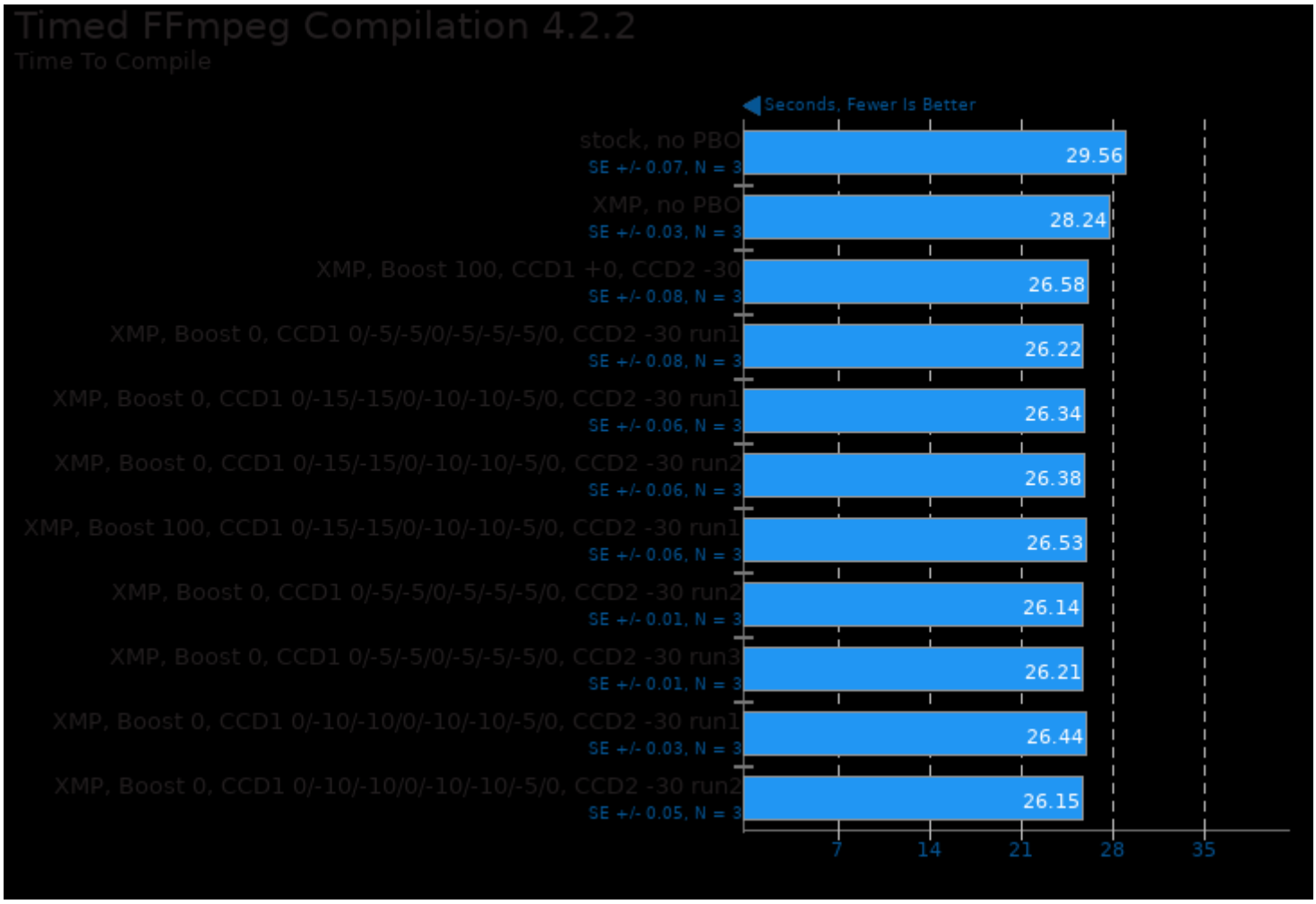
Timed Wasmer Compilation - Time To Compile	**35.106**	32.606	31.746	31.123	31.434	31.280	31.384	31.093	31.291	31.265	**31.019**
Normalized	88.36%	95.13%	97.71%	99.67%	98.68%	99.17%	98.84%	99.76%	99.13%	99.21%	100%
Standard Deviation	0.9%	0.2%	0.5%	0.6%	0.5%	0.5%	0.4%	0.5%	1%	0.8%	0.2%


Timed Apache Compilation 2.4.41
Time To Compile
Seconds, Fewer Is Better
stock, no PBO
SE +/- 0.05, N = 3
18.33
XMP, no PBO
SE +/- 0.07, N = 3
17.92
XMP, Boost 100, CCD1 +0, CCD2 -30
SE +/- 0.04, N = 3
17.64
XMP, Boost 0, CCD1 0/-5/-5/0/-5/-5/-5/0, CCD2 -30 run1
SE +/- 0.02, N = 3
17.57
XMP, Boost 0, CCD1 0/-15/-15/0/-10/-10/-5/0, CCD2 -30 run1
SE +/- 0.04, N = 3
17.51
XMP, Boost 0, CCD1 0/-15/-15/0/-10/-10/-5/0, CCD2 -30 run2
SE +/- 0.03, N = 3
17.63
XMP, Boost 100, CCD1 0/-15/-15/0/-10/-10/-5/0, CCD2 -30 run1
SE +/- 0.01, N = 3
17.56
XMP, Boost 0, CCD1 0/-5/-5/0/-5/-5/-5/0, CCD2 -30 run2
SE +/- 0.02, N = 3
17.58
XMP, Boost 0, CCD1 0/-5/-5/0/-5/-5/-5/0, CCD2 -30 run3
SE +/- 0.06, N = 3
17.59
XMP, Boost 0, CCD1 0/-10/-10/0/-10/-10/-5/0, CCD2 -30 run1
SE +/- 0.05, N = 3
17.49
XMP, Boost 0, CCD1 0/-10/-10/0/-10/-10/-5/0, CCD2 -30 run2
SE +/- 0.03, N = 3
17.41
5
10
15
20
25

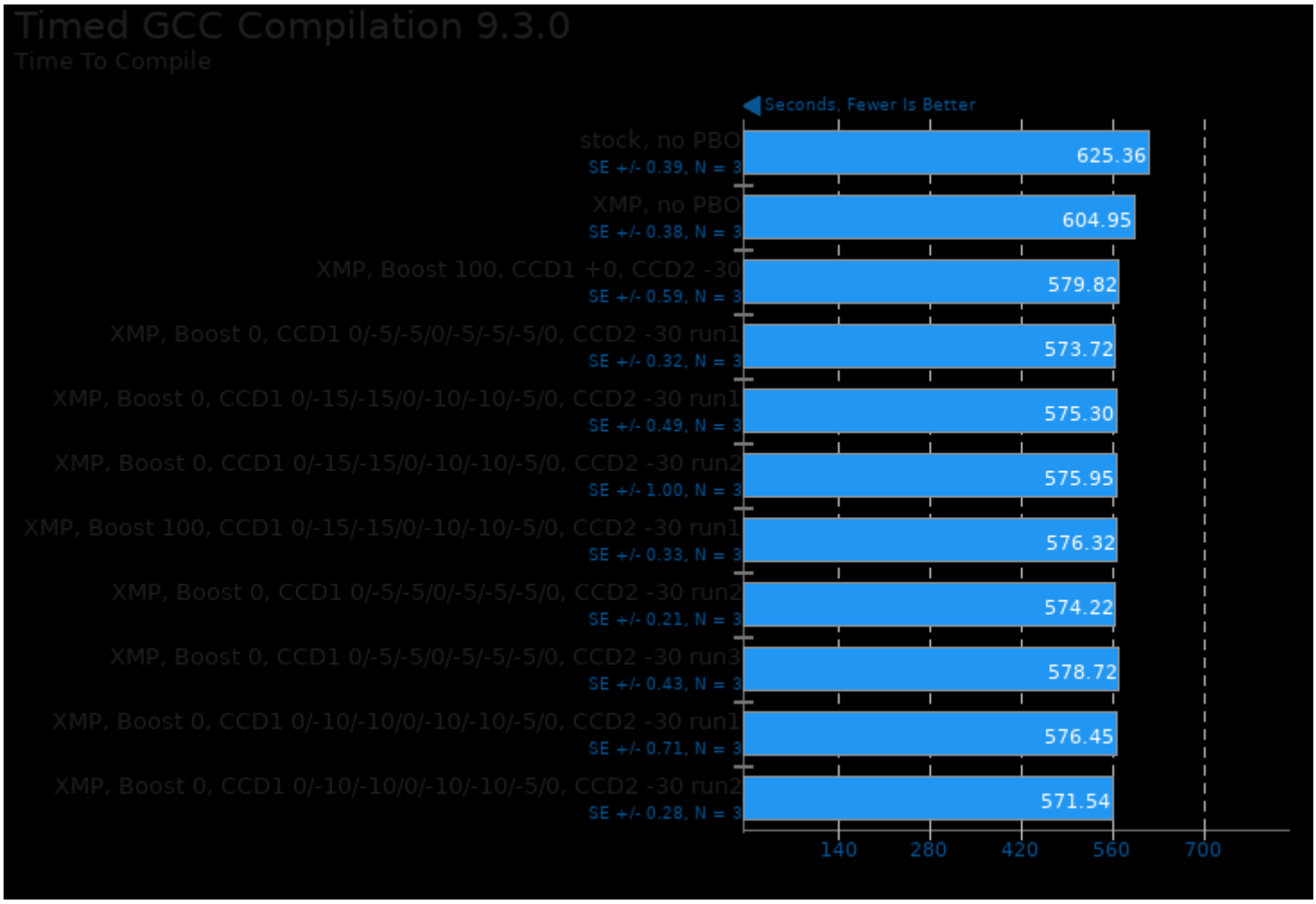
5950x_curve_optimizer_stability

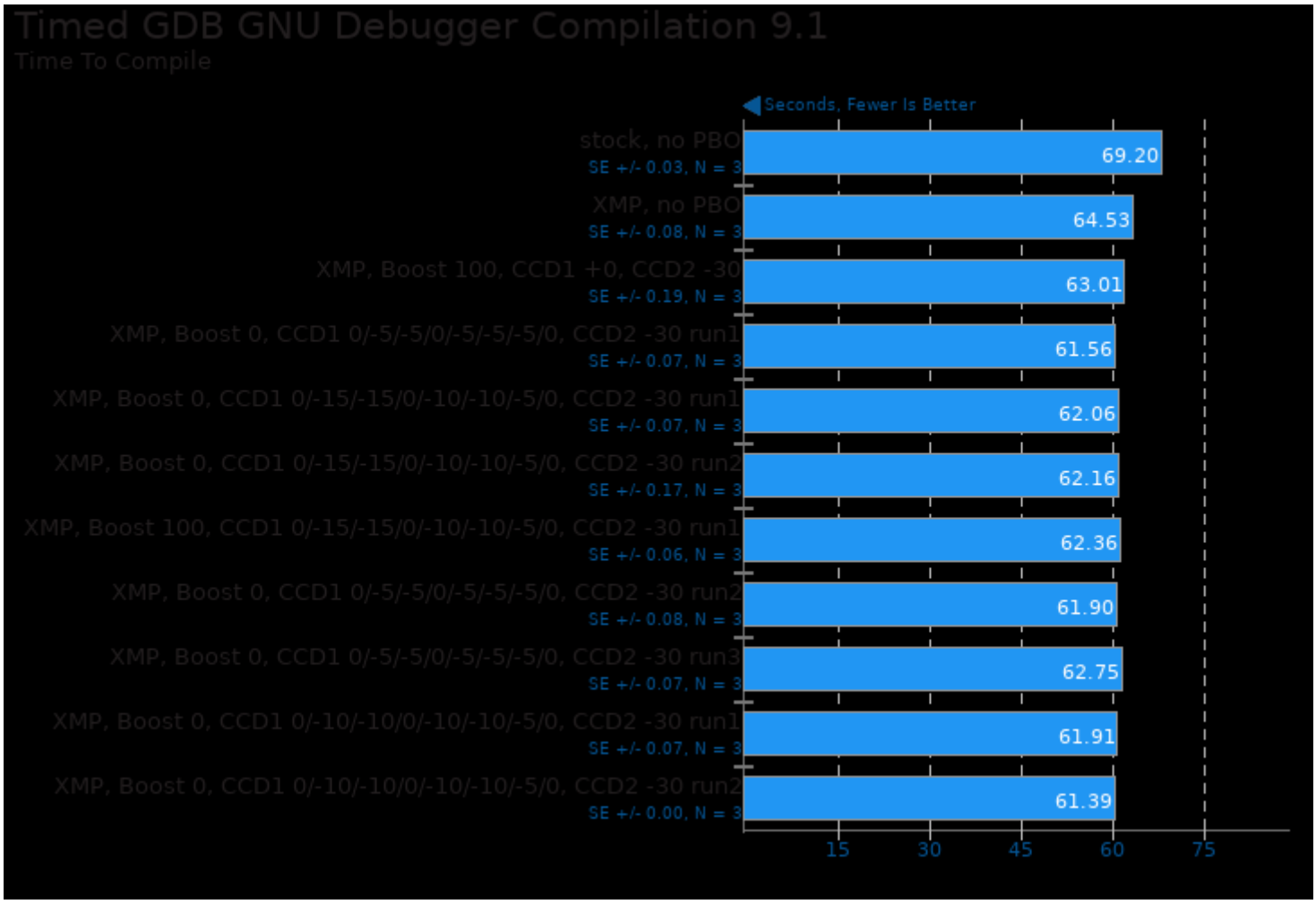


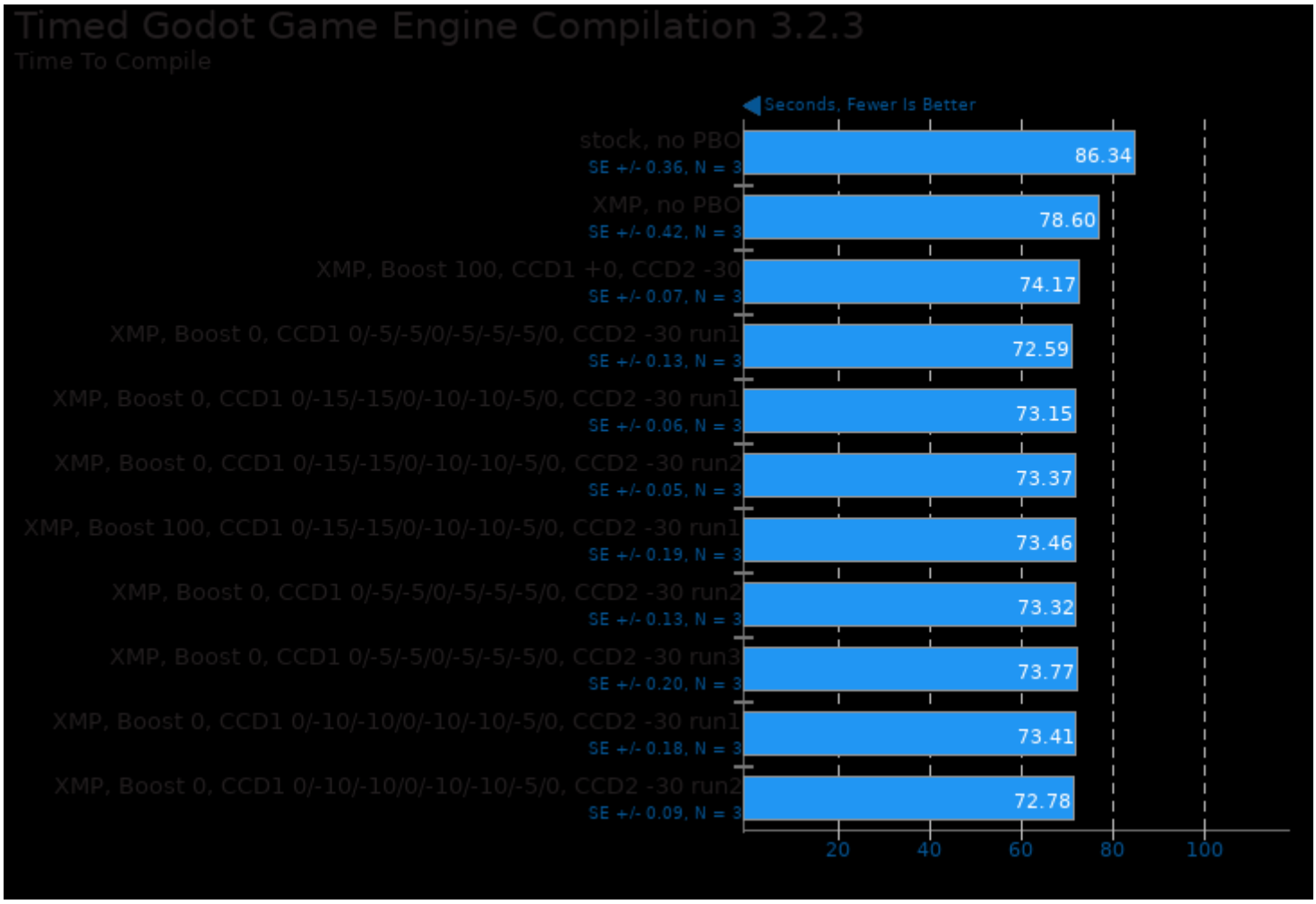
5950x_curve_optimizer_stability

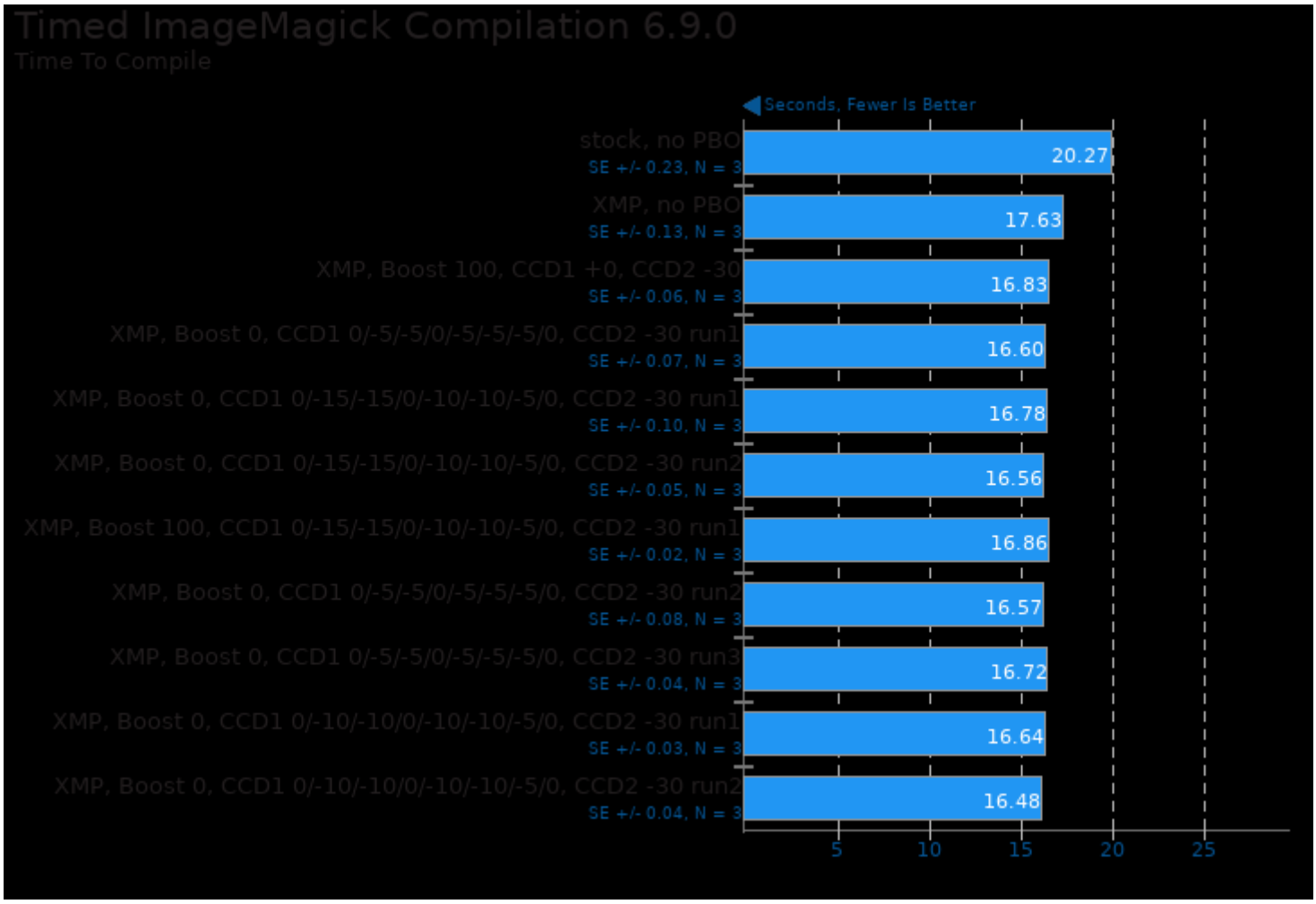


5950x_curve_optimizer_stability

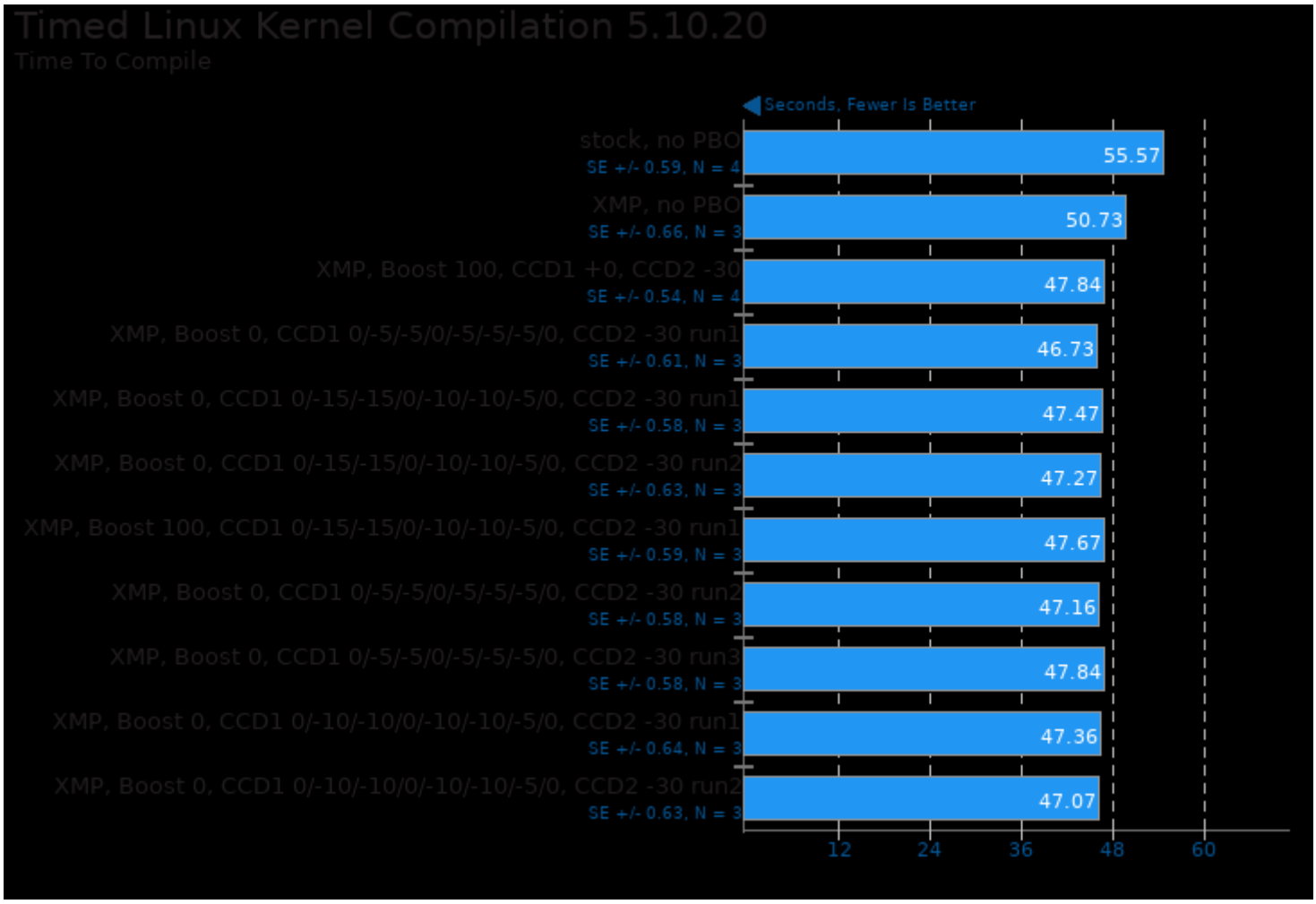



Timed GDB GNU Debugger Compilation 9.1
Time To Compile
Seconds, Fewer Is Better
stock, no PBO
SE +/- 0.03, N = 3
69.20
XMP, no PBO
SE +/- 0.08, N = 3
64.53
XMP, Boost 100, CCD1 +0, CCD2 -30
SE +/- 0.19, N = 3
63.01
XMP, Boost 0, CCD1 0/-5/-5/0/-5/-5/-5/0, CCD2 -30 run1
SE +/- 0.07, N = 3
61.56
XMP, Boost 0, CCD1 0/-15/-15/0/-10/-10/-5/0, CCD2 -30 run1
SE +/- 0.07, N = 3
62.06
XMP, Boost 0, CCD1 0/-15/-15/0/-10/-10/-5/0, CCD2 -30 run2
SE +/- 0.17, N = 3
62.16
XMP, Boost 100, CCD1 0/-15/-15/0/-10/-10/-5/0, CCD2 -30 run1
SE +/- 0.06, N = 3
62.36
XMP, Boost 0, CCD1 0/-5/-5/0/-5/-5/-5/0, CCD2 -30 run2
SE +/- 0.08, N = 3
61.90
XMP, Boost 0, CCD1 0/-5/-5/0/-5/-5/-5/0, CCD2 -30 run3
SE +/- 0.07, N = 3
62.75
XMP, Boost 0, CCD1 0/-10/-10/0/-10/-10/-5/0, CCD2 -30 run1
SE +/- 0.07, N = 3
61.91
XMP, Boost 0, CCD1 0/-10/-10/0/-10/-10/-5/0, CCD2 -30 run2
SE +/- 0.00, N = 3
61.39
15
30
45
60
75

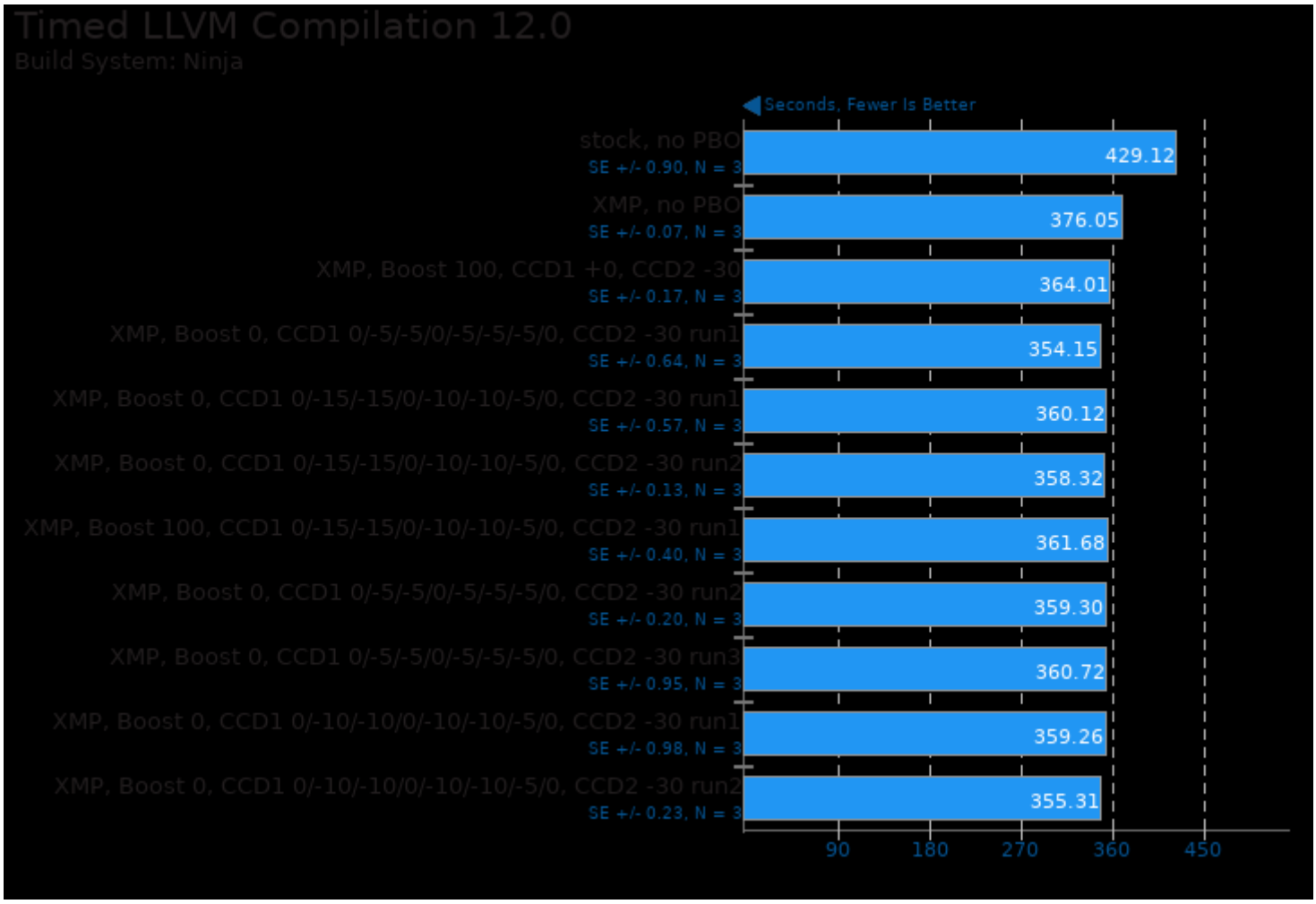

Timed Godot Game Engine Compilation 3.2.3
Time To Compile
Seconds, Fewer Is Better
stock, no PBO
SE +/- 0.36, N = 3
86.34
XMP, no PBO
SE +/- 0.42, N = 3
78.60
XMP, Boost 100, CCD1 +0, CCD2 -30
SE +/- 0.07, N = 3
74.17
XMP, Boost 0, CCD1 0/-5/-5/0/-5/-5/-5/0, CCD2 -30 run1
SE +/- 0.13, N = 3
72.59
XMP, Boost 0, CCD1 0/-15/-15/0/-10/-10/-5/0, CCD2 -30 run1
SE +/- 0.06, N = 3
73.15
XMP, Boost 0, CCD1 0/-15/-15/0/-10/-10/-5/0, CCD2 -30 run2
SE +/- 0.05, N = 3
73.37
XMP, Boost 100, CCD1 0/-15/-15/0/-10/-10/-5/0, CCD2 -30 run1
SE +/- 0.19, N = 3
73.46
XMP, Boost 0, CCD1 0/-5/-5/0/-5/-5/-5/0, CCD2 -30 run2
SE +/- 0.13, N = 3
73.32
XMP, Boost 0, CCD1 0/-5/-5/0/-5/-5/-5/0, CCD2 -30 run3
SE +/- 0.20, N = 3
73.77
XMP, Boost 0, CCD1 0/-10/-10/0/-10/-10/-5/0, CCD2 -30 run1
SE +/- 0.18, N = 3
73.41
XMP, Boost 0, CCD1 0/-10/-10/0/-10/-10/-5/0, CCD2 -30 run2
SE +/- 0.09, N = 3
72.78
20
40
60
80
100

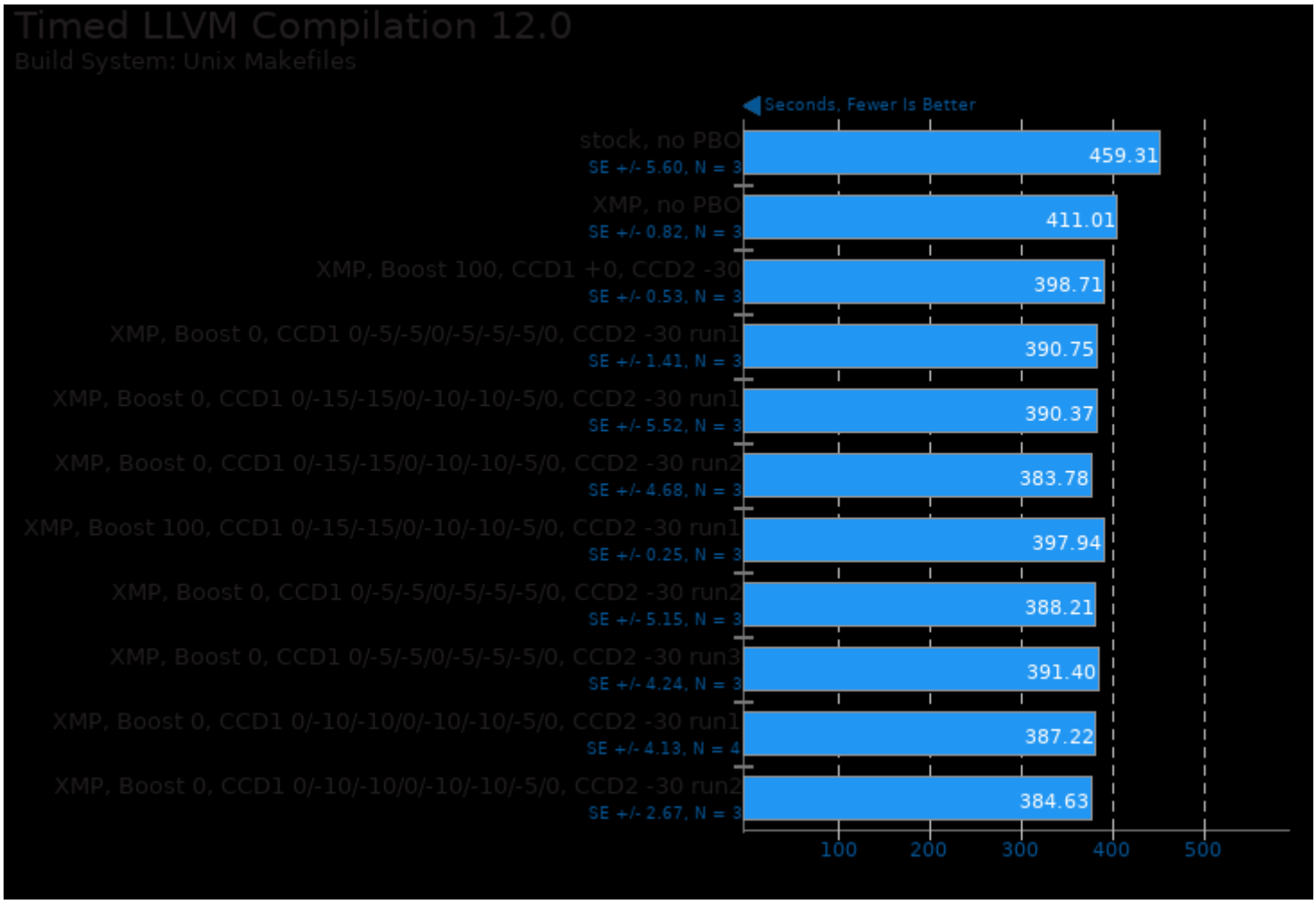

Timed ImageMagick Compilation 6.9.0
Time To Compile
Seconds, Fewer Is Better
stock, no PBO
SE +/- 0.23, N = 3
20.27
XMP, no PBO
SE +/- 0.13, N = 3
17.63
XMP, Boost 100, CCD1 +0, CCD2 -30
SE +/- 0.06, N = 3
16.83
XMP, Boost 0, CCD1 0/-5/-5/0/-5/-5/-5/0, CCD2 -30 run1
SE +/- 0.07, N = 3
16.60
XMP, Boost 0, CCD1 0/-15/-15/0/-10/-10/-5/0, CCD2 -30 run1
SE +/- 0.10, N = 3
16.78
XMP, Boost 0, CCD1 0/-15/-15/0/-10/-10/-5/0, CCD2 -30 run2
SE +/- 0.05, N = 3
16.56
XMP, Boost 100, CCD1 0/-15/-15/0/-10/-10/-5/0, CCD2 -30 run1
SE +/- 0.02, N = 3
16.86
XMP, Boost 0, CCD1 0/-5/-5/0/-5/-5/-5/0, CCD2 -30 run2
SE +/- 0.08, N = 3
16.57
XMP, Boost 0, CCD1 0/-5/-5/0/-5/-5/-5/0, CCD2 -30 run3
SE +/- 0.04, N = 3
16.72
XMP, Boost 0, CCD1 0/-10/-10/0/-10/-10/-5/0, CCD2 -30 run1
SE +/- 0.03, N = 3
16.64
XMP, Boost 0, CCD1 0/-10/-10/0/-10/-10/-5/0, CCD2 -30 run2
SE +/- 0.04, N = 3
16.48
5
10
15
20
25

5950x_curve_optimizer_stability

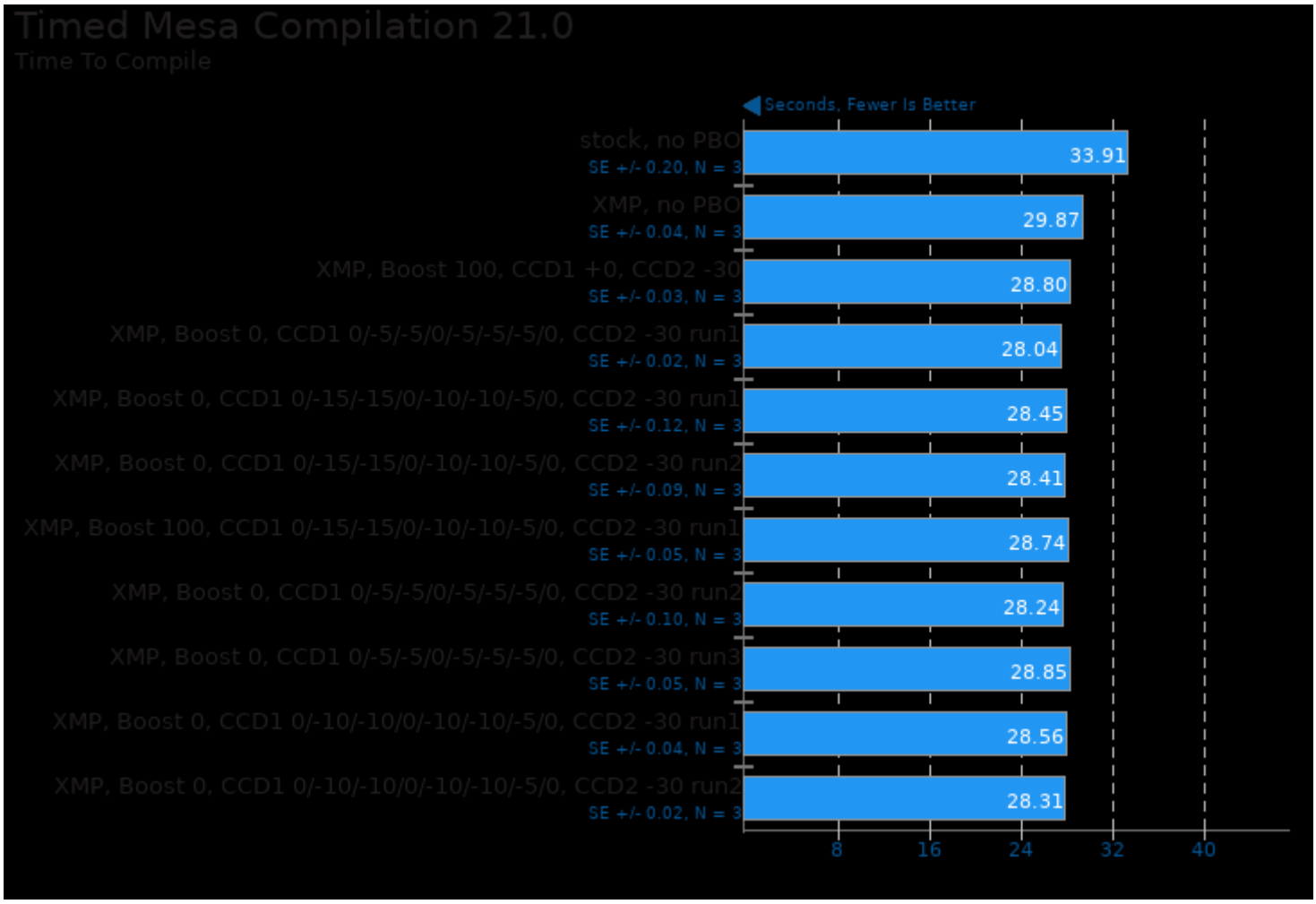


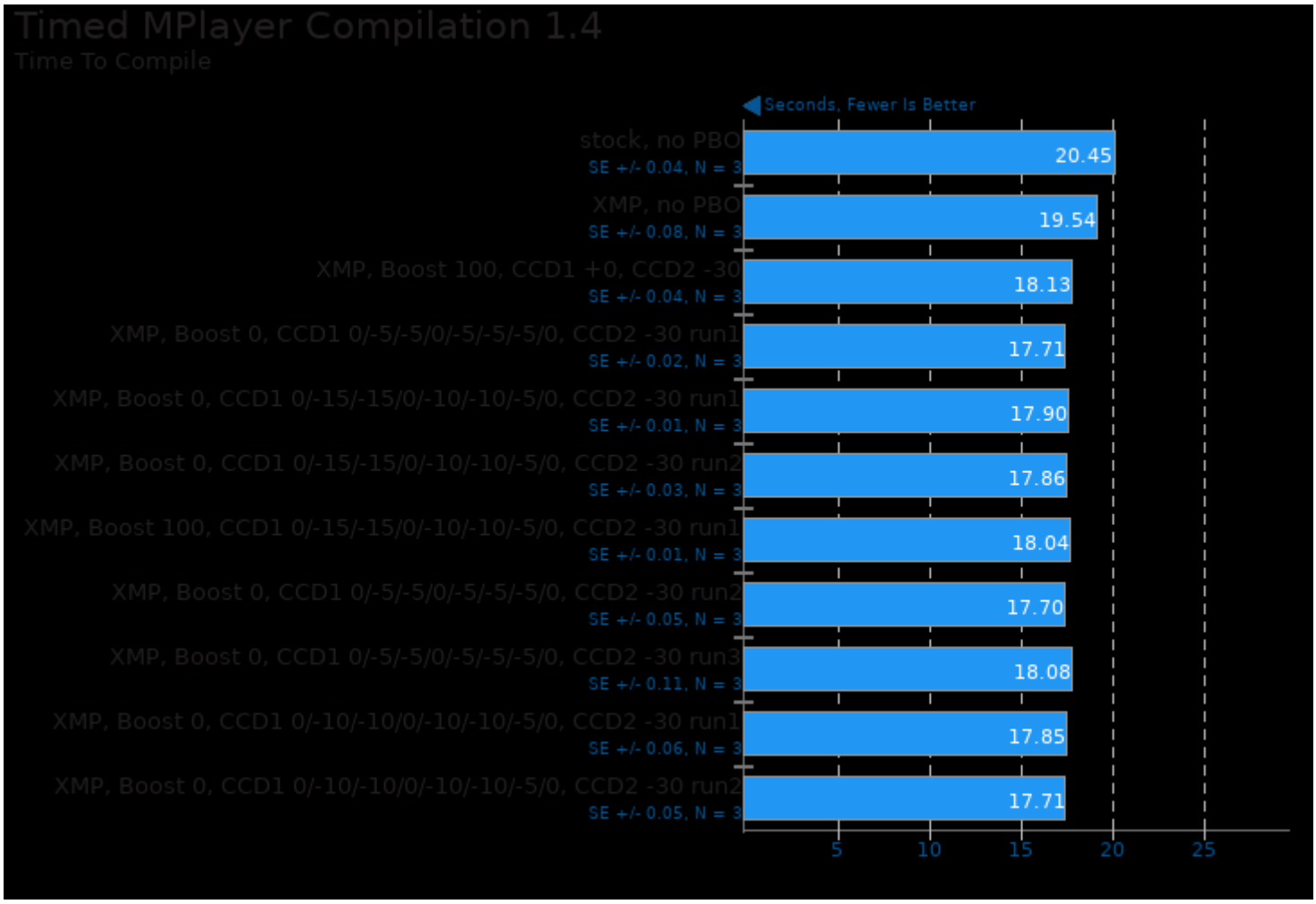
5950x_curve_optimizer_stability

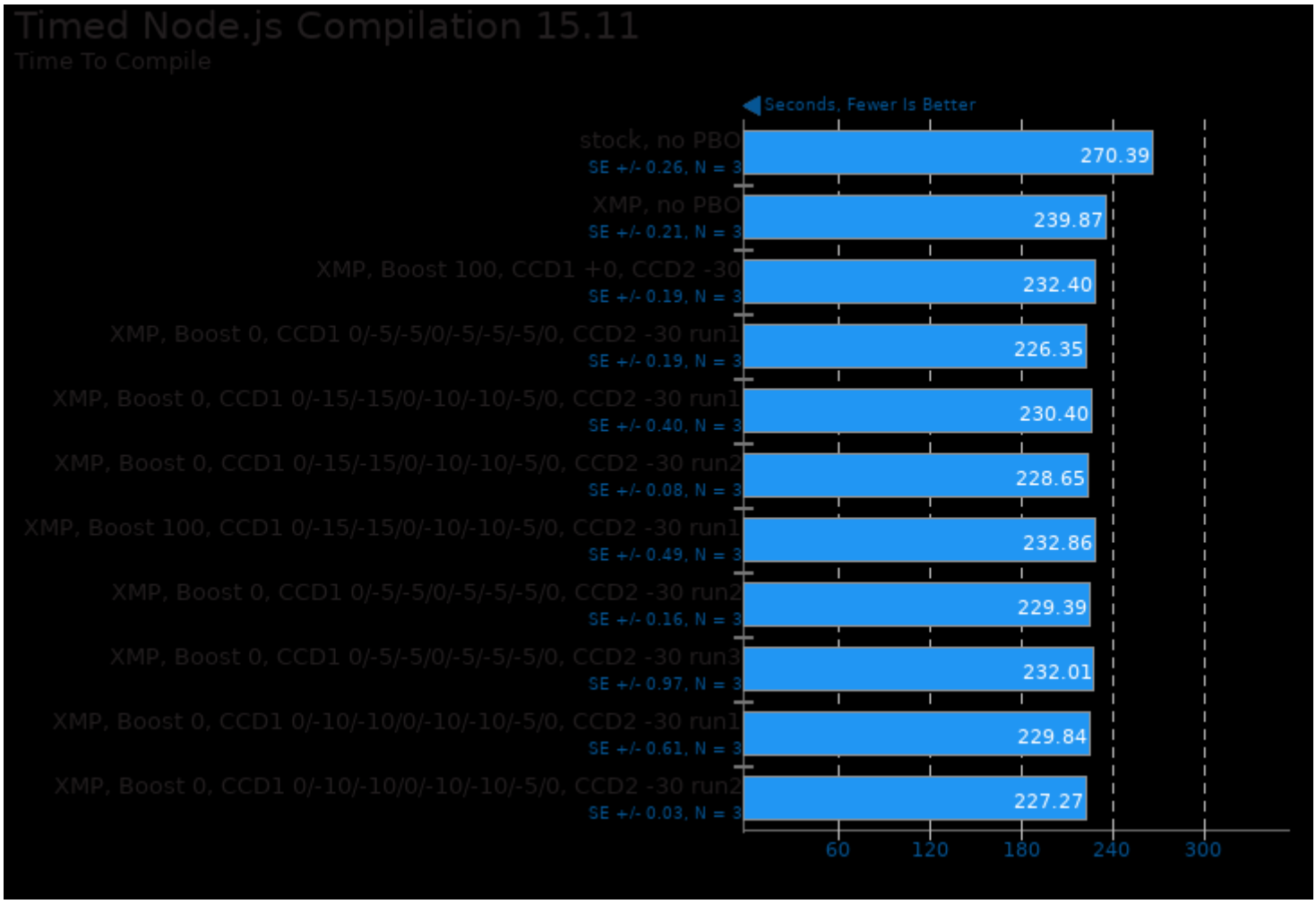


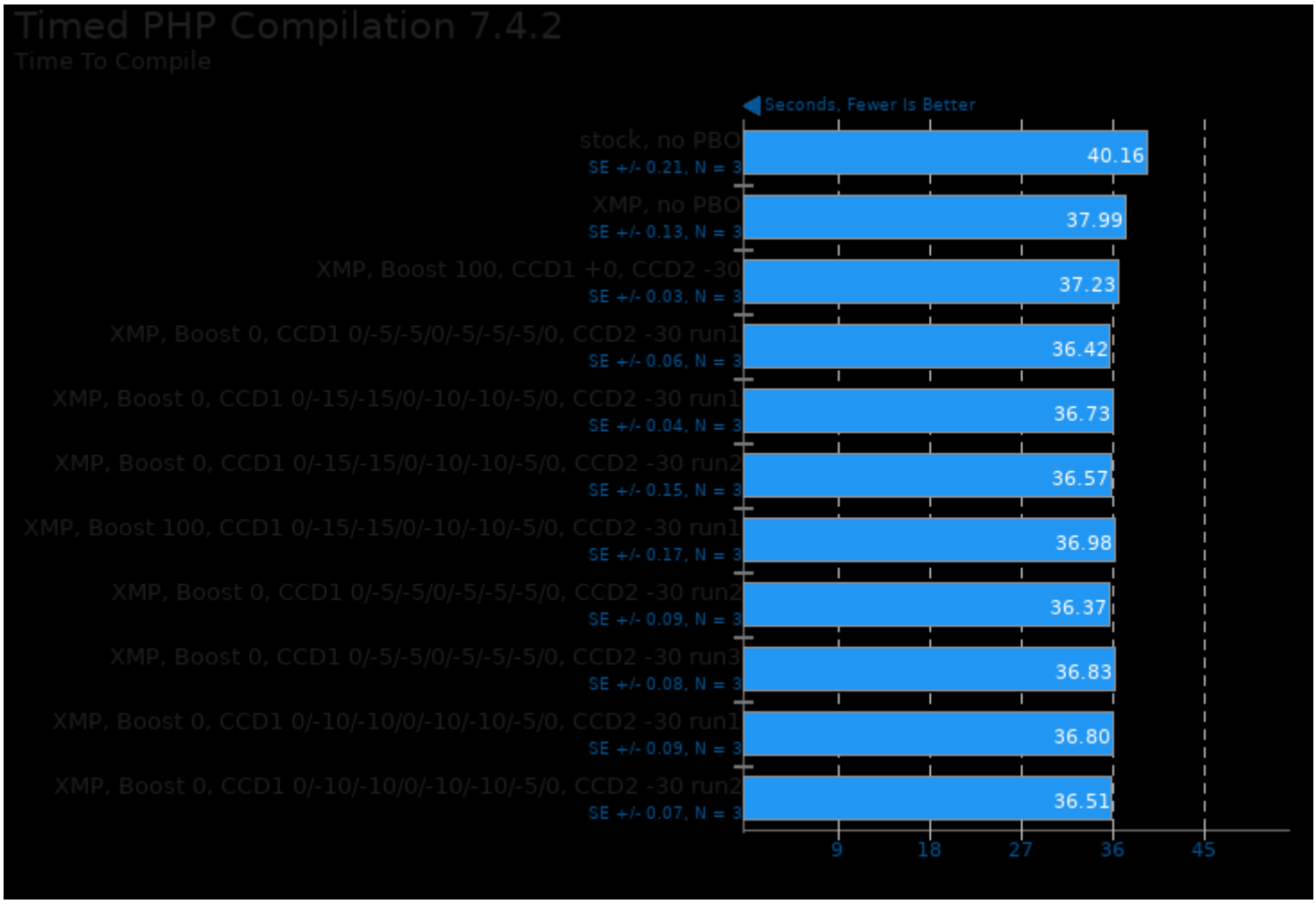

Timed LLVM Compilation 12.0
Build System: Unix Makefiles
Seconds, Fewer Is Better
stock, no PBO
SE +/- 5.60, N = 3
459.31
XMP, no PBO
SE +/- 0.82, N = 3
411.01
XMP, Boost 100, CCD1 +0, CCD2 -30
SE +/- 0.53, N = 3
398.71
XMP, Boost 0, CCD1 0/-5/-5/0/-5/-5/-5/0, CCD2 -30 run1
SE +/- 1.41, N = 3
390.75
XMP, Boost 0, CCD1 0/-15/-15/0/-10/-10/-5/0, CCD2 -30 run1
SE +/- 5.52, N = 3
390.37
XMP, Boost 0, CCD1 0/-15/-15/0/-10/-10/-5/0, CCD2 -30 run2
SE +/- 4.68, N = 3
383.78
XMP, Boost 100, CCD1 0/-15/-15/0/-10/-10/-5/0, CCD2 -30 run1
SE +/- 0.25, N = 3
397.94
XMP, Boost 0, CCD1 0/-5/-5/0/-5/-5/-5/0, CCD2 -30 run2
SE +/- 5.15, N = 3
388.21
XMP, Boost 0, CCD1 0/-5/-5/0/-5/-5/-5/0, CCD2 -30 run3
SE +/- 4.24, N = 3
391.40
XMP, Boost 0, CCD1 0/-10/-10/0/-10/-10/-5/0, CCD2 -30 run1
SE +/- 4.13, N = 4
387.22
XMP, Boost 0, CCD1 0/-10/-10/0/-10/-10/-5/0, CCD2 -30 run2
SE +/- 2.67, N = 3
384.63
100
200
300
400
500

5950x_curve_optimizer_stability

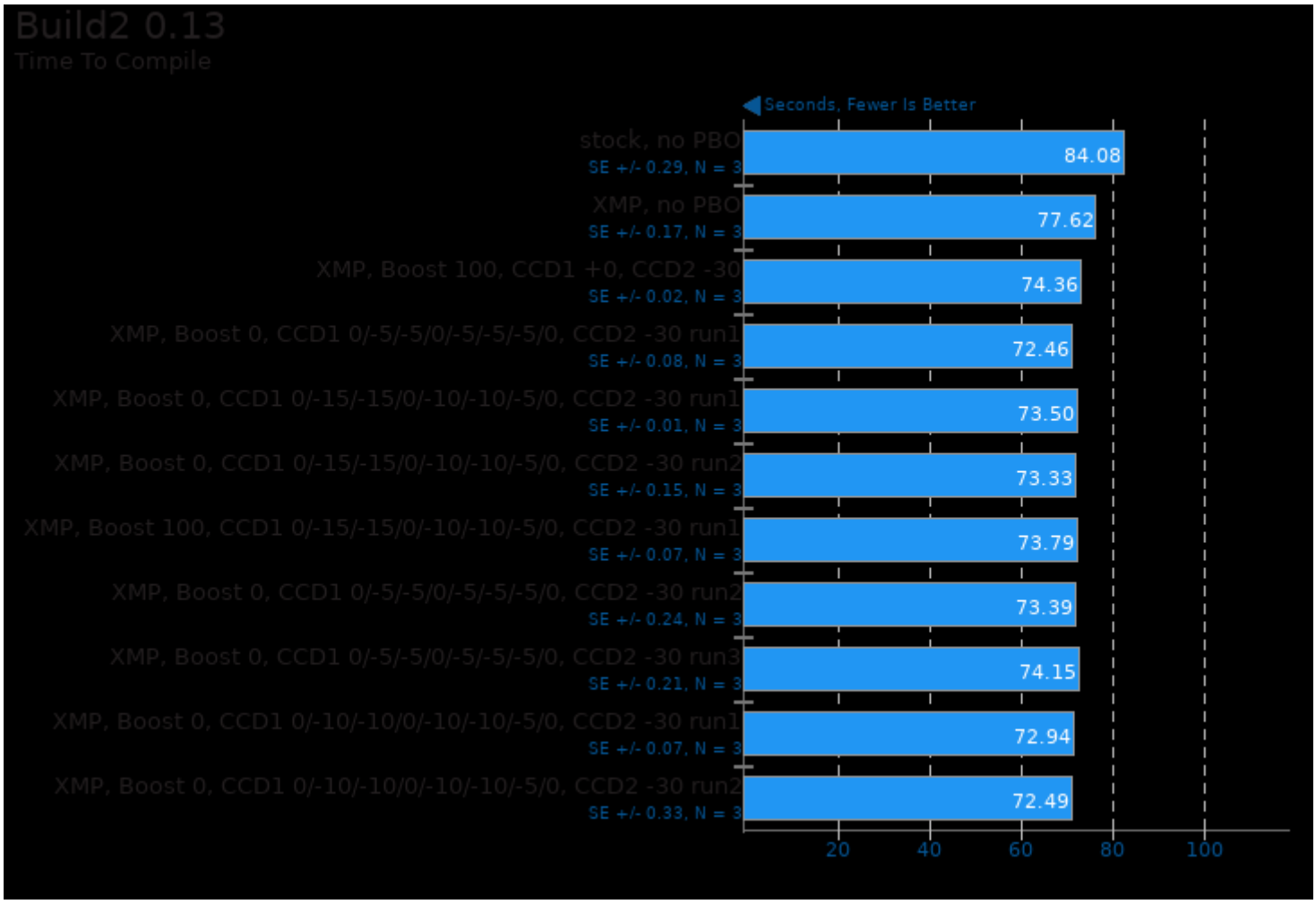



Timed MPlayer Compilation 1.4
Time To Compile
Seconds, Fewer Is Better
stock, no PBO
SE +/- 0.04, N = 3
20.45
XMP, no PBO
SE +/- 0.08, N = 3
19.54
XMP, Boost 100, CCD1 +0, CCD2 -30
SE +/- 0.04, N = 3
18.13
XMP, Boost 0, CCD1 0/-5/-5/0/-5/-5/-5/0, CCD2 -30 run1
SE +/- 0.02, N = 3
17.71
XMP, Boost 0, CCD1 0/-15/-15/0/-10/-10/-5/0, CCD2 -30 run1
SE +/- 0.01, N = 3
17.90
XMP, Boost 0, CCD1 0/-15/-15/0/-10/-10/-5/0, CCD2 -30 run2
SE +/- 0.03, N = 3
17.86
XMP, Boost 100, CCD1 0/-15/-15/0/-10/-10/-5/0, CCD2 -30 run1
SE +/- 0.01, N = 3
18.04
XMP, Boost 0, CCD1 0/-5/-5/0/-5/-5/-5/0, CCD2 -30 run2
SE +/- 0.05, N = 3
17.70
XMP, Boost 0, CCD1 0/-5/-5/0/-5/-5/-5/0, CCD2 -30 run3
SE +/- 0.11, N = 3
18.08
XMP, Boost 0, CCD1 0/-10/-10/0/-10/-10/-5/0, CCD2 -30 run1
SE +/- 0.06, N = 3
17.85
XMP, Boost 0, CCD1 0/-10/-10/0/-10/-10/-5/0, CCD2 -30 run2
SE +/- 0.05, N = 3
17.71
5
10
15
20
25

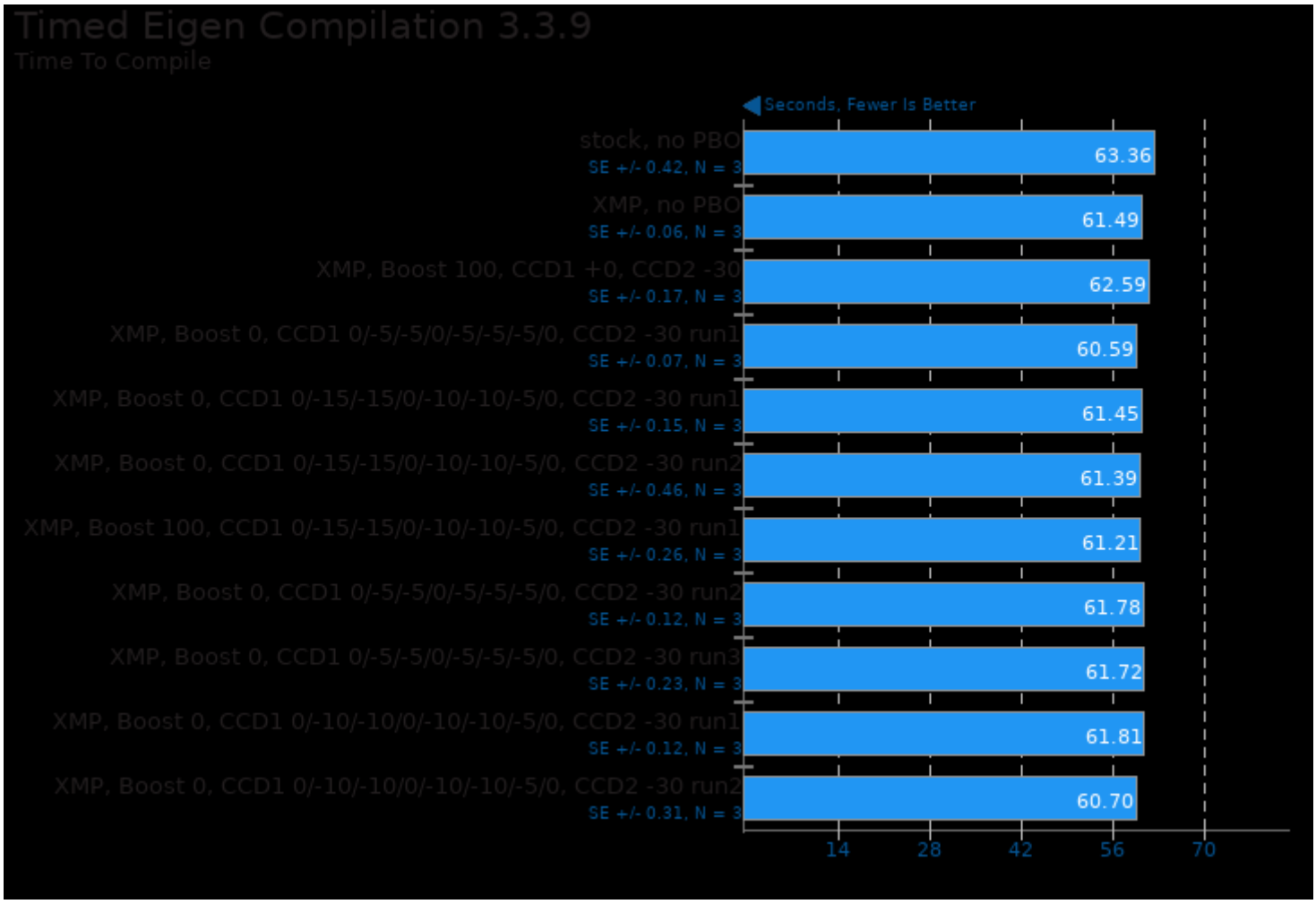

Timed Node.js Compilation 15.11
Time To Compile
Seconds, Fewer Is Better
stock, no PBO
SE +/- 0.26, N = 3
270.39
XMP, no PBO
SE +/- 0.21, N = 3
239.87
XMP, Boost 100, CCD1 +0, CCD2 -30
SE +/- 0.19, N = 3
232.40
XMP, Boost 0, CCD1 0/-5/-5/0/-5/-5/-5/0, CCD2 -30 run1
SE +/- 0.19, N = 3
226.35
XMP, Boost 0, CCD1 0/-15/-15/0/-10/-10/-5/0, CCD2 -30 run1
SE +/- 0.40, N = 3
230.40
XMP, Boost 0, CCD1 0/-15/-15/0/-10/-10/-5/0, CCD2 -30 run2
SE +/- 0.08, N = 3
228.65
XMP, Boost 100, CCD1 0/-15/-15/0/-10/-10/-5/0, CCD2 -30 run1
SE +/- 0.49, N = 3
232.86
XMP, Boost 0, CCD1 0/-5/-5/0/-5/-5/-5/0, CCD2 -30 run2
SE +/- 0.16, N = 3
229.39
XMP, Boost 0, CCD1 0/-5/-5/0/-5/-5/-5/0, CCD2 -30 run3
SE +/- 0.97, N = 3
232.01
XMP, Boost 0, CCD1 0/-10/-10/0/-10/-10/-5/0, CCD2 -30 run1
SE +/- 0.61, N = 3
229.84
XMP, Boost 0, CCD1 0/-10/-10/0/-10/-10/-5/0, CCD2 -30 run2
SE +/- 0.03, N = 3
227.27
60
120
180
240
300

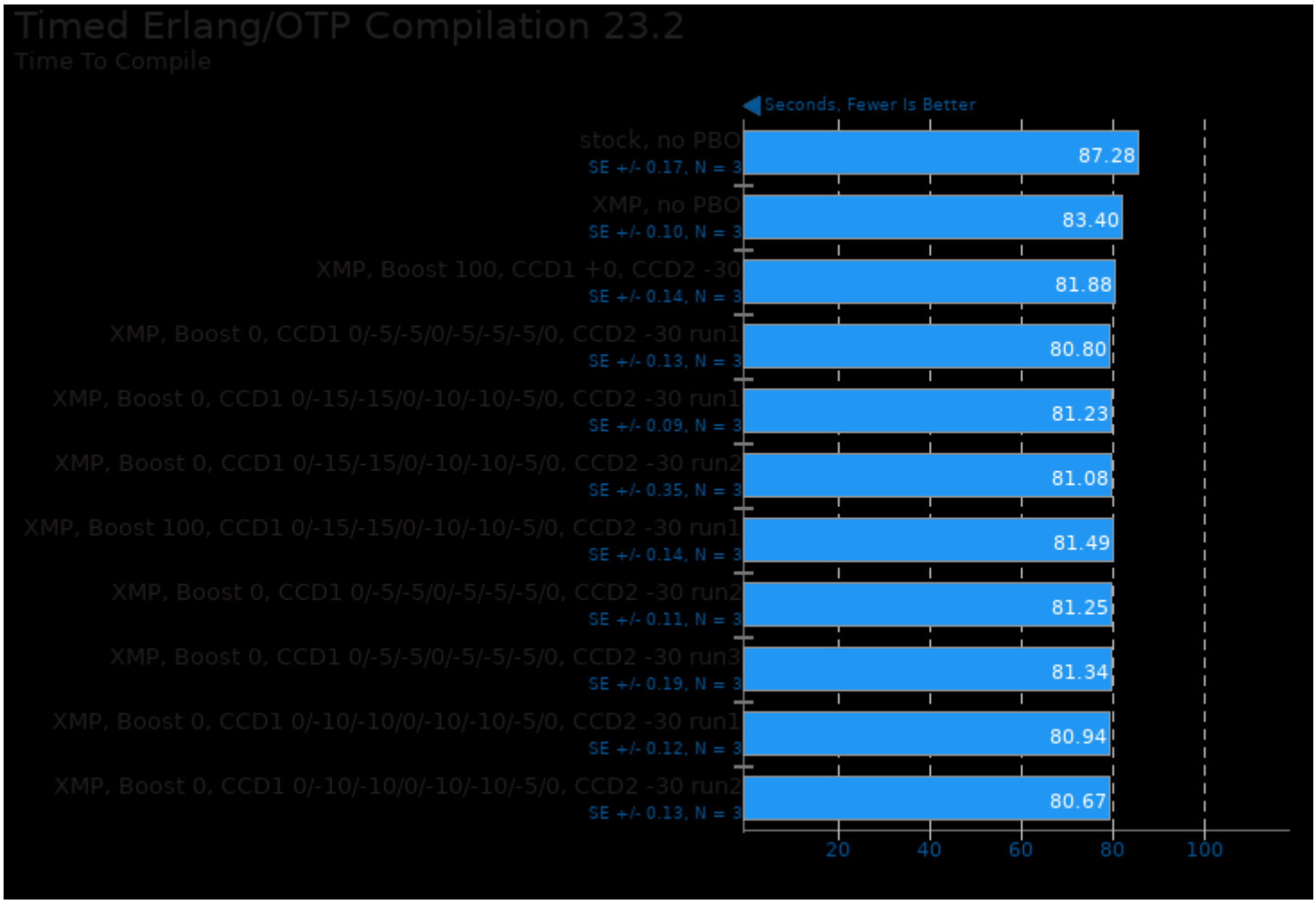

Timed PHP Compilation 7.4.2
Time To Compile
Seconds, Fewer Is Better
stock, no PBO
SE +/- 0.21, N = 3
40.16
XMP, no PBO
SE +/- 0.13, N = 3
37.99
XMP, Boost 100, CCD1 +0, CCD2 -30
SE +/- 0.03, N = 3
37.23
XMP, Boost 0, CCD1 0/-5/-5/0/-5/-5/-5/0, CCD2 -30 run1
SE +/- 0.06, N = 3
36.42
XMP, Boost 0, CCD1 0/-15/-15/0/-10/-10/-5/0, CCD2 -30 run1
SE +/- 0.04, N = 3
36.73
XMP, Boost 0, CCD1 0/-15/-15/0/-10/-10/-5/0, CCD2 -30 run2
SE +/- 0.15, N = 3
36.57
XMP, Boost 100, CCD1 0/-15/-15/0/-10/-10/-5/0, CCD2 -30 run1
SE +/- 0.17, N = 3
36.98
XMP, Boost 0, CCD1 0/-5/-5/0/-5/-5/-5/0, CCD2 -30 run2
SE +/- 0.09, N = 3
36.37
XMP, Boost 0, CCD1 0/-5/-5/0/-5/-5/-5/0, CCD2 -30 run3
SE +/- 0.08, N = 3
36.83
XMP, Boost 0, CCD1 0/-10/-10/0/-10/-10/-5/0, CCD2 -30 run1
SE +/- 0.09, N = 3
36.80
XMP, Boost 0, CCD1 0/-10/-10/0/-10/-10/-5/0, CCD2 -30 run2
SE +/- 0.07, N = 3
36.51
9
18
27
36
45

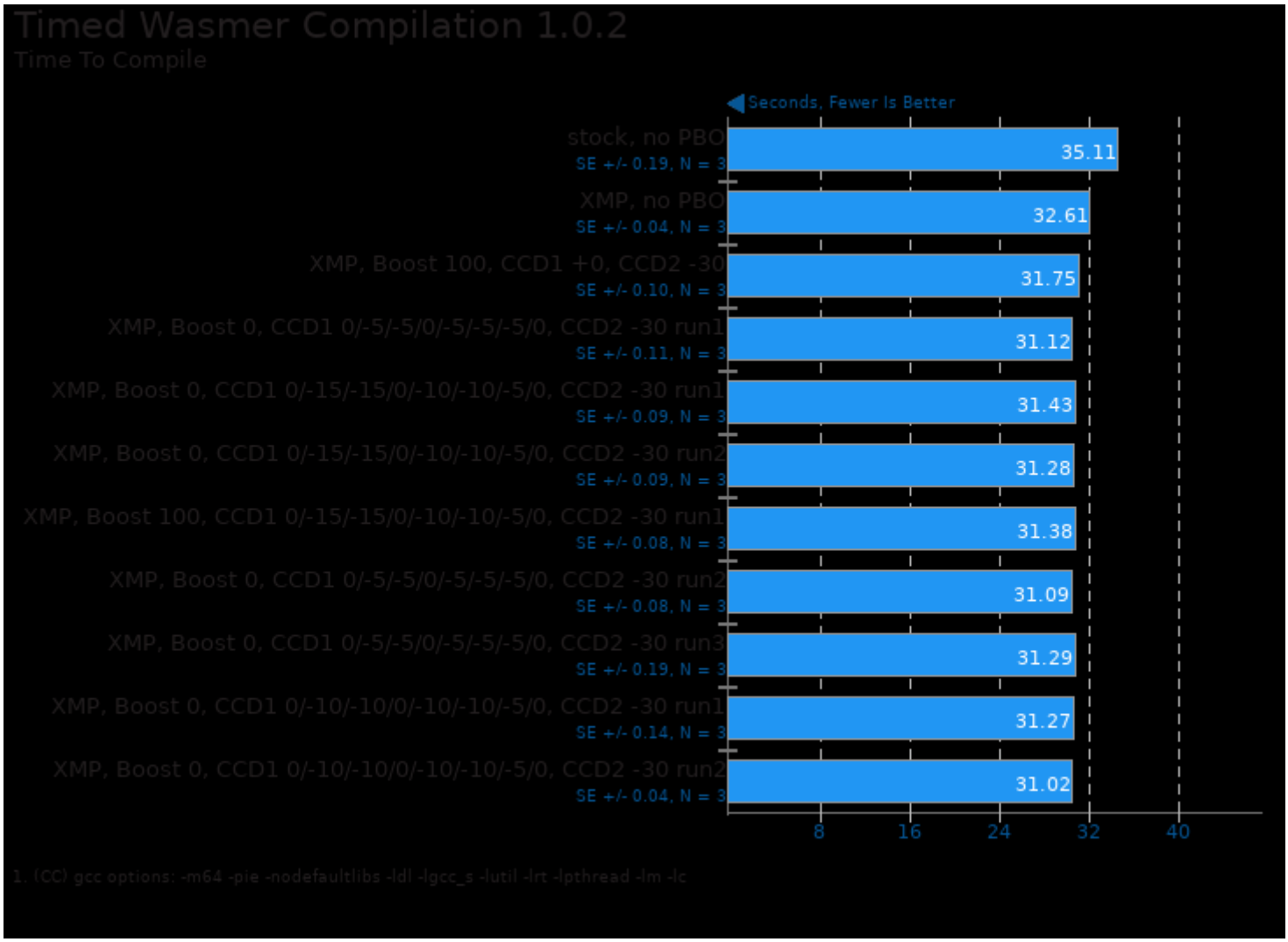
5950x_curve_optimizer_stability



5950x_curve_optimizer_stability

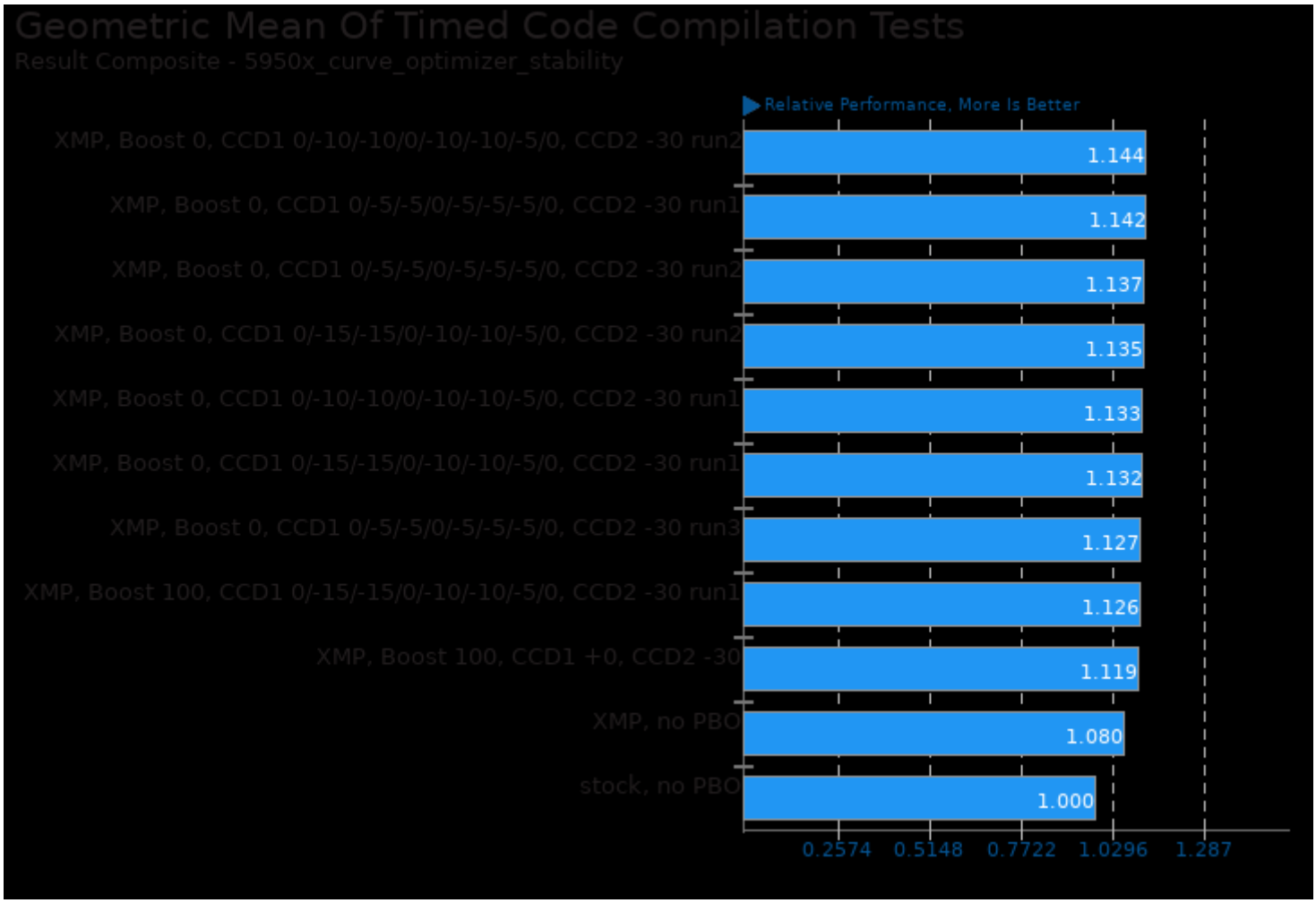



Timed Erlang/OTP Compilation 23.2
Time To Compile
Seconds, Fewer Is Better
stock, no PBO
SE +/- 0.17, N = 3
87.28
XMP, no PBO
SE +/- 0.10, N = 3
83.40
XMP, Boost 100, CCD1 +0, CCD2 -30
SE +/- 0.14, N = 3
81.88
XMP, Boost 0, CCD1 0/-5/-5/0/-5/-5/-5/0, CCD2 -30 run1
SE +/- 0.13, N = 3
80.80
XMP, Boost 0, CCD1 0/-15/-15/0/-10/-10/-5/0, CCD2 -30 run1
SE +/- 0.09, N = 3
81.23
XMP, Boost 0, CCD1 0/-15/-15/0/-10/-10/-5/0, CCD2 -30 run2
SE +/- 0.35, N = 3
81.08
XMP, Boost 100, CCD1 0/-15/-15/0/-10/-10/-5/0, CCD2 -30 run1
SE +/- 0.14, N = 3
81.49
XMP, Boost 0, CCD1 0/-5/-5/0/-5/-5/-5/0, CCD2 -30 run2
SE +/- 0.11, N = 3
81.25
XMP, Boost 0, CCD1 0/-5/-5/0/-5/-5/-5/0, CCD2 -30 run3
SE +/- 0.19, N = 3
81.34
XMP, Boost 0, CCD1 0/-10/-10/0/-10/-10/-5/0, CCD2 -30 run1
SE +/- 0.12, N = 3
80.94
XMP, Boost 0, CCD1 0/-10/-10/0/-10/-10/-5/0, CCD2 -30 run2
SE +/- 0.13, N = 3
80.67
20
40
60
80
100


Timed Wasmer Compilation 1.0.2
Time To Compile
Seconds, Fewer Is Better
stock, no PBO
SE +/- 0.19, N = 3
35.11
XMP, no PBO
SE +/- 0.04, N = 3
32.61
XMP, Boost 100, CCD1 +0, CCD2 -30
SE +/- 0.10, N = 3
31.75
XMP, Boost 0, CCD1 0/-5/-5/0/-5/-5/-5/0, CCD2 -30 run1
SE +/- 0.11, N = 3
31.12
XMP, Boost 0, CCD1 0/-15/-15/0/-10/-10/-5/0, CCD2 -30 run1
SE +/- 0.09, N = 3
31.43
XMP, Boost 0, CCD1 0/-15/-15/0/-10/-10/-5/0, CCD2 -30 run2
SE +/- 0.09, N = 3
31.28
XMP, Boost 100, CCD1 0/-15/-15/0/-10/-10/-5/0, CCD2 -30 run1
SE +/- 0.08, N = 3
31.38
XMP, Boost 0, CCD1 0/-5/-5/0/-5/-5/-5/0, CCD2 -30 run2
SE +/- 0.08, N = 3
31.09
XMP, Boost 0, CCD1 0/-5/-5/0/-5/-5/-5/0, CCD2 -30 run3
SE +/- 0.19, N = 3
31.29
XMP, Boost 0, CCD1 0/-10/-10/0/-10/-10/-5/0, CCD2 -30 run1
SE +/- 0.14, N = 3
31.27
XMP, Boost 0, CCD1 0/-10/-10/0/-10/-10/-5/0, CCD2 -30 run2
SE +/- 0.04, N = 3
31.02
8
16
24
32
40
1. (CC) gcc options: -m64 -pie -nodefaultlibs -ldl -lgcc_s -lutil -lrt -lpthread -lm -lc

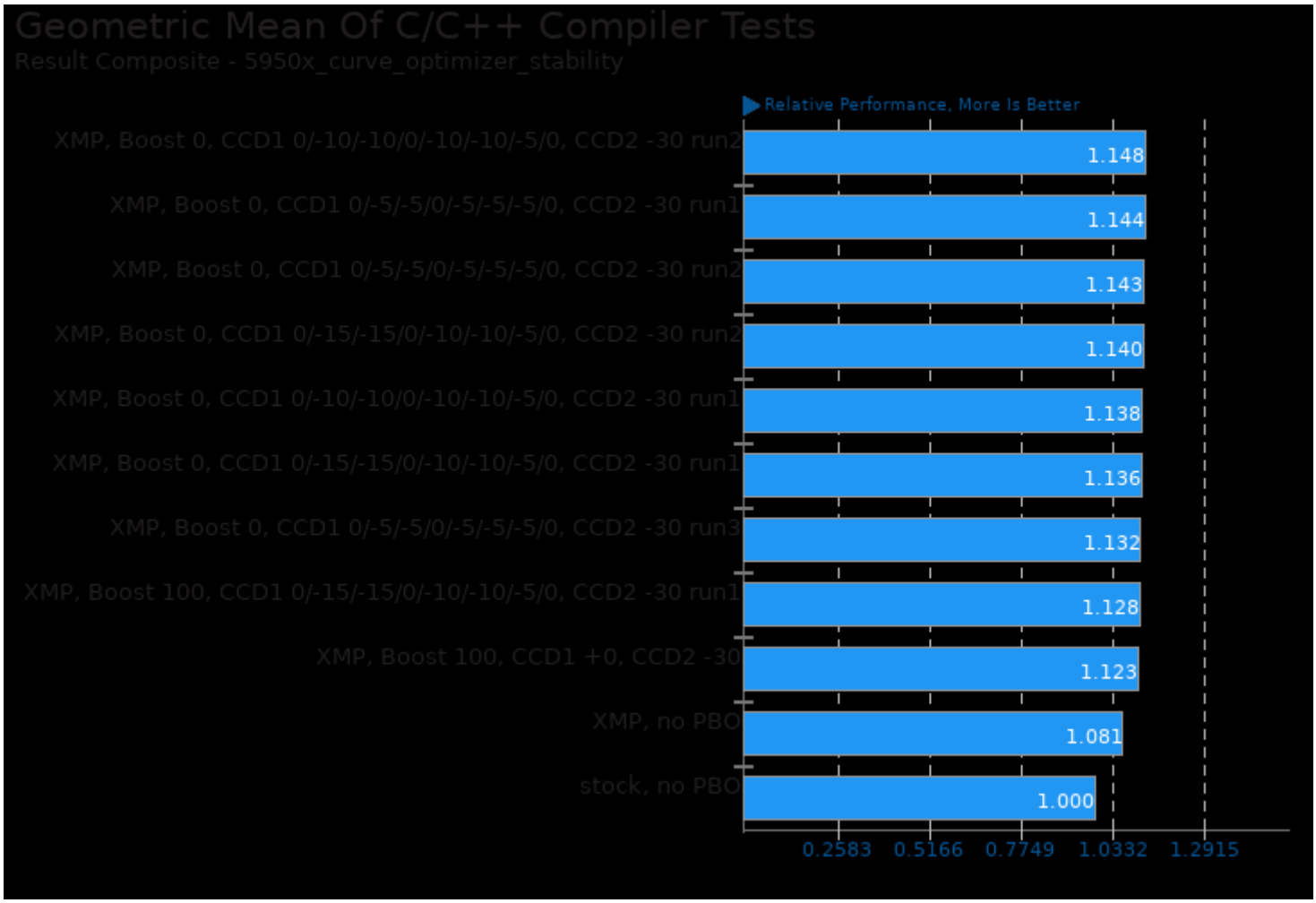
5950x_curve_optimizer_stability

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

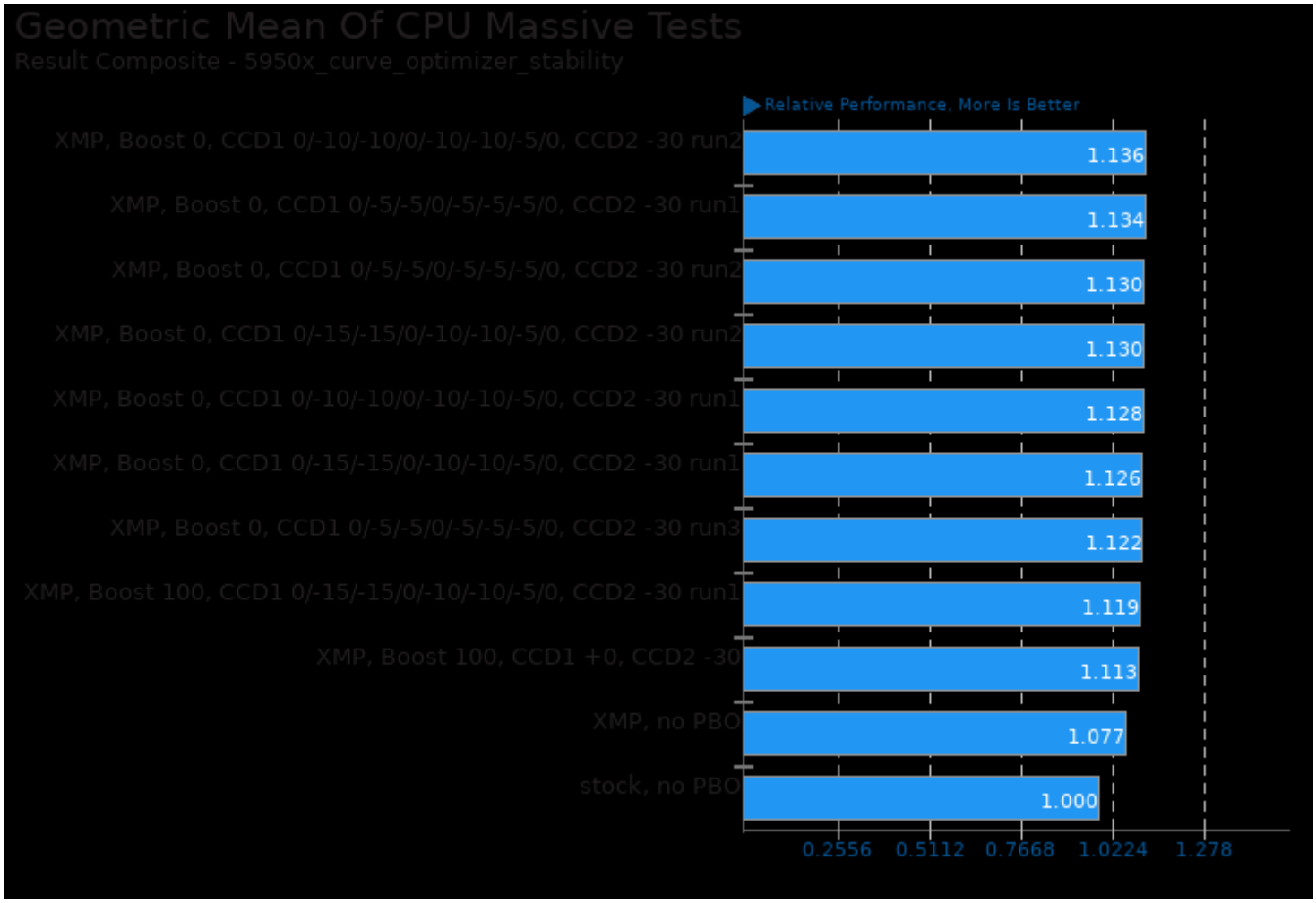


Geometric mean based upon tests: pts/build-apache, pts/build-php, pts/build-eigen, pts/build-linux-kernel, pts/build-imagemagick, pts/build-gcc, pts/build-gdb, pts/build-llvm, pts/build-ffmpeg, pts/build-mplayer, pts/build2, pts/build-godot, pts/build-erlang, pts/build-wasmer, pts/build-nodejs and pts/build-mesa

5950x_curve_optimizer_stability

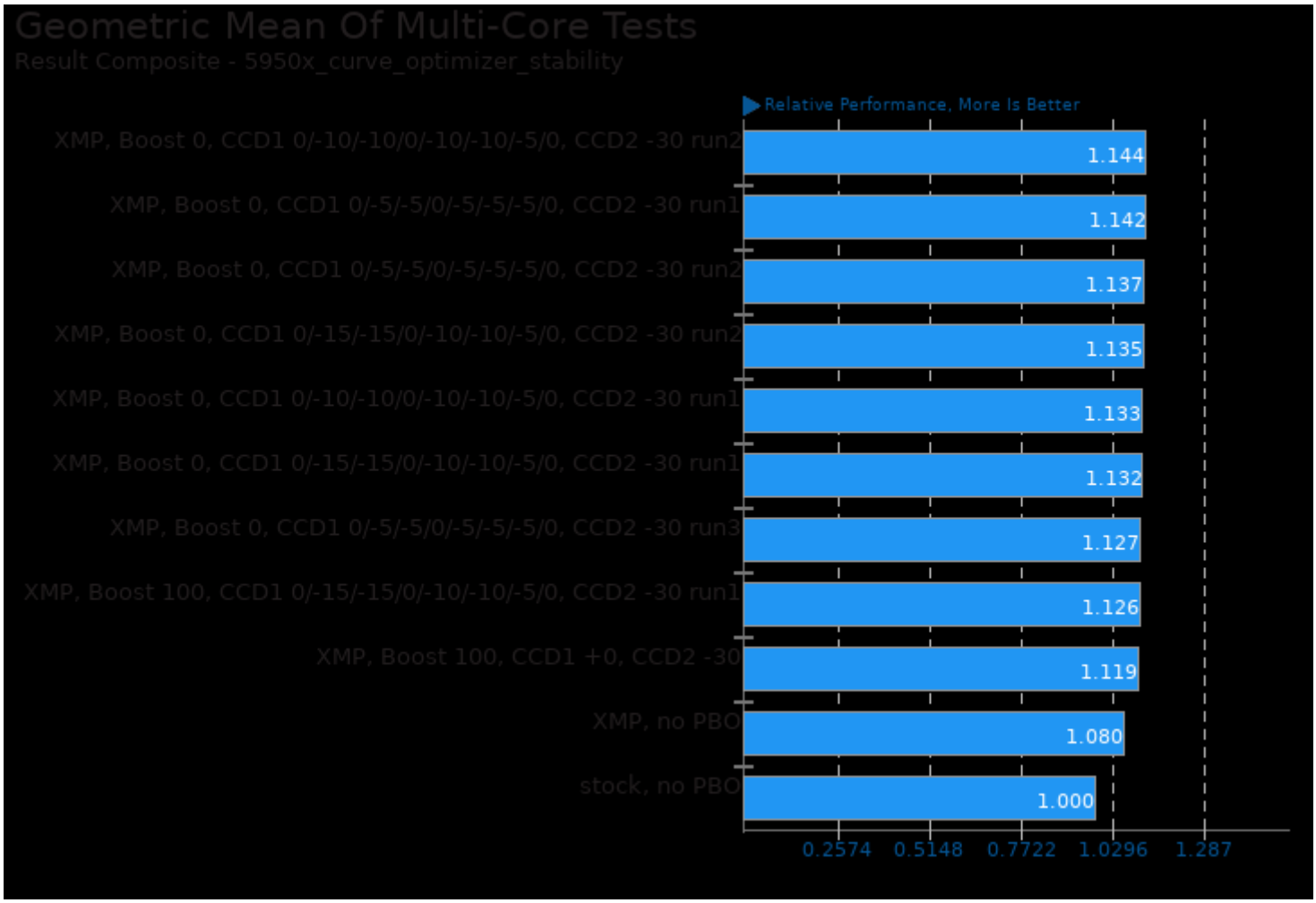


Geometric mean based upon tests: pts/build-php, pts/build-imagemagick, pts/build-llvm, pts/build-gdb, pts/build-ffmpeg, pts/build-apache and pts/build-mplayer



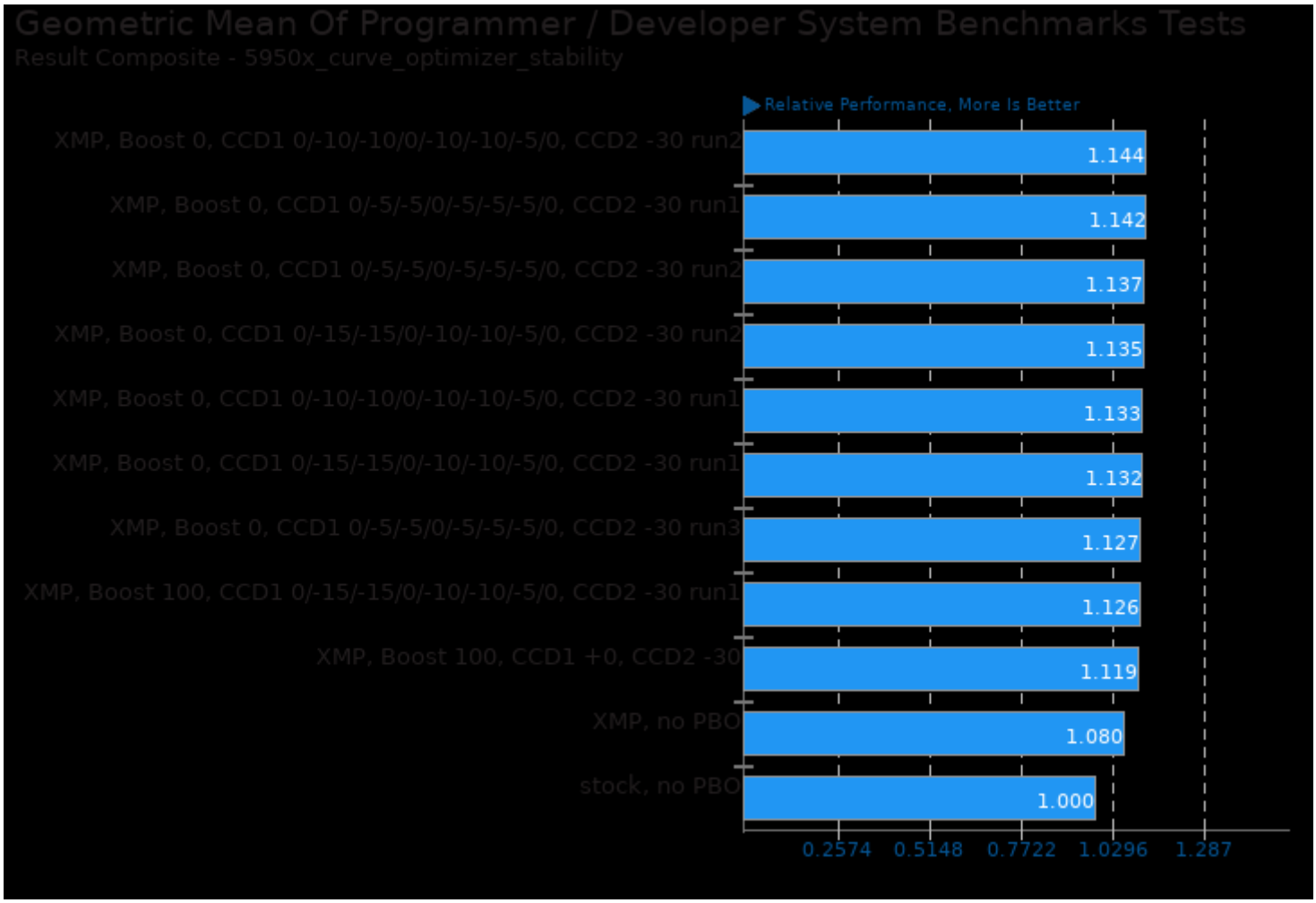
Geometric mean based upon tests: pts/build-apache, pts/build-gcc, pts/build-llvm, pts/build-linux-kernel and pts/build-php

5950x_curve_optimizer_stability



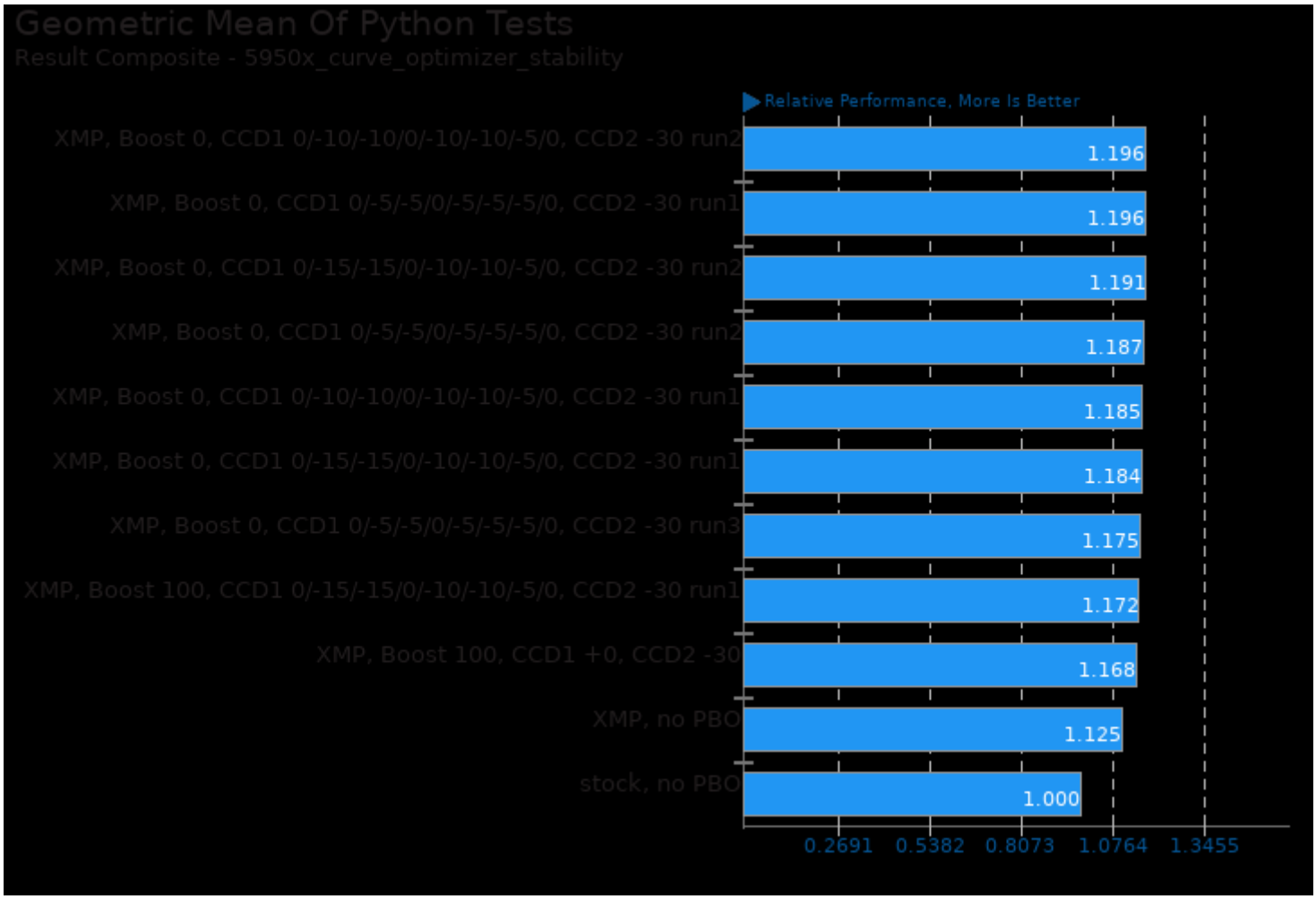
Geometric mean based upon tests: pts/build-apache, pts/build-php, pts/build-eigen, pts/build-linux-kernel, pts/build-imagemagick, pts/build-gcc, pts/build-gdb, pts/build-llvm, pts/build-ffmpeg, pts/build-mplayer, pts/build2, pts/build-godot, pts/build-erlang, pts/build-wasmer, pts/build-nodejs and pts/build-mesa

5950x_curve_optimizer_stability



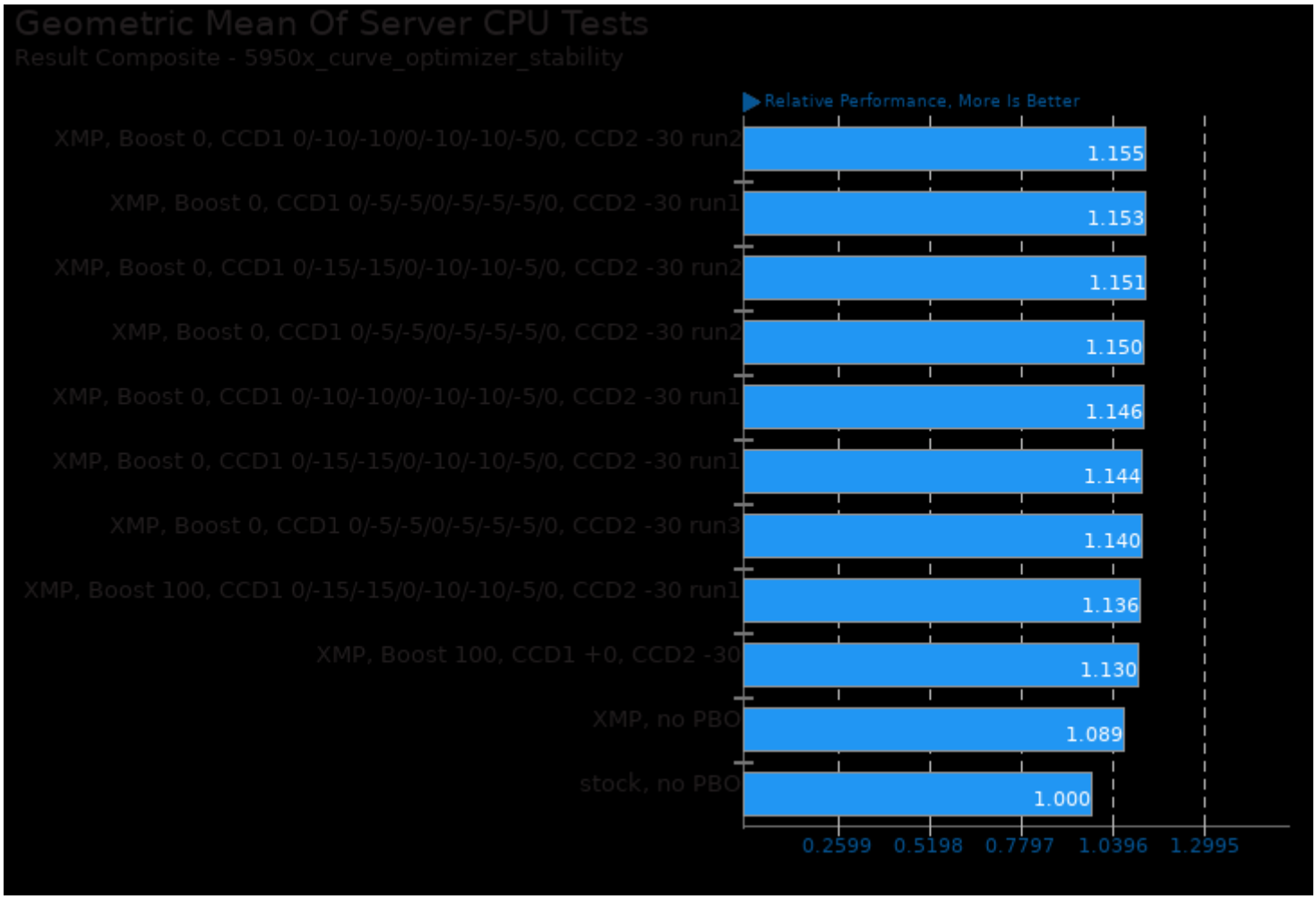
Geometric mean based upon tests: pts/build-apache, pts/build-php, pts/build-eigen, pts/build-linux-kernel, pts/build-imagemagick, pts/build-gcc, pts/build-gdb, pts/build-llvm, pts/build-ffmpeg, pts/build-mplayer, pts/build2, pts/build-godot, pts/build-erlang, pts/build-wasmer, pts/build-nodejs and pts/build-mesa

5950x_curve_optimizer_stability



Geometric mean based upon tests: pts/build-godot, pts/build-llvm, pts/build-mesa and pts/build-nodejs

5950x_curve_optimizer_stability



Geometric mean based upon tests: pts/build-gcc, pts/build-linux-kernel, pts/build-php and pts/build-llvm

This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 05:46.