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s25

Intel Xeon Gold 6312U testing with a Supermicro X12SPW-TF v2.00 (1.4 BIOS) and astdrmfb on Rocky Linux 8.6 via the Phoronix Test Suite.

Automated Executive Summary

s28 had the most wins, coming in first place for 43% of the tests.

Based on the geometric mean of all complete results, the fastest (s28) was 2.458x the speed of the slowest (s26). au2 was 0.841x the speed of s28, uk7 was 0.874x the speed of au2, uk8 was 0.866x the speed of uk7, s30 was 0.975x the speed of uk8, s29 was 0.994x the speed of s30, s32 was 0.999x the speed of s29, s27 was 0.858x the speed of s32, s25 was 0.972x the speed of s27, s31 was 0.955x the speed of s25, s26 was 0.83x the speed of s31.

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

Flexible IO Tester (Type: Random Read - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 64KB - Disk Target: Default Test Directory) at 7.558x
Flexible IO Tester (Type: Random Read - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 64KB - Disk Target: Default Test Directory) at 7.542x
Flexible IO Tester (Type: Random Read - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 32KB - Disk Target: Default Test Directory) at 6.42x
Flexible IO Tester (Type: Random Read - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 32KB - Disk Target:

Default Test Directory) at 6.403x
Flexible IO Tester (Type: Random Read - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 16KB - Disk Target: Default Test Directory) at 5.625x
Flexible IO Tester (Type: Random Read - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 16KB - Disk Target: Default Test Directory) at 5.594x
Flexible IO Tester (Type: Random Read - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 8KB - Disk Target: Default Test Directory) at 4.76x
Flexible IO Tester (Type: Random Read - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 8KB - Disk Target: Default Test Directory) at 4.758x
Flexible IO Tester (Type: Random Read - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 4KB - Disk Target: Default Test Directory) at 4.354x
Flexible IO Tester (Type: Random Read - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 4KB - Disk Target: Default Test Directory) at 4.347x.

Test Systems:

s25

Processor: Intel Xeon Gold 6238R @ 4.00GHz (28 Cores / 56 Threads), Motherboard: Supermicro X11SPL-F v1.02 (3.3 BIOS), Chipset: Intel Sky Lake-E DMI3 Registers, Memory: 6 x 32 GB DDR4-2933MT/s 36ASF4G72PZ-2G9J3, Disk: 5758GB MR9361-8i, Graphics: ASPEED, Network: 2 x Intel I210

OS: CentOS Linux 8, Kernel: 4.18.0-193.19.1.el8_2.x86_64 (x86_64), Compiler: GCC 8.3.1 20191121, File-System: xfs, Screen Resolution: 1024x768

Compiler Notes: --build=x86_64-redhat-linux --disable-libmpx --disable-libunwind-exceptions --enable-__cxa_atexit --enable-bootstrap --enable-cet --enable-checking=release --enable-gnu-indirect-function --enable-gnu-unique-object --enable-initfini-array --enable-languages=c,c++,fortran,lto --enable-multilib --enable-offload-targets=nvptx-none --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-arch_32=x86-64 --with-gcc-major-version-only --with-isl --with-linker-hash-style=gnu --with-tune=generic --without-cuda-driver
Disk Notes: MQ-DEADLINE / attr2,inode64,noquota,relatime,rw,seclabel,sunit=128,swidth=512
Processor Notes: Scaling Governor: intel_pstate performance - CPU Microcode: 0x5002f01
Security Notes: itlb_multihit: KVM: Mitigation of Split huge pages + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Enhanced IBRS IBPB: conditional RSB filling + srbds: Not affected + tsx_async_abort: Mitigation of Clear buffers; SMT vulnerable

s26

Processor: Intel Xeon Gold 6238R @ 4.00GHz (28 Cores / 56 Threads), Motherboard: Supermicro X11SPL-F v1.02 (3.4 BIOS), Chipset: Intel Sky Lake-E DMI3 Registers, Memory: 6 x 32 GB DDR4-2933MT/s 18ASF4G72PZ-2G9B1, Disk: 5758GB MR9361-8i, Graphics: ASPEED, Network: 2 x Intel I210

OS: CentOS Linux 8, Kernel: 4.18.0-240.10.1.el8_3.x86_64 (x86_64), Compiler: GCC 8.3.1 20191121, File-System: xfs, Screen Resolution: 1024x768

Compiler Notes: --build=x86_64-redhat-linux --disable-libmpx --disable-libunwind-exceptions --enable-__cxa_atexit --enable-bootstrap --enable-cet --enable-checking=release --enable-gnu-indirect-function --enable-gnu-unique-object --enable-initfini-array --enable-languages=c,c++,fortran,lto --enable-multilib --enable-offload-targets=nvptx-none --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-arch_32=x86-64 --with-gcc-major-version-only --with-isl --with-linker-hash-style=gnu --with-tune=generic --without-cuda-driver
Disk Notes: MQ-DEADLINE / attr2,inode64,logbsize=32k,logbufs=8,noquota,relatime,rw,seclabel,sunit=128,swidth=512 / Block Size: 4096
Processor Notes: Scaling Governor: intel_pstate performance - CPU Microcode: 0x5003003
Security Notes: SELinux + itlb_multihit: KVM: Mitigation of Split huge pages + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Enhanced

IBRS IBPB: conditional RSB filling + srbds: Not affected + tsx_async_abort: Mitigation of TSX disabled

s27

Processor: Intel Xeon Gold 6238R @ 4.00GHz (28 Cores / 56 Threads), Motherboard: Supermicro X11SPL-F v1.02 (3.4 BIOS), Chipset: Intel Sky Lake-E DMI3 Registers, Memory: 6 x 32 GB DDR4-2933MT/s 18ASF4G72PZ-2G9E1, Disk: 5758GB MR9361-8i, Graphics: ASPEED, Network: 2 x Intel I210

OS: CentOS Linux 8, Kernel: 4.18.0-305.3.1.el8.x86_64 (x86_64), Compiler: GCC 8.4.1 20200928, File-System: xfs, Screen Resolution: 1024x768

Kernel Notes: Transparent Huge Pages: always
Compiler Notes: --build=x86_64-redhat-linux --disable-libmpx --disable-libunwind-exceptions --enable-__cxa_atexit --enable-bootstrap --enable-cet --enable-checking=release --enable-gnu-indirect-function --enable-gnu-unique-object --enable-initfini-array --enable-languages=c,c++,fortran,lto --enable-multilib --enable-offload-targets=nvptx-none --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-arch_32=x86-64 --with-gcc-major-version-only --with-isl --with-linker-hash-style=gnu --with-tune=generic --without-cuda-driver
Disk Notes: NONE / attr2,inode64,logbsize=32k,logbufs=8,noquota,relatime,rw,seclabel,sunit=128,swidth=512 / Block Size: 4096
Processor Notes: Scaling Governor: intel_pstate performance - CPU Microcode: 0x5003006
Security Notes: SELinux + itlb_multihit: KVM: Mitigation of Split huge pages + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Enhanced IBRS IBPB: conditional RSB filling + srbds: Not affected + tsx_async_abort: Mitigation of TSX disabled

s28

Processor: Intel Xeon Gold 6312U @ 3.60GHz (24 Cores / 48 Threads), Motherboard: Supermicro X12SPL-F v2.00 (1.1 BIOS), Chipset: Intel Device 0998, Memory: 8 x 32 GB DDR4-3200MT/s 18ASF4G72PDZ-3G2E1, Disk: 6718GB MR9361-8i, Graphics: ASPEED, Network: 2 x Intel I210

OS: CentOS Linux 8, Kernel: 4.18.0-305.12.1.el8_4.x86_64 (x86_64), Compiler: GCC 8.4.1 20200928, File-System: xfs, Screen Resolution: 1024x768

Kernel Notes: Transparent Huge Pages: always
Compiler Notes: --build=x86_64-redhat-linux --disable-libmpx --disable-libunwind-exceptions --enable-__cxa_atexit --enable-bootstrap --enable-cet --enable-checking=release --enable-gnu-indirect-function --enable-gnu-unique-object --enable-initfini-array --enable-languages=c,c++,fortran,lto --enable-multilib --enable-offload-targets=nvptx-none --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-arch_32=x86-64 --with-gcc-major-version-only --with-isl --with-linker-hash-style=gnu --with-tune=generic --without-cuda-driver
Disk Notes: NONE / attr2,inode64,logbsize=32k,logbufs=8,noquota,relatime,rw,seclabel,sunit=128,swidth=512 / Block Size: 4096
Processor Notes: Scaling Governor: intel_pstate performance - CPU Microcode: 0xd0002a0
Security Notes: SELinux + itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Enhanced IBRS IBPB: conditional RSB filling + srbds: Not affected + tsx_async_abort: Not affected

uk7

Processor: Intel Xeon Gold 6312U @ 3.60GHz (24 Cores / 48 Threads), Motherboard: Supermicro X12SPL-F v2.00 (1.1c BIOS), Chipset: Intel Device 0998, Memory: 8 x 32 GB DDR4-3200MT/s Samsung M393A4G40AB3-CWE, Disk: 6718GB MR9361-8i, Graphics: ASPEED, Network: 2 x Intel I210

OS: CentOS Linux 8, Kernel: 4.18.0-348.7.1.el8_5.x86_64 (x86_64), Compiler: GCC 8.5.0 20210514, File-System: xfs, Screen Resolution: 1024x768

Kernel Notes: Transparent Huge Pages: always
Compiler Notes: --build=x86_64-redhat-linux --disable-libmpx --disable-libunwind-exceptions --enable-__cxa_atexit --enable-bootstrap --enable-cet --enable-checking=release --enable-gnu-indirect-function --enable-gnu-unique-object --enable-initfini-array --enable-languages=c,c++,fortran,lto --enable-multilib --enable-offload-targets=nvptx-none --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-arch_32=x86-64 --with-gcc-major-version-only --with-isl --with-linker-hash-style=gnu --with-tune=generic --without-cuda-driver
Disk Notes: MQ-DEADLINE / attr2,inode64,logbsize=32k,logbufs=8,noquota,relatime,rw,seclabel,sunit=128,swidth=512 / Block Size: 4096
Processor Notes: Scaling Governor: intel_pstate performance (EPP: performance) - CPU Microcode: 0xd000311
Security Notes: SELinux + itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Enhanced IBRS IBPB: conditional RSB filling + srbds: Not affected + tsx_async_abort: Not affected

s29

s30

Processor: Intel Xeon Gold 6312U @ 3.60GHz (24 Cores / 48 Threads), Motherboard: Supermicro X12SPL-F v2.00 (1.1c BIOS), Chipset: Intel Device 0998, Memory: 8 x 32 GB DDR4-3200MT/s 36ASF4G72PZ-3G2R1, Disk: 6718GB MR9361-8i, Graphics: ASPEED, Network: 2 x Intel I210

OS: Rocky Linux 8.5, Kernel: 4.18.0-348.12.2.el8_5.x86_64 (x86_64), Compiler: GCC 8.5.0 20210514, File-System: xfs, Screen Resolution: 1024x768

Kernel Notes: Transparent Huge Pages: always
Compiler Notes: --build=x86_64-redhat-linux --disable-libmpx --disable-libunwind-exceptions --enable-__cxa_atexit --enable-bootstrap --enable-cet --enable-checking=release --enable-gnu-indirect-function --enable-gnu-unique-object --enable-initfini-array --enable-languages=c,c++,fortran,lto --enable-multilib --enable-offload-targets=nvptx-none --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-arch_32=x86-64 --with-gcc-major-version-only --with-isl --with-linker-hash-style=gnu --with-tune=generic --without-cuda-driver
Disk Notes: MQ-DEADLINE / attr2,inode64,logbsize=32k,logbufs=8,noquota,relatime,rw,sunit=128,swidth=512 / Block Size: 4096
Processor Notes: Scaling Governor: intel_pstate performance (EPP: performance) - CPU Microcode: 0xd000311
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Enhanced IBRS IBPB: conditional RSB filling + srbds: Not affected + tsx_async_abort: Not affected

s31

s32

Processor: Intel Xeon Gold 6312U @ 3.60GHz (24 Cores / 48 Threads), Motherboard: Supermicro X12SPL-F v2.00 (1.1c BIOS), Chipset: Intel Device 0998, Memory: 8 x 32 GB DDR4-3200MT/s 18ASF4G72PDZ-3G2B2, Disk: 6718GB MR9361-8i, Graphics: ASPEED, Network: 2 x Intel I210

OS: Rocky Linux 8.5, Kernel: 4.18.0-348.20.1.el8_5.x86_64 (x86_64), Compiler: GCC 8.5.0 20210514, File-System: xfs, Screen Resolution: 1024x768

Kernel Notes: Transparent Huge Pages: always
Compiler Notes: --build=x86_64-redhat-linux --disable-libmpx --disable-libunwind-exceptions --enable-__cxa_atexit --enable-bootstrap --enable-cet --enable-checking=release --enable-gnu-indirect-function --enable-gnu-unique-object --enable-initfini-array --enable-languages=c,c++,fortran,lto --enable-multilib --enable-offload-targets=nvptx-none --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-arch_32=x86-64 --with-gcc-major-version-only --with-isl --with-linker-hash-style=gnu --with-tune=generic --without-cuda-driver
Disk Notes: MQ-DEADLINE / attr2,inode64,logbsize=32k,logbufs=8,noquota,relatime,rw,seclabel,sunit=128,swidth=512 / Block Size: 4096
Processor Notes: Scaling Governor: intel_pstate performance (EPP: performance) - CPU Microcode: 0xd000311
Security Notes: SELinux + itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Enhanced IBRS IBPB: conditional RSB filling + srbds: Not affected + tsx_async_abort: Not affected

uk8

Processor: Intel Xeon Gold 6312U @ 3.60GHz (24 Cores / 48 Threads), Motherboard: Supermicro X12SPL-F v2.00 (1.2 BIOS), Chipset: Intel Device 0998, Memory: 8 x 32 GB DDR4-3200MT/s 36ASF4G72PZ-3G2R1, Disk: 6718GB MR9361-8i, Graphics: ASPEED, Network: 2 x Intel I210

OS: Rocky Linux 8.6, Kernel: 4.18.0-372.9.1.el8.x86_64 (x86_64), Compiler: GCC 8.5.0 20210514, File-System: xfs, Screen Resolution: 1024x768

Kernel Notes: Transparent Huge Pages: always
Compiler Notes: --build=x86_64-redhat-linux --disable-libmpx --disable-libunwind-exceptions --enable-__cxa_atexit --enable-bootstrap --enable-cet --enable-checking=release --enable-gnu-indirect-function --enable-gnu-unique-object --enable-initfini-array --enable-languages=c,c++,fortran,lto --enable-multilib --enable-offload-targets=nvptx-none --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-arch_32=x86-64 --with-gcc-major-version-only --with-isl --with-linker-hash-style=gnu --with-tune=generic --without-cuda-driver
Disk Notes: MQ-DEADLINE / attr2,inode64,logbsize=32k,logbufs=8,noquota,relatime,rw,seclabel,sunit=128,swidth=512 / Block Size: 4096
Processor Notes: Scaling Governor: intel_pstate performance (EPP: performance) - CPU Microcode: 0xd000332
Security Notes: SELinux + itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Enhanced IBRS IBPB: conditional RSB

filling + srbds: Not affected + tsx_async_abort: Not affected

au2

Processor: Intel Xeon Gold 6312U @ 3.60GHz (24 Cores / 48 Threads), Motherboard: Supermicro X12SPW-TF v2.00 (1.4 BIOS), Memory: 8 x 32 GB DDR4-3200MT/s Samsung M393A4K40DB3-CWE, Disk: 6718GB MR9361-8i, Graphics: astdrmfb

OS: Rocky Linux 8.6, Kernel: 4.18.0-372.19.1.el8_6.x86_64 (x86_64), Compiler: GCC 8.5.0 20210514, File-System: xfs, Screen Resolution: 1024x768

Kernel Notes: Transparent Huge Pages: always
Compiler Notes: --build=x86_64-redhat-linux --disable-libmpx --disable-libunwind-exceptions --enable-__cxa_atexit --enable-bootstrap --enable-cet --enable-checking=release --enable-gnu-indirect-function --enable-gnu-unique-object --enable-initfini-array --enable-languages=c,c++,fortran,lto --enable-multilib --enable-offload-targets=nvptx-none --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-arch_32=x86-64 --with-gcc-major-version-only --with-isl --with-linker-hash-style=gnu --with-tune=generic --without-cuda-driver
Disk Notes: MQ-DEADLINE / attr2,inode64,logbsize=32k,logbufs=8,noquota,relatime,rw,seclabel,sunit=128,swidth=512 / Block Size: 4096
Processor Notes: Scaling Governor: intel_pstate performance (EPP: performance) - CPU Microcode: 0xd000375
Security Notes: SELinux + itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Enhanced IBRS IBPB: conditional RSB filling + srbds: Not affected + tsx_async_abort: Not affected

	s25	s26	s27	s28	uk7	s29	s30	s31	s32	uk8	au2
Flexible IO Tester - Rand Read - Sync - No - Yes - 1MB (MB/s)	2338	1909	2555	5038	3929	3217	3266	2395	3340	3249	3207
Normalized	46.41%	37.89%	50.71%	100%	77.99%	63.85%	64.83%	47.54%	66.3%	64.49%	63.66%
Standard Deviation		2.1%	0.1%	0%	0.1%	0%	0.1%	0.1%	0.1%	0%	0.1%
Flexible IO Tester - Rand Read - Sync - No - Yes - 1MB (IOPS)	2337	1902	2554	5037	3926	3214	3265	2392	3340	3248	3209
Normalized	46.4%	37.76%	50.7%	100%	77.94%	63.81%	64.82%	47.49%	66.31%	64.48%	63.71%
Standard Deviation			0.1%	0%	0%		0.2%		0.1%	0.1%	
Flexible IO Tester - Rand Read - Sync - No - Yes - 2MB (MB/s)	3166	2173	3220	5104	4403	3836	3880	3033	3899	4142	3797
Normalized	62.03%	42.57%	63.09%	100%	86.27%	75.16%	76.02%	59.42%	76.39%	81.15%	74.39%
Standard Deviation	0.1%	5.9%	0%	0%			0%		0.5%	0%	0%
Flexible IO Tester - Rand Read - Sync - No - Yes - 2MB (IOPS)	1582	1086	1610	2552	2201	1917	1939	1516	1949	2071	1898
Normalized	61.99%	42.55%	63.09%	100%	86.25%	75.12%	75.98%	59.4%	76.37%	81.15%	74.37%
Standard Deviation		5.9%					0%		0.5%		0.1%

Flexible IO Tester - Rand Read - Sync - No - Yes - 4KB (MB/s)	44.3	39.3	48.3	**155**	81.2	58.8	59.5	**35.6**	56.7	57.3	53.2
Normalized	28.58%	25.35%	31.16%	100%	52.39%	37.94%	38.39%	22.97%	36.58%	36.97%	34.32%
Standard Deviation	0.3%	0.1%	0.3%		0.7%	0.2%	0.2%	0%	1.1%	0.2%	0.2%
Flexible IO Tester - Rand Read - Sync - No - Yes - 4KB (IOPS)	11333	10100	12367	**39600**	20533	15067	15200	**9110**	14600	14667	13633
Normalized	28.62%	25.51%	31.23%	100%	51.85%	38.05%	38.38%	23.01%	36.87%	37.04%	34.43%
Standard Deviation	0.5%		0.5%	0.4%	2.3%	0.4%				0.4%	0.4%
Flexible IO Tester - Rand Read - Sync - No - Yes - 4MB (MB/s)	3674	**2475**	3539	**5563**	4858	4191	4209	3346	4221	4760	4110
Normalized	66.04%	44.49%	63.62%	100%	87.33%	75.34%	75.66%	60.15%	75.88%	85.57%	73.88%
Standard Deviation	0.6%	0.5%		2.2%	0.9%	0.4%	0.3%	0.1%	0%	0.8%	0.6%
Flexible IO Tester - Rand Read - Sync - No - Yes - 4MB (IOPS)	918	**618**	884	**1390**	1214	1047	1051	836	1055	1189	1027
Normalized	66.04%	44.46%	63.6%	100%	87.34%	75.32%	75.61%	60.14%	75.9%	85.54%	73.88%
Standard Deviation	0.6%	0.5%		2.2%	0.9%	0.4%	0.3%	0.1%		0.8%	0.6%
Flexible IO Tester - Rand Read - Sync - No - Yes - 8KB (MB/s)	79.3	65.6	85.3	**308**	151	105	106	**64.7**	105	106	98.6
Normalized	25.75%	21.3%	27.69%	100%	49.03%	34.09%	34.42%	21.01%	34.09%	34.42%	32.01%
Standard Deviation	0.1%	0.2%	0.1%					0.1%		0.5%	0%
Flexible IO Tester - Rand Read - Sync - No - Yes - 8KB (IOPS)	10167	8401	10900	**39433**	19300	13433	13600	**8287**	13500	13567	12600
Normalized	25.78%	21.3%	27.64%	100%	48.94%	34.07%	34.49%	21.02%	34.24%	34.41%	31.95%
Standard Deviation	0.6%	0.1%		0.1%		0.4%		0.1%		0.4%	
Flexible IO Tester - Rand Read - Sync - No - Yes - 8MB (MB/s)	4286	**2854**	3962	**5758**	5180	4592	4620	3684	4626	5465	4492
Normalized	74.44%	49.57%	68.81%	100%	89.96%	79.75%	80.24%	63.98%	80.34%	94.91%	78.01%
Standard Deviation	0%	0.8%	0%	0%	0%	0%	0.1%	0%	0%		0%
Flexible IO Tester - Rand Read - Sync - No - Yes - 8MB (IOPS)	535	**356**	495	**719**	647	574	577	460	578	683	561
Normalized	74.41%	49.51%	68.85%	100%	89.99%	79.83%	80.25%	63.98%	80.39%	94.99%	78.03%
Standard Deviation		0.7%									

Flexible IO Tester - Rand Read - Sync - No - Yes - 16KB (MB/s)	136	**104**	146	**585**	271	181	183	115	190	189	176
Normalized	23.25%	17.78%	24.96%	100%	46.32%	30.94%	31.28%	19.66%	32.48%	32.31%	30.09%
Standard Deviation	0.4%			0.2%	0.2%						
Flexible IO Tester - Rand Read - Sync - No - Yes - 16KB (IOPS)	8675	**6686**	9333	**37400**	17300	11600	11700	7346	12167	12100	11300
Normalized	23.2%	17.88%	24.95%	100%	46.26%	31.02%	31.28%	19.64%	32.53%	32.35%	30.21%
Standard Deviation	0.1%	0.2%	0.1%	0.3%				0%	0.5%		
Flexible IO Tester - Rand Read - Sync - No - Yes - 32KB (MB/s)	237	**159**	258	**1018**	478	326	326	195	336	333	313
Normalized	23.28%	15.62%	25.34%	100%	46.95%	32.02%	32.02%	19.16%	33.01%	32.71%	30.75%
Standard Deviation	1%	0.4%	1.8%	0.1%	0.9%	2%	1.4%	1.2%	1.9%	1.4%	2.1%
Flexible IO Tester - Rand Read - Sync - No - Yes - 32KB (IOPS)	7567	**5078**	8264	**32600**	15267	10433	10467	6236	10733	10667	10000
Normalized	23.21%	15.58%	25.35%	100%	46.83%	32%	32.11%	19.13%	32.92%	32.72%	30.67%
Standard Deviation	1%	0.5%	1.8%		1%	2%	1.5%	1.1%	1.9%	1.4%	1.9%
Flexible IO Tester - Rand Read - Sync - No - Yes - 64KB (MB/s)	373	**224**	411	**1693**	719	473	469	278	482	482	443
Normalized	22.03%	13.23%	24.28%	100%	42.47%	27.94%	27.7%	16.42%	28.47%	28.47%	26.17%
Standard Deviation	1.5%	1.6%	1.4%	0.3%	2%	2.5%	2.1%	2.5%	2.2%	2.5%	1.7%
Flexible IO Tester - Rand Read - Sync - No - Yes - 64KB (IOPS)	5974	**3593**	6567	**27100**	11467	7557	7506	4438	7708	7708	7082
Normalized	22.04%	13.26%	24.23%	100%	42.31%	27.89%	27.7%	16.38%	28.44%	28.44%	26.13%
Standard Deviation	1.5%	1.6%	1.5%	0.4%	2%	2.5%	2.2%	2.5%	2.2%	2.4%	1.7%
Flexible IO Tester - Rand Write - Sync - No - Yes - 1MB (MB/s)	2641	**2640**	2667	**2840**	2807	2810	2807	2754	2814	2794	
Normalized	92.96%	92.93%	93.88%	99.96%	98.8%	98.91%	98.8%	96.94%	99.05%	98.35%	
Standard Deviation	0.1%			0.1%	0.1%	0.1%		0.1%			
Flexible IO Tester - Rand Write - Sync - No - Yes - 1MB (IOPS)	**2639**	2641	2665		2808	2810	2807	2750	**2812**	2793	
Normalized	93.85%	93.92%	94.77%		99.86%	99.93%	99.82%	97.8%	100%	99.32%	
Standard Deviation	0.1%						0%			0.1%	

Flexible IO Tester - Rand Write - Sync - No - Yes - 2MB (MB/s)	2907	2836	2926	3057	3042	3049	3049	3017	3051	3040
Normalized	95.09%	92.77%	95.71%	100%	99.51%	99.74%	99.74%	98.69%	99.8%	99.44%
Standard Deviation		0.2%		0%	0.1%					0%
Flexible IO Tester - Rand Write - Sync - No - Yes - 2MB (IOPS)	1453	1417	1463	1528	1521	1524	1524	1508	1525	1519
Normalized	95.09%	92.74%	95.75%	100%	99.54%	99.74%	99.74%	98.69%	99.8%	99.41%
Standard Deviation		0.1%		0%	0.1%					0%
Flexible IO Tester - Rand Write - Sync - No - Yes - 4KB (MB/s)	114	91.6	94.5	126	119	119	115	117	119	113
Normalized	90.48%	72.7%	75%	100%	94.44%	94.44%	91.27%	92.86%	94.44%	89.68%
Standard Deviation		0.1%	0.4%							
Flexible IO Tester - Rand Write - Sync - No - Yes - 4KB (IOPS)	29300	23500	24200	32300	30600	30400	29533	29933	30467	28300
Normalized	90.71%	72.76%	74.92%	100%	94.74%	94.12%	91.43%	92.67%	94.33%	87.62%
Standard Deviation			0.4%			0.3%	0.2%	0.5%	0.2%	1.8%
Flexible IO Tester - Rand Write - Sync - No - Yes - 4MB (MB/s)	2941	2882	2952	3079	3062	3078	3073	3074	3078	3070
Normalized	95.52%	93.6%	95.88%	100%	99.45%	99.97%	99.81%	99.84%	99.97%	99.71%
Standard Deviation	0%	0.2%	0%	0.1%	0.1%		0.1%			0%
Flexible IO Tester - Rand Write - Sync - No - Yes - 4MB (IOPS)	735	720	737	769	765	769	768	768	769	767
Normalized	95.58%	93.63%	95.84%	100%	99.48%	100%	99.87%	99.87%	100%	99.74%
Standard Deviation		0.2%		0.1%						
Flexible IO Tester - Rand Write - Sync - No - Yes - 8KB (MB/s)	227	183	188	249	237	236	228	246	236	226
Normalized	91.16%	73.49%	75.5%	100%	95.18%	94.78%	91.57%	98.8%	94.78%	90.76%
Standard Deviation					0.2%			0.2%		0.3%
Flexible IO Tester - Rand Write - Sync - No - Yes - 8KB (IOPS)	29000	23433	24067	31900	30267	30200	29200	31533	30267	28900
Normalized	90.91%	73.46%	75.45%	100%	94.88%	94.67%	91.54%	98.85%	94.88%	90.6%
Standard Deviation		0.2%	0.2%		0.2%			0.2%	0.2%	

Flexible IO Tester - Rand Write - Sync - No - Yes - 8MB (MB/s)	2948	**2888**	2949	3076	3063	3075	**3077**	3069	3076	3070
Normalized	95.81%	93.86%	95.84%	99.97%	99.55%	99.94%	100%	99.74%	99.97%	99.77%
Standard Deviation	0%	0.3%			0.1%		0%		0%	
Flexible IO Tester - Rand Write - Sync - No - Yes - 8MB (IOPS)	368	**361**	368	**384**	382	**384**	**384**	383	**384**	383
Normalized	95.83%	94.01%	95.83%	100%	99.48%	100%	100%	99.74%	100%	99.74%
Standard Deviation		0.3%			0.2%					
Flexible IO Tester - Rand Read - Sync - No - Yes - 128KB (MB/s)	1513	**1004**	1506	**2427**	2215	1804	1790	2411	1864	1671
Normalized	62.34%	41.37%	62.05%	100%	91.26%	74.33%	73.75%	99.34%	76.8%	68.85%
Standard Deviation	2.9%	1.8%	2.5%	0.1%	2.5%	2.5%	2.2%	0.2%	2.2%	2.1%
Flexible IO Tester - Rand Read - Sync - No - Yes - 128KB (IOPS)	12075	**8030**	12057	**19400**	17714	14460	14320	19300	14900	13333
Normalized	62.24%	41.39%	62.15%	100%	91.31%	74.54%	73.81%	99.48%	76.8%	68.73%
Standard Deviation	2.9%	1.7%	2.6%		2.4%	2.5%	2.1%		2.3%	2.2%
Flexible IO Tester - Rand Read - Sync - No - Yes - 256KB (MB/s)	2544	**1870**	2587	3217	3005	2794	2743	**3241**	2825	2610
Normalized	78.49%	57.7%	79.82%	99.26%	92.72%	86.21%	84.63%	100%	87.16%	80.53%
Standard Deviation	2.9%	2.2%	2.4%	0%	1.1%	0.9%	2.4%	2.9%	3%	0.3%
Flexible IO Tester - Rand Read - Sync - No - Yes - 256KB (IOPS)	10174	**7478**	10350	12900	12033	11200	10700	**12953**	11287	10433
Normalized	78.55%	57.73%	79.9%	99.59%	92.9%	86.47%	82.61%	100%	87.14%	80.55%
Standard Deviation	2.9%	2.2%	2.3%		1%	0.9%	5.1%	2.9%	3.1%	0.6%
Flexible IO Tester - Rand Read - Sync - No - Yes - 512KB (MB/s)	3289	**2632**	3385	**4276**	3988	3861	3954	4205	3924	3718
Normalized	76.92%	61.55%	79.16%	100%	93.26%	90.29%	92.47%	98.34%	91.77%	86.95%
Standard Deviation	2.1%	2.5%	2.2%	2.2%	0%	3.4%	2.4%	0.4%	0.1%	2.8%
Flexible IO Tester - Rand Read - Sync - No - Yes - 512KB (IOPS)	6577	**5263**	6770	**8552**	7977	7723	7908	8409	7847	7435
Normalized	76.91%	61.54%	79.16%	100%	93.28%	90.31%	92.47%	98.33%	91.76%	86.94%
Standard Deviation	2.1%	2.5%	2.2%	2.2%	0%	3.4%	2.4%	0.4%	0.1%	2.8%

Flexible IO Tester - Rand Write - Sync - No - Yes - 16KB (MB/s)	444	354	370	473	460	467	454	468	468	448
Normalized	93.87%	74.84%	78.22%	100%	97.25%	98.73%	95.98%	98.94%	98.94%	94.71%
Standard Deviation		0.4%			0.3%	0.2%			0.1%	0.3%
Flexible IO Tester - Rand Write - Sync - No - Yes - 16KB (IOPS)	28433	22667	23667	30267	29400	29567	29067	29900	29300	28667
Normalized	93.94%	74.89%	78.19%	100%	97.14%	97.69%	96.04%	98.79%	96.81%	94.71%
Standard Deviation	0.2%	0.3%	0.2%	0.2%	0.3%	1.7%	0.2%		1.8%	0.2%
Flexible IO Tester - Rand Write - Sync - No - Yes - 32KB (MB/s)	792	663	686	850	825	828	823	825	828	814
Normalized	93.18%	78%	80.71%	100%	97.06%	97.41%	96.82%	97.06%	97.41%	95.76%
Standard Deviation	0.5%	0.5%	0.2%			0.1%		0.1%		
Flexible IO Tester - Rand Write - Sync - No - Yes - 32KB (IOPS)	25367	21200	21300	27200	26400	26500	26333	26400	26500	26000
Normalized	93.26%	77.94%	78.31%	100%	97.06%	97.43%	96.81%	97.06%	97.43%	95.59%
Standard Deviation	0.5%		2.4%				0.2%			
Flexible IO Tester - Rand Write - Sync - No - Yes - 64KB (MB/s)	1325	1304	1320	1400	1403	1410	1406	1402	1411	1379
Normalized	93.91%	92.42%	93.55%	99.22%	99.43%	99.93%	99.65%	99.36%	100%	97.73%
Standard Deviation		0.1%	0.5%	0.3%	0.5%	0.1%	0%	0.2%		1.1%
Flexible IO Tester - Rand Write - Sync - No - Yes - 64KB (IOPS)	21200	20867	21133	22400	22433	22567	22500	22433	22600	22033
Normalized	93.81%	92.33%	93.51%	99.12%	99.26%	99.85%	99.56%	99.26%	100%	97.49%
Standard Deviation		0.3%	0.5%		0.5%	0.3%		0.3%		1%
Flexible IO Tester - Rand Write - Sync - No - Yes - 128KB (MB/s)	1692	1695	1709	1815	1815	1821	1815	1812	1825	1793
Normalized	92.71%	92.88%	93.64%	99.45%	99.45%	99.78%	99.45%	99.29%	100%	98.25%
Standard Deviation	1.1%	0.8%	0.7%	0.1%		0%	0.2%	0%	0.6%	0.3%
Flexible IO Tester - Rand Write - Sync - No - Yes - 128KB (IOPS)	13567	13567	13667	14500	14500	14600	14533	14500	14567	14367
Normalized	92.92%	92.92%	93.61%	99.32%	99.32%	100%	99.54%	99.32%	99.77%	98.4%
Standard Deviation	1.1%	0.9%	0.4%				0.4%		0.8%	0.4%

Flexible IO Tester - Rand Write - Sync - No - Yes - 256KB (MB/s)	1986	2015	**1983**	2180	2170	**2194**	2175	2176	2187	2161
Normalized	90.52%	91.84%	90.38%	99.36%	98.91%	100%	99.13%	99.18%	99.68%	98.5%
Standard Deviation	1%	0.8%		0.9%	0.2%	0.3%	0.7%	0.4%	0.3%	0.6%
Flexible IO Tester - Rand Write - Sync - No - Yes - 256KB (IOPS)	7943	8059	**7934**	8721	8678	**8777**	8700	8703	8748	8642
Normalized	90.5%	91.82%	90.4%	99.36%	98.87%	100%	99.12%	99.16%	99.67%	98.46%
Standard Deviation	1%	0.8%	0%	0.9%	0.2%	0.3%	0.6%	0.4%	0.3%	0.6%
Flexible IO Tester - Rand Write - Sync - No - Yes - 512KB (MB/s)	**2343**	2348	2376	2541	2537	2541	2536	2521	**2544**	2522
Normalized	92.1%	92.3%	93.4%	99.88%	99.72%	99.88%	99.69%	99.1%	100%	99.14%
Standard Deviation	0.9%	1%	0%	0.6%	0%	0.3%	0.4%	0.2%	0.2%	0.4%
Flexible IO Tester - Rand Write - Sync - No - Yes - 512KB (IOPS)	**4686**	4696	4752	5081	5074	5081	5071	5042	**5088**	5045
Normalized	92.1%	92.3%	93.4%	99.86%	99.72%	99.86%	99.67%	99.1%	100%	99.15%
Standard Deviation	0.9%	0.9%	0%	0.6%	0%	0.3%	0.4%	0.2%	0.2%	0.4%
RAMspeed SMP - Add - Integer (MB/s)	**33622**	**28518**	28613	33076	32365	33263	33237	32488	33033	33602
Normalized	100%	84.82%	85.1%	98.38%	96.26%	98.93%	98.85%	96.63%	98.25%	99.94%
Standard Deviation	1%	6.1%	4.9%	0.1%	0.2%	0.4%	0.1%	0.3%	0.1%	0.3%
RAMspeed SMP - Copy - Integer (MB/s)	32500	**25455**	27054	32796	32530	32481	32922	32452	33068	**33342**
Normalized	97.48%	76.34%	81.14%	98.36%	97.56%	97.42%	98.74%	97.33%	99.18%	100%
Standard Deviation	0.2%	4.5%	0.2%	0.1%	0.3%	1%	0.7%	0.3%	0.9%	0.2%
RAMspeed SMP - Scale - Integer (MB/s)	30654	**24190**	24775	32627	32563	32603	32763	32275	32719	**33137**
Normalized	92.51%	73%	74.76%	98.46%	98.27%	98.39%	98.87%	97.4%	98.74%	100%
Standard Deviation	1.3%	5.9%	1.5%	0.1%	0.6%	0.6%	0.7%	0.3%	0.2%	0.4%
RAMspeed SMP - Triad - Integer (MB/s)	32591	**27267**	27734	32921	32504	33098	**33446**	32517	33126	33362
Normalized	97.44%	81.53%	82.92%	98.43%	97.18%	98.96%	100%	97.22%	99.04%	99.75%
Standard Deviation	2.2%	8.4%	6.2%	0.1%	0.2%	0.1%	0.9%	0.2%	1.3%	1.3%
RAMspeed SMP - Average - Integer (MB/s)	32784	**24888**	27899	32912	32484	32976	**33251**	32393	32907	32885
Normalized	98.59%	74.85%	83.9%	98.98%	97.69%	99.17%	100%	97.42%	98.96%	98.9%
Standard Deviation	1.5%	1.3%	5.9%	0%	0.1%	0.2%	1%	0.2%	0.2%	0.1%

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RAMspeed SMP - Add - Floating Point (MB/s)	32963	27230	28158	33692	33370	33841	34127	33601	33714	33335
Normalized	96.59%	79.79%	82.51%	98.72%	97.78%	99.16%	100%	98.46%	98.79%	97.68%
Standard Deviation	2%	2.3%	4.2%	0.2%	0.3%	0.5%	0.9%	1.2%	0.1%	0.7%
RAMspeed SMP - Copy - Floating Point (MB/s)	32705	26234	26988	32841	32536	32678	32896	32418	32805	32703
Normalized	99.42%	79.75%	82.04%	99.83%	98.91%	99.34%	100%	98.55%	99.72%	99.42%
Standard Deviation	0.8%	7.1%	4.7%	0.1%	0.1%	0.6%	0.6%	0.3%	0.1%	0.9%
RAMspeed SMP - Scale - Floating Point (MB/s)	30928	25493	26467	32396	31984	32324	32692	32010	32507	32260
Normalized	94.61%	77.98%	80.96%	99.1%	97.84%	98.87%	100%	97.92%	99.43%	98.68%
Standard Deviation	1.5%	4.4%	3.8%	0.1%	0.2%	0.5%	0.6%	0.2%	0.1%	0.7%
RAMspeed SMP - Triad - Floating Point (MB/s)	32819	26180	28611	33670	33297	33740	34333	33217	33980	33511
Normalized	95.59%	76.25%	83.33%	98.07%	96.98%	98.27%	100%	96.75%	98.97%	97.61%
Standard Deviation	0.3%	0.4%	4.4%	0.1%	0.8%	0.5%	1.1%	0.2%	1.4%	0.8%
RAMspeed SMP - Average - Floating Point (MB/s)	32133	26679	27312	33208	32767	33111	33370	32762	33186	33008
Normalized	96.29%	79.95%	81.85%	99.51%	98.19%	99.23%	100%	98.18%	99.45%	98.92%
Standard Deviation	0.5%	6.2%	4.4%	0.1%	0.2%	0.5%	0.9%	0.2%	0.1%	0.7%
perf-bench - Epoll Wait (ops/sec)	13157	10836	11983	13110	13182	13405	11929	13497	13154	12801
Normalized	97.48%	80.28%	88.78%	97.13%	97.67%	99.32%	88.38%	100%	97.46%	94.84%
Standard Deviation	3.4%	3.8%	0.3%	2.4%	3.1%	0.2%	0%	5.1%	0%	2.1%
perf-bench - Futex Hash (ops/sec)	1285177	2682313	2797237	3237424	2961238	3000777	3102799	3092418	3080818	3077183
Normalized	39.7%	82.85%	86.4%	100%	91.47%	92.69%	95.84%	95.52%	95.16%	95.05%
Standard Deviation	0%	1.8%	1.3%	0.3%	0.1%	0.5%	0.3%	0.2%	0.4%	0.1%
perf-bench - Memcpy 1MB (GB/sec)	15.9273 44	17.1368 37	17.1476 32	16.4181 32	16.9533 97	16.5386 87	17.7134 2	15.8667 33	16.5721 07	19.0671 53
Normalized	83.53%	89.88%	89.93%	86.11%	88.91%	86.74%	92.9%	83.22%	86.91%	100%
Standard Deviation	1.4%	1.7%	1.9%	0.4%	1.7%	1.5%	1%	6.2%	4.9%	0.8%
perf-bench - Memset 1MB (GB/sec)	60.6993 43	65.2909 36	66.3088 58	61.6556 70	62.4176 64	64.9332 86	59.4762 80	59.3554 54	61.1700 65	48.8122 90
Normalized	91.54%	98.46%	100%	92.98%	94.13%	97.93%	89.7%	89.51%	92.25%	73.61%
Standard Deviation	0.4%	0.8%	1.2%	2.2%	2.9%	1%	0.8%	3.6%	1.8%	2.5%
perf-bench - Sched Pipe	208562	220132	211376	200625	196765	194624	196551	195948	199868	196619
Normalized	94.74%	100%	96.02%	91.14%	89.39%	88.41%	89.29%	89.01%	90.79%	89.32%
Standard Deviation	1.6%	2%	1.7%	7.9%	1.3%	1.2%	0.6%	1.1%	2.3%	0.8%
perf-bench - Futex Lock-Pi (ops/sec)	141	140	143	375	375	375	375	375	375	375
Normalized	37.6%	37.33%	38.13%	100%	100%	100%	100%	100%	100%	100%
Standard Deviation		0.4%	0.8%							

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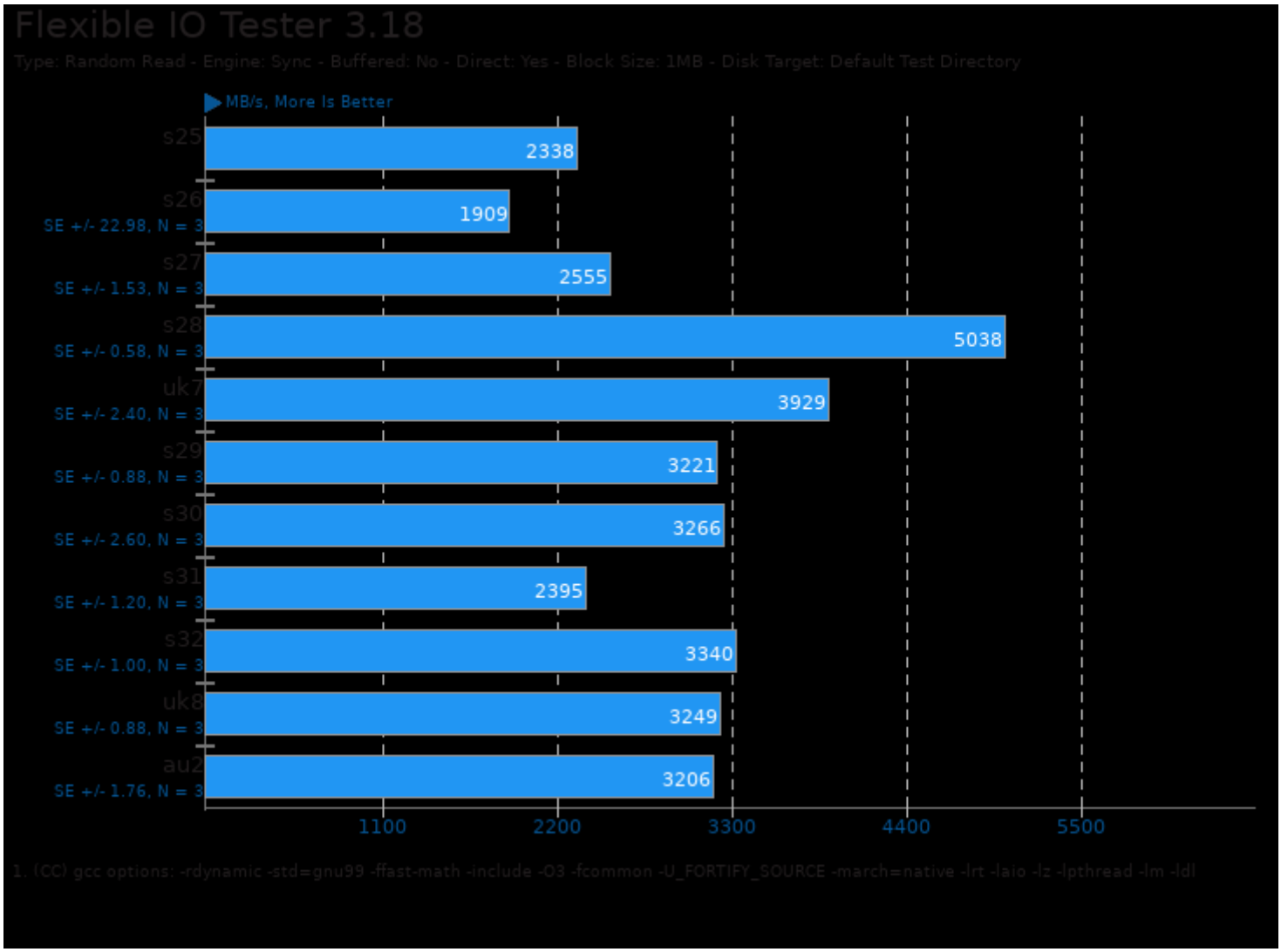
perf-bench - Syscall Basic (ops/sec)	**4883425**	13164105	12777794	14112184	14105650	13803915	**14196334**	13748372	13807730	13615184
Normalized	34.4%	92.73%	90.01%	99.41%	99.36%	97.24%	100%	96.84%	97.26%	95.91%
Standard Deviation	0.1%	0.4%	0.7%	0.6%	1%	0.2%	0.2%	1.3%	1.7%	1.3%
FFTE - N.2.3.C.F.R (MFLOPS)	87941	72401	**72111**	**103370**	91589	99683	102140	102051	101277	101745
Normalized	85.07%	70.04%	69.76%	100%	88.6%	96.43%	98.81%	98.72%	97.98%	98.43%
Standard Deviation	0.3%	0.4%	0.9%	0.4%	0.1%	0.1%	0.2%	0.3%	0.3%	0.1%
Timed PHP Compilation - Time To Compile	44.749	**46.084**	45.808	**41.217**	42.073	42.024	41.641	41.406	41.685	41.733
Normalized	92.11%	89.44%	89.98%	100%	97.97%	98.08%	98.98%	99.54%	98.88%	98.76%
Standard Deviation	0.3%	0.8%	0.8%	0.3%	0.3%	0.5%	0.5%	0.2%	0.1%	0.3%
C-Ray - Total Time - 4.1.R.P.P (sec)	**31.791**	**37.572**	31.833	34.321	35.520	35.367	34.607	34.497	34.656	34.661
Normalized	100%	84.61%	99.87%	92.63%	89.5%	89.89%	91.86%	92.16%	91.73%	91.72%
Standard Deviation	1.4%	2.1%	1.7%	0%	0.2%	0.6%	0.4%	0.2%	0.2%	0.1%
Gzip Compression -	40.895	**40.922**	40.586	38.855	38.854	**38.834**	38.922	38.838	39.014	38.877
Normalized	94.96%	94.9%	95.68%	99.95%	99.95%	100%	99.77%	99.99%	99.54%	99.89%
Standard Deviation	0.2%	0.2%	0.2%	0%	0.1%	0%	0%	0%	0.5%	0.1%
Minion - Graceful (sec)	51.374509	**51.615354**	50.453271	**45.726860**	46.216499	46.250837	46.423176	46.100702	46.083688	46.564822
Normalized	89.01%	88.59%	90.63%	100%	98.94%	98.87%	98.5%	99.19%	99.23%	98.2%
Standard Deviation	1.6%	0.9%	1.4%	2.3%	2.3%	1.6%	1.7%	1.5%	2.1%	0.7%
Minion - Solitaire (sec)	69.324861	69.888077	**70.052898**	**60.730609**	61.417847	61.668873	61.804697	62.015989	61.119682	62.147215
Normalized	87.6%	86.9%	86.69%	100%	98.88%	98.48%	98.26%	97.93%	99.36%	97.72%
Standard Deviation	1.4%	1.8%	2.4%	2.2%	1.1%	1.6%	2.2%	2.3%	1.6%	2.5%
Minion - Quasigroup (sec)	**110.193229**	110.516612	110.644700	111.014869	111.138932	111.606119	110.947054	111.040787	111.106937	**111.685990**
Normalized	100%	99.71%	99.59%	99.26%	99.15%	98.73%	99.32%	99.24%	99.18%	98.66%
Standard Deviation	0.3%	0.6%	0.1%	0.2%	0.2%	0.6%	0%	0.1%	0.4%	1.3%
OpenSSL - R.4.b.P (Signs/sec)	**6259**	6039	6236	5537	**5492**	5519	5644	5631	5626	5583
Normalized	100%	96.48%	99.63%	88.46%	87.74%	88.18%	90.18%	89.97%	89.88%	89.2%
Standard Deviation	0.1%	0.4%	0.3%	0.1%	0.4%	0.9%	0.3%	0.1%	0.1%	0.3%
glibc bench - cos (nanoseconds)	54.1252	**54.1369**	54.1195	46.6746	**46.5357**	47.3181	46.5727	46.5590	46.5831	46.5380
Normalized	85.98%	85.96%	85.99%	99.7%	100%	98.35%	99.92%	99.95%	99.9%	100%
Standard Deviation	0%	0.1%	0%	0.4%	0%	2.5%	0%	0%	0.1%	0%
glibc bench - exp (nanoseconds)	7.39950	**7.59185**	7.38088	6.77176	**6.72490**	6.72644	6.79643	6.72702	6.72812	6.73070
Normalized	90.88%	88.58%	91.11%	99.31%	100%	99.98%	98.95%	99.97%	99.95%	99.91%
Standard Deviation	0%	0%	0.1%	1.2%	0%	0%	1.4%	0%	0%	0.4%
glibc bench - ffs (nanoseconds)	**1.78604**	1.68702	1.68543	1.57120	**1.57046**	1.57437	1.57454	1.57839	1.57923	1.57378
Normalized	87.93%	93.09%	93.18%	99.95%	100%	99.75%	99.74%	99.5%	99.44%	99.79%
Standard Deviation	0.1%	0.1%	0.1%	0%	0%	0%	0%	0.1%	0%	0%

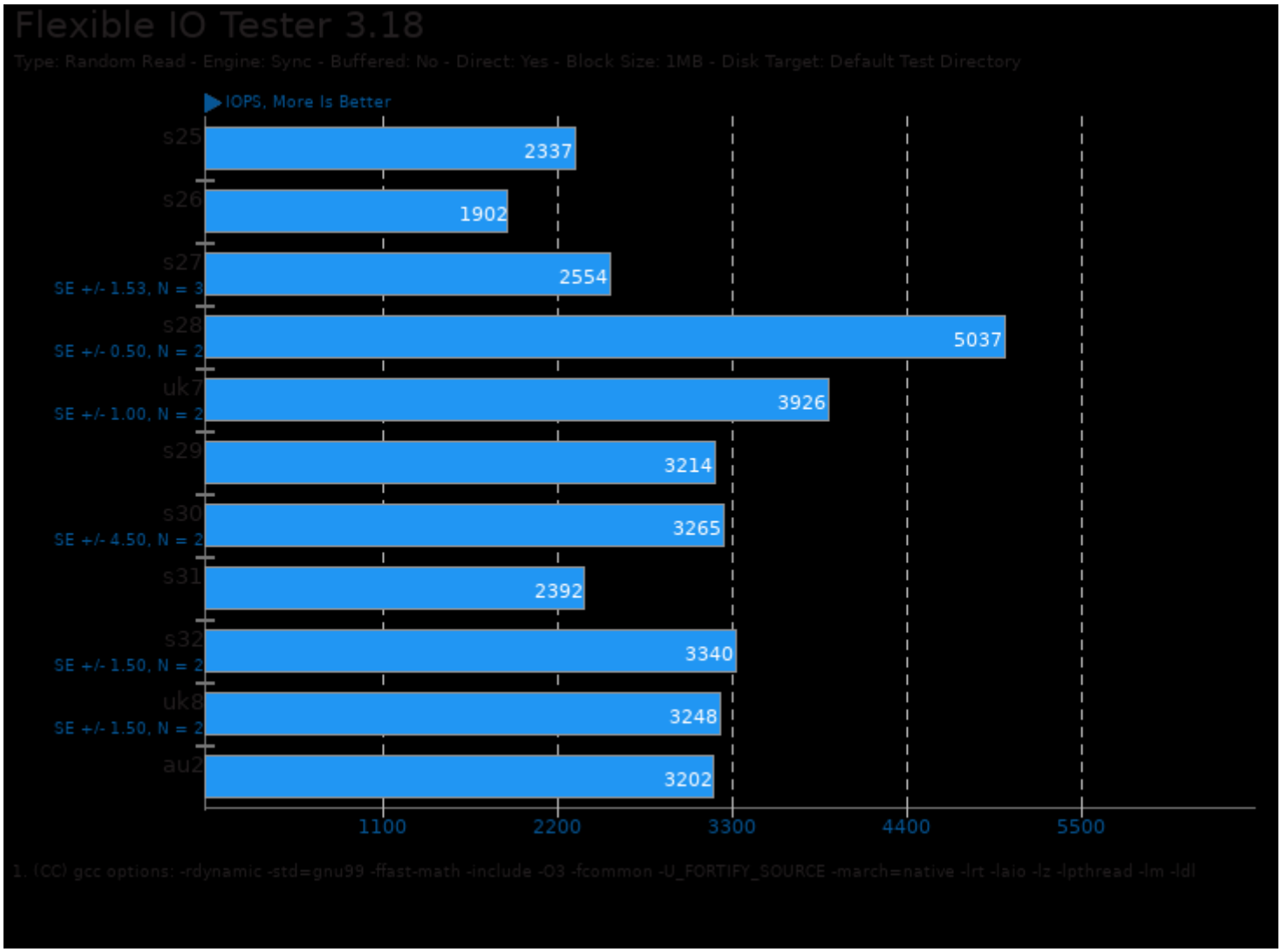
glibc bench - sin (nanoseconds)	**52.8859**	52.8484	52.8056	**45.8526**	45.8652	45.8545	45.8625	45.9205	45.8552	45.8698
Normalized	86.7%	86.76%	86.83%	100%	99.97%	100%	99.98%	99.85%	99.99%	99.96%
Standard Deviation	0.2%	0.2%	0.2%	0%	0.1%	0%	0%	0.2%	0%	0%
glibc bench - log2 (nanoseconds)	**9.46907**	9.19731	9.16721	7.81388	**7.81306**	7.81460	7.81635	7.81604	7.81687	7.81388
Normalized	82.51%	84.95%	85.23%	99.99%	100%	99.98%	99.96%	99.96%	99.95%	99.99%
Standard Deviation	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
glibc bench - modf	2.56227	**2.88061**	2.19636	2.13077	**2.12962**	2.13208	2.13214	2.13756	2.13582	2.13034
Normalized	83.11%	73.93%	96.96%	99.95%	100%	99.88%	99.88%	99.63%	99.71%	99.97%
Standard Deviation	0.2%	0.3%	0.1%	0%	0%	0.1%	0.1%	0%	0.1%	0%
glibc bench - sinh (nanoseconds)	**11.5665**	11.4660	11.5065	9.98145	9.97591	9.97210	9.96944	9.97900	10.07287	**9.96753**
Normalized	86.18%	86.93%	86.63%	99.86%	99.92%	99.95%	99.98%	99.89%	98.95%	100%
Standard Deviation	0.1%	0.1%	0%	0%	0.1%	0.1%	0%	0%	1.8%	0.1%
glibc bench - sqrt (nanoseconds)	**2.05075**	1.93536	1.94806	1.84941	**1.84789**	1.85207	1.85081	1.84960	1.85094	1.84866
Normalized	90.11%	95.48%	94.86%	99.92%	100%	99.77%	99.84%	99.91%	99.84%	99.96%
Standard Deviation	0.1%	0.1%	0.1%	0%	0%	0.1%	0.1%	0.1%	0%	0%
glibc bench - tanh (nanoseconds)	13.4317	13.1938	**13.5677**	11.5451	11.5426	11.6965	11.5543	11.5533	11.5461	**11.5345**
Normalized	85.88%	87.42%	85.01%	99.91%	99.93%	98.61%	99.83%	99.84%	99.9%	100%
Standard Deviation	0%	0%	6.1%	0.1%	0.1%	4.8%	0.1%	0.1%	0%	0%
glibc bench - asinh	**16.1367**	15.7602	15.7573	14.7259	14.7456	**14.7204**	14.7269	14.7356	14.7472	14.7239
Normalized	91.22%	93.4%	93.42%	99.96%	99.83%	100%	99.96%	99.9%	99.82%	99.98%
Standard Deviation	0.2%	0.1%	0.1%	0%	0.3%	0%	0%	0.1%	0.2%	0%
glibc bench - atanh	**12.9182**	12.4072	**12.4039**	12.4167	12.4414	12.4210	12.4252	12.4212	12.4199	12.4118
Normalized	96.02%	99.97%	100%	99.9%	99.7%	99.86%	99.83%	99.86%	99.87%	99.94%
Standard Deviation	3%	0%	0%	0%	0.3%	0%	0%	0%	0%	0%
glibc bench - ffsll (nanoseconds)	1.78799	1.68660	1.68664	**1.57086**	1.57132	1.57524	1.57463	1.57801	1.57725	**1.84724**
Normalized	87.86%	93.14%	93.14%	100%	99.97%	99.72%	99.76%	99.55%	99.59%	85.04%
Standard Deviation	0%	0.1%	0.1%	0%	0%	0.1%	0%	0.1%	0.1%	0%
glibc bench - sincos	15.4933	**15.5203**	15.5193	14.0148	14.0145	14.0411	13.9997	**13.9993**	14.0101	14.0269
Normalized	90.36%	90.2%	90.21%	99.89%	99.89%	99.7%	100%	100%	99.92%	99.8%
Standard Deviation	0.2%	0.2%	0.2%	0.1%	0.1%	0.4%	0.1%	0.1%	0%	0.9%
glibc bench - pthread_once (nanoseconds)	**1.80634**	1.70242	1.68921	1.58193	**1.57265**	1.57407	1.57626	1.58066	1.58026	1.57697
Normalized	87.06%	92.38%	93.1%	99.41%	100%	99.91%	99.77%	99.49%	99.52%	99.73%
Standard Deviation	0.1%	0.2%	0%	0.2%	0%	0%	0.2%	0.1%	0.1%	0.1%
GROMACS - Water Benchmark (Ns/Day)	2.586	**2.307**	2.320	**3.198**	2.833	3.008	3.069	3.089	3.051	3.056
Normalized	80.86%	72.14%	72.55%	100%	88.59%	94.06%	95.97%	96.59%	95.4%	95.56%
Standard Deviation	0.4%	1.2%	1%	0.1%	0.7%	0.9%	0.3%	0.1%	0.5%	0.4%

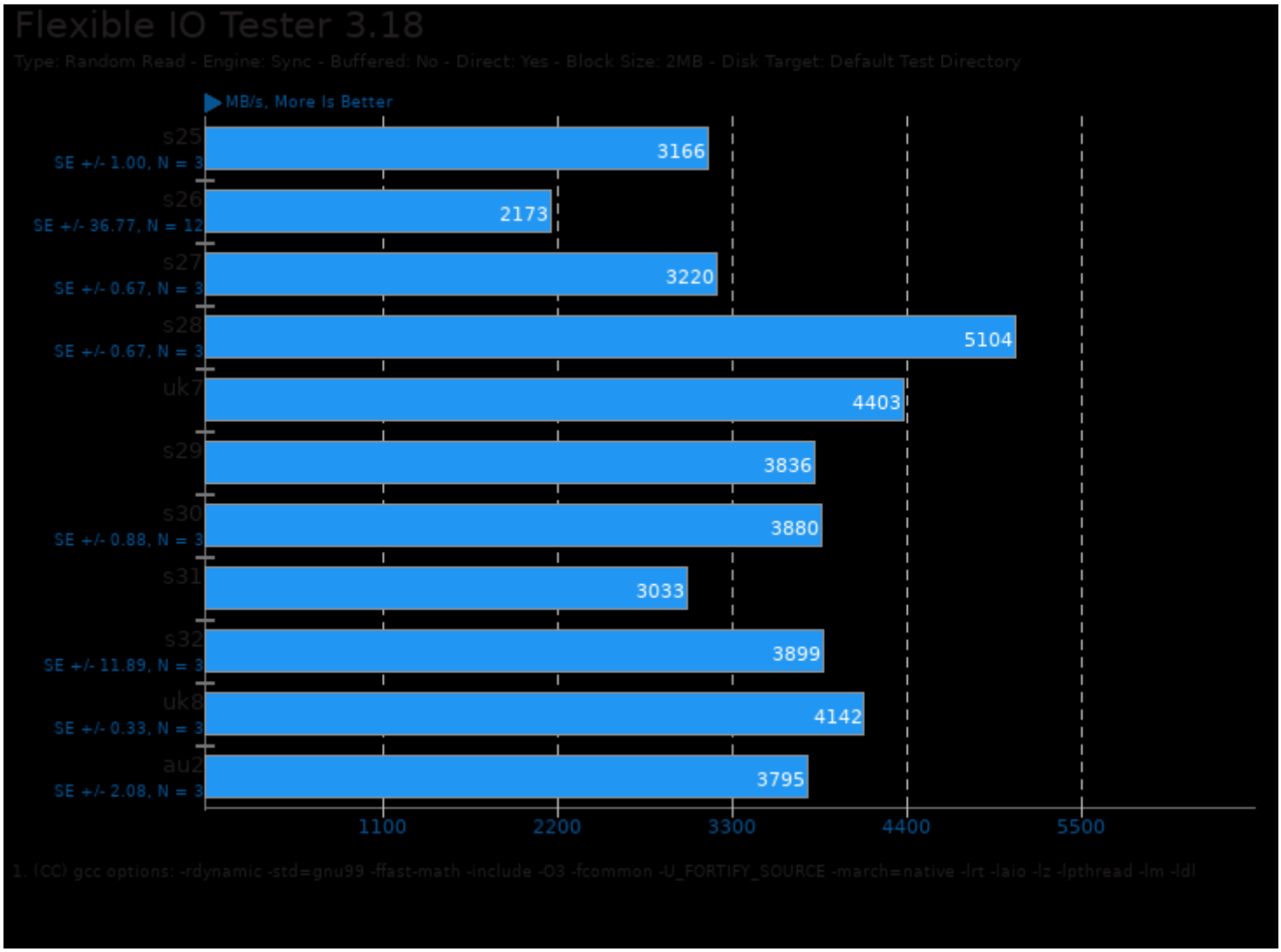
MariaDB - 1 (Queries/sec)	16195									
Standard Deviation	0.8%									
MariaDB - 4 (Queries/sec)	13575									
Standard Deviation	0.8%									
MariaDB - 8 (Queries/sec)	10992									
Standard Deviation	1.9%									
MariaDB - 16 (Queries/sec)	7958									
Standard Deviation	0.9%									
MariaDB - 32 (Queries/sec)	3713									
Standard Deviation	0.2%									
MariaDB - 64 (Queries/sec)	1497									
Standard Deviation	0.3%									
MariaDB - 128 (Queries/sec)	620									
Standard Deviation	0.1%									
MariaDB - 256 (Queries/sec)	506									
Standard Deviation	0.1%									
Sysbench - Memory (Events/sec)	17930664	18613408	17640125	20738247	21166728	20881964	20894141	21047917	20925439	21262934
Normalized	84.33%	87.54%	82.96%	97.53%	99.55%	98.21%	98.27%	98.99%	98.41%	100%
Standard Deviation	0.2%	1.5%	0.9%	2.3%	1.6%	0.4%	2.4%	0.8%	1.9%	2%
Sysbench - CPU (Events/sec)	46781	46518	46812	66482	66489	66488	66494	66485	66486	66483
Normalized	70.35%	69.96%	70.4%	99.98%	99.99%	99.99%	100%	99.99%	99.99%	99.98%
Standard Deviation	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
NGINX Benchmark - S.W.P.S	23545	17363	27437	34912	35554	35707	35522	37499	28968	31573
Normalized	62.79%	46.3%	73.17%	93.1%	94.81%	95.22%	94.73%	100%	77.25%	84.2%
Standard Deviation	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0%	0.3%	0.1%
Apache Benchmark - S.W.P.S	25359	15777	26159	35285	37572	28598	28512	37779	25522	35042
Normalized	67.12%	41.76%	69.24%	93.4%	99.45%	75.7%	75.47%	100%	67.55%	92.75%
Standard Deviation	0.2%	0.1%	0.3%	0.2%	0.2%	0.2%	0.2%	0.1%	0.1%	0.1%
PHPBench - P.B.S (Score)	597554	594332	597504	677935	678407	670999	672116	673341	680872	673871
Normalized	87.76%	87.29%	87.76%	99.57%	99.64%	98.55%	98.71%	98.89%	100%	98.97%
Standard Deviation	0.2%	0.3%	0.2%	0.2%	0%	0.3%	0.4%	0.5%	0.1%	0.2%

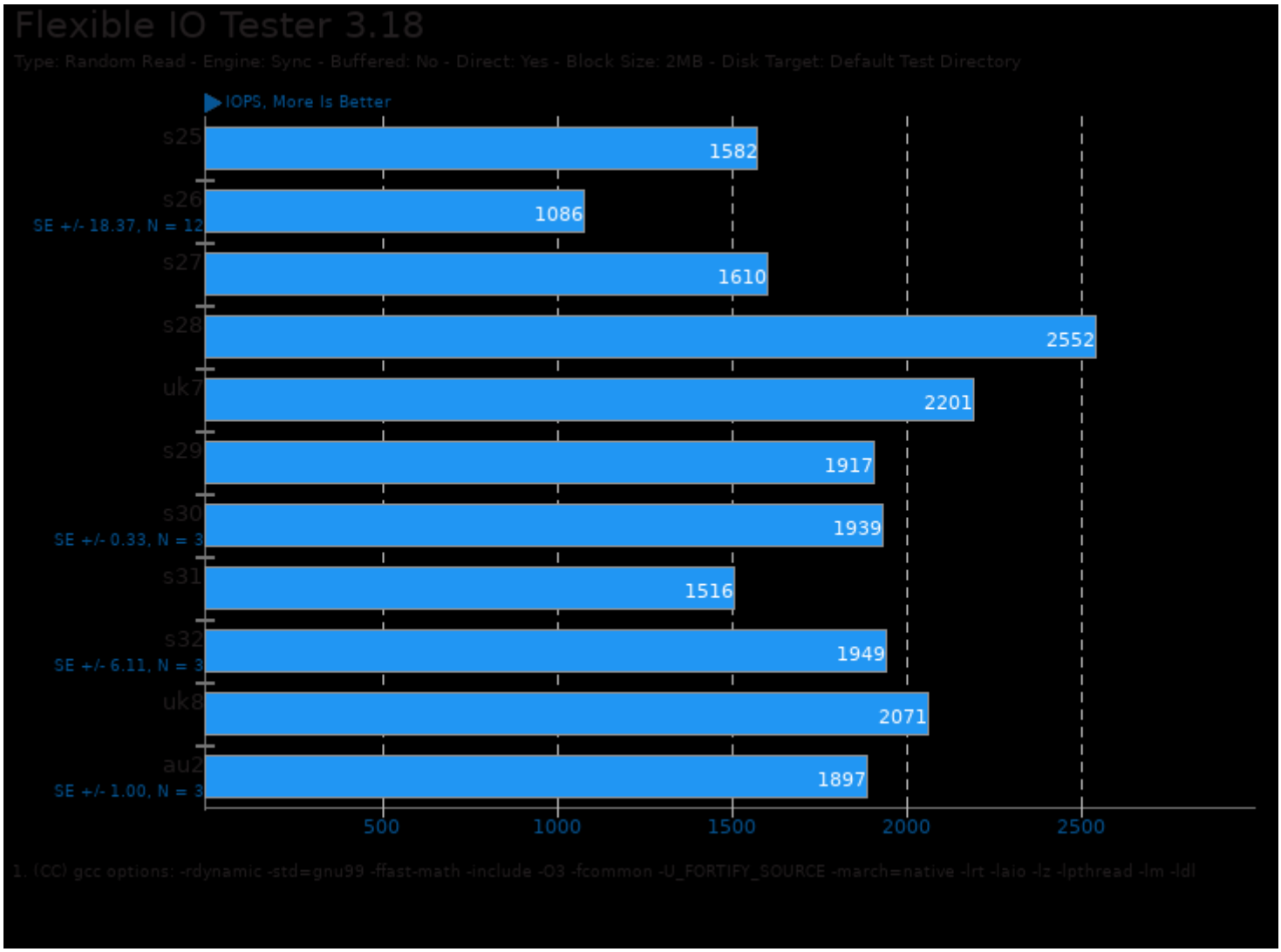
s25

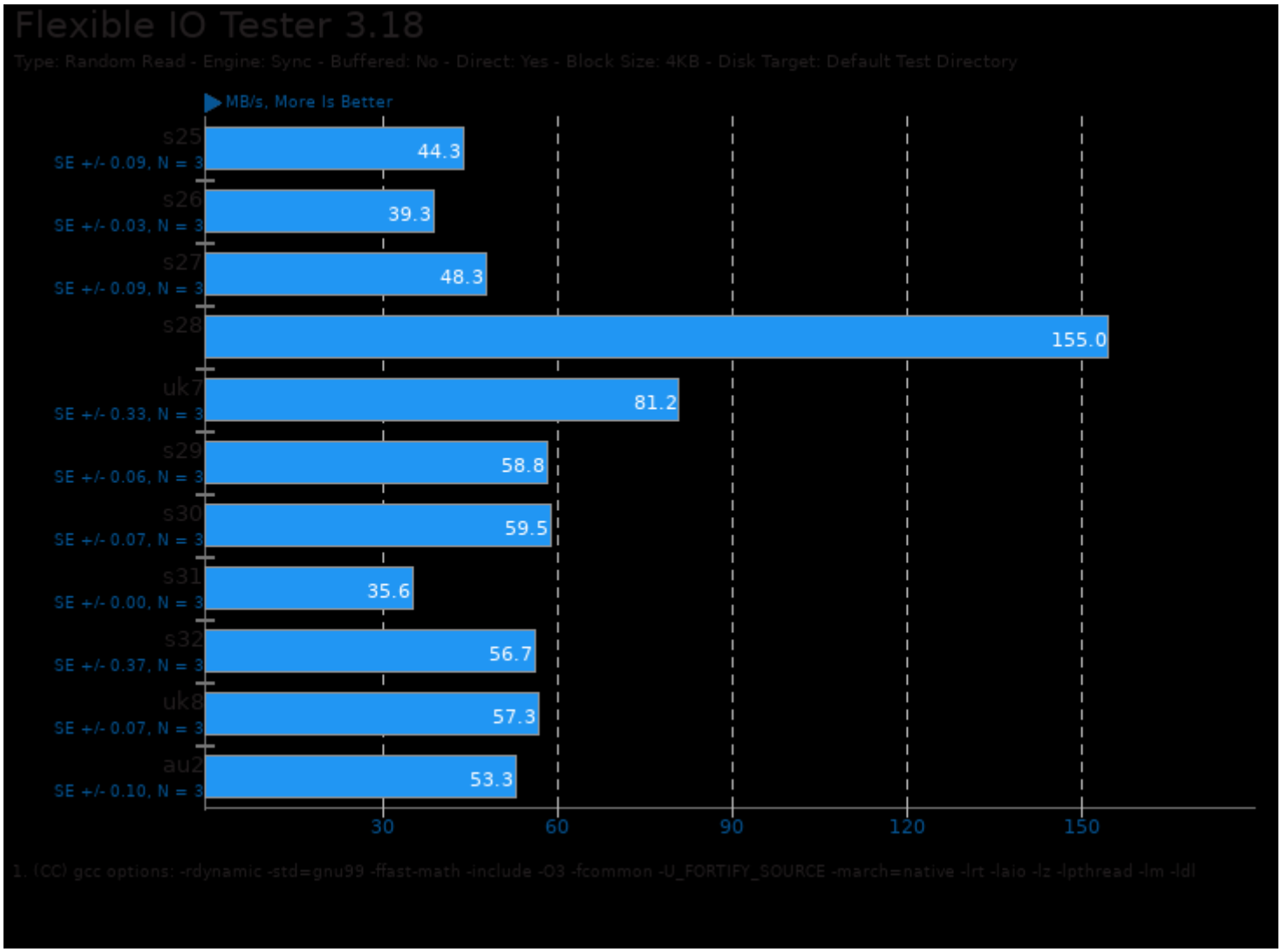
PHP Micro Benchmarks - Zend bench (sec)	0.415	**0.416**	**0.416**	0.367	0.363	0.363	0.360	**0.359**	0.364	**0.359**
Normalized	86.51%	86.3%	86.3%	97.82%	98.9%	98.9%	99.72%	100%	98.63%	100%
Standard Deviation	0.1%	0.2%	0.3%	2.3%	0.7%	0.7%	0.2%	0.3%	0.7%	0.4%
PHP Micro Benchmarks - Zend	**2.215**	2.214	2.207	1.959	1.966	1.959	1.963	1.964	1.970	**1.956**
Normalized	88.31%	88.35%	88.63%	99.85%	99.49%	99.85%	99.64%	99.59%	99.29%	100%
Standard Deviation	0.5%	0.6%	0.1%	0.9%	0.5%	0.6%	0.2%	0.4%	0.6%	0.8%

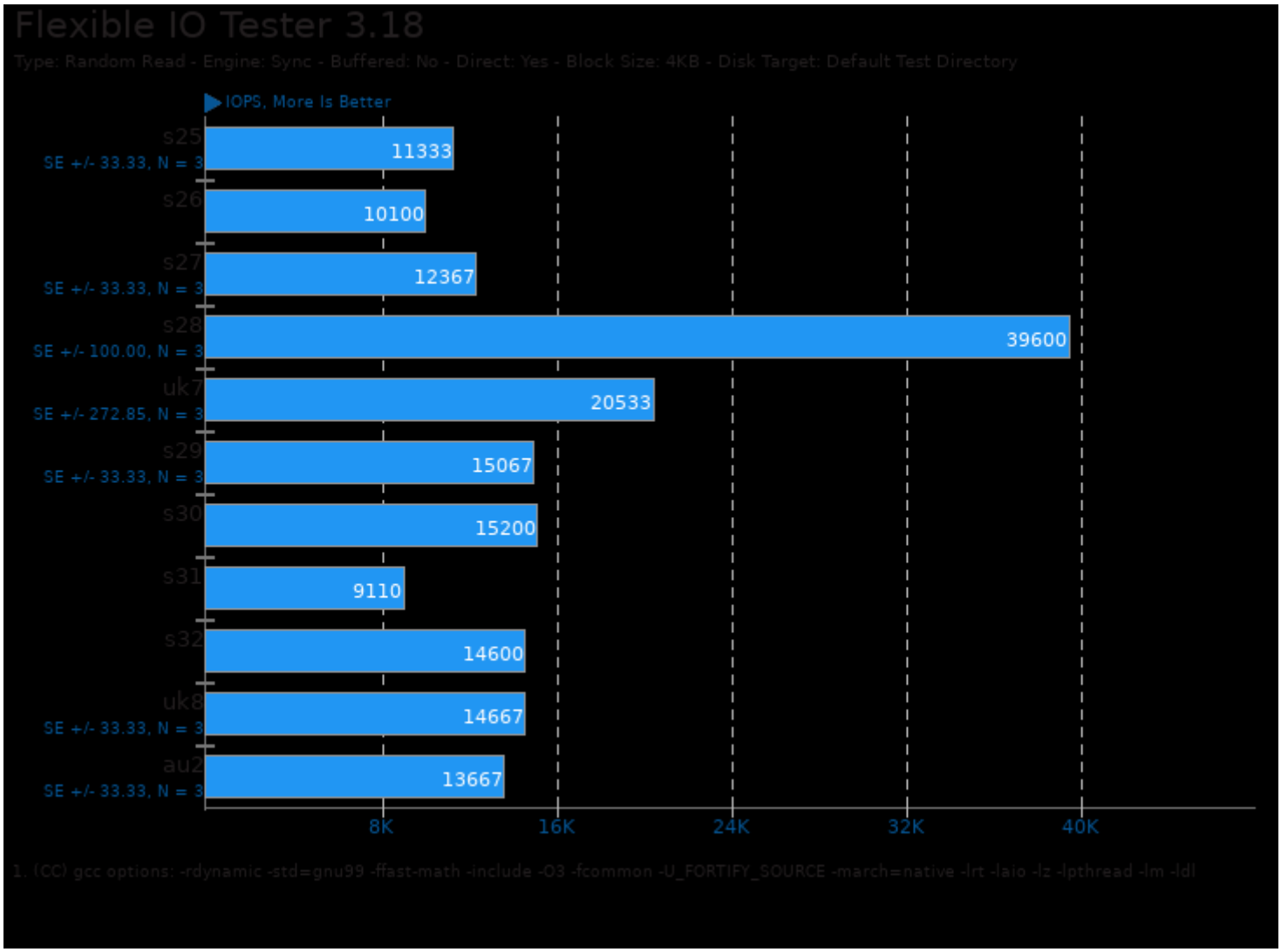

Flexible IO Tester 3.18
Type: Random Read - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 1MB - Disk Target: Default Test Directory
MB/s, More Is Better
s25
2338
s26
SE +/- 22.98, N = 3
1909
s27
SE +/- 1.53, N = 3
2555
s28
SE +/- 0.58, N = 3
5038
uk7
SE +/- 2.40, N = 3
3929
s29
SE +/- 0.88, N = 3
3221
s30
SE +/- 2.60, N = 3
3266
s31
SE +/- 1.20, N = 3
2395
s32
SE +/- 1.00, N = 3
3340
uk8
SE +/- 0.88, N = 3
3249
au2
SE +/- 1.76, N = 3
3206
1100
2200
3300
4400
5500
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

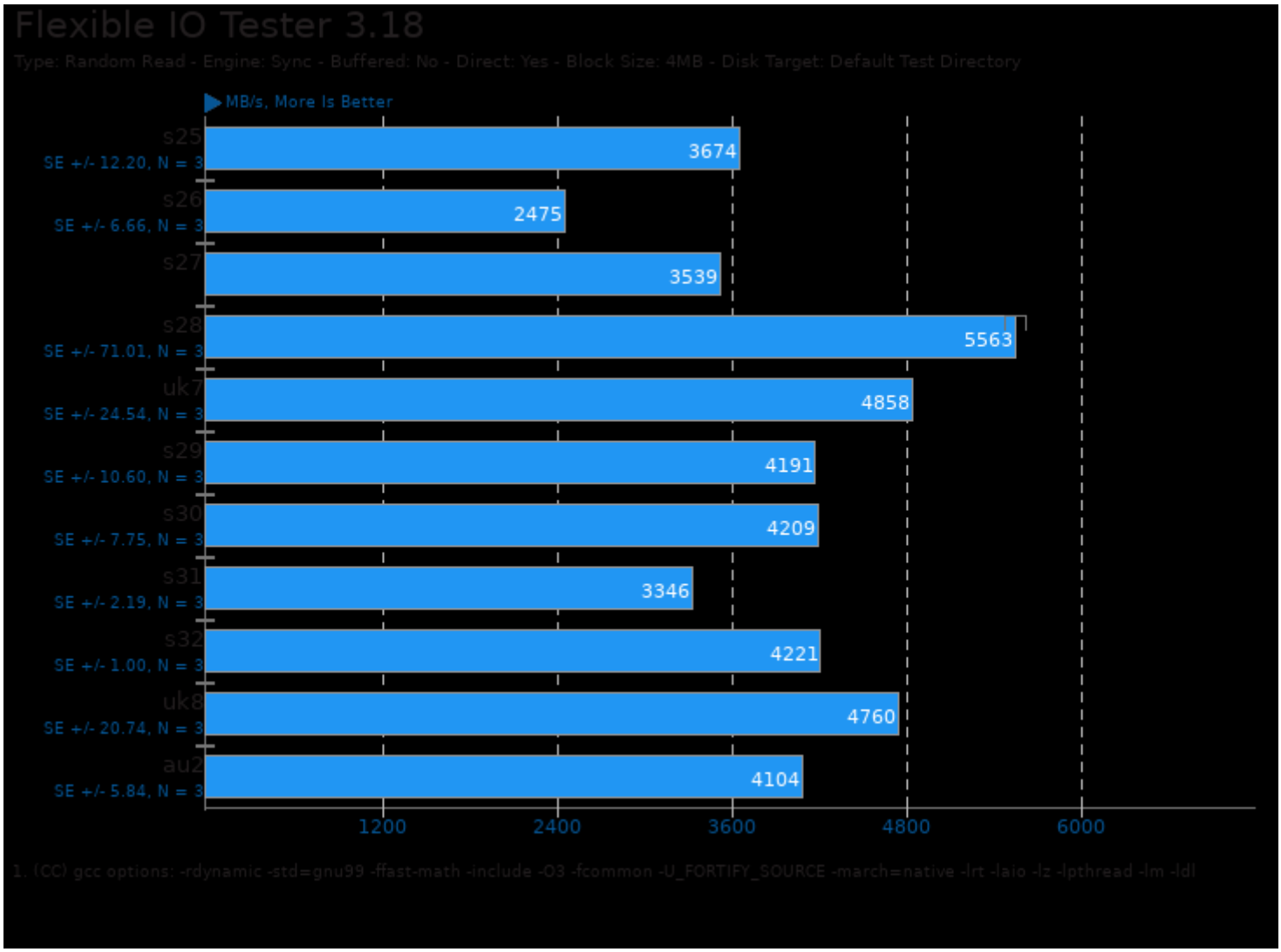

Flexible IO Tester 3.18
Type: Random Read - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 1MB - Disk Target: Default Test Directory
IOPS, More Is Better
s25
2337
s26
1902
s27
SE +/- 1.53, N = 3
2554
s28
SE +/- 0.50, N = 2
5037
uk7
SE +/- 1.00, N = 2
3926
s29
3214
s30
SE +/- 4.50, N = 2
3265
s31
2392
s32
SE +/- 1.50, N = 2
3340
uk8
SE +/- 1.50, N = 2
3248
au2
3202
1100
2200
3300
4400
5500
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

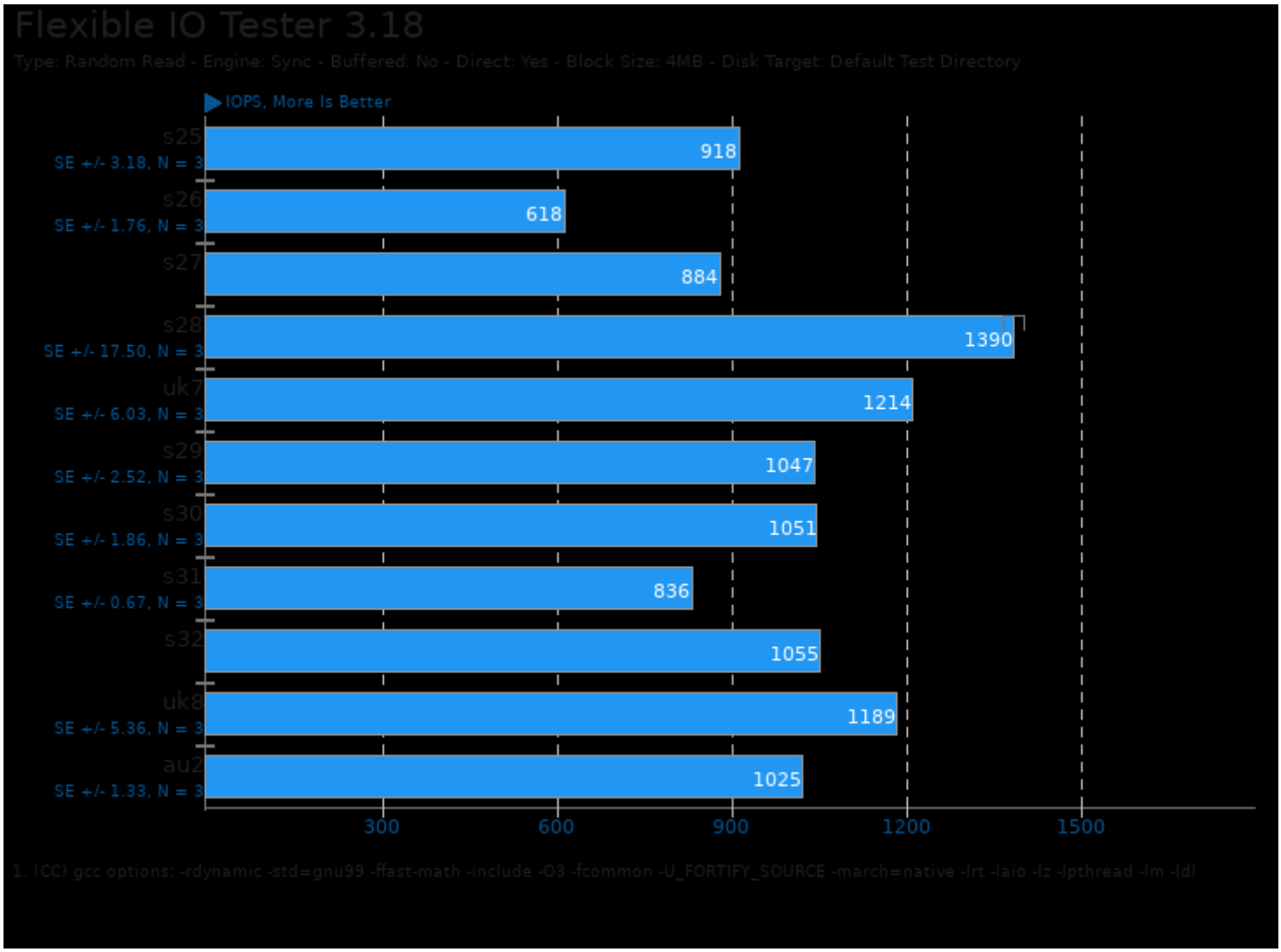

Flexible IO Tester 3.18
Type: Random Read - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 2MB - Disk Target: Default Test Directory
MB/s, More Is Better
s25
SE +/- 1.00, N = 3
3166
s26
SE +/- 36.77, N = 12
2173
s27
SE +/- 0.67, N = 3
3220
s28
SE +/- 0.67, N = 3
5104
uk7
4403
s29
3836
s30
SE +/- 0.88, N = 3
3880
s31
3033
s32
SE +/- 11.89, N = 3
3899
uk8
SE +/- 0.33, N = 3
4142
au2
SE +/- 2.08, N = 3
3795
1100
2200
3300
4400
5500
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

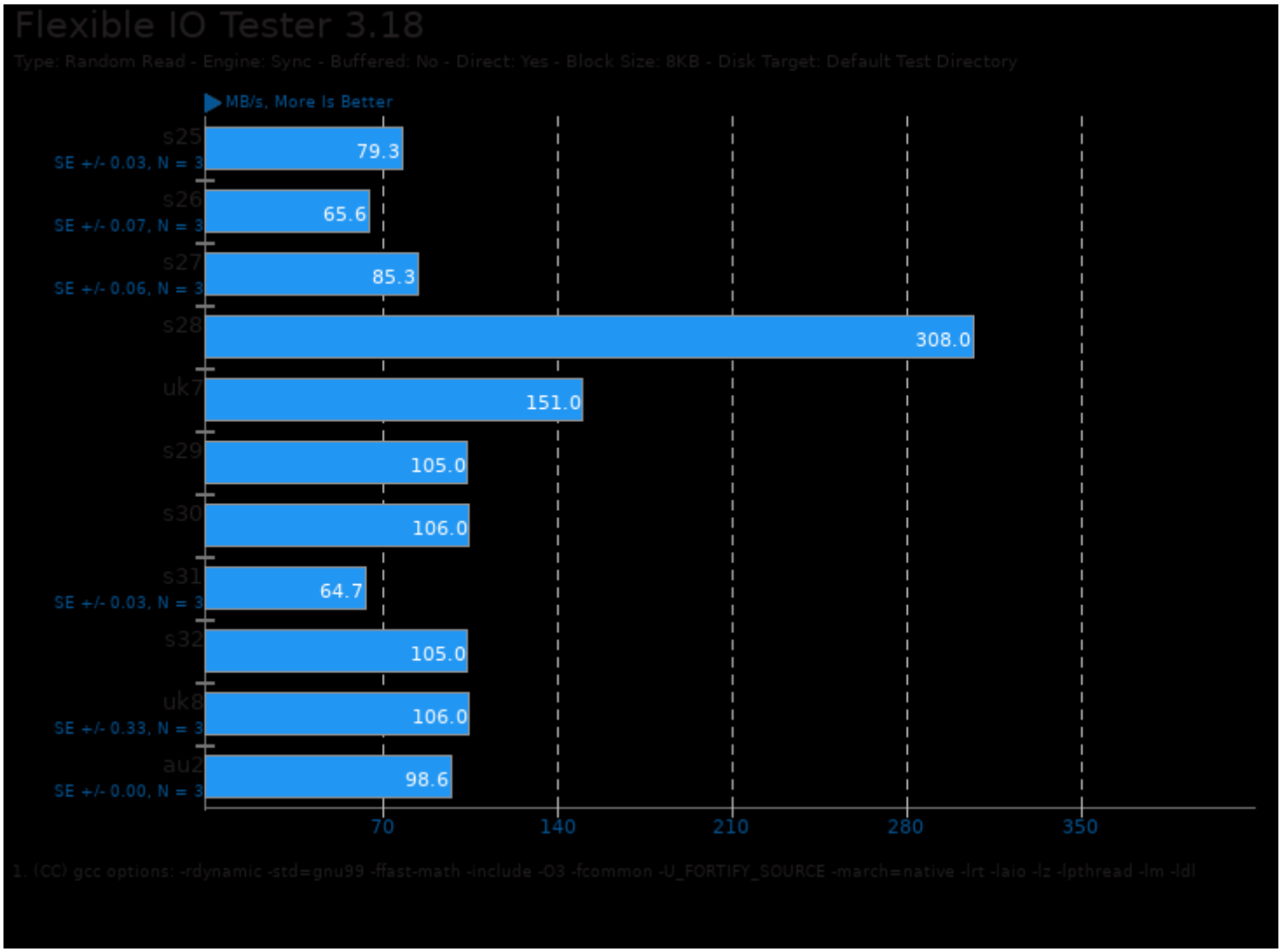

Flexible IO Tester 3.18
Type: Random Read - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 2MB - Disk Target: Default Test Directory
IOPS, More Is Better
s25
1582
s26
1086
SE +/- 18.37, N = 12
s27
1610
s28
2552
uk7
2201
s29
1917
s30
1939
SE +/- 0.33, N = 3
s31
1516
s32
1949
SE +/- 6.11, N = 3
uk8
2071
au2
1897
SE +/- 1.00, N = 3
500
1000
1500
2000
2500
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

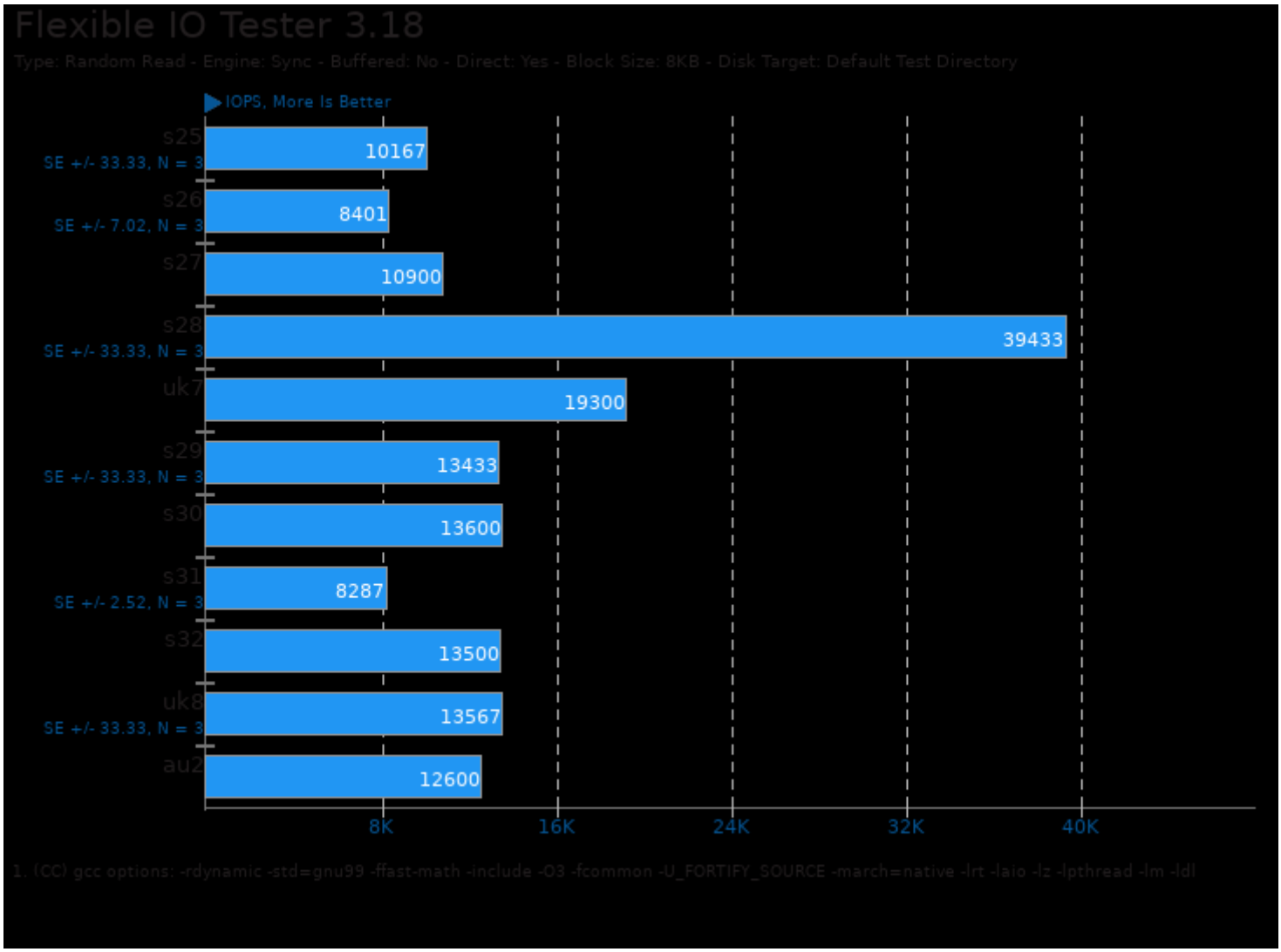

Flexible IO Tester 3.18
Type: Random Read - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 4KB - Disk Target: Default Test Directory
MB/s, More Is Better
s25
SE +/- 0.09, N = 3
44.3
s26
SE +/- 0.03, N = 3
39.3
s27
SE +/- 0.09, N = 3
48.3
s28
155.0
uk7
SE +/- 0.33, N = 3
81.2
s29
SE +/- 0.06, N = 3
58.8
s30
SE +/- 0.07, N = 3
59.5
s31
SE +/- 0.00, N = 3
35.6
s32
SE +/- 0.37, N = 3
56.7
uk8
SE +/- 0.07, N = 3
57.3
au2
SE +/- 0.10, N = 3
53.3
30
60
90
120
150
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

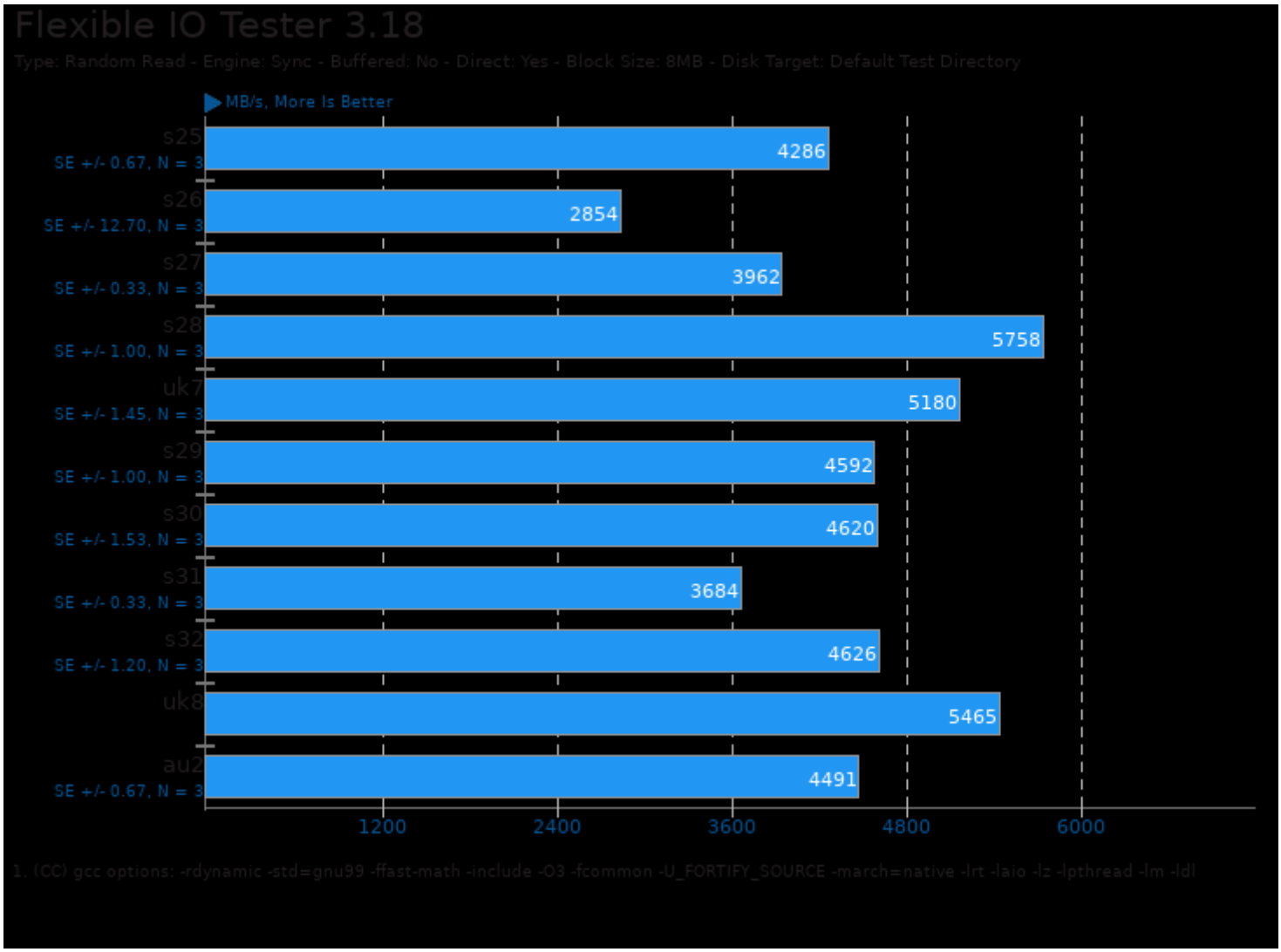

Flexible IO Tester 3.18
Type: Random Read - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 4KB - Disk Target: Default Test Directory
IOPS, More Is Better
s25
SE +/- 33.33, N = 3
11333
s26
10100
s27
SE +/- 33.33, N = 3
12367
s28
SE +/- 100.00, N = 3
39600
uk7
SE +/- 272.85, N = 3
20533
s29
SE +/- 33.33, N = 3
15067
s30
15200
s31
9110
s32
14600
uk8
SE +/- 33.33, N = 3
14667
au2
SE +/- 33.33, N = 3
13667
8K
16K
24K
32K
40K
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

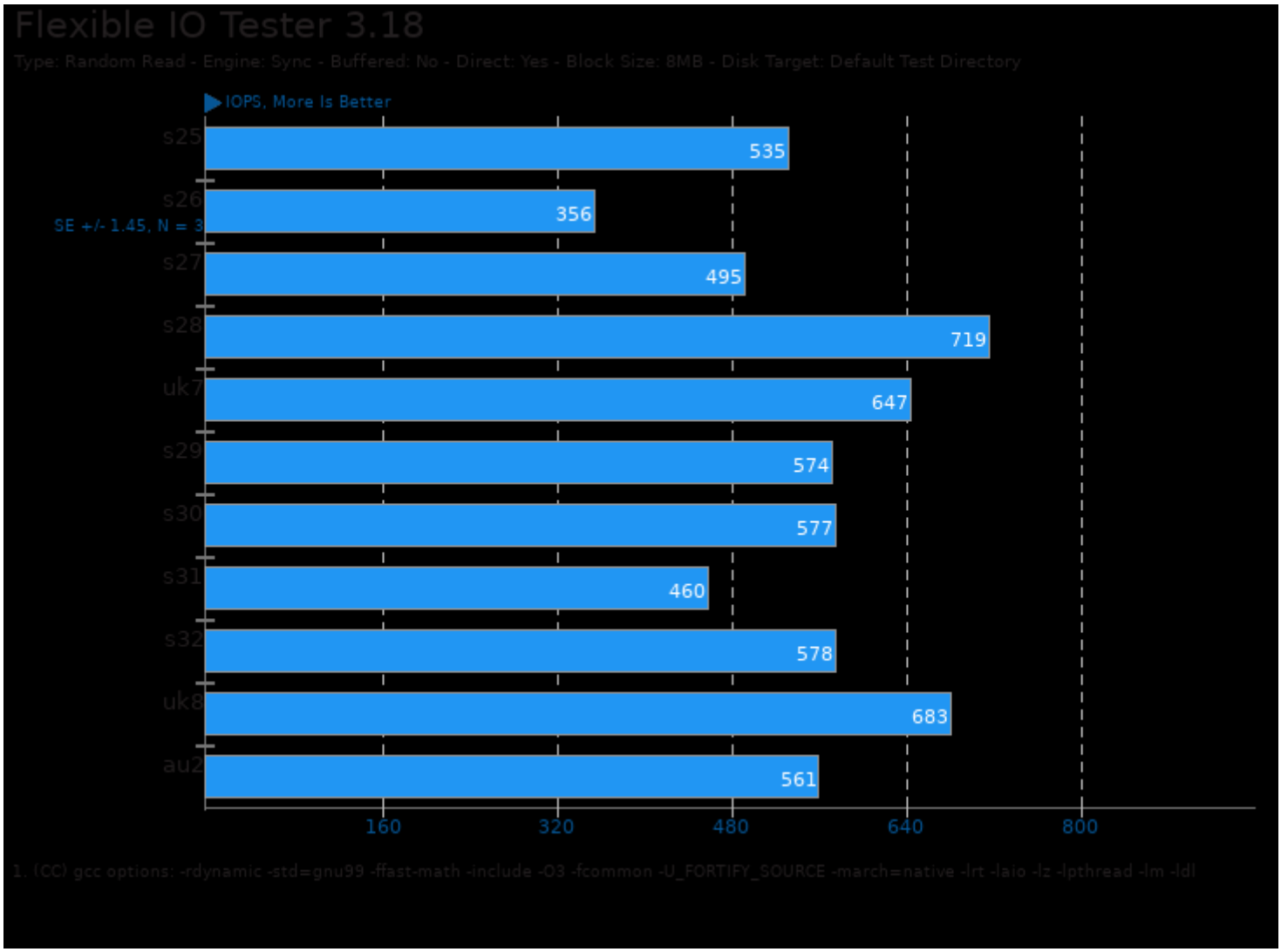

Flexible IO Tester 3.18
Type: Random Read - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 4MB - Disk Target: Default Test Directory
MB/s, More Is Better
s25
SE +/- 12.20, N = 3
3674
s26
SE +/- 6.66, N = 3
2475
s27
3539
s28
SE +/- 71.01, N = 3
5563
uk7
SE +/- 24.54, N = 3
4858
s29
SE +/- 10.60, N = 3
4191
s30
SE +/- 7.75, N = 3
4209
s31
SE +/- 2.19, N = 3
3346
s32
SE +/- 1.00, N = 3
4221
uk8
SE +/- 20.74, N = 3
4760
au2
SE +/- 5.84, N = 3
4104
1200
2400
3600
4800
6000
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

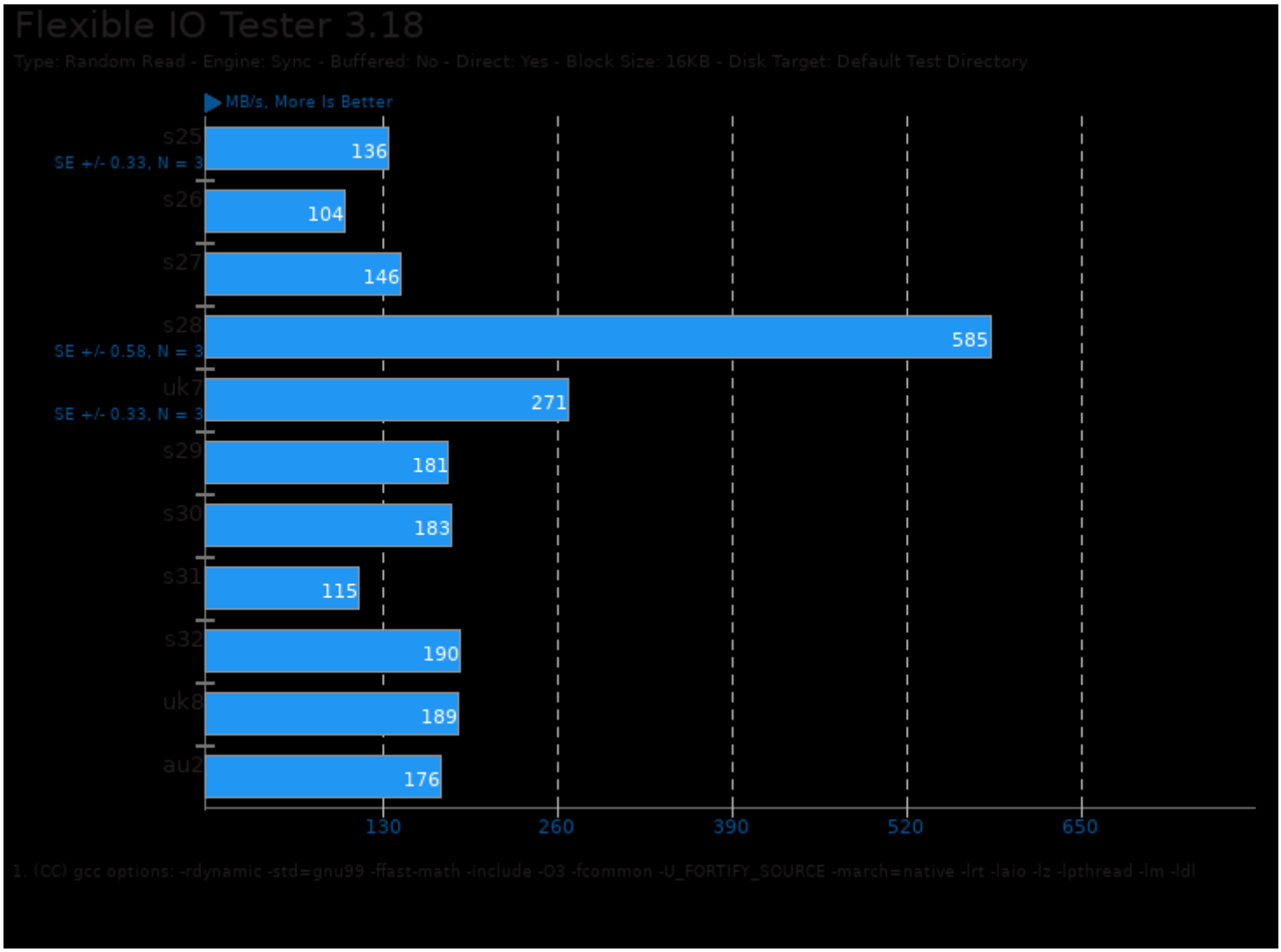

Flexible IO Tester 3.18
Type: Random Read - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 4MB - Disk Target: Default Test Directory
IOPS, More Is Better
s25
SE +/- 3.18, N = 3
918
s26
SE +/- 1.76, N = 3
618
s27
884
s28
SE +/- 17.50, N = 3
1390
uk7
SE +/- 6.03, N = 3
1214
s29
SE +/- 2.52, N = 3
1047
s30
SE +/- 1.86, N = 3
1051
s31
SE +/- 0.67, N = 3
836
s32
1055
uk8
SE +/- 5.36, N = 3
1189
au2
SE +/- 1.33, N = 3
1025
300
600
900
1200
1500
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

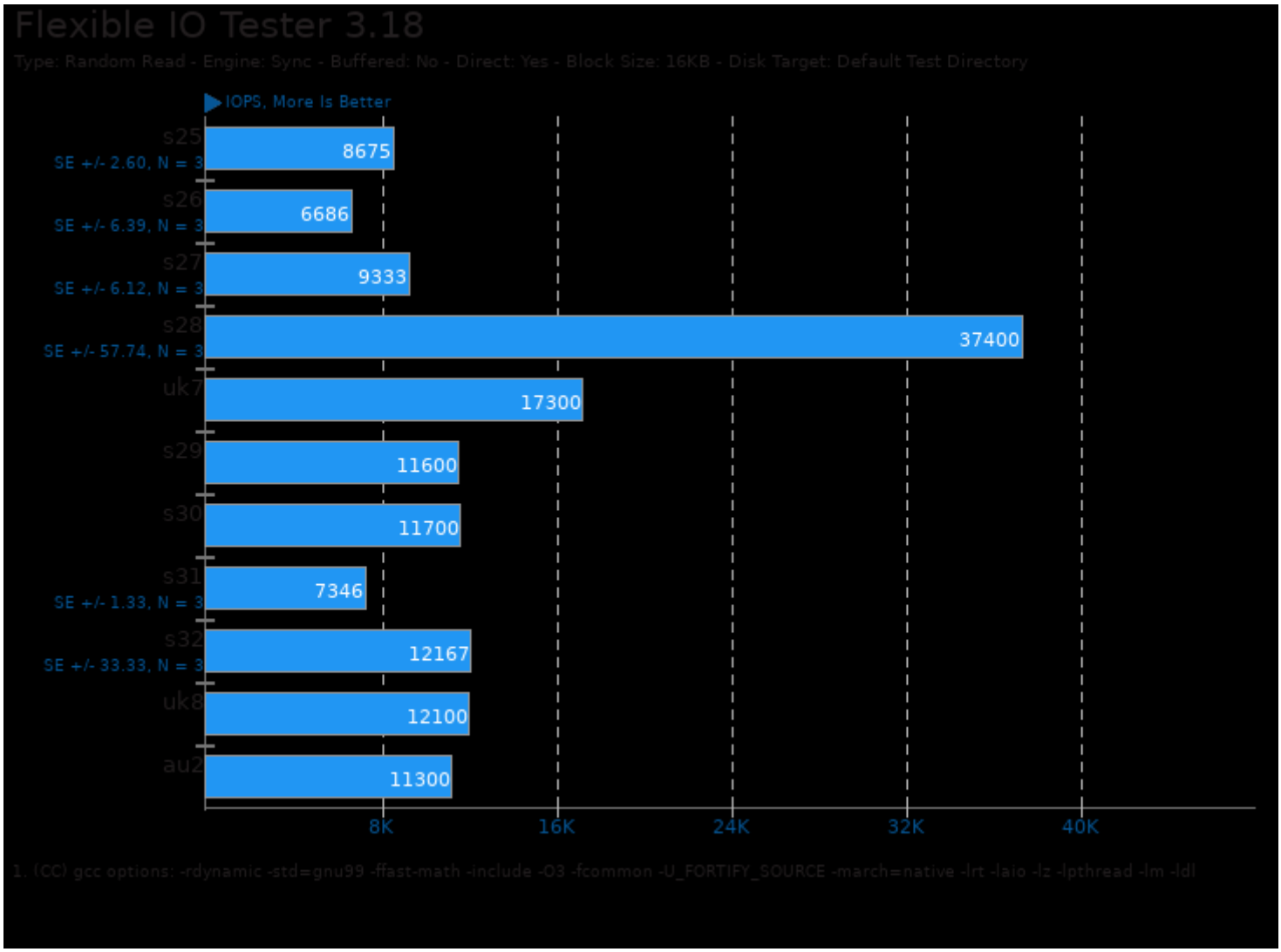

Flexible IO Tester 3.18
Type: Random Read - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 8KB - Disk Target: Default Test Directory
MB/s, More Is Better
s25
SE +/- 0.03, N = 3
79.3
s26
SE +/- 0.07, N = 3
65.6
s27
SE +/- 0.06, N = 3
85.3
s28
308.0
uk7
151.0
s29
105.0
s30
106.0
s31
SE +/- 0.03, N = 3
64.7
s32
105.0
uk8
SE +/- 0.33, N = 3
106.0
au2
SE +/- 0.00, N = 3
98.6
70
140
210
280
350
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

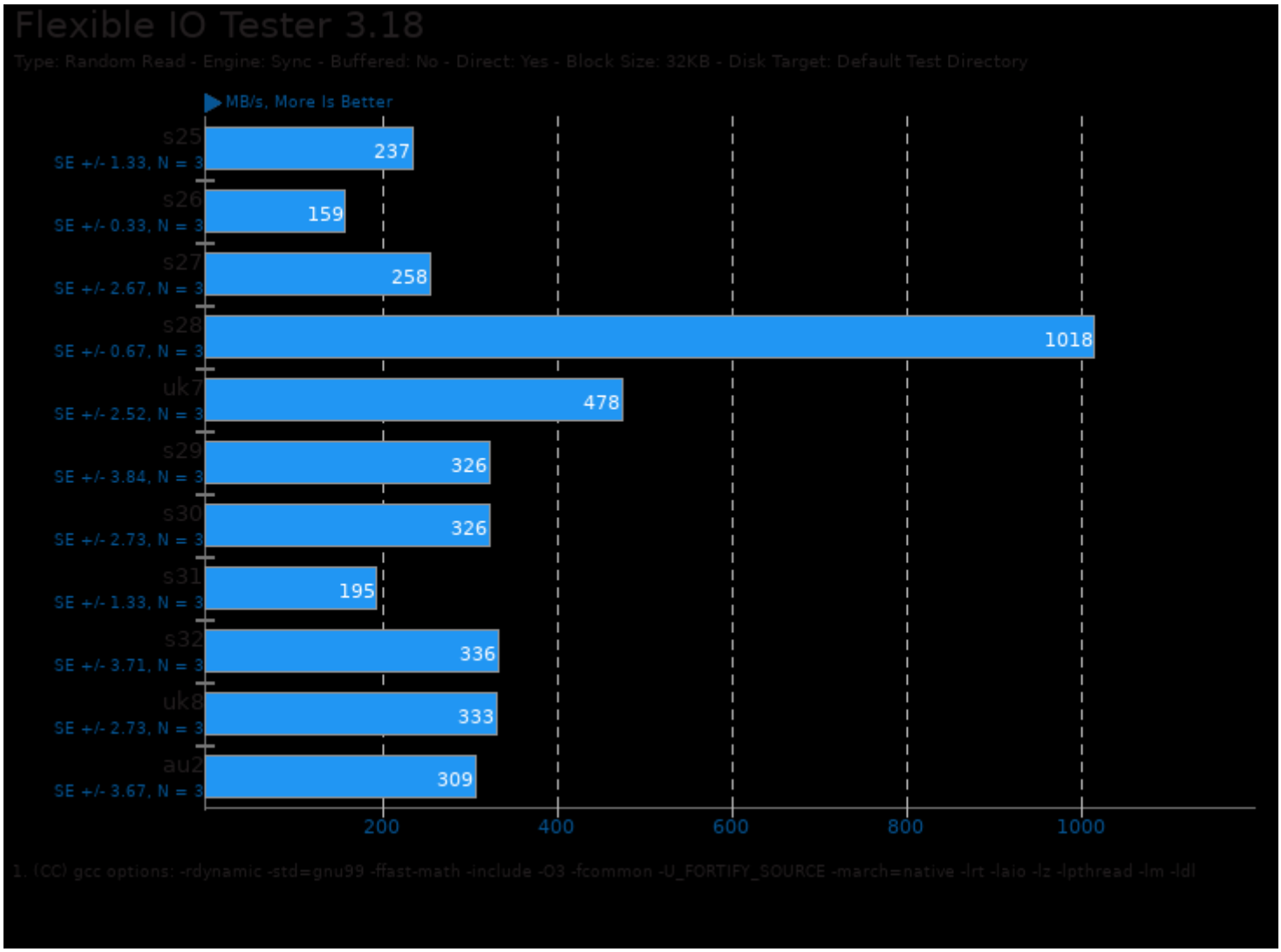

Flexible IO Tester 3.18
Type: Random Read - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 8KB - Disk Target: Default Test Directory
IOPS, More Is Better
s25
SE +/- 33.33, N = 3
10167
s26
SE +/- 7.02, N = 3
8401
s27
10900
s28
SE +/- 33.33, N = 3
39433
uk7
19300
s29
SE +/- 33.33, N = 3
13433
s30
13600
s31
SE +/- 2.52, N = 3
8287
s32
13500
uk8
SE +/- 33.33, N = 3
13567
au2
12600
8K
16K
24K
32K
40K
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

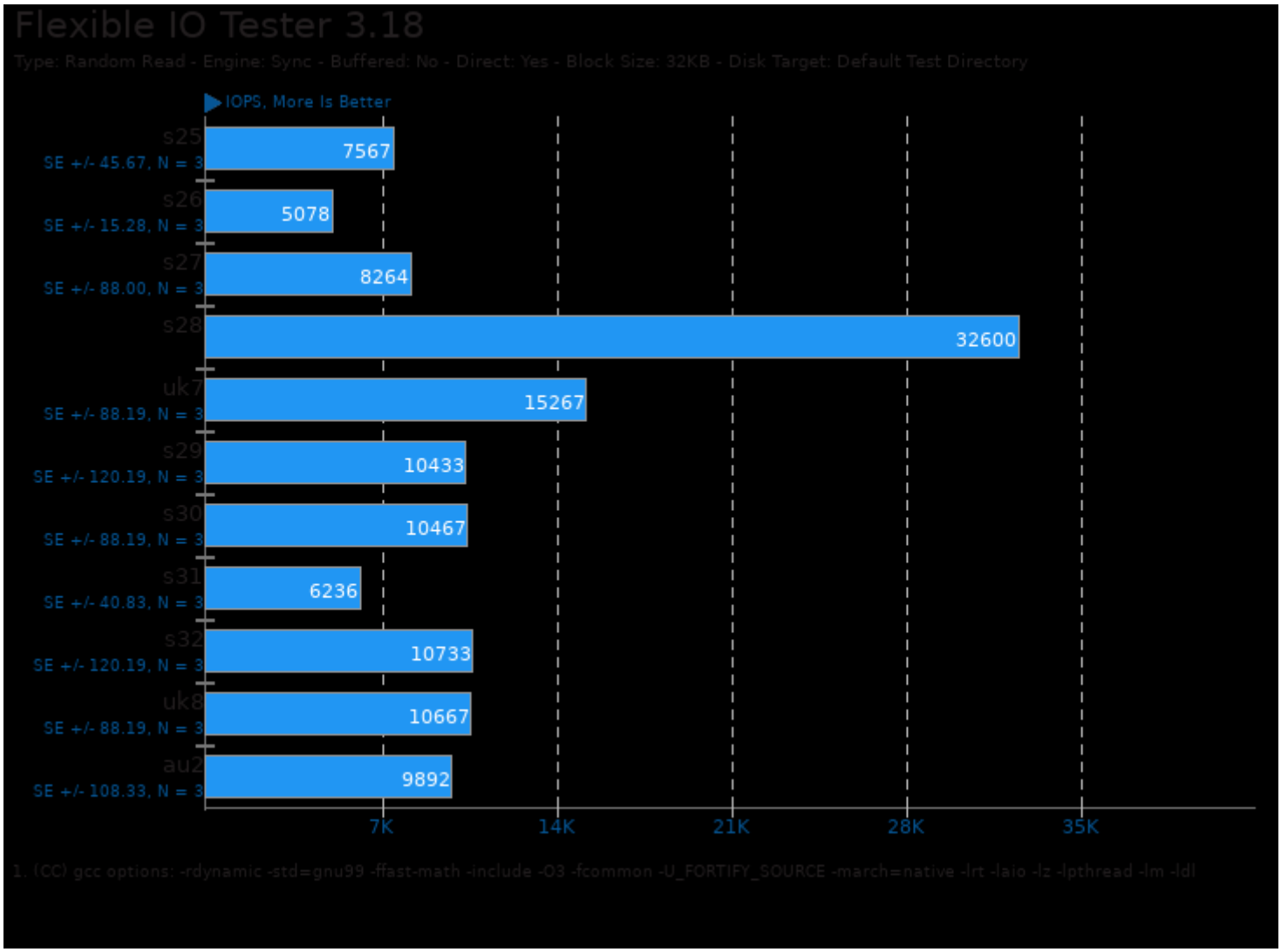

Flexible IO Tester 3.18
Type: Random Read - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 8MB - Disk Target: Default Test Directory
MB/s, More Is Better
s25
SE +/- 0.67, N = 3
4286
s26
SE +/- 12.70, N = 3
2854
s27
SE +/- 0.33, N = 3
3962
s28
SE +/- 1.00, N = 3
5758
uk7
SE +/- 1.45, N = 3
5180
s29
SE +/- 1.00, N = 3
4592
s30
SE +/- 1.53, N = 3
4620
s31
SE +/- 0.33, N = 3
3684
s32
SE +/- 1.20, N = 3
4626
uk8
5465
au2
SE +/- 0.67, N = 3
4491
1200
2400
3600
4800
6000
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

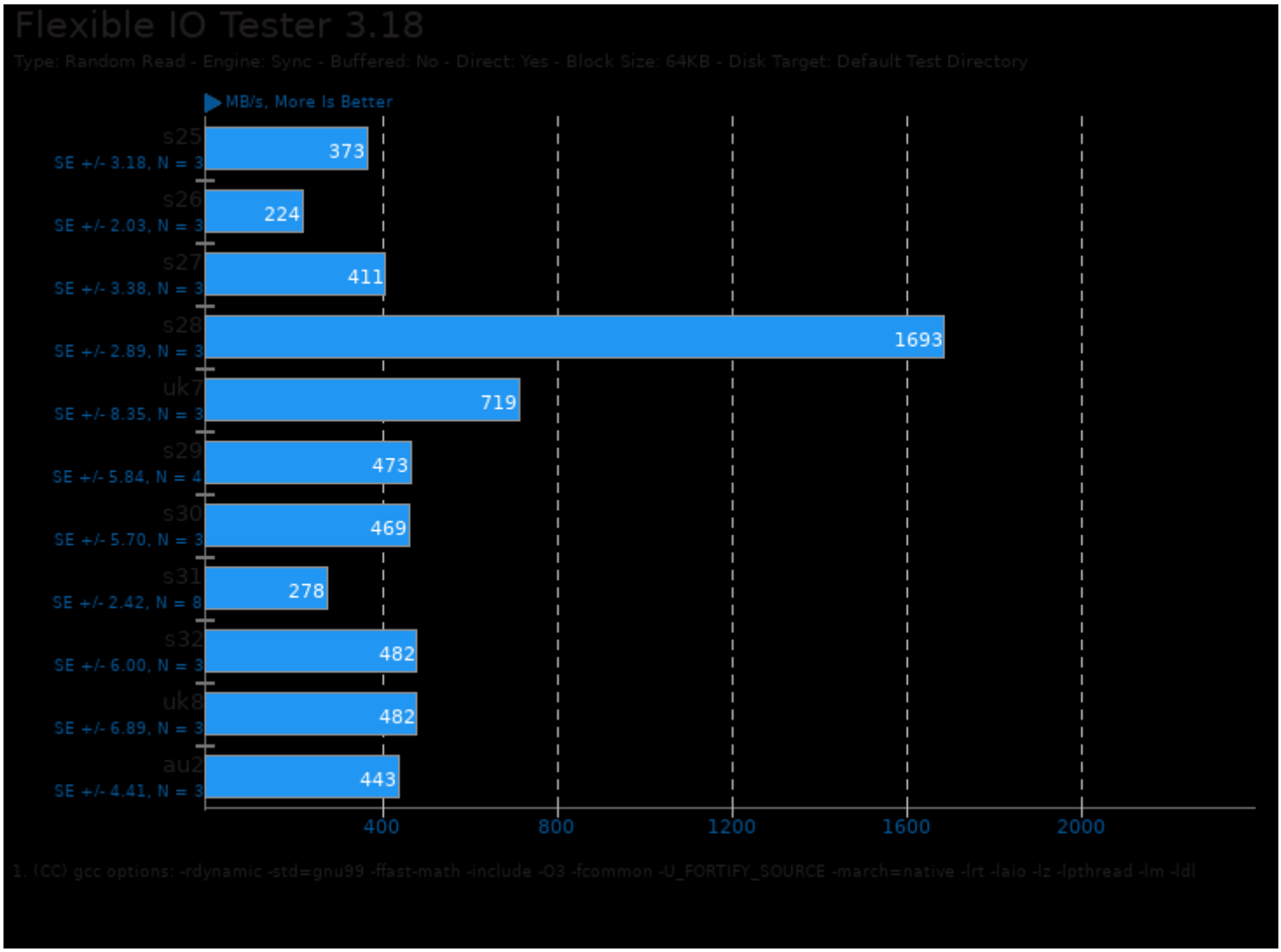

Flexible IO Tester 3.18
Type: Random Read - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 8MB - Disk Target: Default Test Directory
IOPS, More Is Better
SE +/- 1.45, N = 3
s25
535
s26
356
s27
495
s28
719
uk7
647
s29
574
s30
577
s31
460
s32
578
uk8
683
au2
561
160
320
480
640
800
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

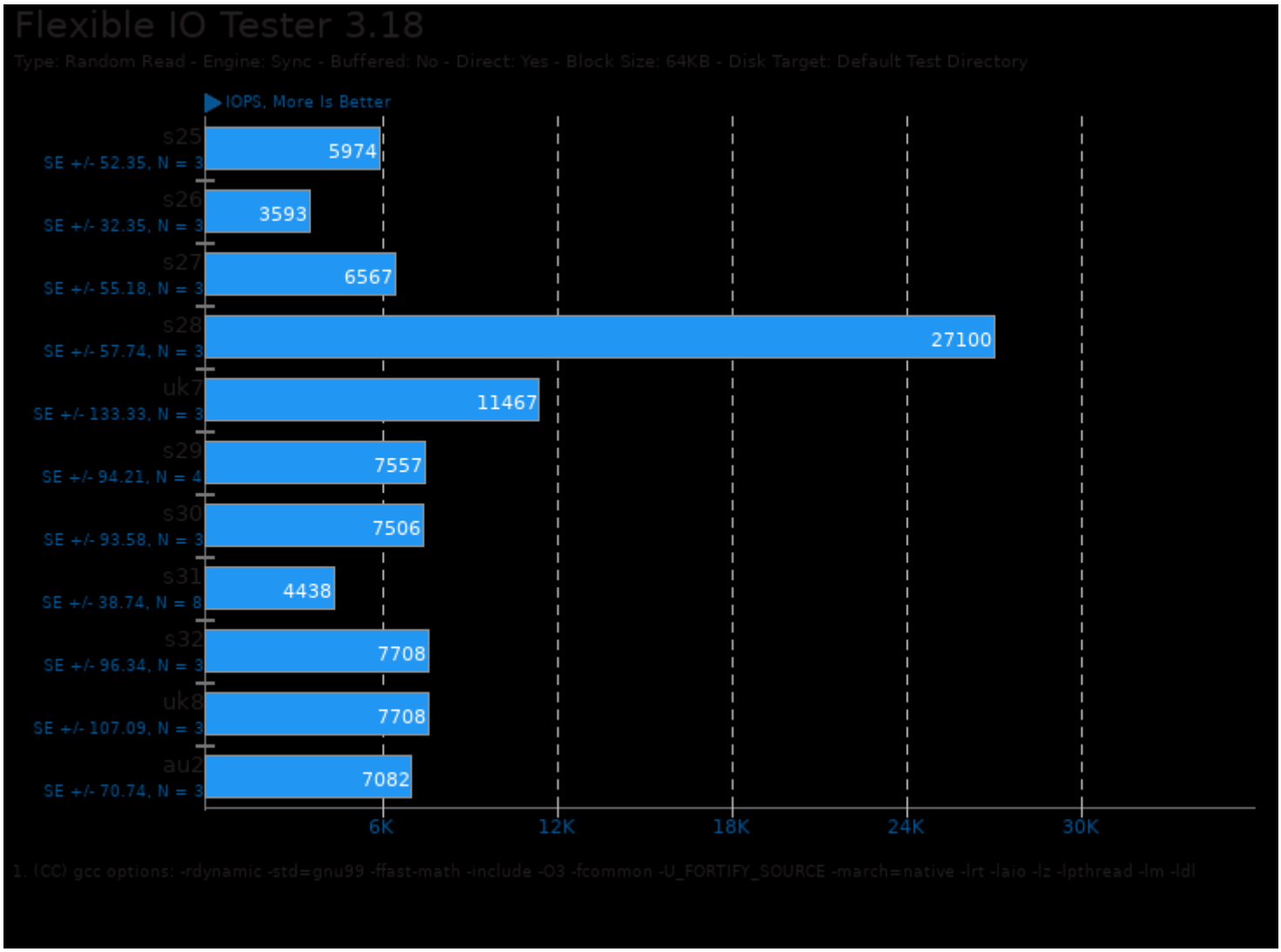

Flexible IO Tester 3.18
Type: Random Read - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 16KB - Disk Target: Default Test Directory
MB/s, More Is Better
s25
SE +/- 0.33, N = 3
136
s26
104
s27
146
s28
SE +/- 0.58, N = 3
585
uk7
SE +/- 0.33, N = 3
271
s29
181
s30
183
s31
115
s32
190
uk8
189
au2
176
130
260
390
520
650
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

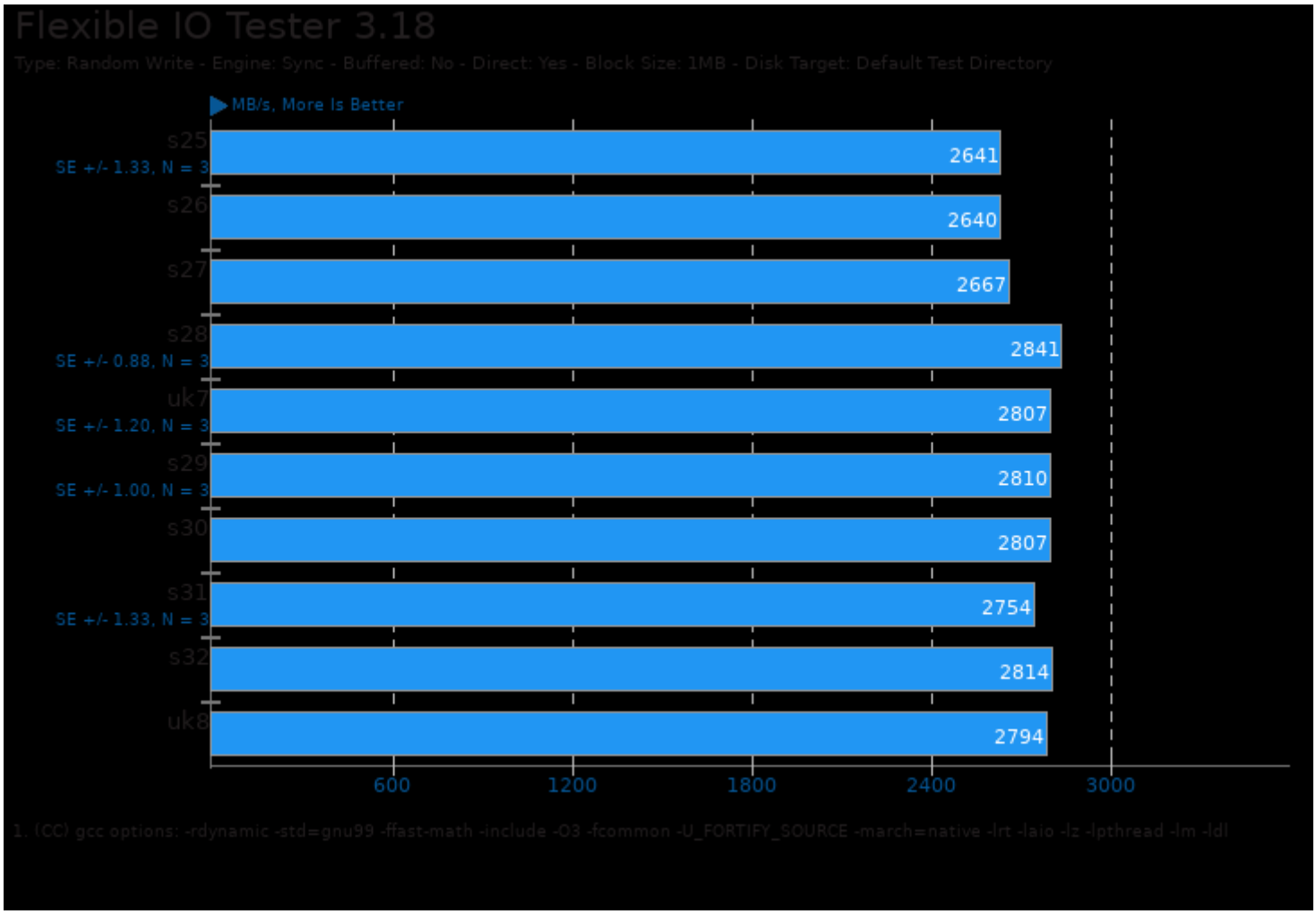

Flexible IO Tester 3.18
Type: Random Read - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 16KB - Disk Target: Default Test Directory
IOPS, More Is Better
s25
SE +/- 2.60, N = 3
8675
s26
SE +/- 6.39, N = 3
6686
s27
SE +/- 6.12, N = 3
9333
s28
SE +/- 57.74, N = 3
37400
uk7
17300
s29
11600
s30
11700
s31
SE +/- 1.33, N = 3
7346
s32
SE +/- 33.33, N = 3
12167
uk8
12100
au2
11300
8K
16K
24K
32K
40K
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

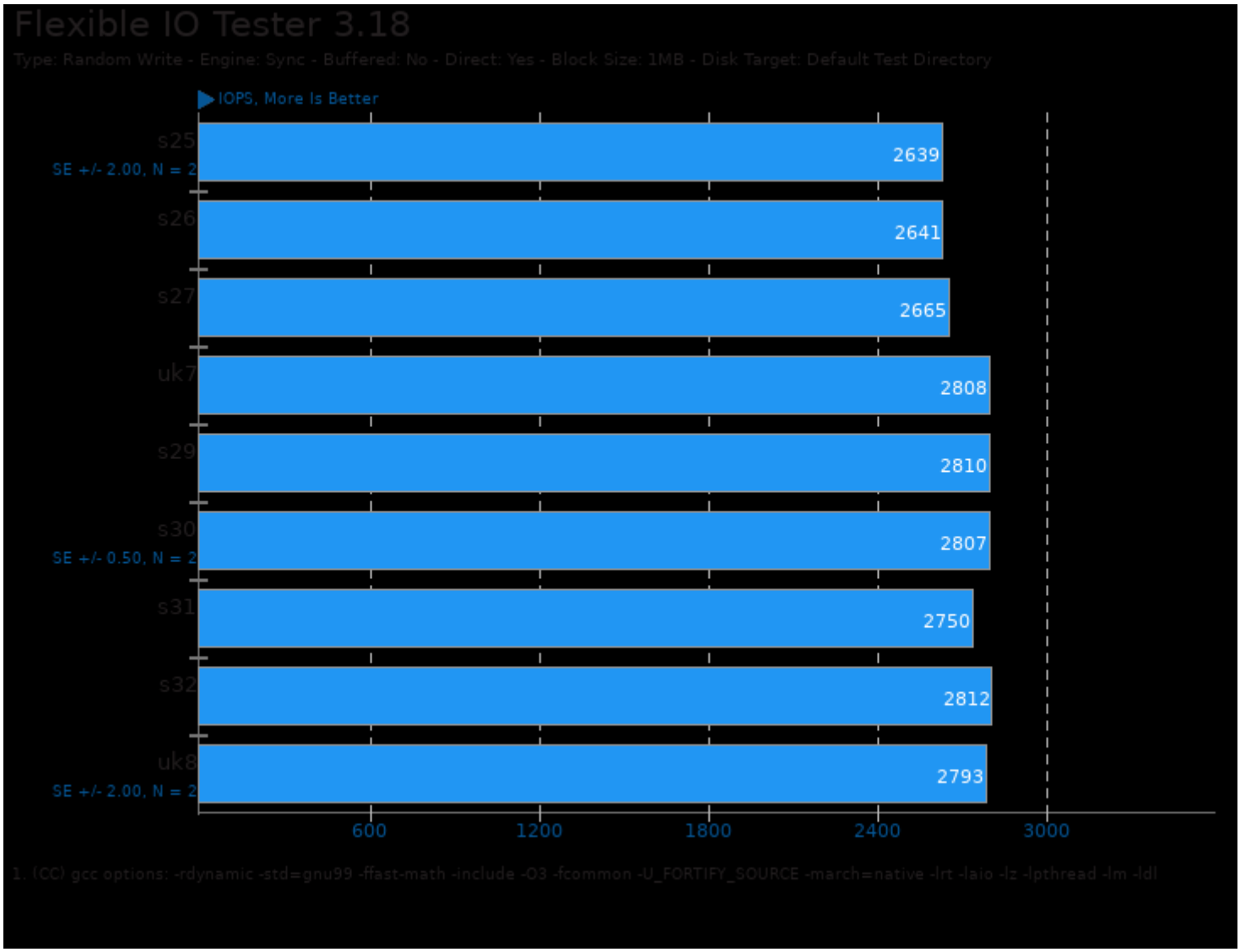

Flexible IO Tester 3.18
Type: Random Read - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 32KB - Disk Target: Default Test Directory
MB/s, More Is Better
s25
SE +/- 1.33, N = 3
237
s26
SE +/- 0.33, N = 3
159
s27
SE +/- 2.67, N = 3
258
s28
SE +/- 0.67, N = 3
1018
uk7
SE +/- 2.52, N = 3
478
s29
SE +/- 3.84, N = 3
326
s30
SE +/- 2.73, N = 3
326
s31
SE +/- 1.33, N = 3
195
s32
SE +/- 3.71, N = 3
336
uk8
SE +/- 2.73, N = 3
333
au2
SE +/- 3.67, N = 3
309
200
400
600
800
1000
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

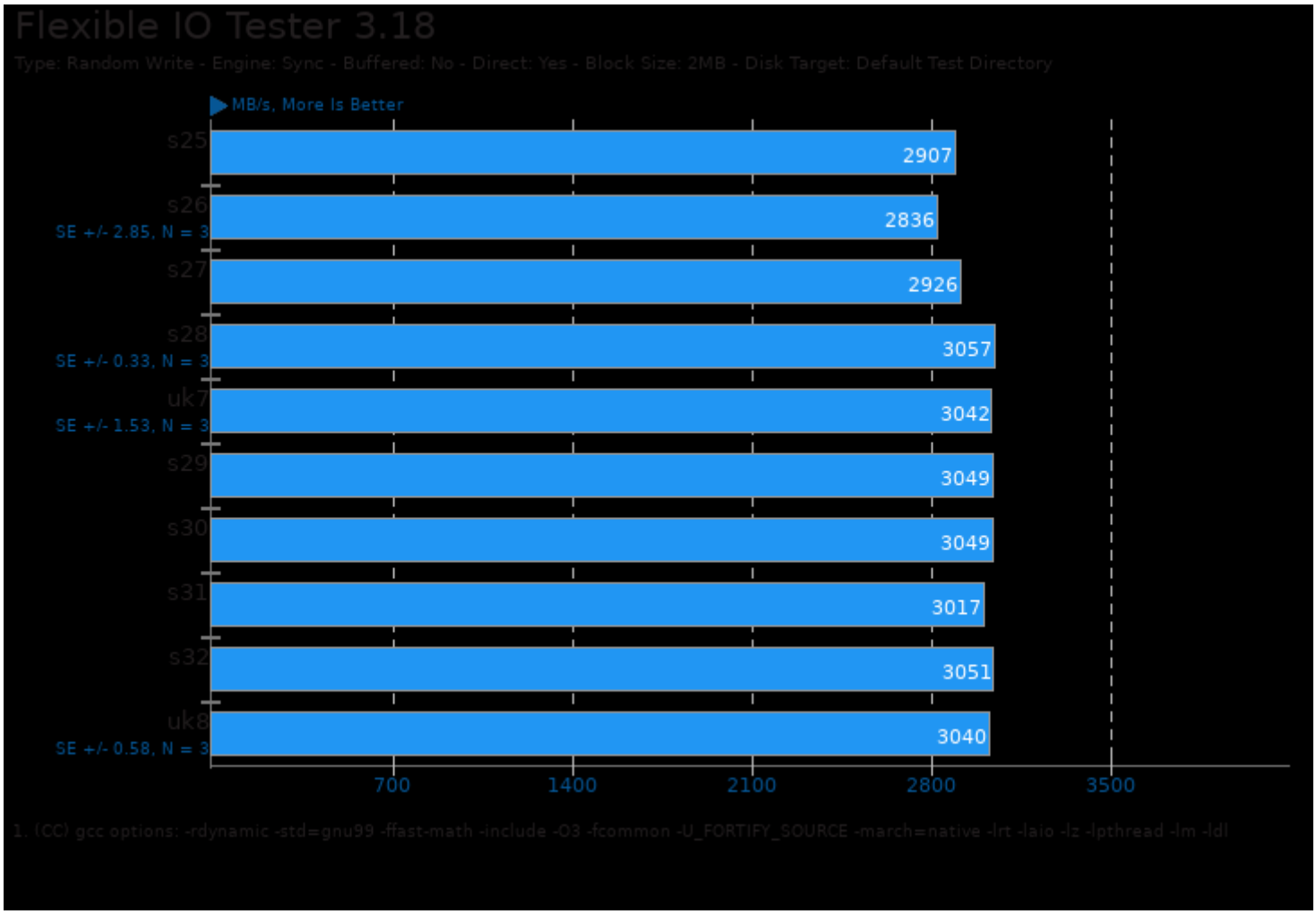

Flexible IO Tester 3.18
Type: Random Read - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 32KB - Disk Target: Default Test Directory
IOPS, More Is Better
s25
SE +/- 45.67, N = 3
7567
s26
SE +/- 15.28, N = 3
5078
s27
SE +/- 88.00, N = 3
8264
s28
32600
uk7
SE +/- 88.19, N = 3
15267
s29
SE +/- 120.19, N = 3
10433
s30
SE +/- 88.19, N = 3
10467
s31
SE +/- 40.83, N = 3
6236
s32
SE +/- 120.19, N = 3
10733
uk8
SE +/- 88.19, N = 3
10667
au2
SE +/- 108.33, N = 3
9892
7K
14K
21K
28K
35K
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

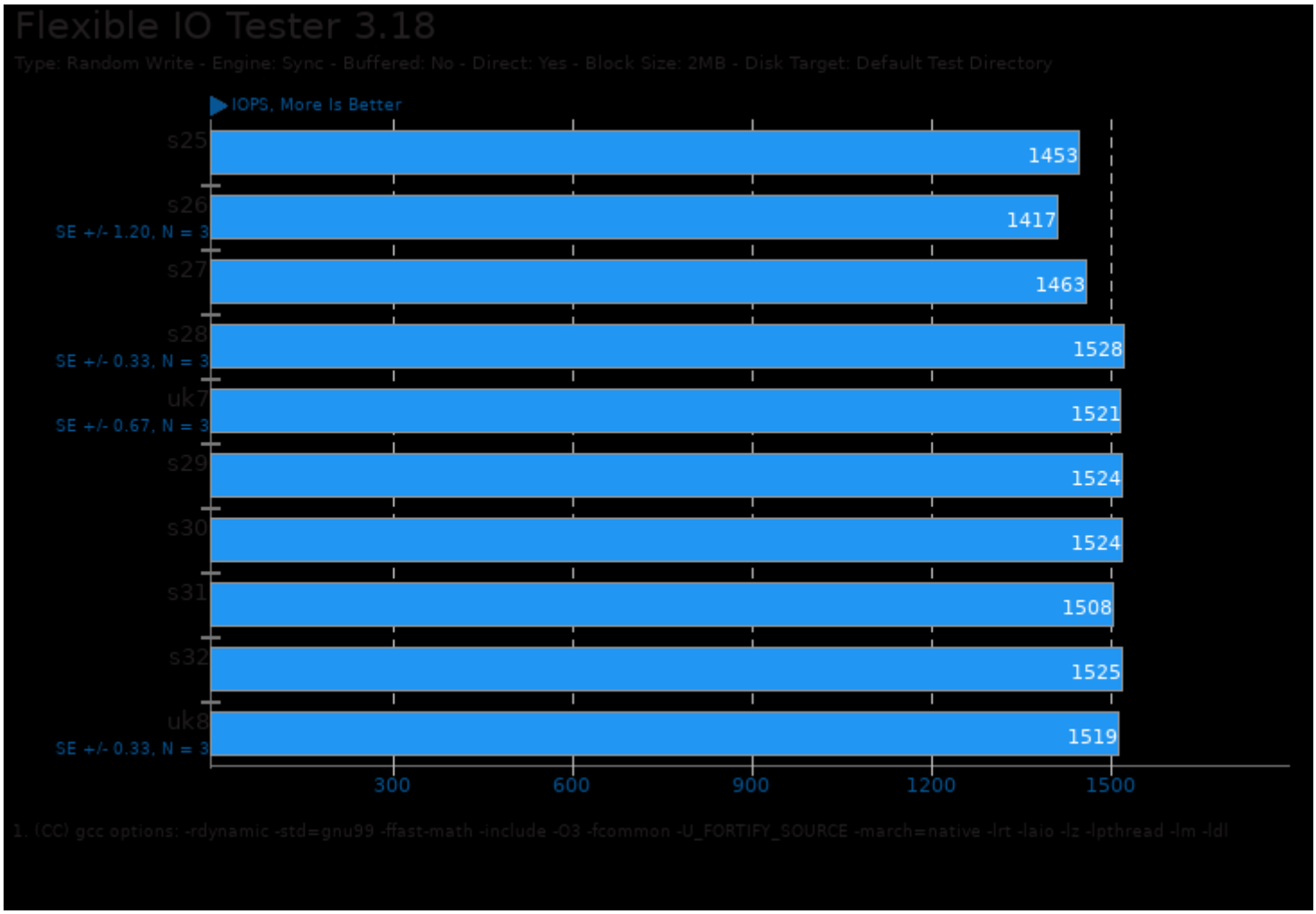

Flexible IO Tester 3.18
Type: Random Read - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 64KB - Disk Target: Default Test Directory
MB/s, More Is Better
s25
SE +/- 3.18, N = 3
373
s26
SE +/- 2.03, N = 3
224
s27
SE +/- 3.38, N = 3
411
s28
SE +/- 2.89, N = 3
1693
uk7
SE +/- 8.35, N = 3
719
s29
SE +/- 5.84, N = 4
473
s30
SE +/- 5.70, N = 3
469
s31
SE +/- 2.42, N = 8
278
s32
SE +/- 6.00, N = 3
482
uk8
SE +/- 6.89, N = 3
482
au2
SE +/- 4.41, N = 3
443
400
800
1200
1600
2000
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

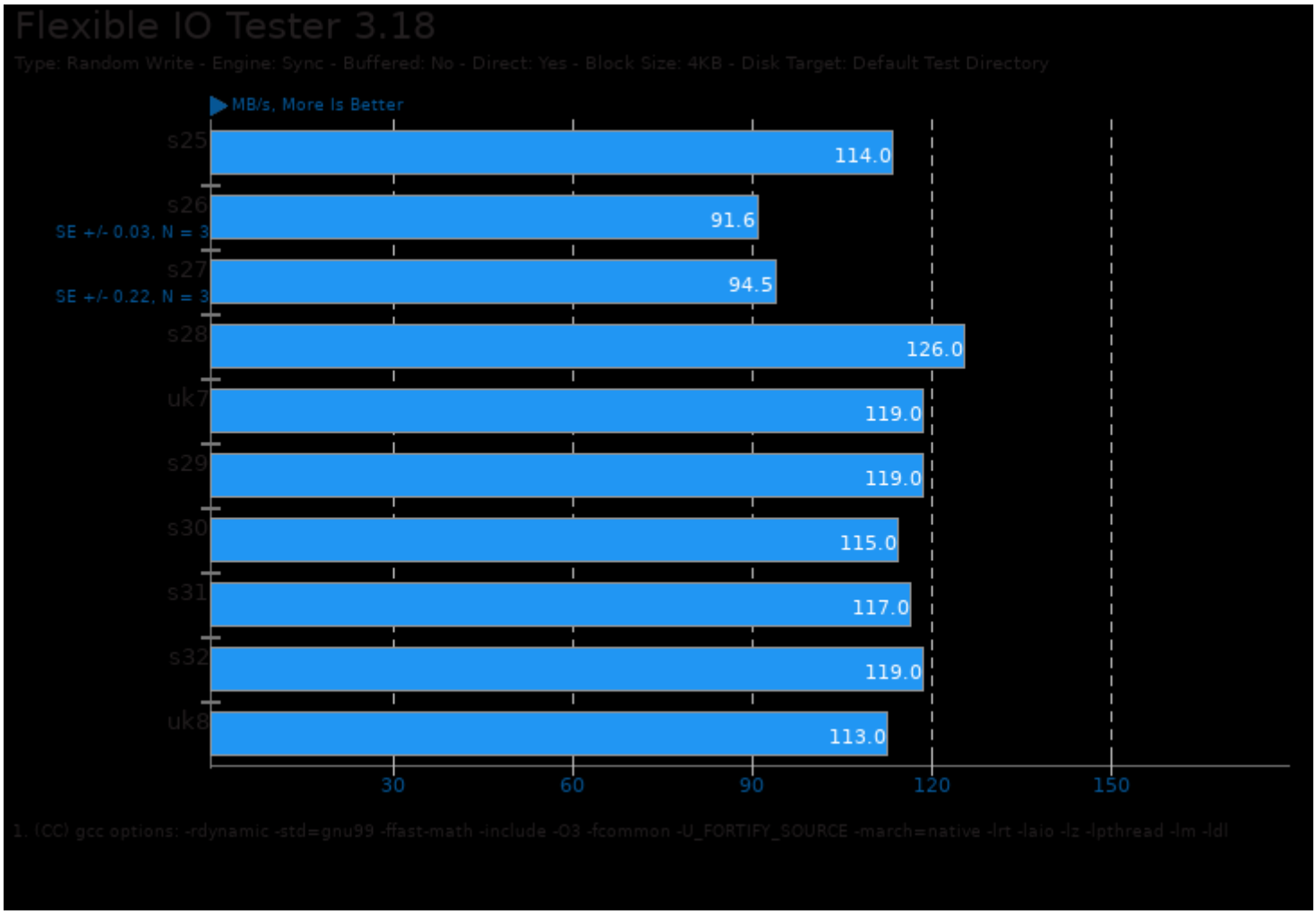

Flexible IO Tester 3.18
Type: Random Read - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 64KB - Disk Target: Default Test Directory
IOPS, More Is Better
s25
SE +/- 52.35, N = 3
5974
s26
SE +/- 32.35, N = 3
3593
s27
SE +/- 55.18, N = 3
6567
s28
SE +/- 57.74, N = 3
27100
uk7
SE +/- 133.33, N = 3
11467
s29
SE +/- 94.21, N = 4
7557
s30
SE +/- 93.58, N = 3
7506
s31
SE +/- 38.74, N = 8
4438
s32
SE +/- 96.34, N = 3
7708
uk8
SE +/- 107.09, N = 3
7708
au2
SE +/- 70.74, N = 3
7082
6K
12K
18K
24K
30K
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

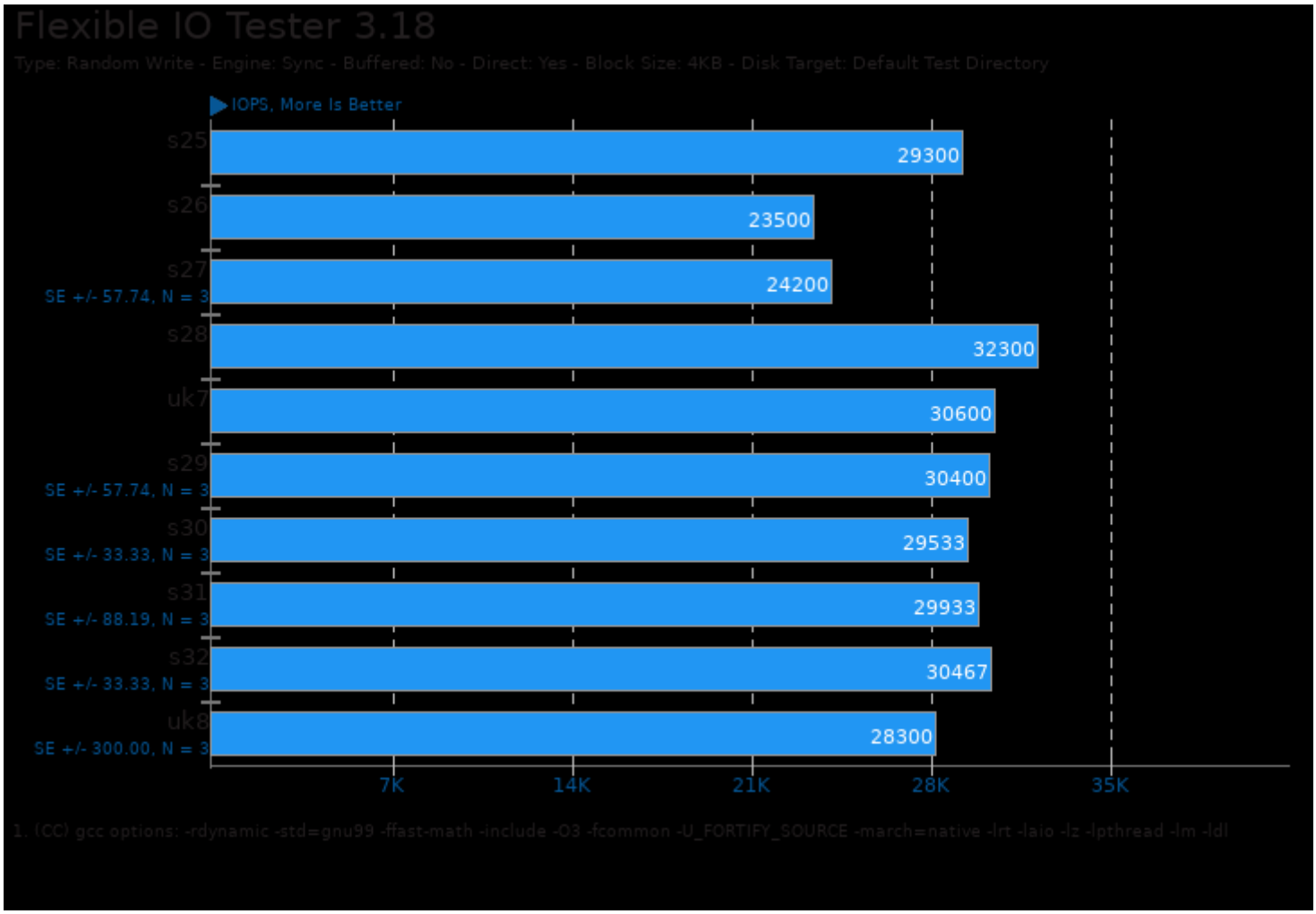

Flexible IO Tester 3.18
Type: Random Write - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 1MB - Disk Target: Default Test Directory
MB/s, More Is Better
s25
SE +/- 1.33, N = 3
2641
s26
2640
s27
2667
s28
SE +/- 0.88, N = 3
2841
uk7
SE +/- 1.20, N = 3
2807
s29
SE +/- 1.00, N = 3
2810
s30
2807
s31
SE +/- 1.33, N = 3
2754
s32
2814
uk8
2794
600
1200
1800
2400
3000
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

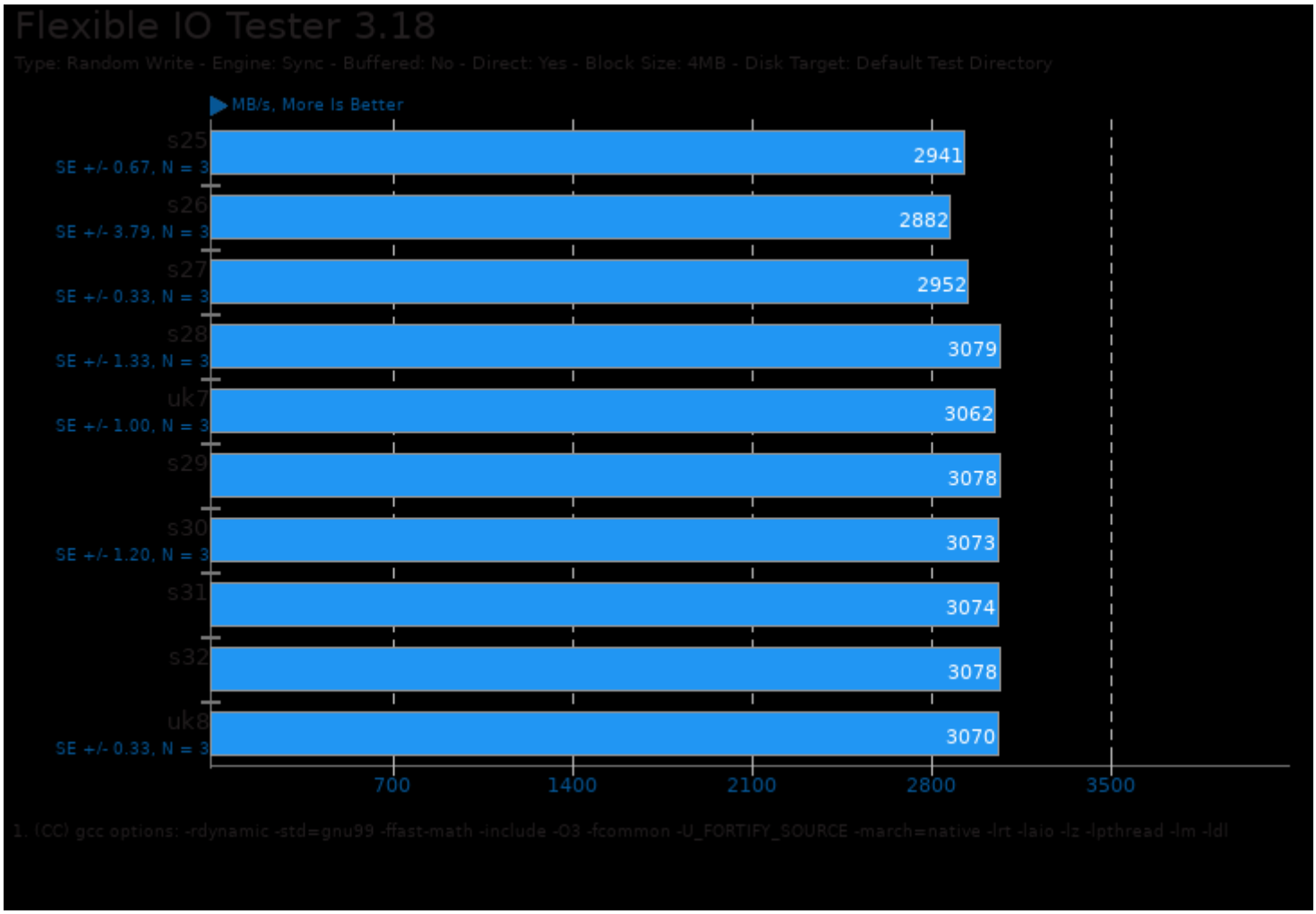

Flexible IO Tester 3.18
Type: Random Write - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 1MB - Disk Target: Default Test Directory
IOPS, More Is Better
s25
SE +/- 2.00, N = 2
2639
s26
2641
s27
2665
uk7
2808
s29
2810
s30
SE +/- 0.50, N = 2
2807
s31
2750
s32
2812
uk8
SE +/- 2.00, N = 2
2793
600
1200
1800
2400
3000
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

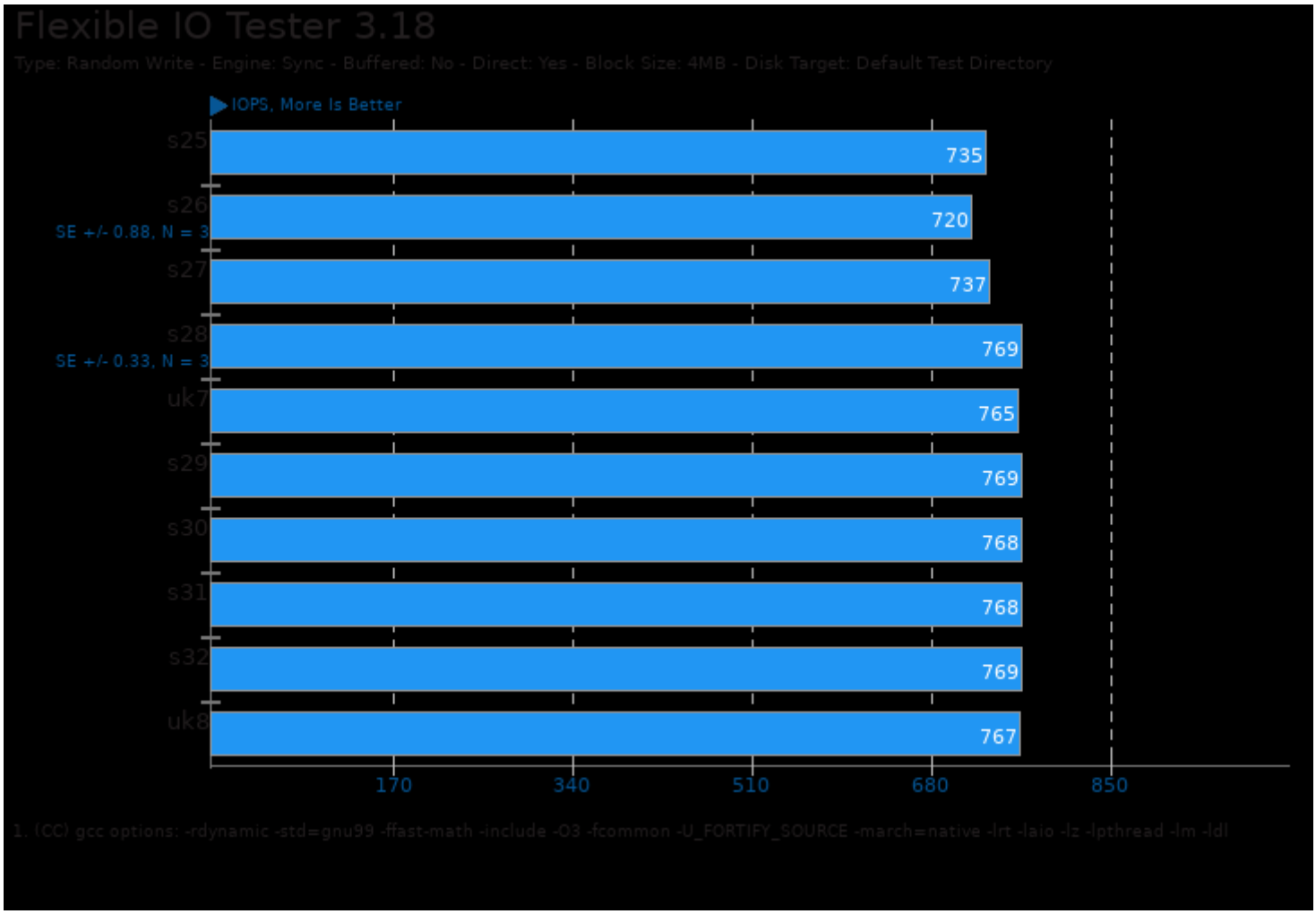

Flexible IO Tester 3.18
Type: Random Write - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 2MB - Disk Target: Default Test Directory
MB/s, More Is Better
s25
2907
s26
SE +/- 2.85, N = 3
2836
s27
2926
s28
SE +/- 0.33, N = 3
3057
uk7
SE +/- 1.53, N = 3
3042
s29
3049
s30
3049
s31
3017
s32
3051
uk8
SE +/- 0.58, N = 3
3040
700
1400
2100
2800
3500
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

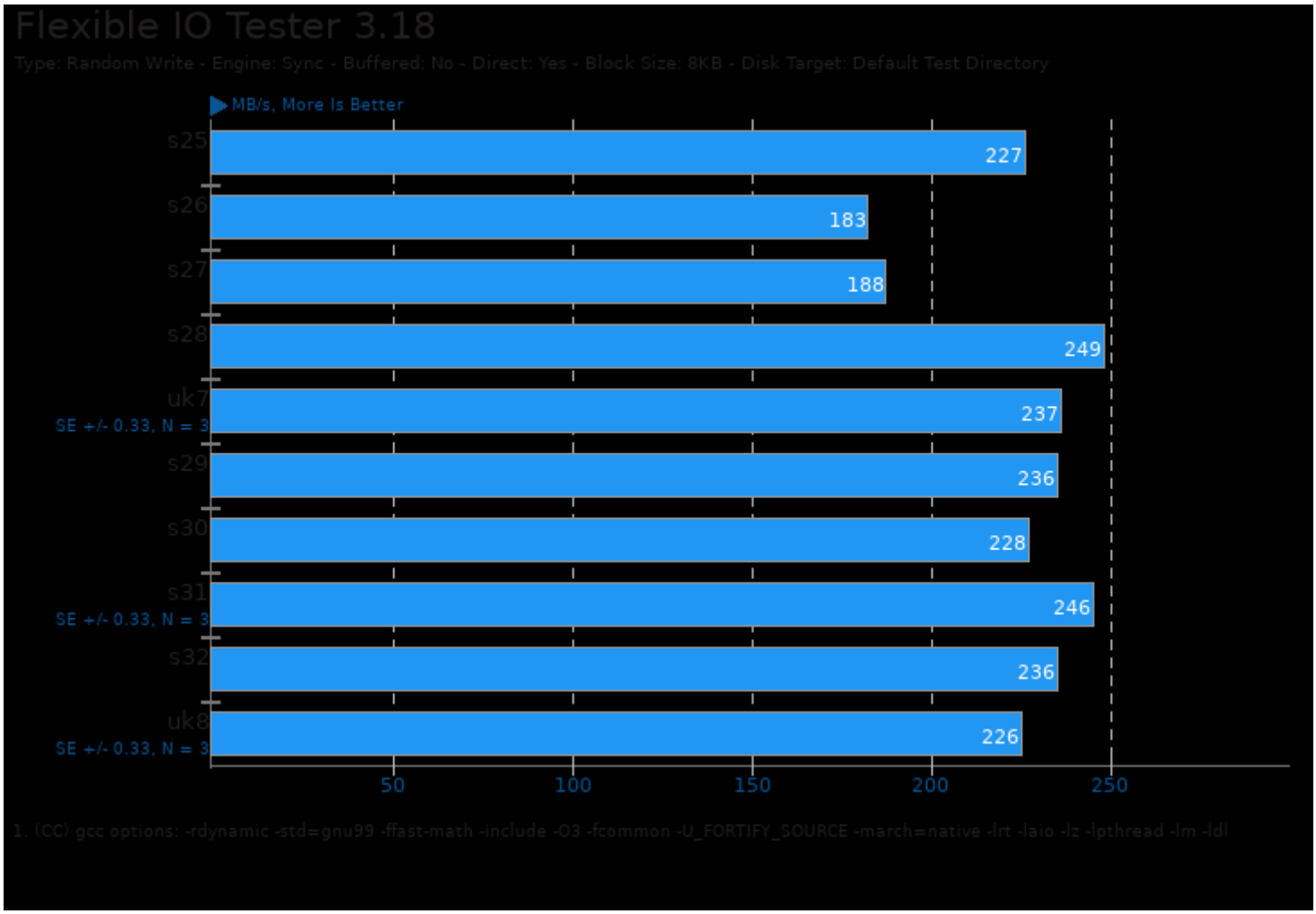

Flexible IO Tester 3.18
Type: Random Write - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 2MB - Disk Target: Default Test Directory
IOPS, More Is Better
s25
1453
s26
SE +/- 1.20, N = 3
1417
s27
1463
s28
SE +/- 0.33, N = 3
1528
uk7
SE +/- 0.67, N = 3
1521
s29
1524
s30
1524
s31
1508
s32
1525
uk8
SE +/- 0.33, N = 3
1519
300
600
900
1200
1500
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

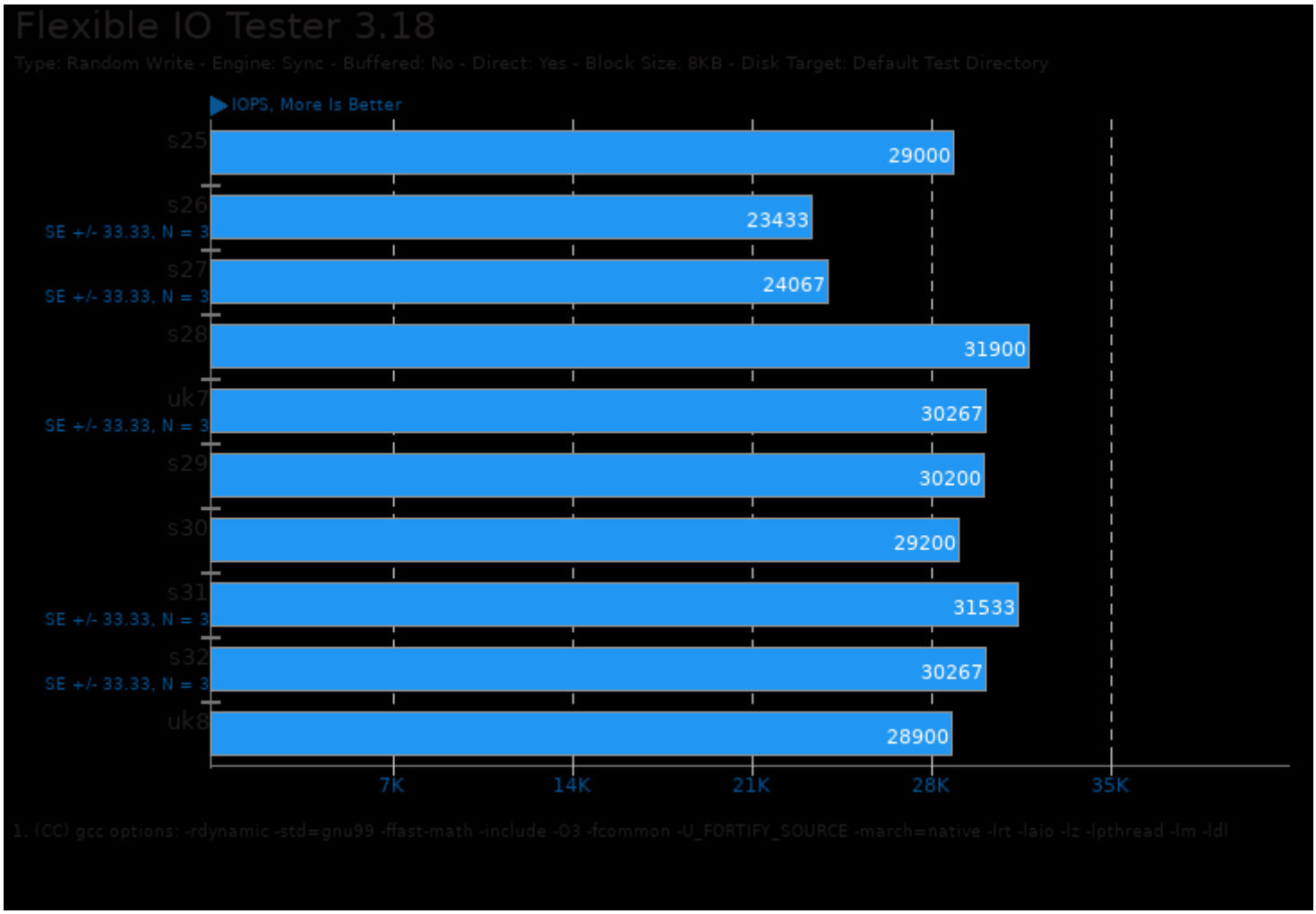

Flexible IO Tester 3.18
Type: Random Write - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 4KB - Disk Target: Default Test Directory
MB/s, More Is Better
s25
114.0
s26
91.6
SE +/- 0.03, N = 3
s27
94.5
SE +/- 0.22, N = 3
s28
126.0
uk7
119.0
s29
119.0
s30
115.0
s31
117.0
s32
119.0
uk8
113.0
30
60
90
120
150
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

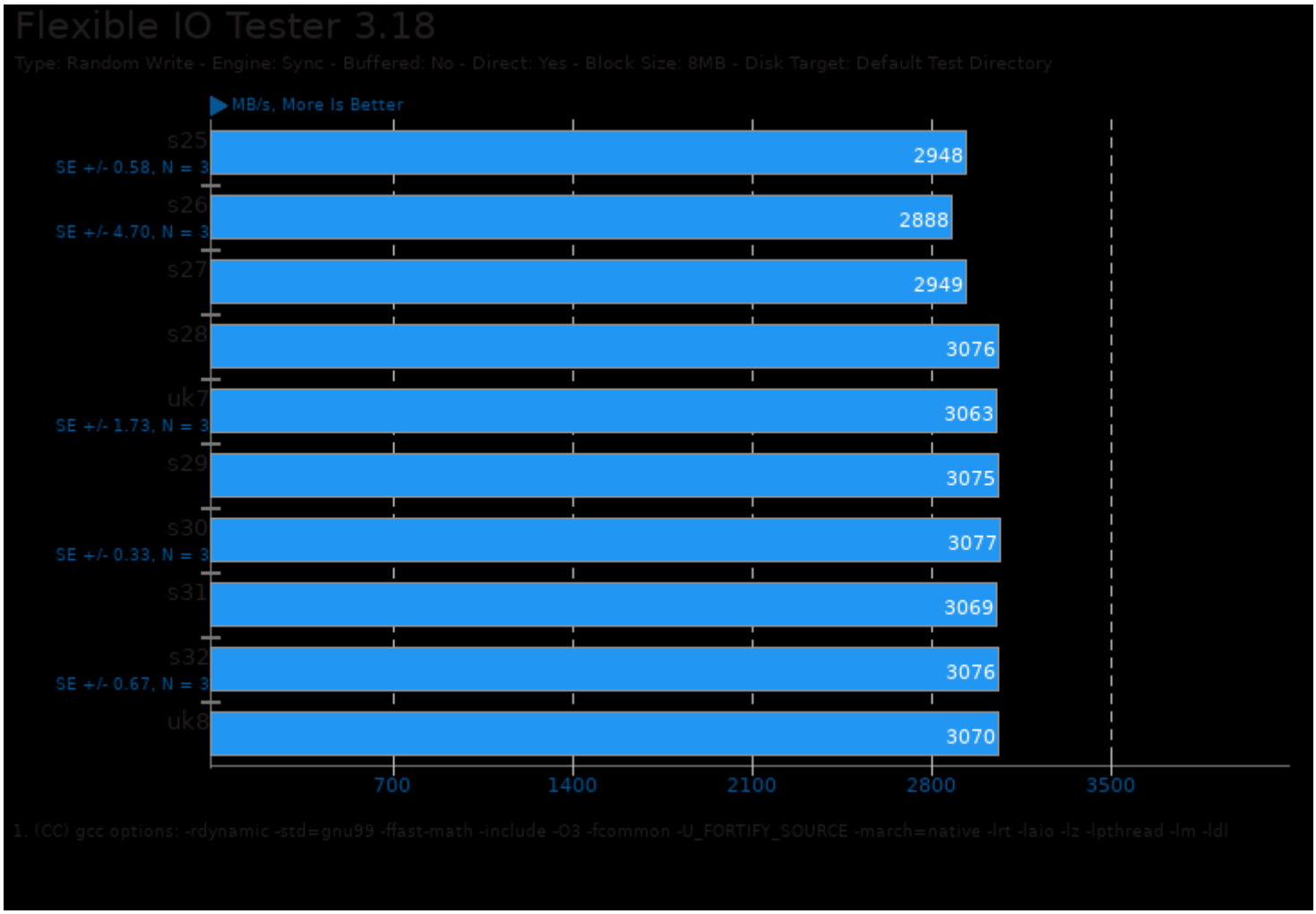

Flexible IO Tester 3.18
Type: Random Write - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 4KB - Disk Target: Default Test Directory
IOPS, More Is Better
s25
29300
s26
23500
s27
SE +/- 57.74, N = 3
24200
s28
32300
uk7
30600
s29
SE +/- 57.74, N = 3
30400
s30
SE +/- 33.33, N = 3
29533
s31
SE +/- 88.19, N = 3
29933
s32
SE +/- 33.33, N = 3
30467
uk8
SE +/- 300.00, N = 3
28300
7K
14K
21K
28K
35K
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

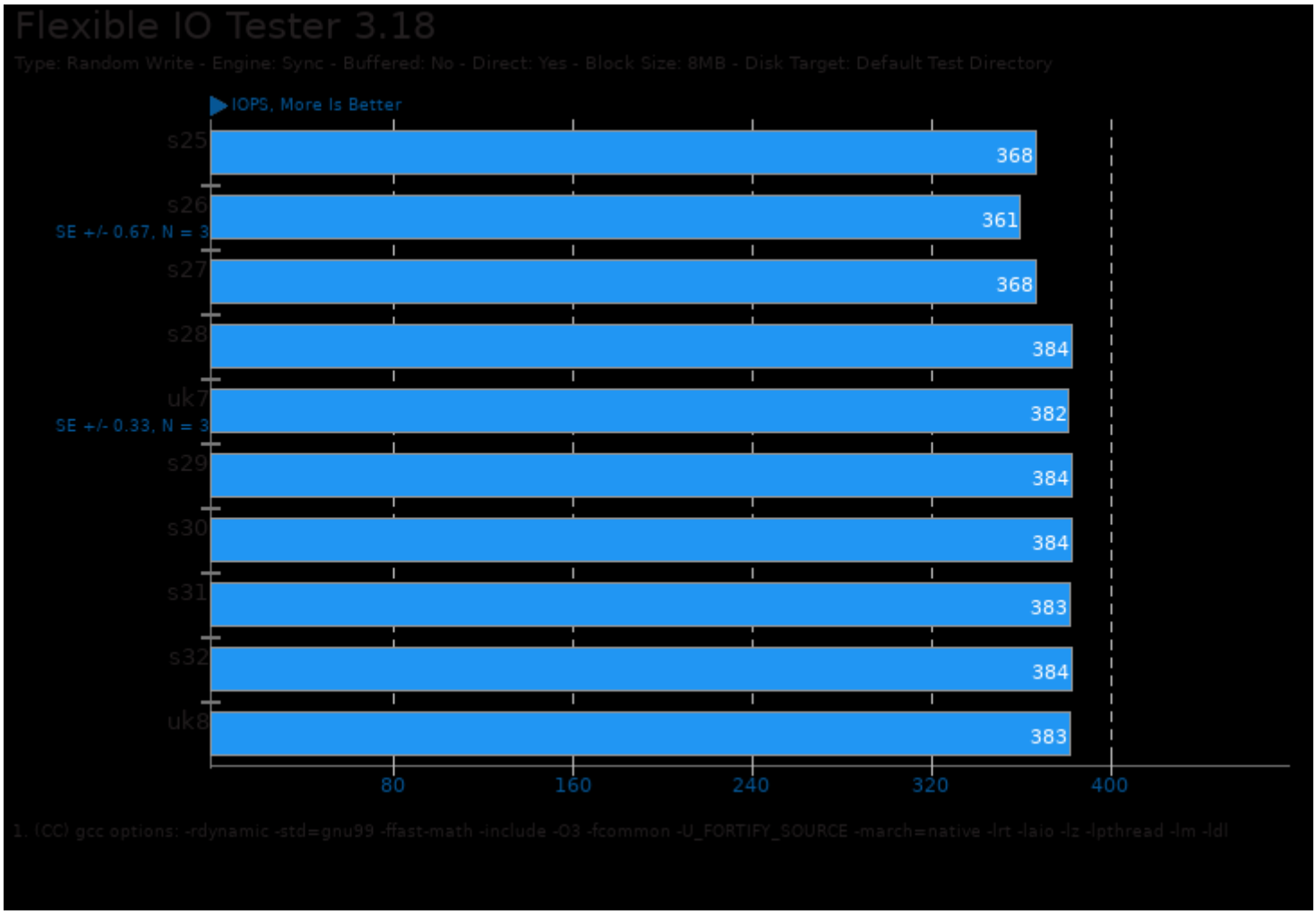

Flexible IO Tester 3.18
Type: Random Write - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 4MB - Disk Target: Default Test Directory
MB/s, More Is Better
s25
SE +/- 0.67, N = 3
2941
s26
SE +/- 3.79, N = 3
2882
s27
SE +/- 0.33, N = 3
2952
s28
SE +/- 1.33, N = 3
3079
uk7
SE +/- 1.00, N = 3
3062
s29
3078
s30
SE +/- 1.20, N = 3
3073
s31
3074
s32
3078
uk8
SE +/- 0.33, N = 3
3070
700
1400
2100
2800
3500
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

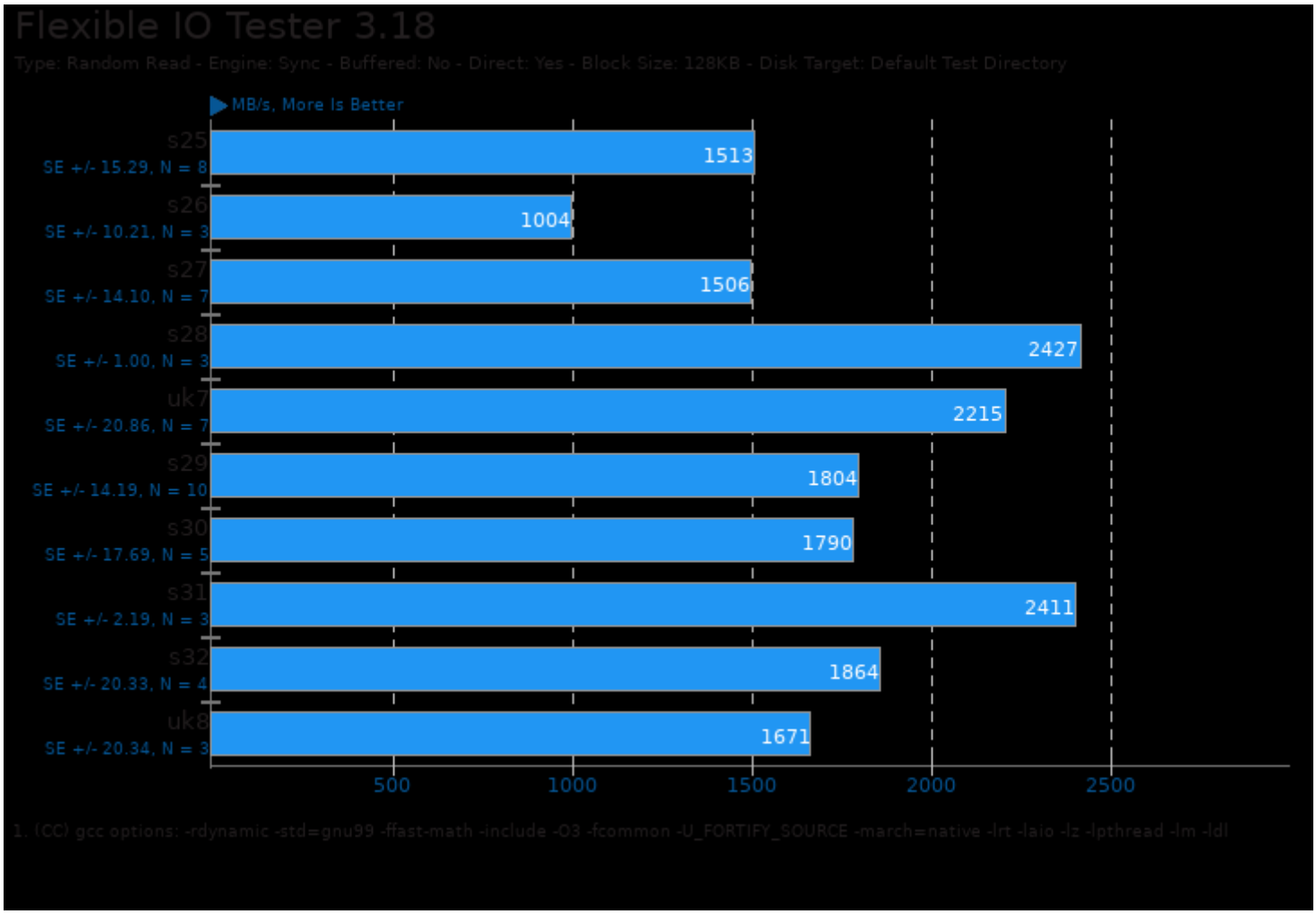

Flexible IO Tester 3.18
Type: Random Write - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 4MB - Disk Target: Default Test Directory
IOPS, More Is Better
s25
735
s26
720
SE +/- 0.88, N = 3
s27
737
s28
769
SE +/- 0.33, N = 3
uk7
765
s29
769
s30
768
s31
768
s32
769
uk8
767
170
340
510
680
850
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

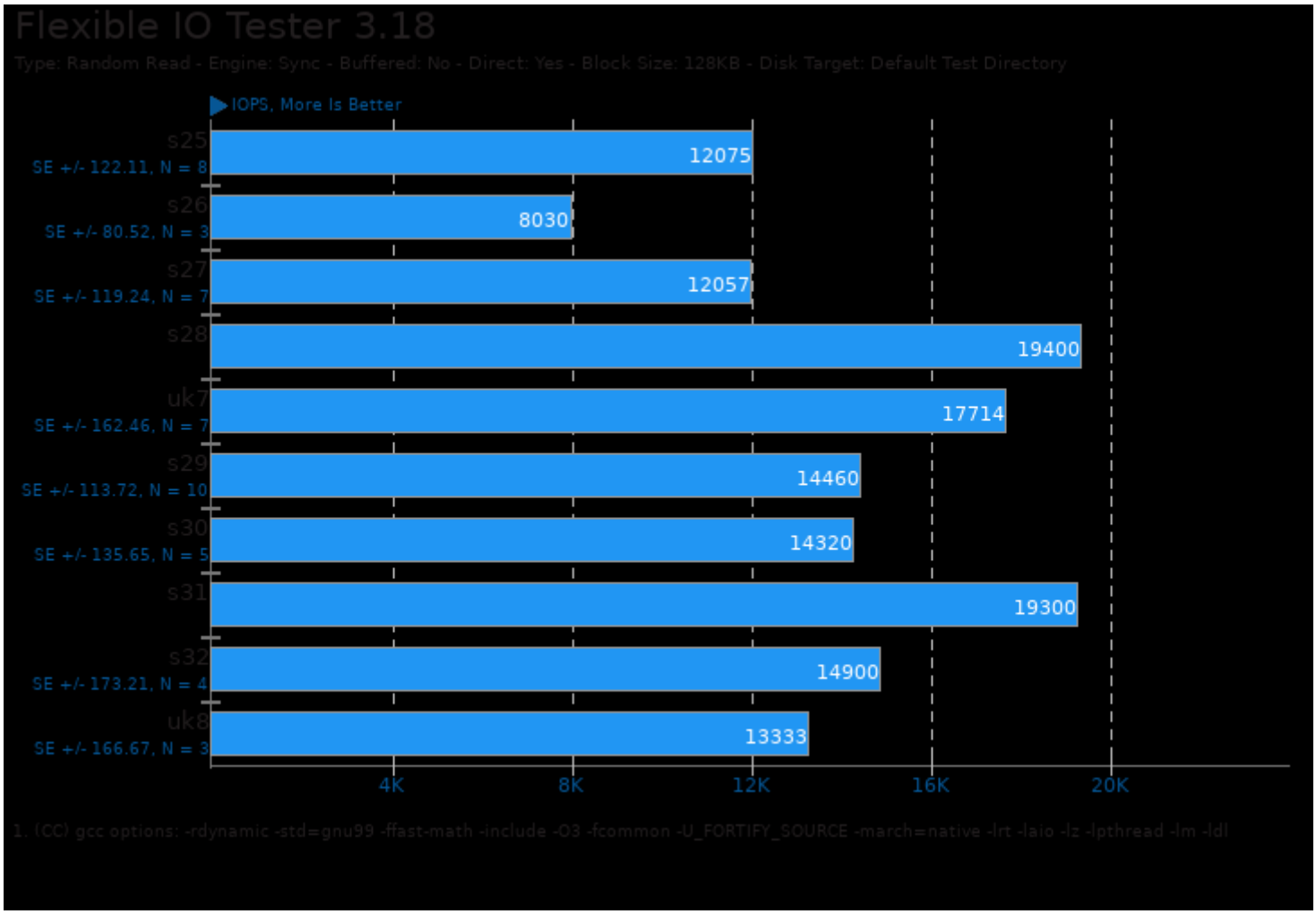

Flexible IO Tester 3.18
Type: Random Write - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 8KB - Disk Target: Default Test Directory
MB/s, More Is Better
s25
227
s26
183
s27
188
s28
249
uk7
237
SE +/- 0.33, N = 3
s29
236
s30
228
s31
246
SE +/- 0.33, N = 3
s32
236
uk8
226
SE +/- 0.33, N = 3
50
100
150
200
250
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

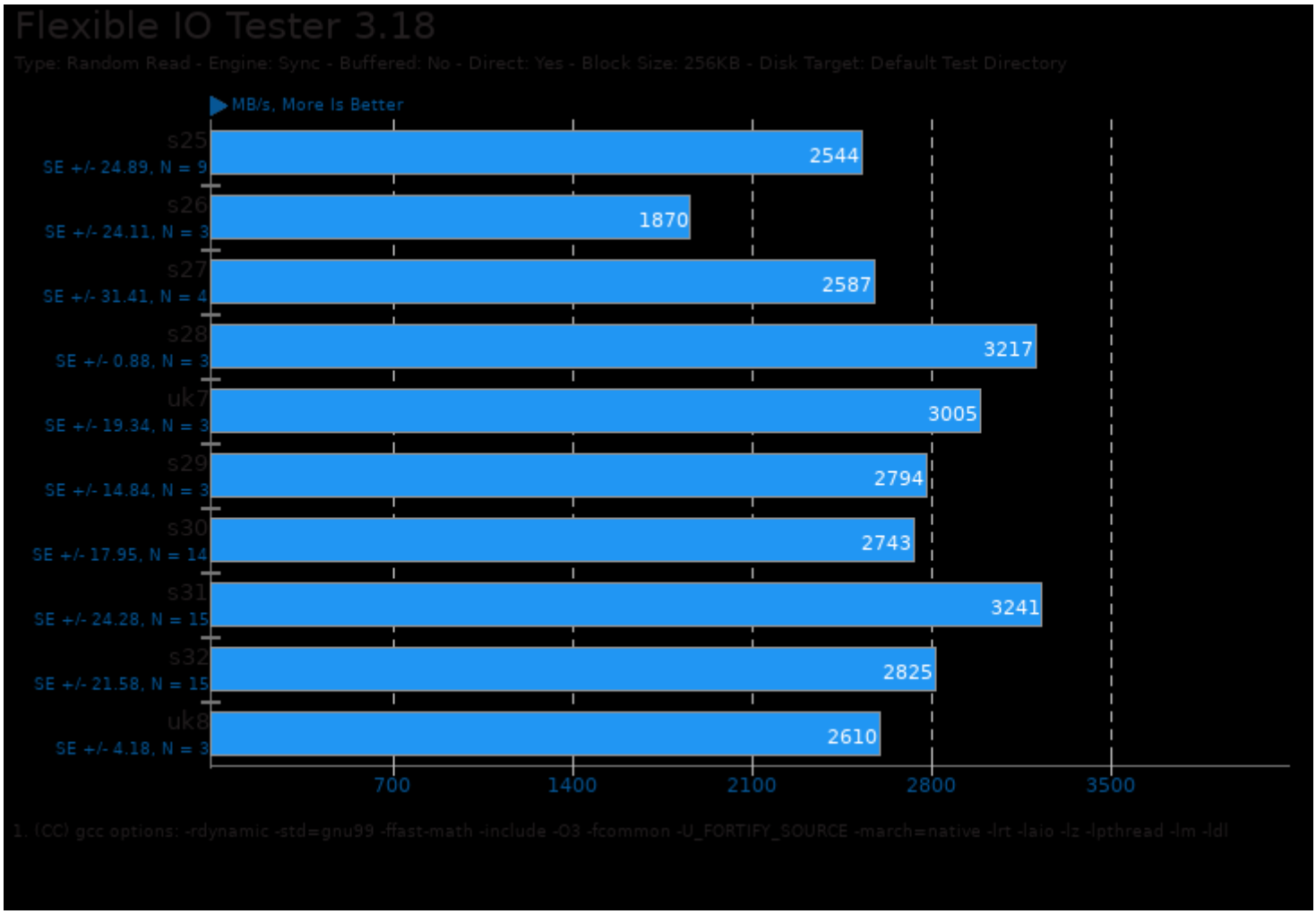

Flexible IO Tester 3.18
Type: Random Write - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 8KB - Disk Target: Default Test Directory
IOPS, More Is Better
s25
29000
s26
SE +/- 33.33, N = 3
23433
s27
SE +/- 33.33, N = 3
24067
s28
31900
uk7
SE +/- 33.33, N = 3
30267
s29
30200
s30
29200
s31
SE +/- 33.33, N = 3
31533
s32
SE +/- 33.33, N = 3
30267
uk8
28900
7K
14K
21K
28K
35K
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

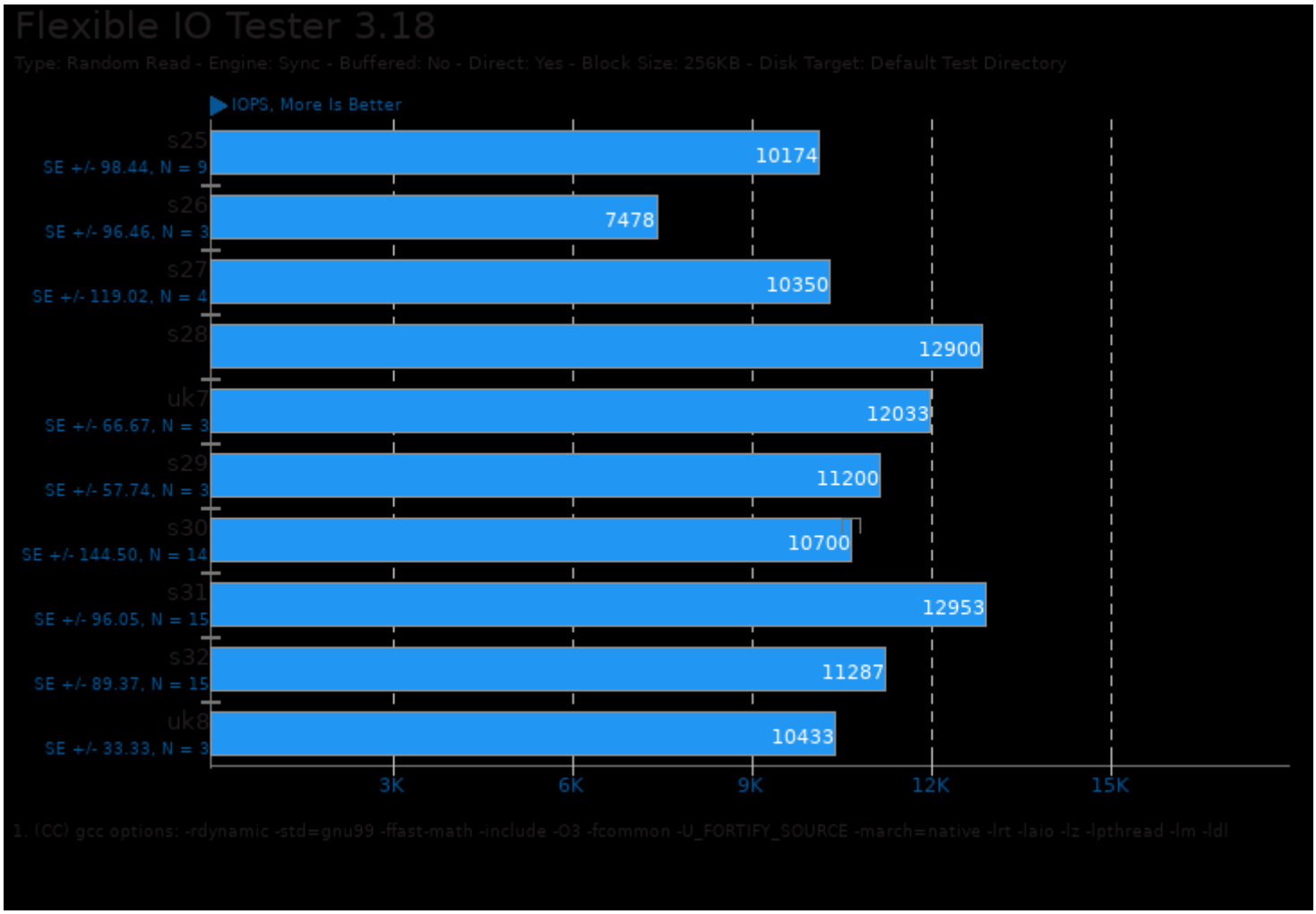

Flexible IO Tester 3.18
Type: Random Write - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 8MB - Disk Target: Default Test Directory
MB/s, More Is Better
s25
SE +/- 0.58, N = 3
2948
s26
SE +/- 4.70, N = 3
2888
s27
2949
s28
3076
uk7
SE +/- 1.73, N = 3
3063
s29
3075
s30
SE +/- 0.33, N = 3
3077
s31
3069
s32
SE +/- 0.67, N = 3
3076
uk8
3070
700
1400
2100
2800
3500
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

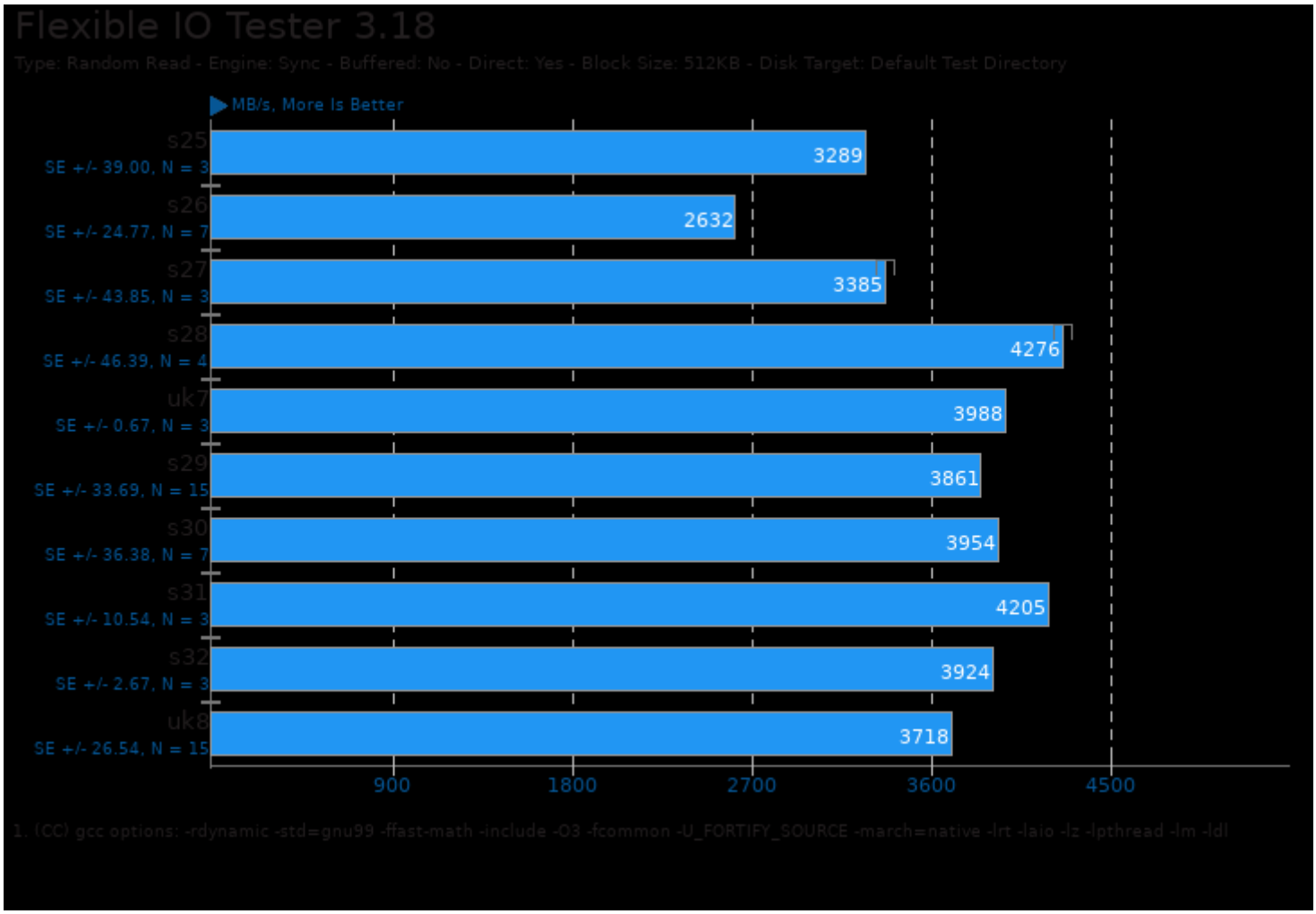

Flexible IO Tester 3.18
Type: Random Write - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 8MB - Disk Target: Default Test Directory
IOPS, More Is Better
s25
368
s26
361
SE +/- 0.67, N = 3
s27
368
s28
384
uk7
382
SE +/- 0.33, N = 3
s29
384
s30
384
s31
383
s32
384
uk8
383
80
160
240
320
400
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

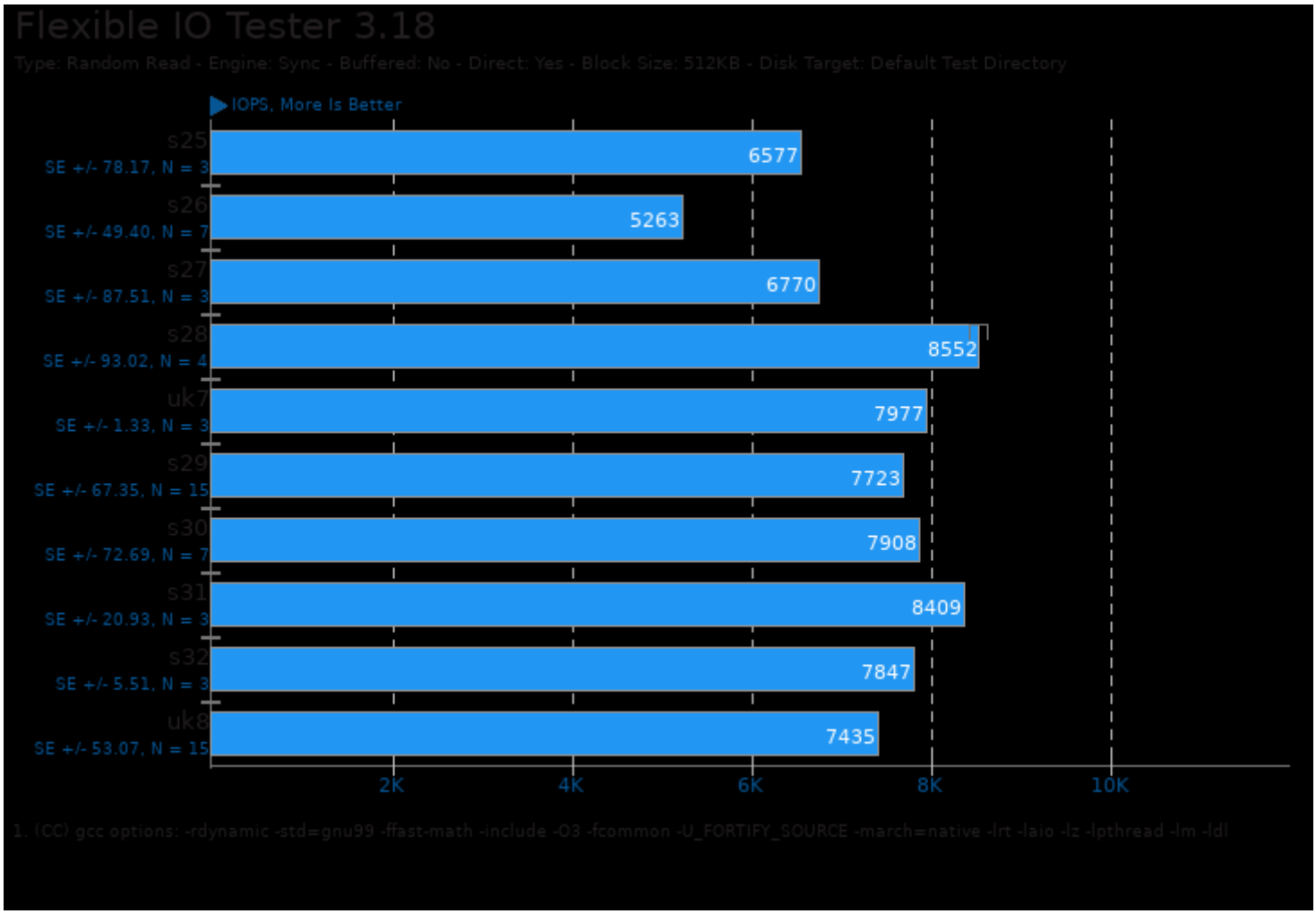

Flexible IO Tester 3.18
Type: Random Read - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 128KB - Disk Target: Default Test Directory
MB/s, More Is Better
s25
SE +/- 15.29, N = 8
1513
s26
SE +/- 10.21, N = 3
1004
s27
SE +/- 14.10, N = 7
1506
s28
SE +/- 1.00, N = 3
2427
uk7
SE +/- 20.86, N = 7
2215
s29
SE +/- 14.19, N = 10
1804
s30
SE +/- 17.69, N = 5
1790
s31
SE +/- 2.19, N = 3
2411
s32
SE +/- 20.33, N = 4
1864
uk8
SE +/- 20.34, N = 3
1671
500
1000
1500
2000
2500
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

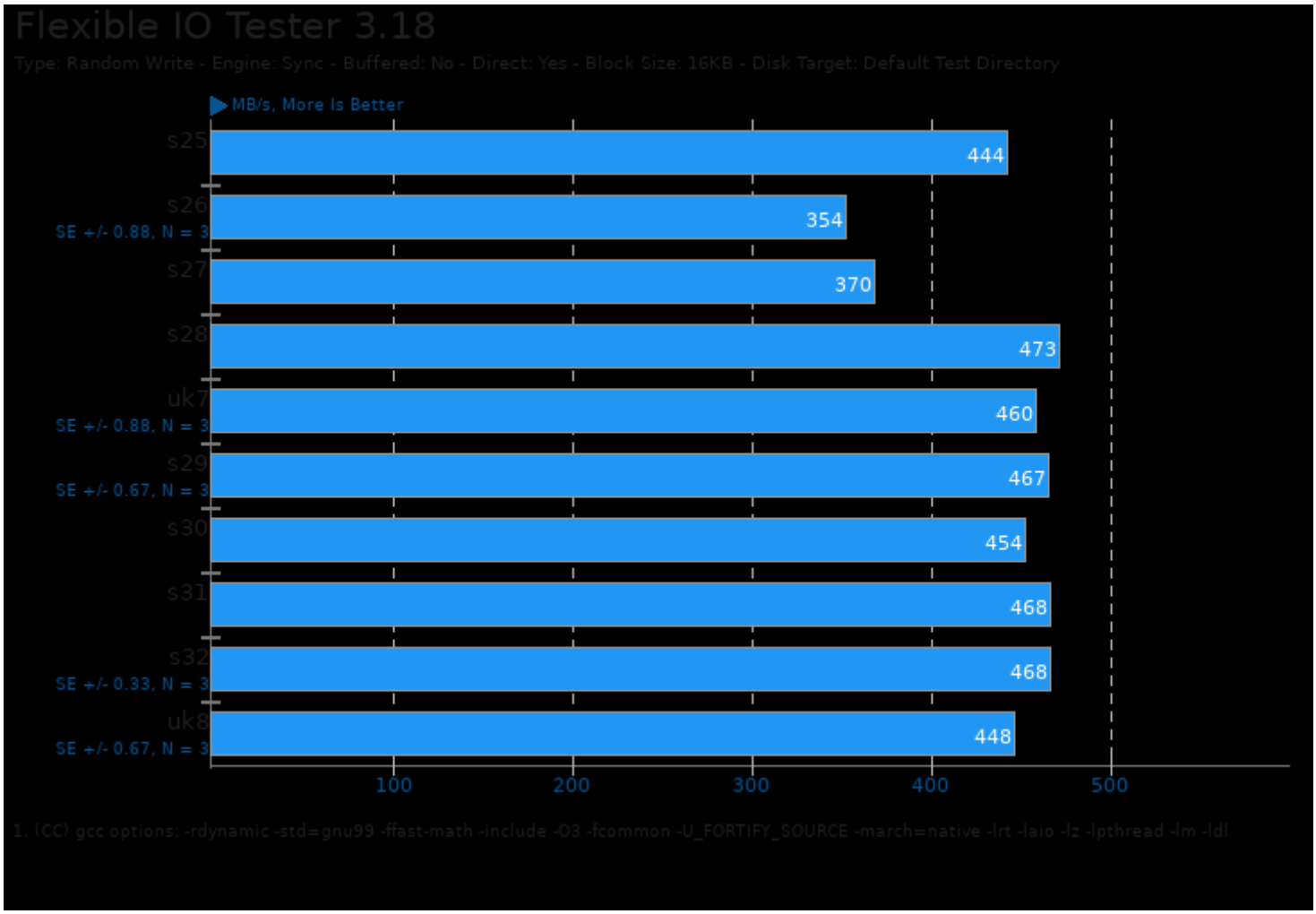

Flexible IO Tester 3.18
Type: Random Read - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 128KB - Disk Target: Default Test Directory
IOPS, More Is Better
s25
SE +/- 122.11, N = 8
12075
s26
SE +/- 80.52, N = 3
8030
s27
SE +/- 119.24, N = 7
12057
s28
19400
uk7
SE +/- 162.46, N = 7
17714
s29
SE +/- 113.72, N = 10
14460
s30
SE +/- 135.65, N = 5
14320
s31
19300
s32
SE +/- 173.21, N = 4
14900
uk8
SE +/- 166.67, N = 3
13333
4K
8K
12K
16K
20K
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

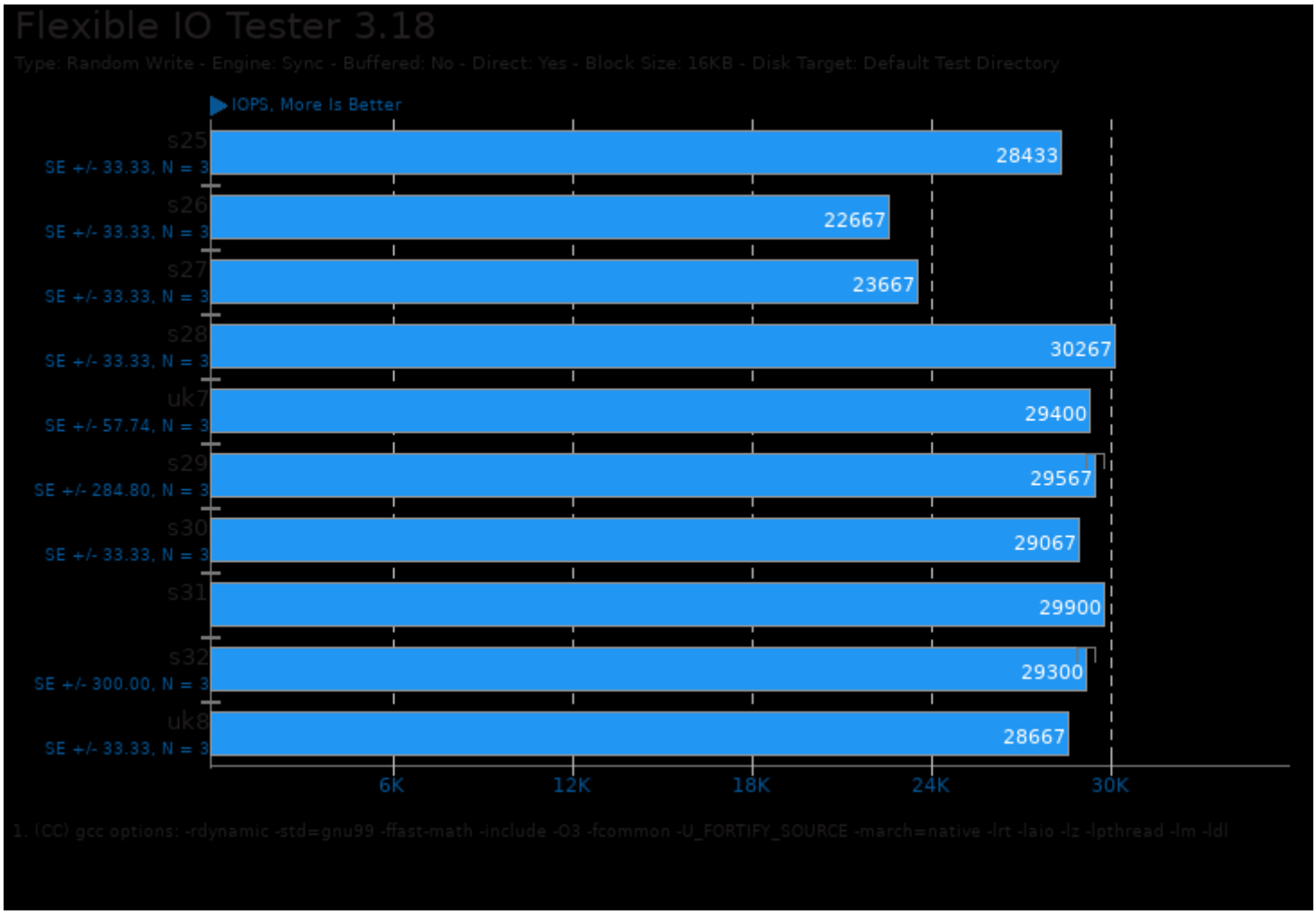

Flexible IO Tester 3.18
Type: Random Read - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 256KB - Disk Target: Default Test Directory
MB/s, More Is Better
s25
SE +/- 24.89, N = 9
2544
s26
SE +/- 24.11, N = 3
1870
s27
SE +/- 31.41, N = 4
2587
s28
SE +/- 0.88, N = 3
3217
uk7
SE +/- 19.34, N = 3
3005
s29
SE +/- 14.84, N = 3
2794
s30
SE +/- 17.95, N = 14
2743
s31
SE +/- 24.28, N = 15
3241
s32
SE +/- 21.58, N = 15
2825
uk8
SE +/- 4.18, N = 3
2610
700
1400
2100
2800
3500
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

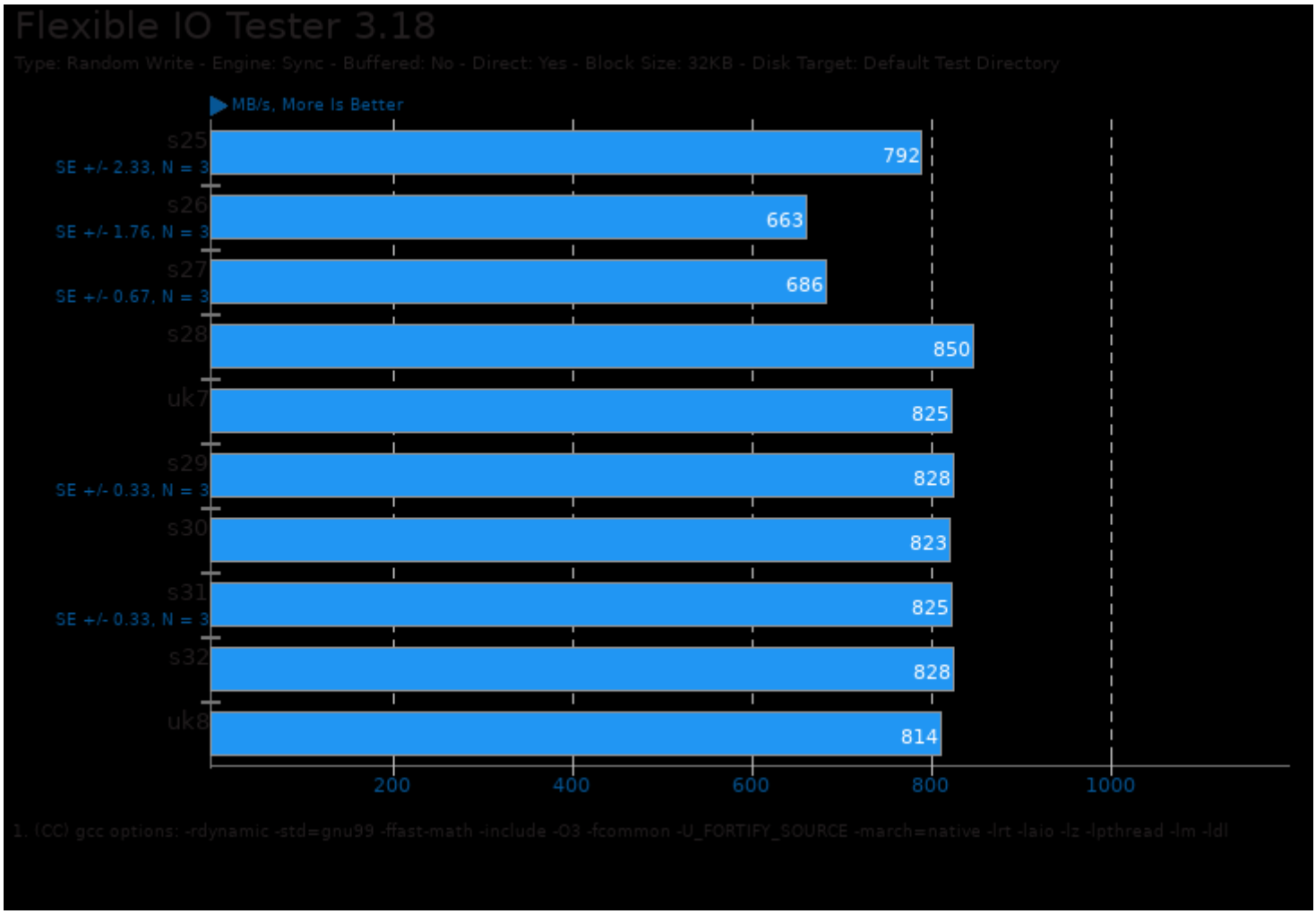

Flexible IO Tester 3.18
Type: Random Read - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 256KB - Disk Target: Default Test Directory
IOPS, More Is Better
s25
SE +/- 98.44, N = 9
10174
s26
SE +/- 96.46, N = 3
7478
s27
SE +/- 119.02, N = 4
10350
s28
12900
uk7
SE +/- 66.67, N = 3
12033
s29
SE +/- 57.74, N = 3
11200
s30
SE +/- 144.50, N = 14
10700
s31
SE +/- 96.05, N = 15
12953
s32
SE +/- 89.37, N = 15
11287
uk8
SE +/- 33.33, N = 3
10433
3K
6K
9K
12K
15K
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

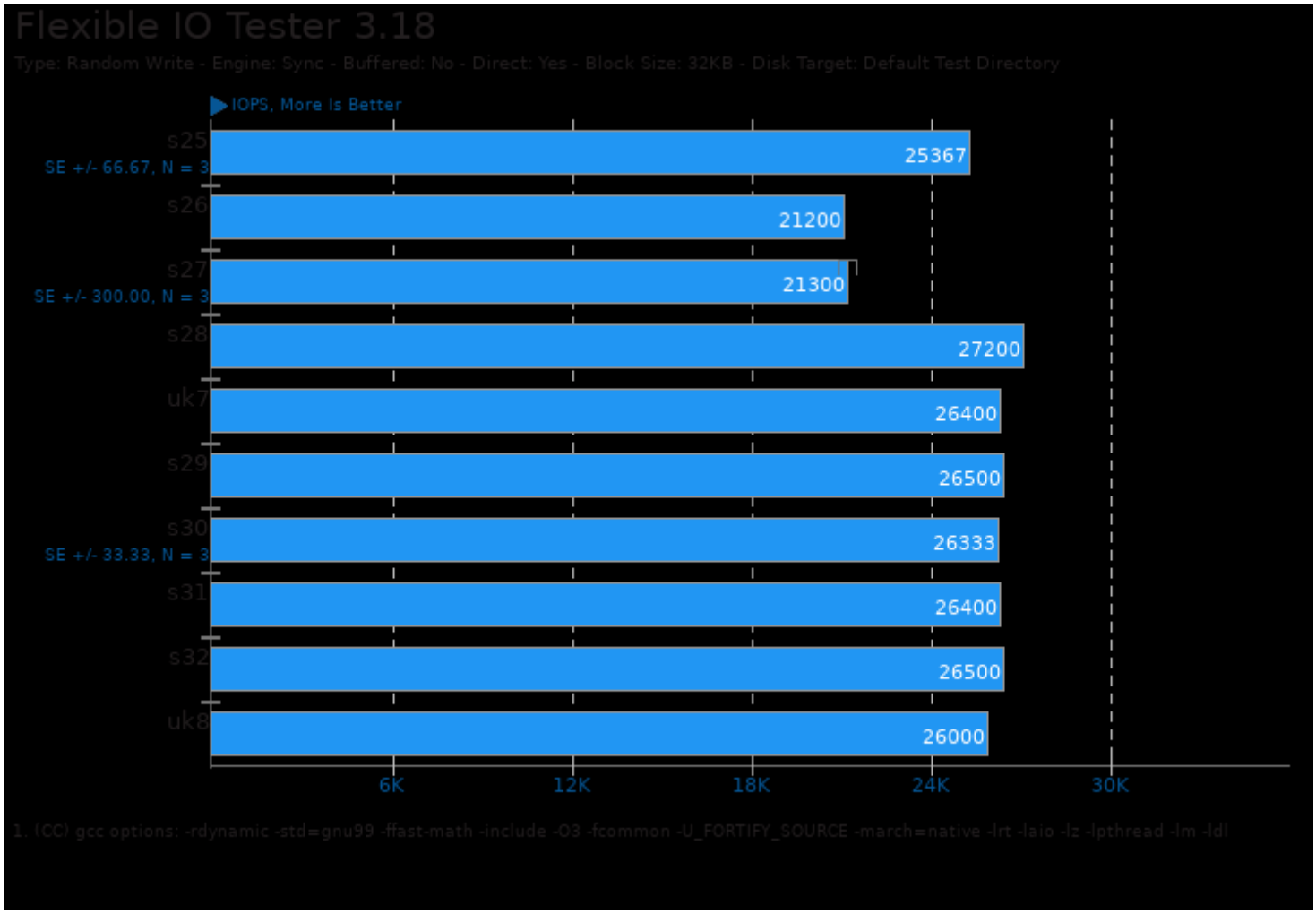

Flexible IO Tester 3.18
Type: Random Read - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 512KB - Disk Target: Default Test Directory
MB/s, More Is Better
s25
SE +/- 39.00, N = 3
3289
s26
SE +/- 24.77, N = 7
2632
s27
SE +/- 43.85, N = 3
3385
s28
SE +/- 46.39, N = 4
4276
uk7
SE +/- 0.67, N = 3
3988
s29
SE +/- 33.69, N = 15
3861
s30
SE +/- 36.38, N = 7
3954
s31
SE +/- 10.54, N = 3
4205
s32
SE +/- 2.67, N = 3
3924
uk8
SE +/- 26.54, N = 15
3718
900
1800
2700
3600
4500
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

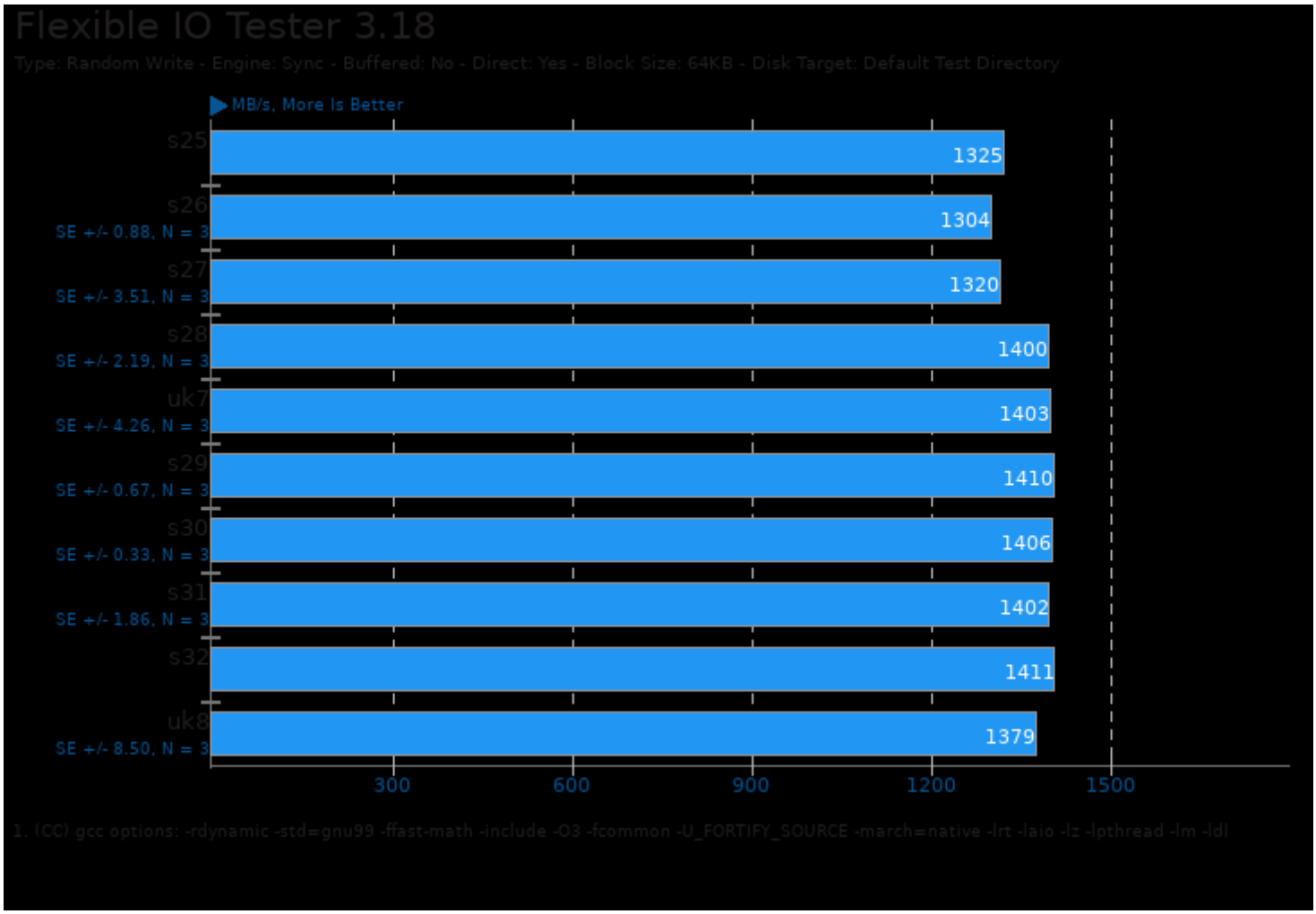

Flexible IO Tester 3.18
Type: Random Read - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 512KB - Disk Target: Default Test Directory
IOPS, More Is Better
s25
SE +/- 78.17, N = 3
6577
s26
SE +/- 49.40, N = 7
5263
s27
SE +/- 87.51, N = 3
6770
s28
SE +/- 93.02, N = 4
8552
uk7
SE +/- 1.33, N = 3
7977
s29
SE +/- 67.35, N = 15
7723
s30
SE +/- 72.69, N = 7
7908
s31
SE +/- 20.93, N = 3
8409
s32
SE +/- 5.51, N = 3
7847
uk8
SE +/- 53.07, N = 15
7435
2K
4K
6K
8K
10K
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

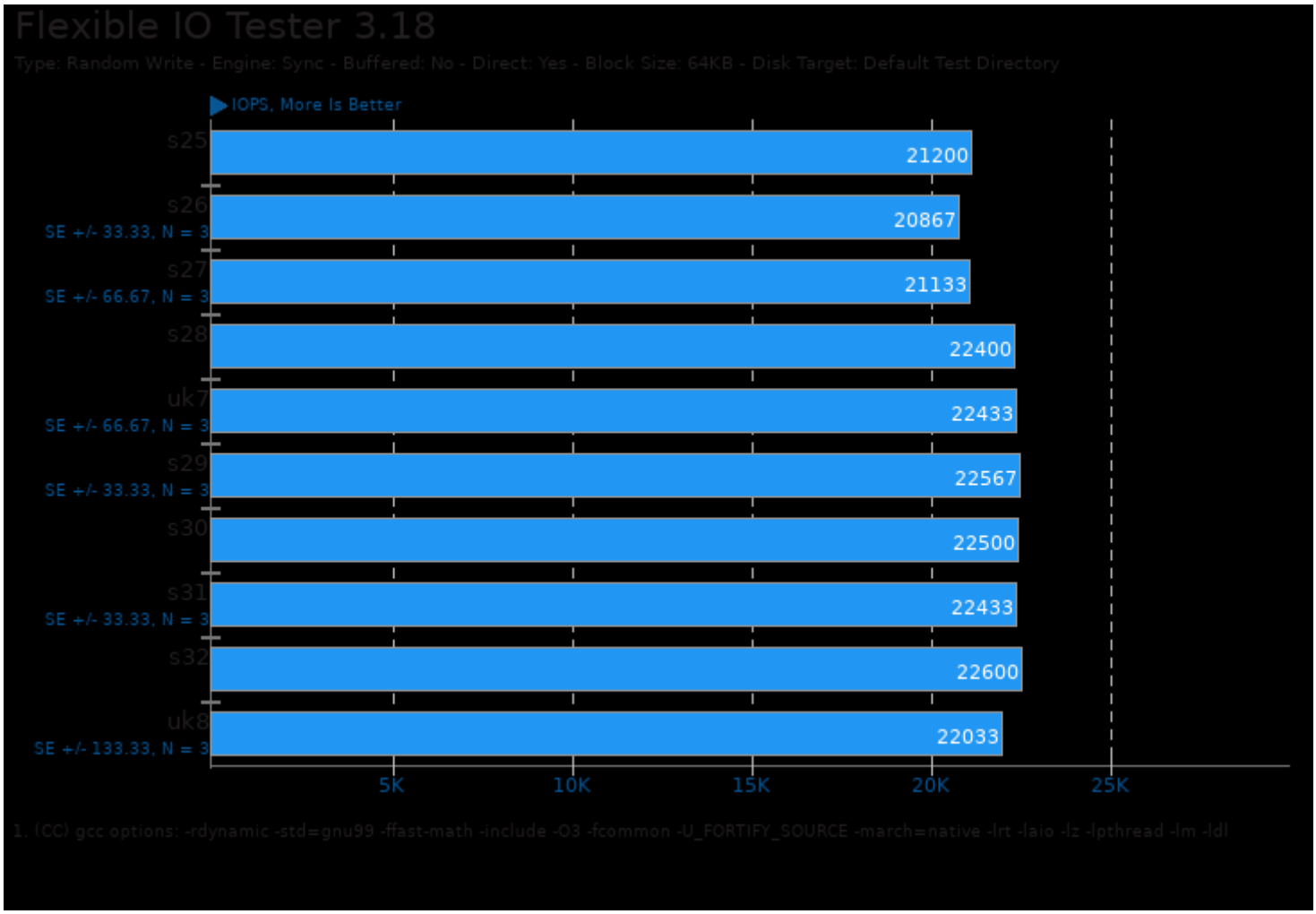

Flexible IO Tester 3.18
Type: Random Write - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 16KB - Disk Target: Default Test Directory
MB/s, More Is Better
s25
444
s26
354
SE +/- 0.88, N = 3
s27
370
s28
473
uk7
460
SE +/- 0.88, N = 3
s29
467
SE +/- 0.67, N = 3
s30
454
s31
468
s32
468
SE +/- 0.33, N = 3
uk8
448
SE +/- 0.67, N = 3
100
200
300
400
500
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

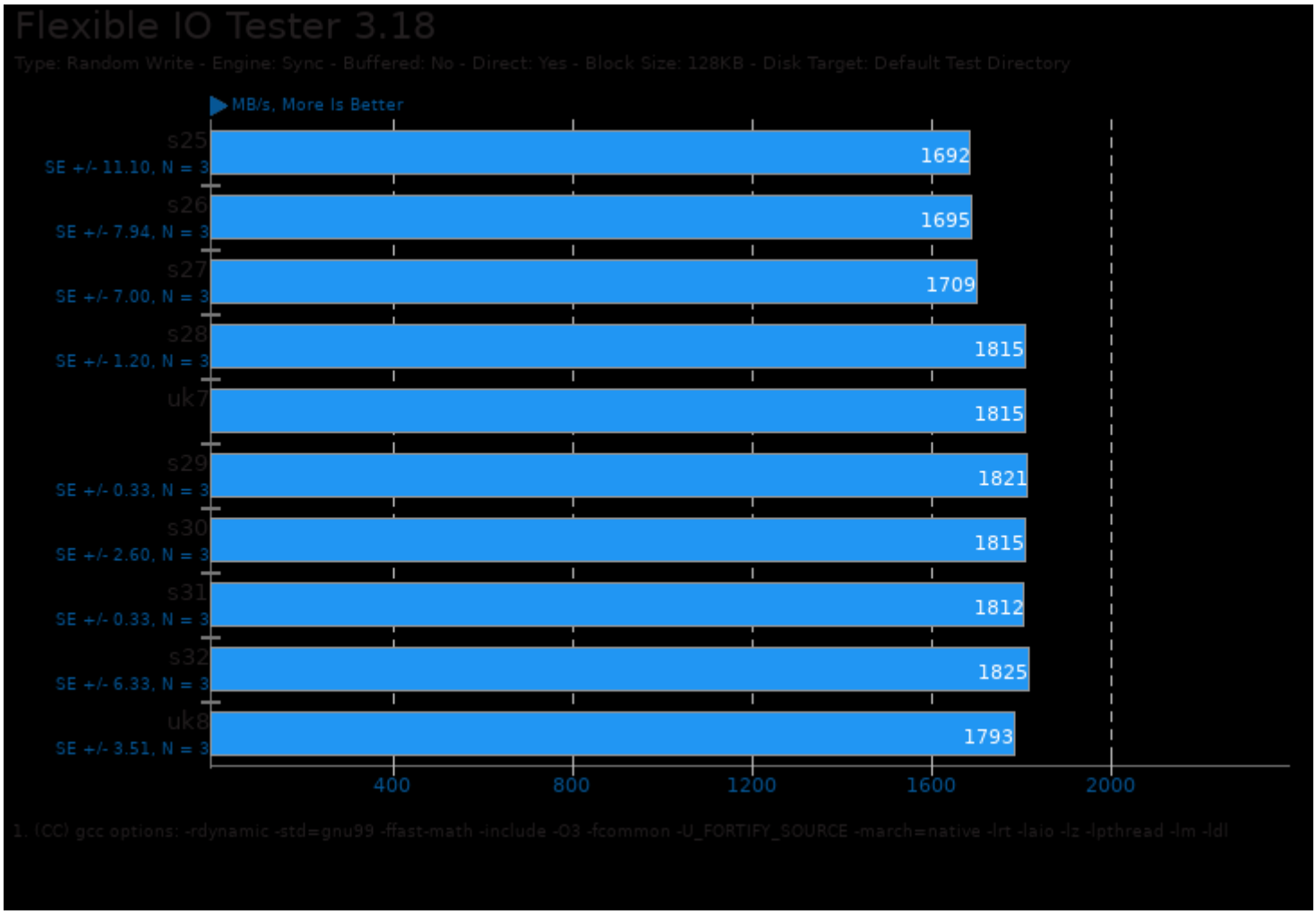

Flexible IO Tester 3.18
Type: Random Write - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 16KB - Disk Target: Default Test Directory
IOPS, More Is Better
s25
SE +/- 33.33, N = 3
28433
s26
SE +/- 33.33, N = 3
22667
s27
SE +/- 33.33, N = 3
23667
s28
SE +/- 33.33, N = 3
30267
uk7
SE +/- 57.74, N = 3
29400
s29
SE +/- 284.80, N = 3
29567
s30
SE +/- 33.33, N = 3
29067
s31
29900
s32
SE +/- 300.00, N = 3
29300
uk8
SE +/- 33.33, N = 3
28667
6K
12K
18K
24K
30K
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

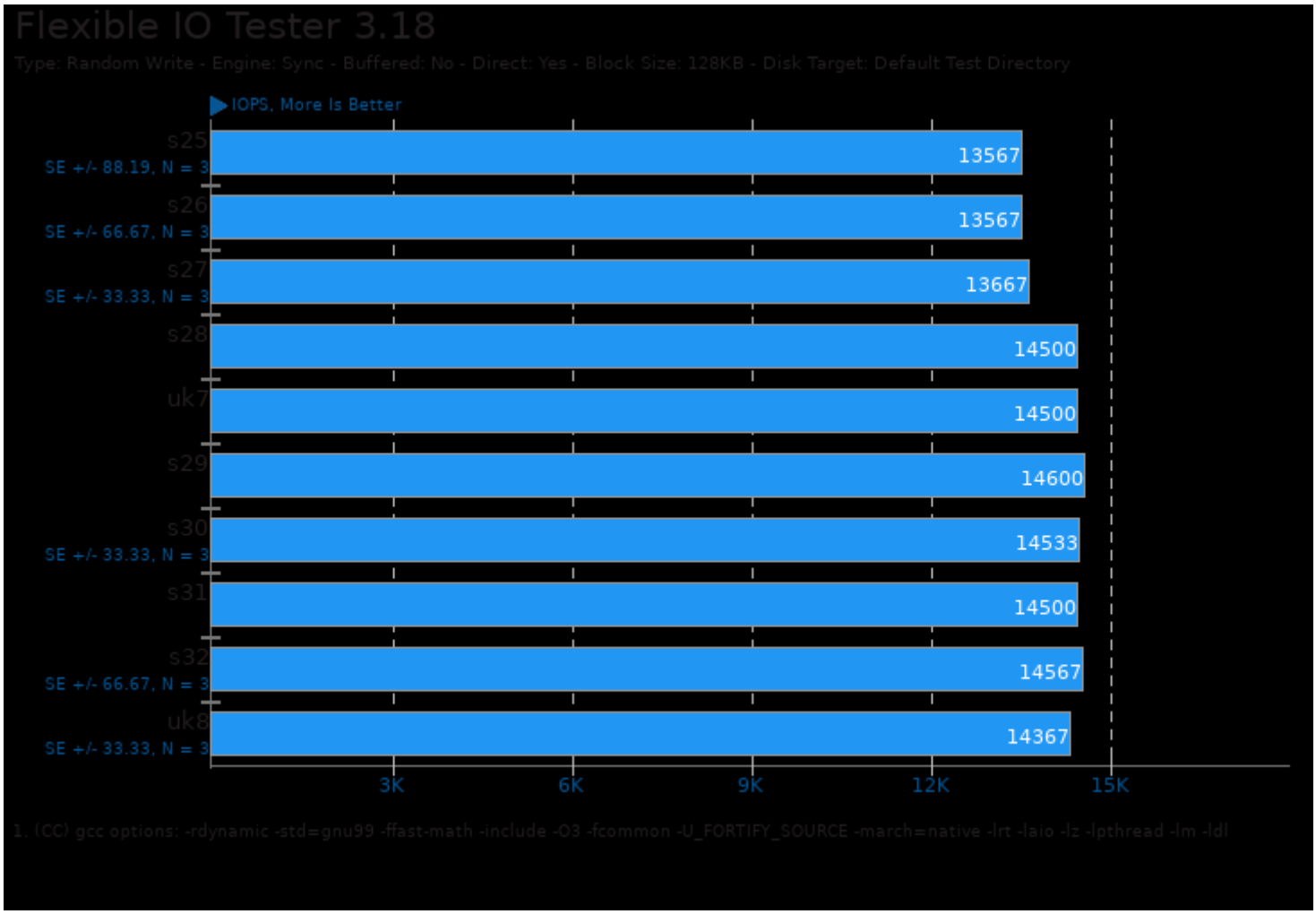

Flexible IO Tester 3.18
Type: Random Write - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 32KB - Disk Target: Default Test Directory
MB/s, More Is Better
s25
SE +/- 2.33, N = 3
792
s26
SE +/- 1.76, N = 3
663
s27
SE +/- 0.67, N = 3
686
s28
850
uk7
825
s29
SE +/- 0.33, N = 3
828
s30
823
s31
SE +/- 0.33, N = 3
825
s32
828
uk8
814
200
400
600
800
1000
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

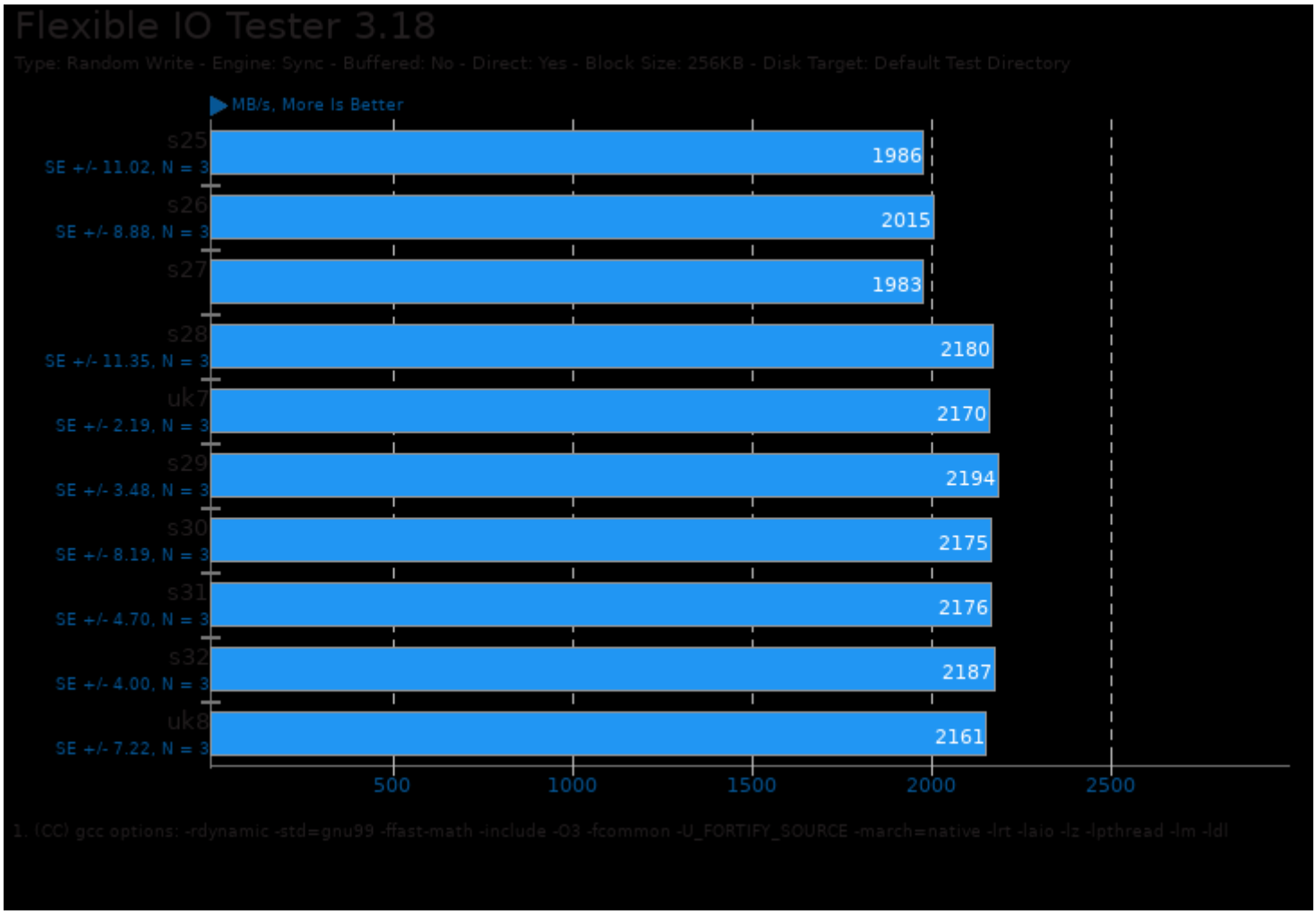

Flexible IO Tester 3.18
Type: Random Write - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 32KB - Disk Target: Default Test Directory
IOPS, More Is Better
s25
SE +/- 66.67, N = 3
25367
s26
21200
s27
SE +/- 300.00, N = 3
21300
s28
27200
uk7
26400
s29
26500
s30
SE +/- 33.33, N = 3
26333
s31
26400
s32
26500
uk8
26000
6K
12K
18K
24K
30K
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

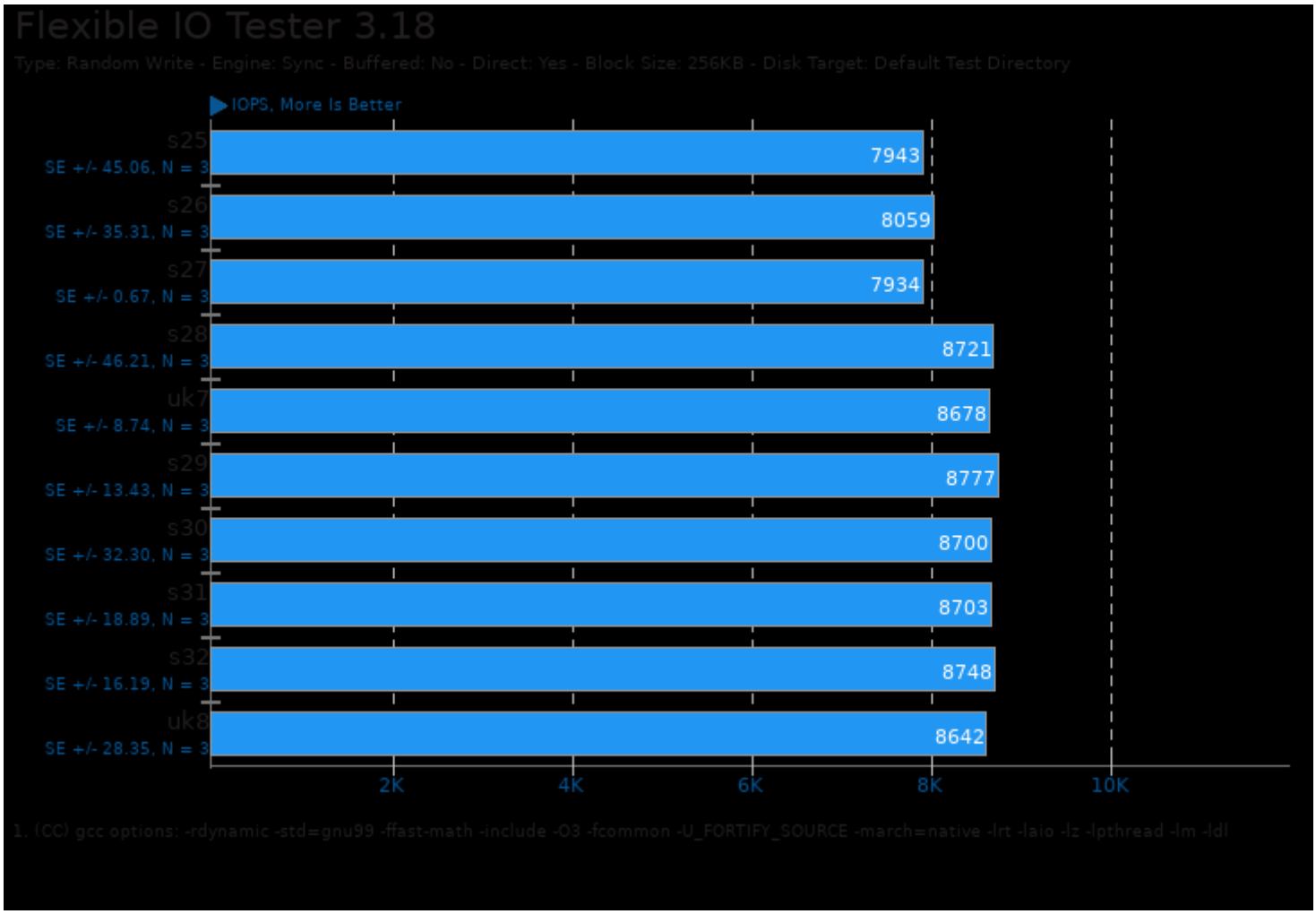

Flexible IO Tester 3.18
Type: Random Write - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 64KB - Disk Target: Default Test Directory
MB/s, More Is Better
s25
1325
s26
SE +/- 0.88, N = 3
1304
s27
SE +/- 3.51, N = 3
1320
s28
SE +/- 2.19, N = 3
1400
uk7
SE +/- 4.26, N = 3
1403
s29
SE +/- 0.67, N = 3
1410
s30
SE +/- 0.33, N = 3
1406
s31
SE +/- 1.86, N = 3
1402
s32
1411
uk8
SE +/- 8.50, N = 3
1379
300
600
900
1200
1500
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

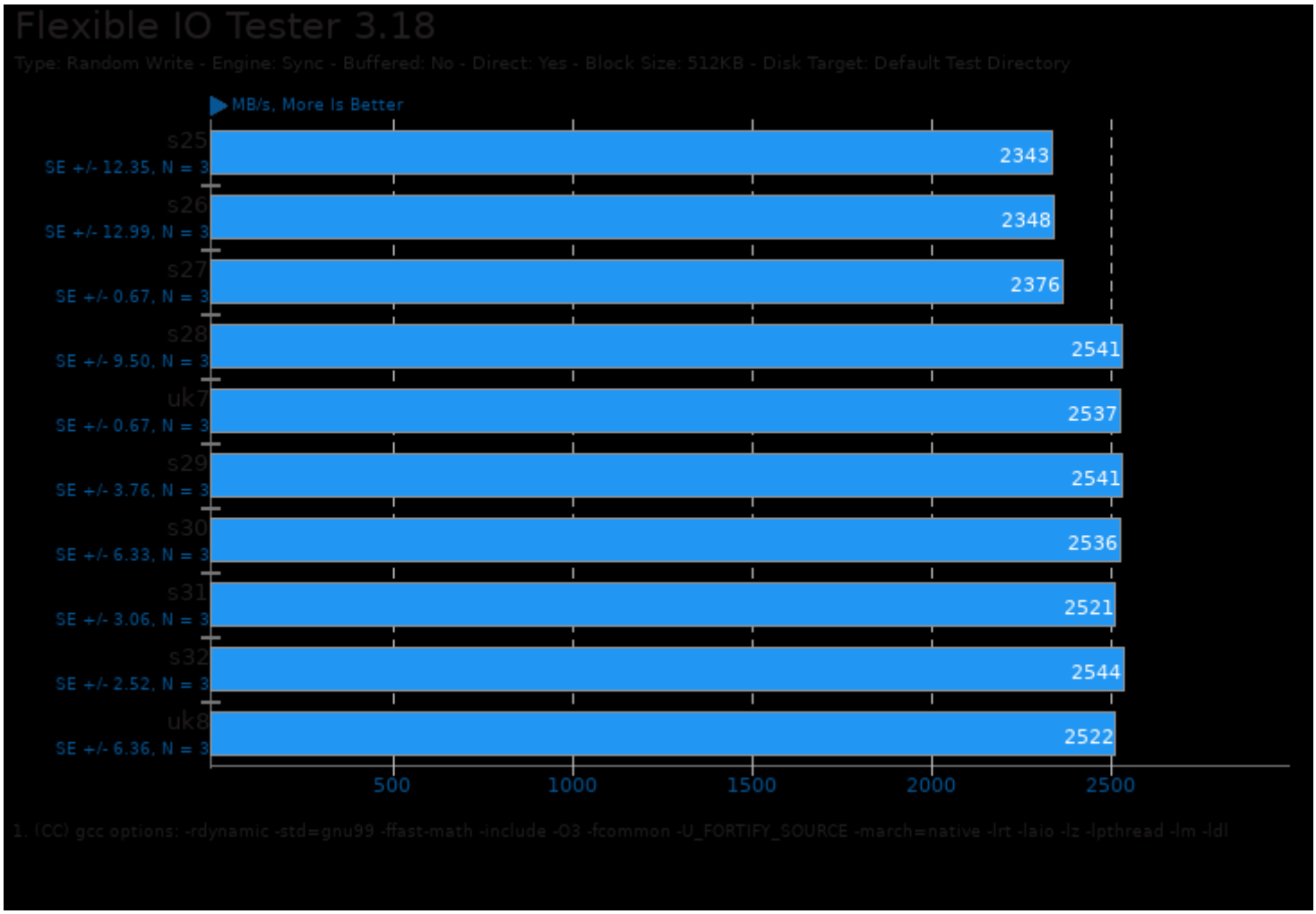

Flexible IO Tester 3.18
Type: Random Write - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 64KB - Disk Target: Default Test Directory
IOPS, More Is Better
s25
21200
s26
SE +/- 33.33, N = 3
20867
s27
SE +/- 66.67, N = 3
21133
s28
22400
uk7
SE +/- 66.67, N = 3
22433
s29
SE +/- 33.33, N = 3
22567
s30
22500
s31
SE +/- 33.33, N = 3
22433
s32
22600
uk8
SE +/- 133.33, N = 3
22033
5K
10K
15K
20K
25K
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

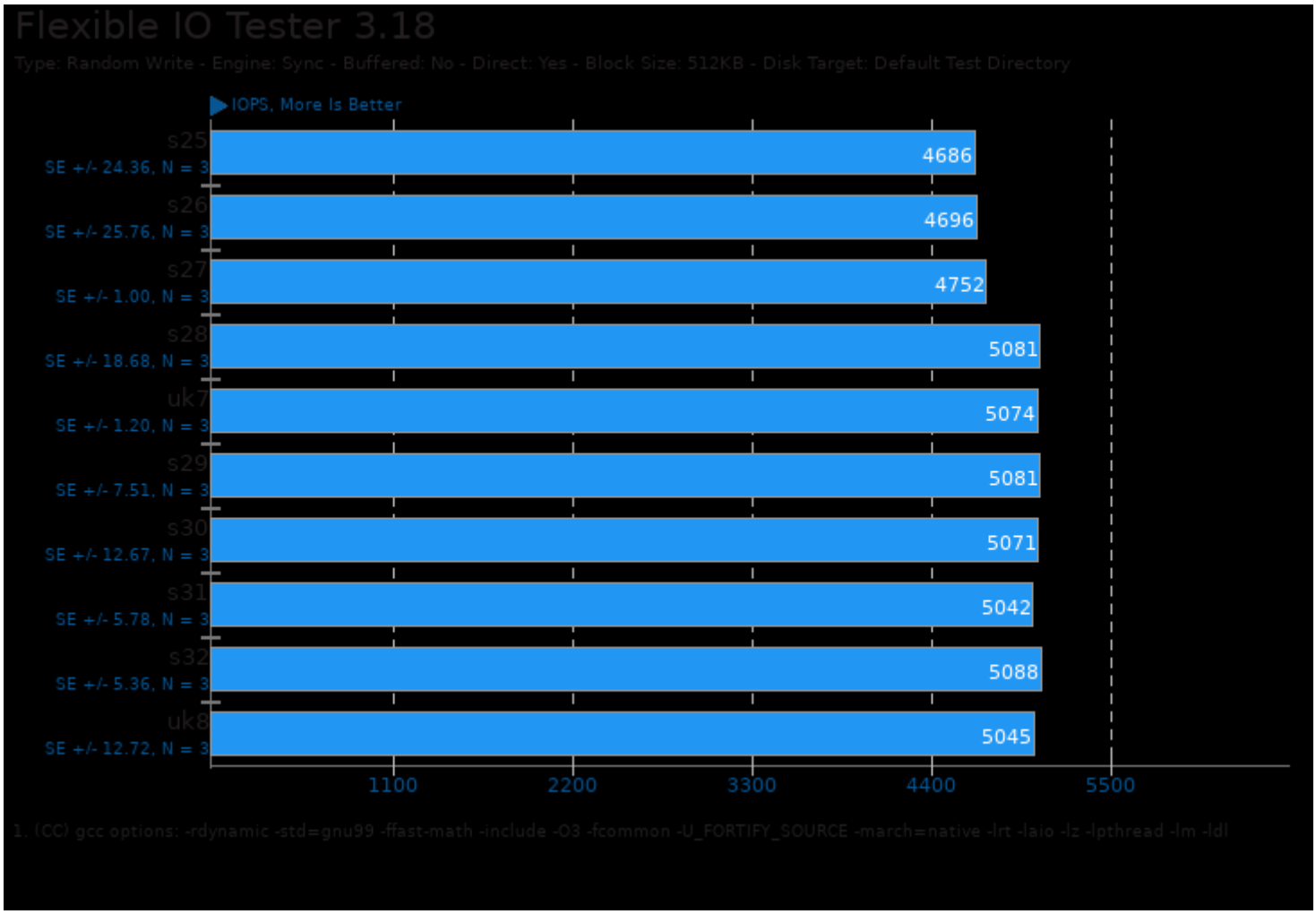

Flexible IO Tester 3.18
Type: Random Write - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 128KB - Disk Target: Default Test Directory
MB/s, More Is Better
s25
SE +/- 11.10, N = 3
1692
s26
SE +/- 7.94, N = 3
1695
s27
SE +/- 7.00, N = 3
1709
s28
SE +/- 1.20, N = 3
1815
uk7
1815
s29
SE +/- 0.33, N = 3
1821
s30
SE +/- 2.60, N = 3
1815
s31
SE +/- 0.33, N = 3
1812
s32
SE +/- 6.33, N = 3
1825
uk8
SE +/- 3.51, N = 3
1793
400
800
1200
1600
2000
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

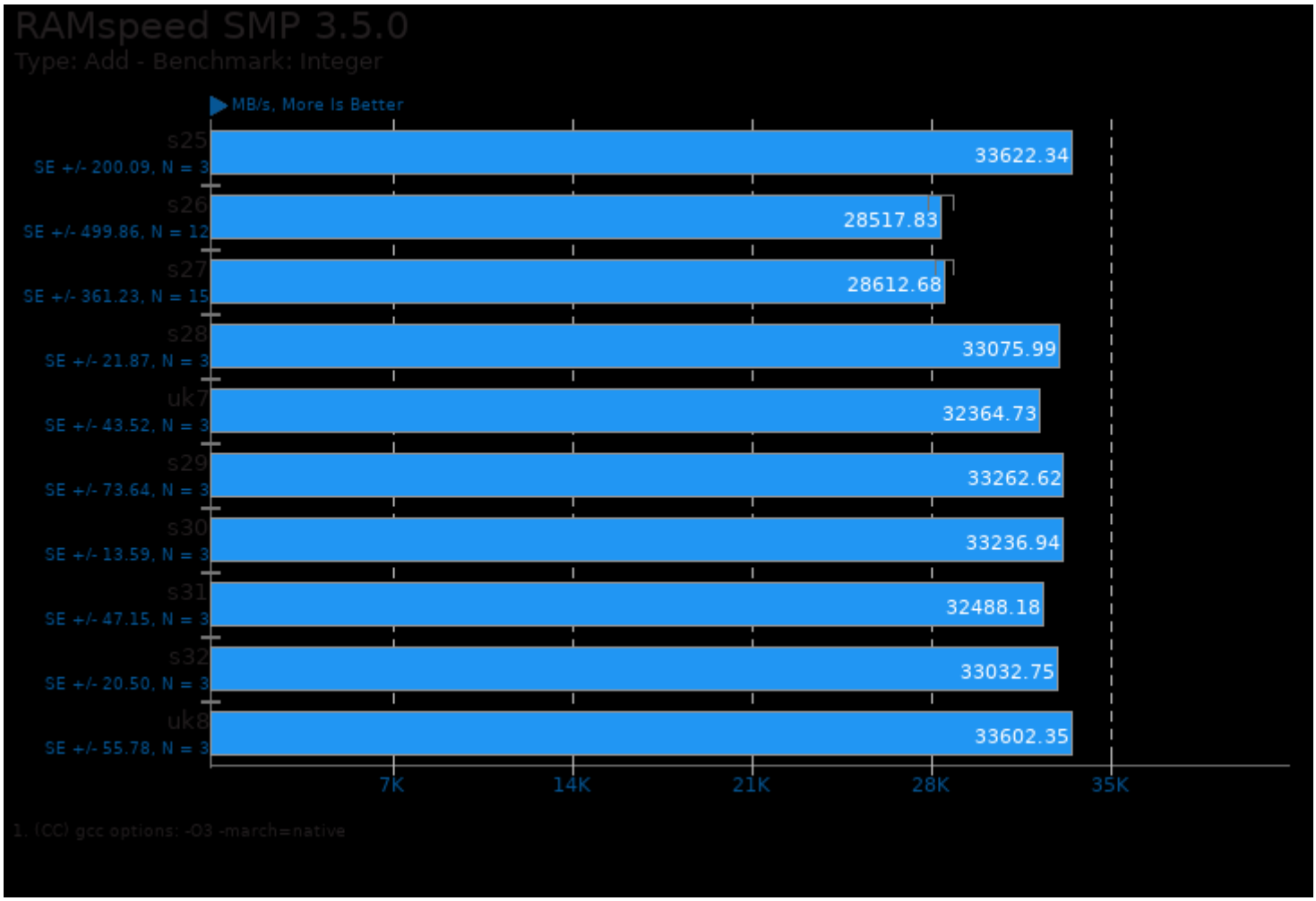

Flexible IO Tester 3.18
Type: Random Write - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 128KB - Disk Target: Default Test Directory
IOPS, More Is Better
s25
SE +/- 88.19, N = 3
13567
s26
SE +/- 66.67, N = 3
13567
s27
SE +/- 33.33, N = 3
13667
s28
14500
uk7
14500
s29
14600
s30
SE +/- 33.33, N = 3
14533
s31
14500
s32
SE +/- 66.67, N = 3
14567
uk8
SE +/- 33.33, N = 3
14367
3K
6K
9K
12K
15K
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

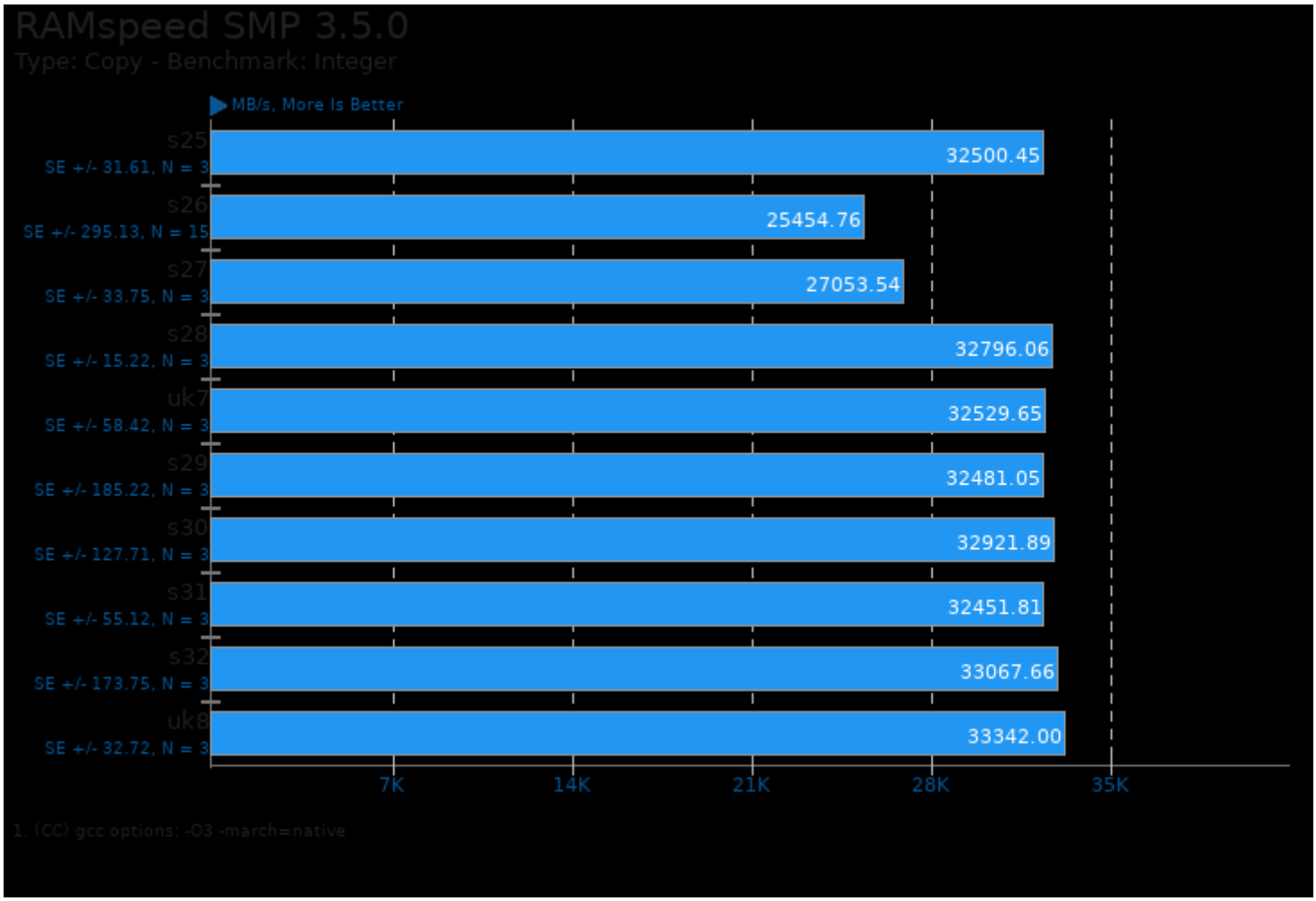

Flexible IO Tester 3.18
Type: Random Write - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 256KB - Disk Target: Default Test Directory
MB/s, More Is Better
s25
SE +/- 11.02, N = 3
1986
s26
SE +/- 8.88, N = 3
2015
s27
1983
s28
SE +/- 11.35, N = 3
2180
uk7
SE +/- 2.19, N = 3
2170
s29
SE +/- 3.48, N = 3
2194
s30
SE +/- 8.19, N = 3
2175
s31
SE +/- 4.70, N = 3
2176
s32
SE +/- 4.00, N = 3
2187
uk8
SE +/- 7.22, N = 3
2161
500
1000
1500
2000
2500
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

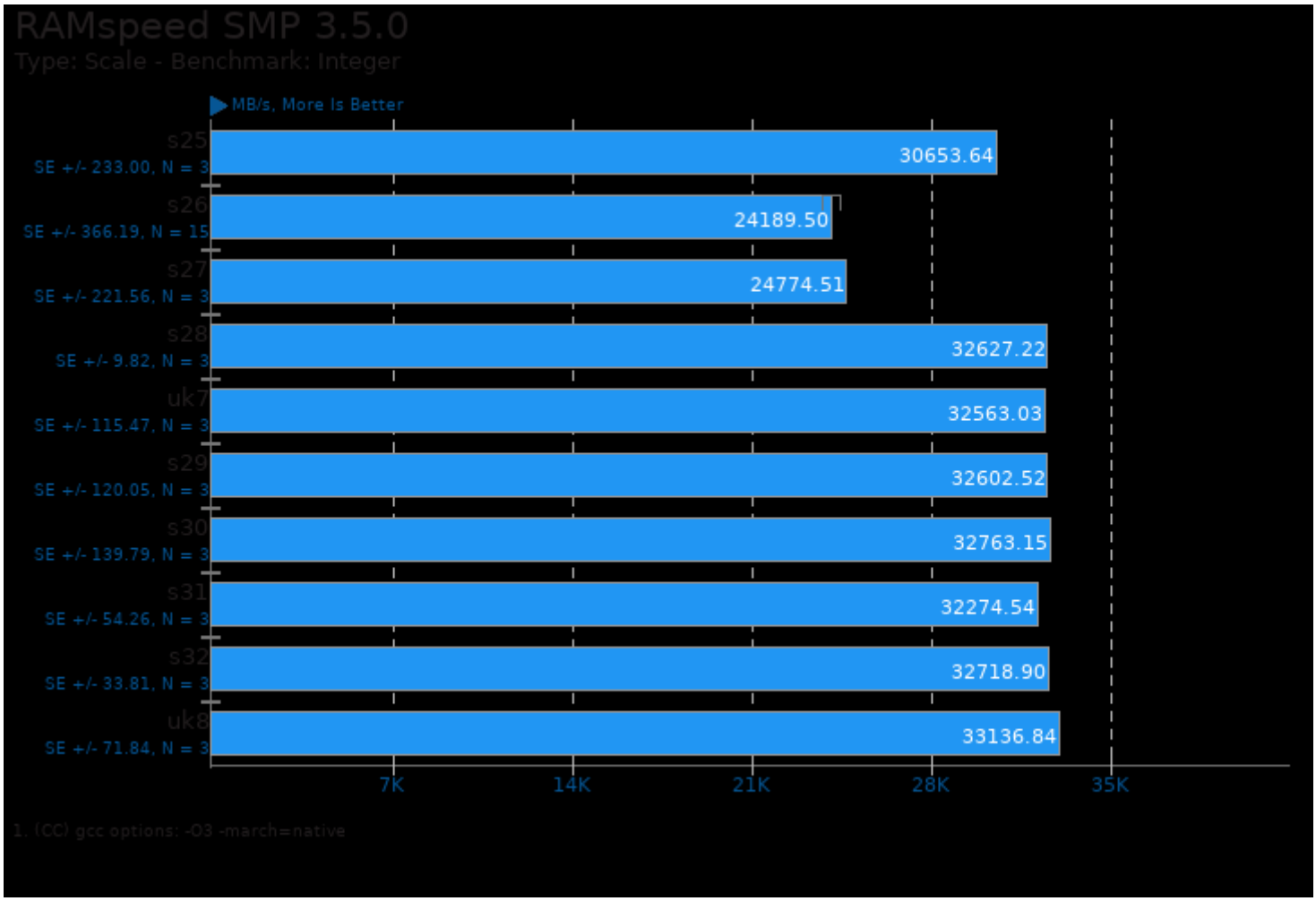

Flexible IO Tester 3.18
Type: Random Write - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 256KB - Disk Target: Default Test Directory
IOPS, More Is Better
s25
SE +/- 45.06, N = 3
7943
s26
SE +/- 35.31, N = 3
8059
s27
SE +/- 0.67, N = 3
7934
s28
SE +/- 46.21, N = 3
8721
uk7
SE +/- 8.74, N = 3
8678
s29
SE +/- 13.43, N = 3
8777
s30
SE +/- 32.30, N = 3
8700
s31
SE +/- 18.89, N = 3
8703
s32
SE +/- 16.19, N = 3
8748
uk8
SE +/- 28.35, N = 3
8642
2K
4K
6K
8K
10K
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

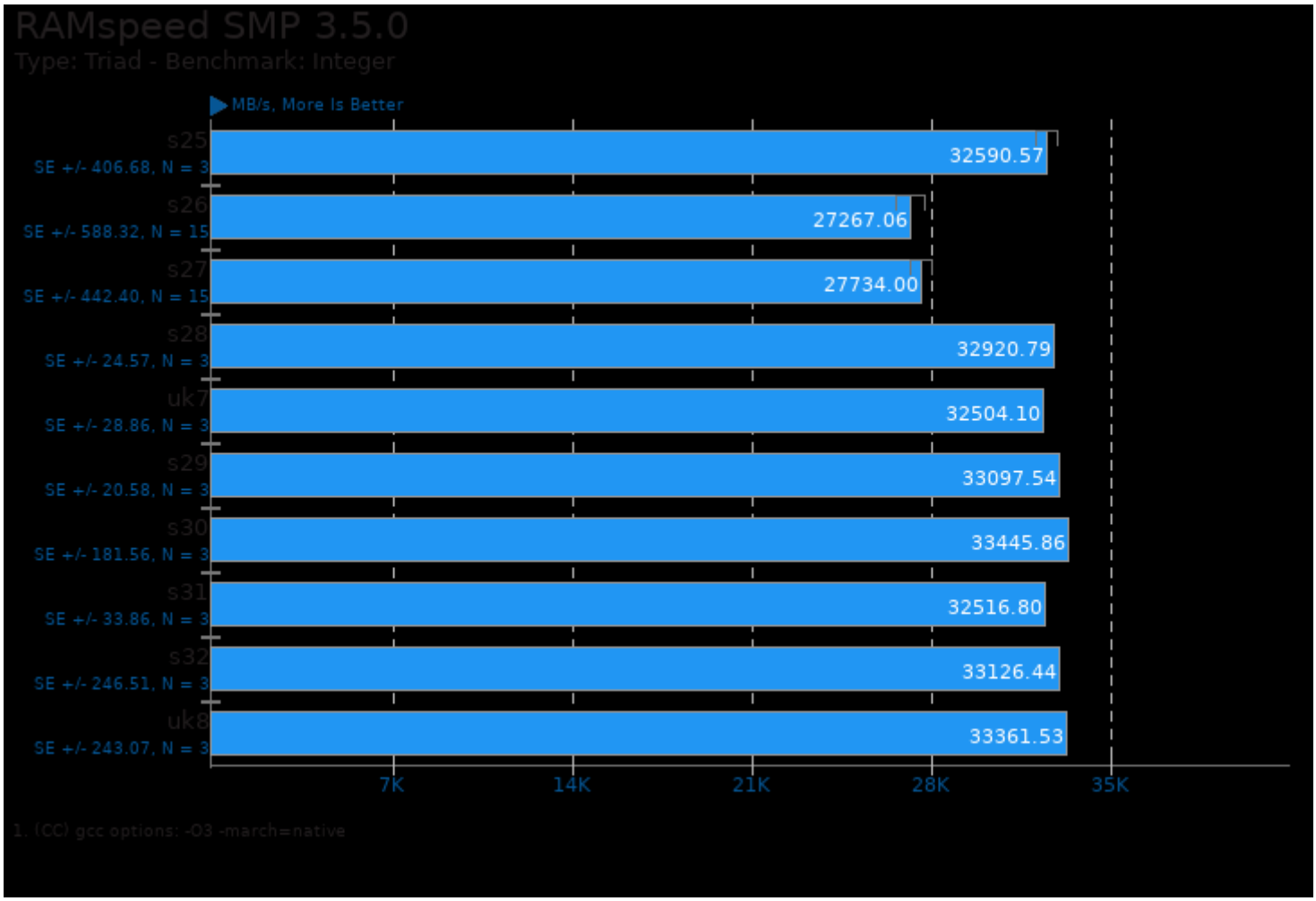

Flexible IO Tester 3.18
Type: Random Write - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 512KB - Disk Target: Default Test Directory
MB/s, More Is Better
s25
SE +/- 12.35, N = 3
2343
s26
SE +/- 12.99, N = 3
2348
s27
SE +/- 0.67, N = 3
2376
s28
SE +/- 9.50, N = 3
2541
uk7
SE +/- 0.67, N = 3
2537
s29
SE +/- 3.76, N = 3
2541
s30
SE +/- 6.33, N = 3
2536
s31
SE +/- 3.06, N = 3
2521
s32
SE +/- 2.52, N = 3
2544
uk8
SE +/- 6.36, N = 3
2522
500
1000
1500
2000
2500
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

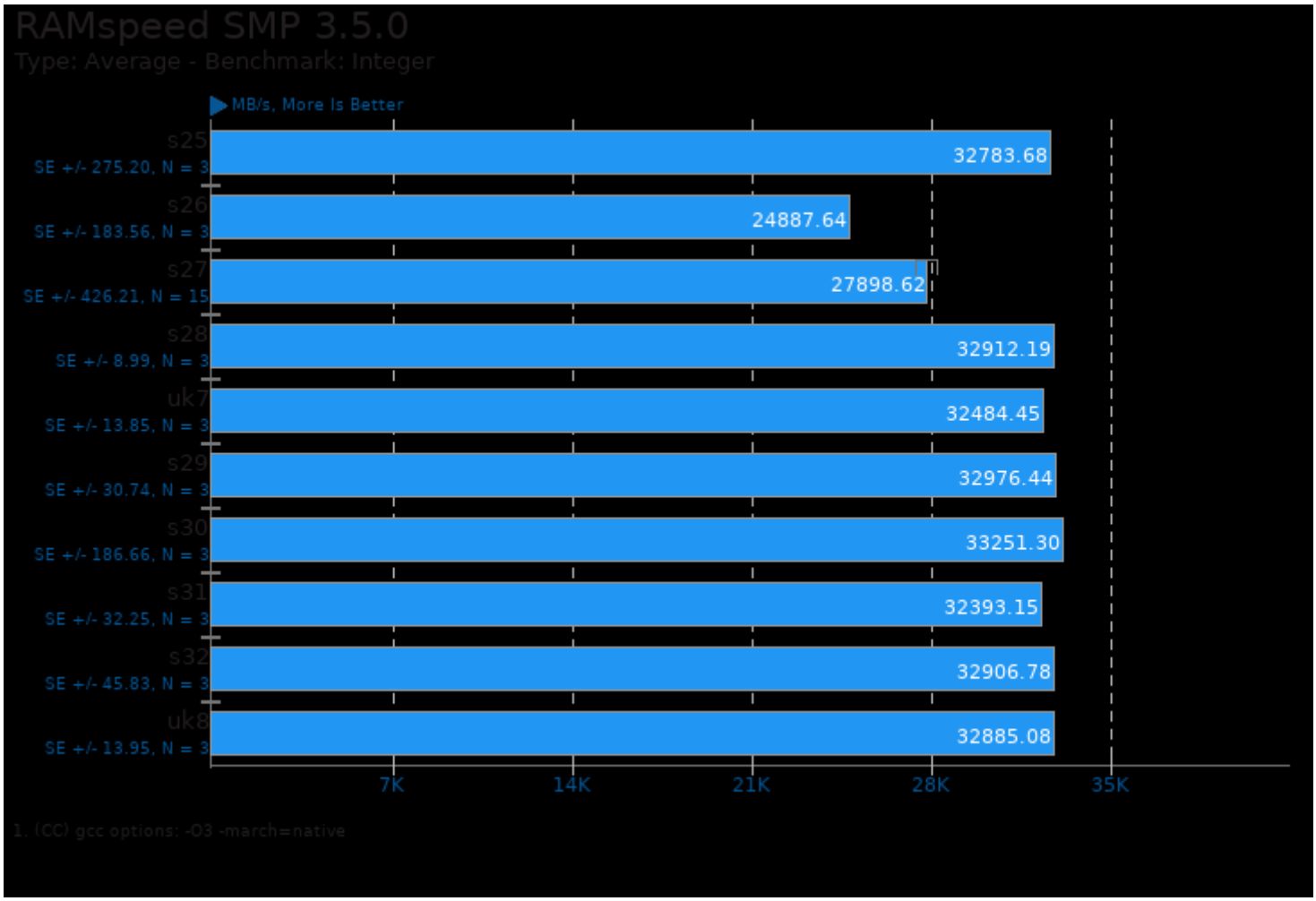

Flexible IO Tester 3.18
Type: Random Write - Engine: Sync - Buffered: No - Direct: Yes - Block Size: 512KB - Disk Target: Default Test Directory
IOPS, More Is Better
s25
SE +/- 24.36, N = 3
4686
s26
SE +/- 25.76, N = 3
4696
s27
SE +/- 1.00, N = 3
4752
s28
SE +/- 18.68, N = 3
5081
uk7
SE +/- 1.20, N = 3
5074
s29
SE +/- 7.51, N = 3
5081
s30
SE +/- 12.67, N = 3
5071
s31
SE +/- 5.78, N = 3
5042
s32
SE +/- 5.36, N = 3
5088
uk8
SE +/- 12.72, N = 3
5045
1100
2200
3300
4400
5500
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

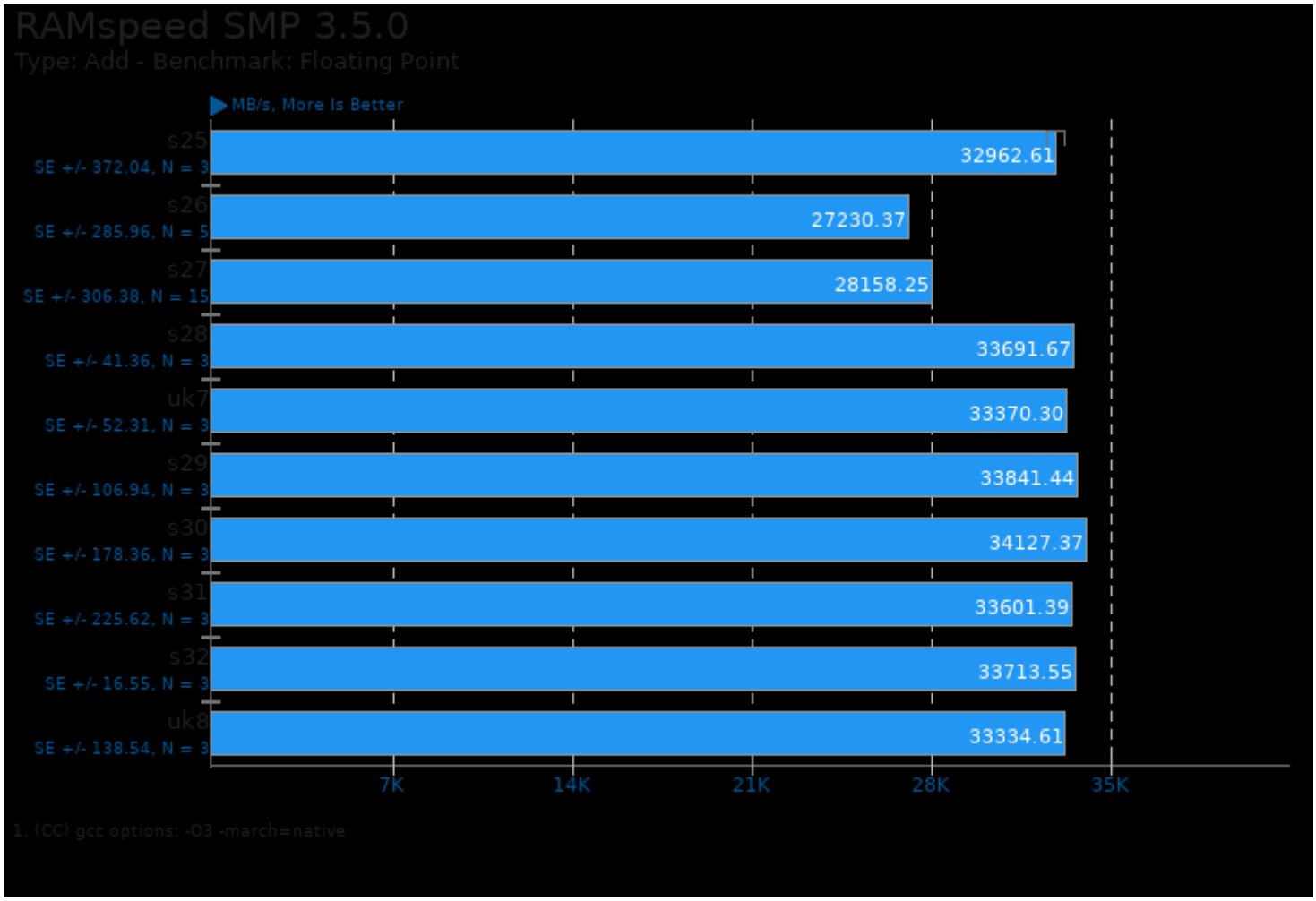

RAMspeed SMP 3.5.0
Type: Add - Benchmark: Integer
MB/s, More Is Better
s25
SE +/- 200.09, N = 3
33622.34
s26
SE +/- 499.86, N = 12
28517.83
s27
SE +/- 361.23, N = 15
28612.68
s28
SE +/- 21.87, N = 3
33075.99
uk7
SE +/- 43.52, N = 3
32364.73
s29
SE +/- 73.64, N = 3
33262.62
s30
SE +/- 13.59, N = 3
33236.94
s31
SE +/- 47.15, N = 3
32488.18
s32
SE +/- 20.50, N = 3
33032.75
uk8
SE +/- 55.78, N = 3
33602.35
7K
14K
21K
28K
35K
1. (CC) gcc options: -O3 -march=native

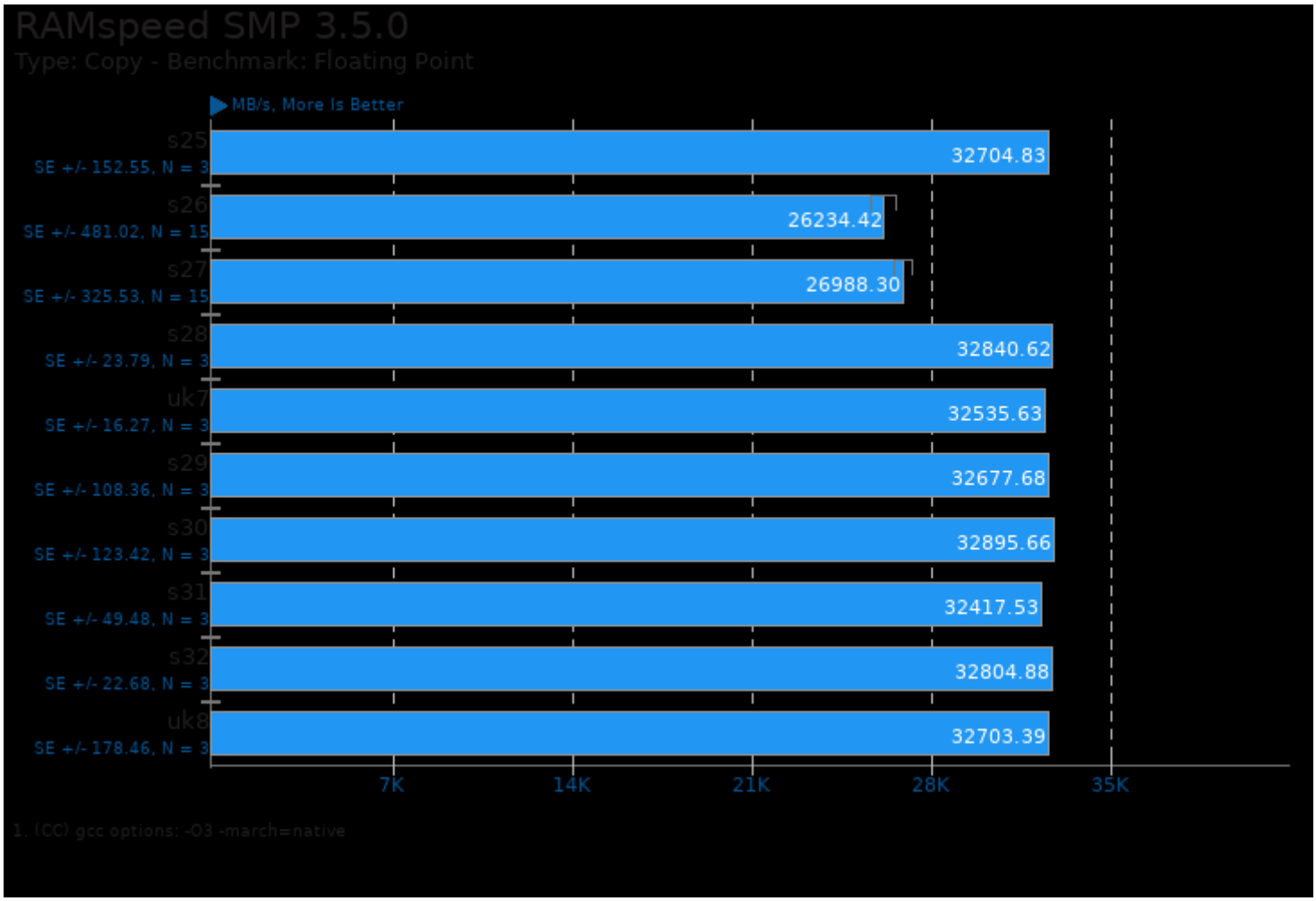

RAMspeed SMP 3.5.0
Type: Copy - Benchmark: Integer
MB/s, More Is Better
s25
SE +/- 31.61, N = 3
32500.45
s26
SE +/- 295.13, N = 15
25454.76
s27
SE +/- 33.75, N = 3
27053.54
s28
SE +/- 15.22, N = 3
32796.06
uk7
SE +/- 58.42, N = 3
32529.65
s29
SE +/- 185.22, N = 3
32481.05
s30
SE +/- 127.71, N = 3
32921.89
s31
SE +/- 55.12, N = 3
32451.81
s32
SE +/- 173.75, N = 3
33067.66
uk8
SE +/- 32.72, N = 3
33342.00
7K
14K
21K
28K
35K
1. (CC) gcc options: -O3 -march=native

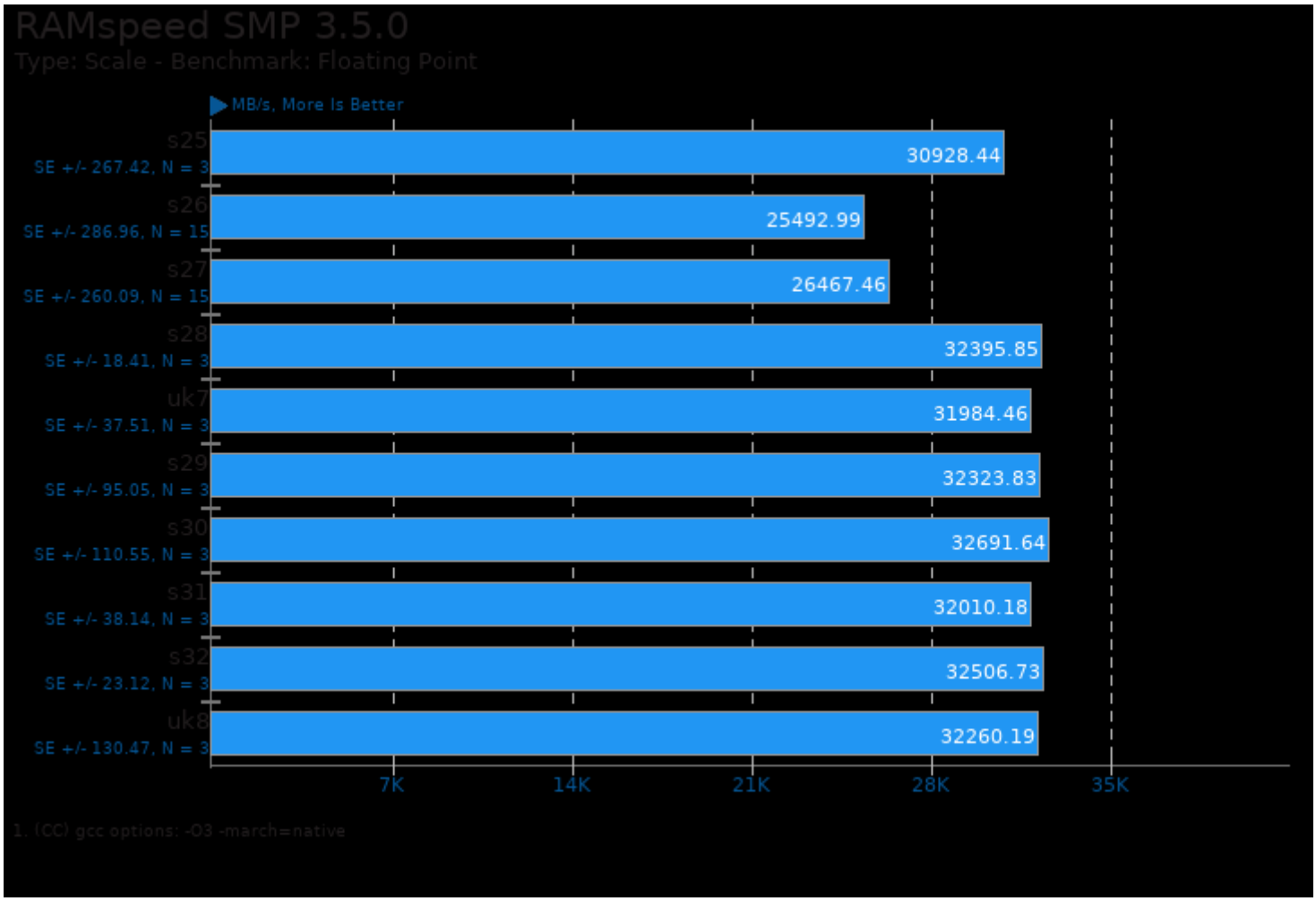

RAMspeed SMP 3.5.0
Type: Scale - Benchmark: Integer
MB/s, More Is Better
s25
SE +/- 233.00, N = 3
30653.64
s26
SE +/- 366.19, N = 15
24189.50
s27
SE +/- 221.56, N = 3
24774.51
s28
SE +/- 9.82, N = 3
32627.22
uk7
SE +/- 115.47, N = 3
32563.03
s29
SE +/- 120.05, N = 3
32602.52
s30
SE +/- 139.79, N = 3
32763.15
s31
SE +/- 54.26, N = 3
32274.54
s32
SE +/- 33.81, N = 3
32718.90
uk8
SE +/- 71.84, N = 3
33136.84
7K
14K
21K
28K
35K
1. (CC) gcc options: -O3 -march=native

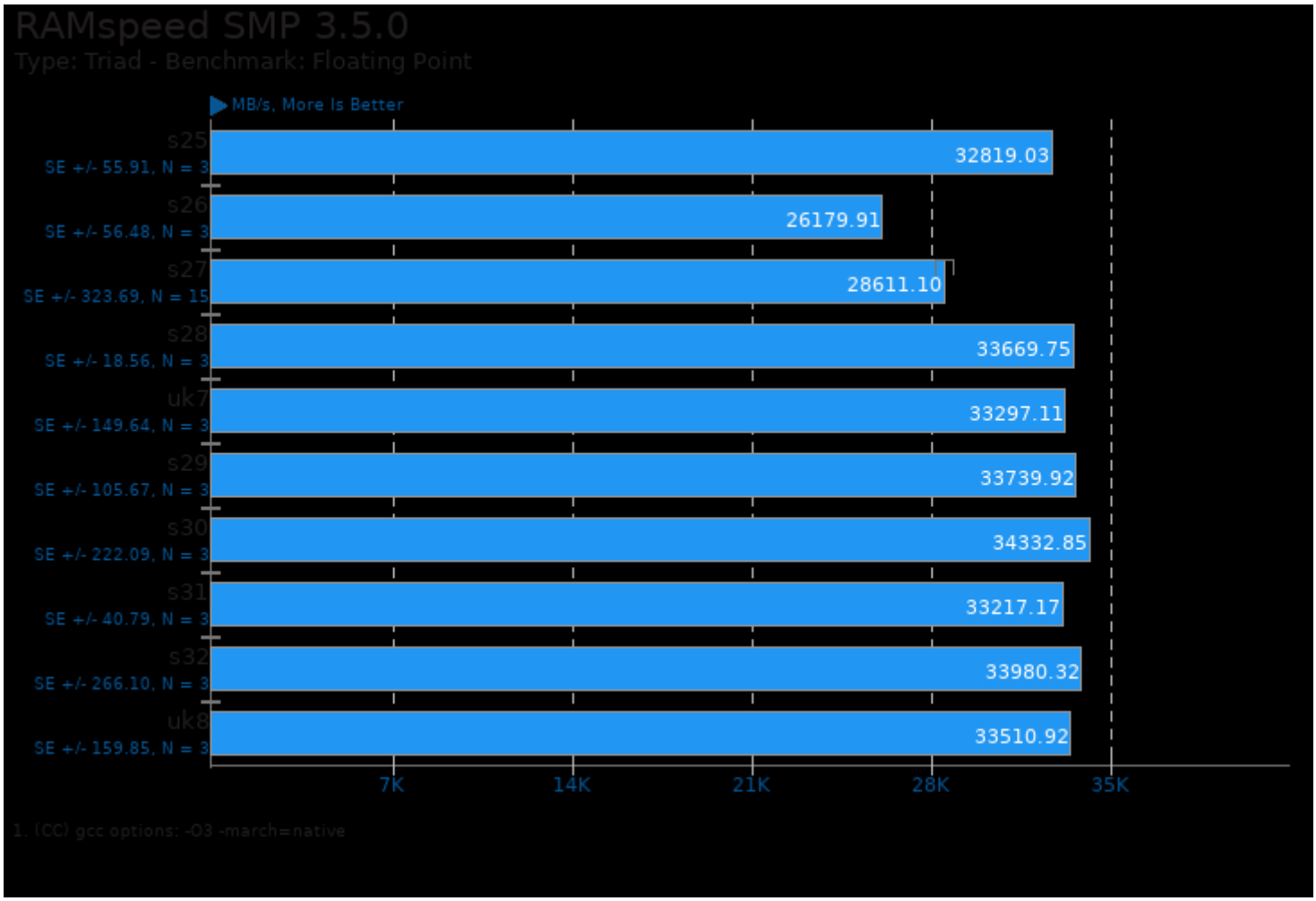

RAMspeed SMP 3.5.0
Type: Triad - Benchmark: Integer
MB/s, More Is Better
s25
SE +/- 406.68, N = 3
32590.57
s26
SE +/- 588.32, N = 15
27267.06
s27
SE +/- 442.40, N = 15
27734.00
s28
SE +/- 24.57, N = 3
32920.79
uk7
SE +/- 28.86, N = 3
32504.10
s29
SE +/- 20.58, N = 3
33097.54
s30
SE +/- 181.56, N = 3
33445.86
s31
SE +/- 33.86, N = 3
32516.80
s32
SE +/- 246.51, N = 3
33126.44
uk8
SE +/- 243.07, N = 3
33361.53
7K
14K
21K
28K
35K
1. (CC) gcc options: -O3 -march=native

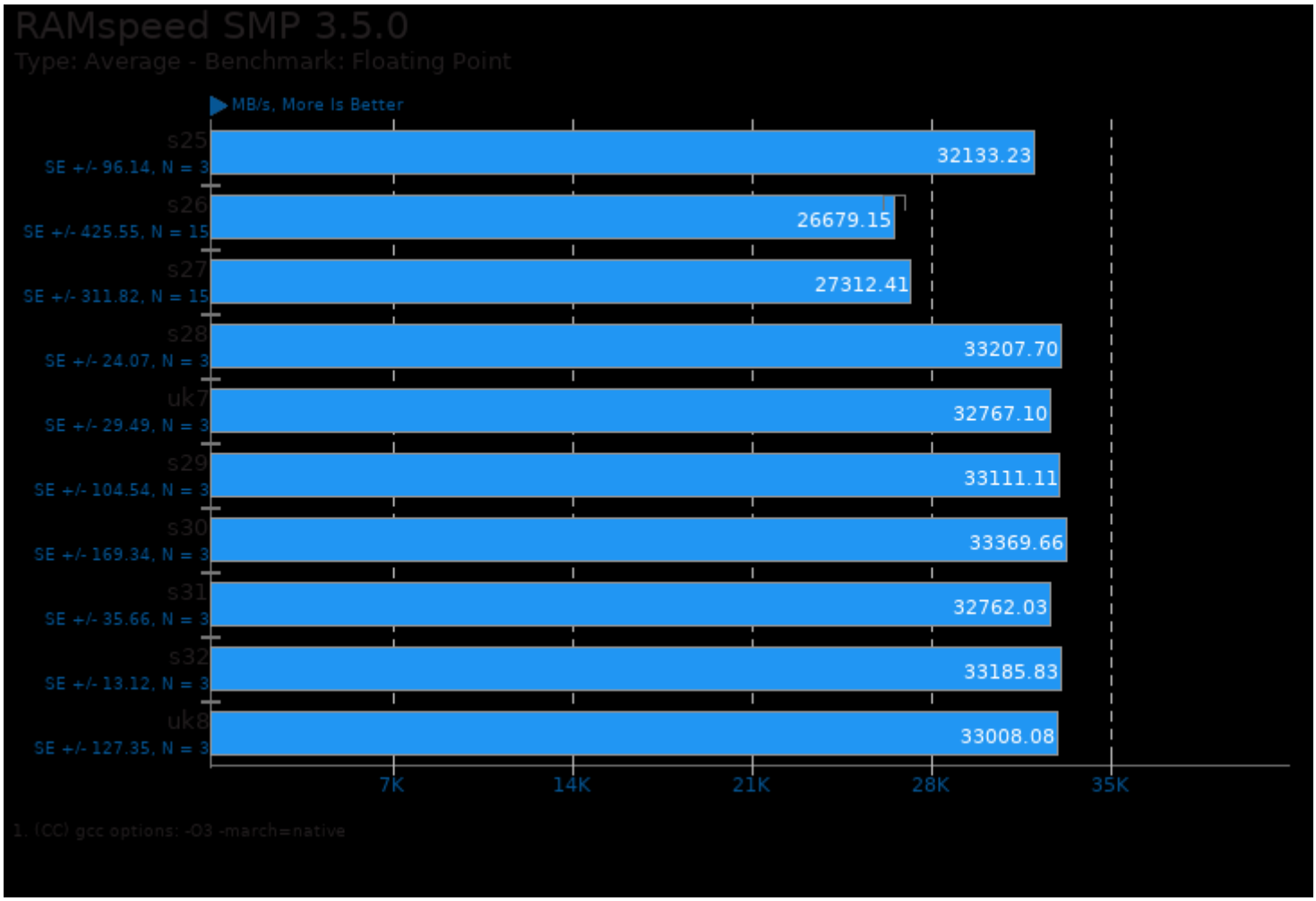

RAMspeed SMP 3.5.0
Type: Average - Benchmark: Integer
MB/s, More Is Better
s25
SE +/- 275.20, N = 3
32783.68
s26
SE +/- 183.56, N = 3
24887.64
s27
SE +/- 426.21, N = 15
27898.62
s28
SE +/- 8.99, N = 3
32912.19
uk7
SE +/- 13.85, N = 3
32484.45
s29
SE +/- 30.74, N = 3
32976.44
s30
SE +/- 186.66, N = 3
33251.30
s31
SE +/- 32.25, N = 3
32393.15
s32
SE +/- 45.83, N = 3
32906.78
uk8
SE +/- 13.95, N = 3
32885.08
7K
14K
21K
28K
35K
1. (CC) gcc options: -O3 -march=native

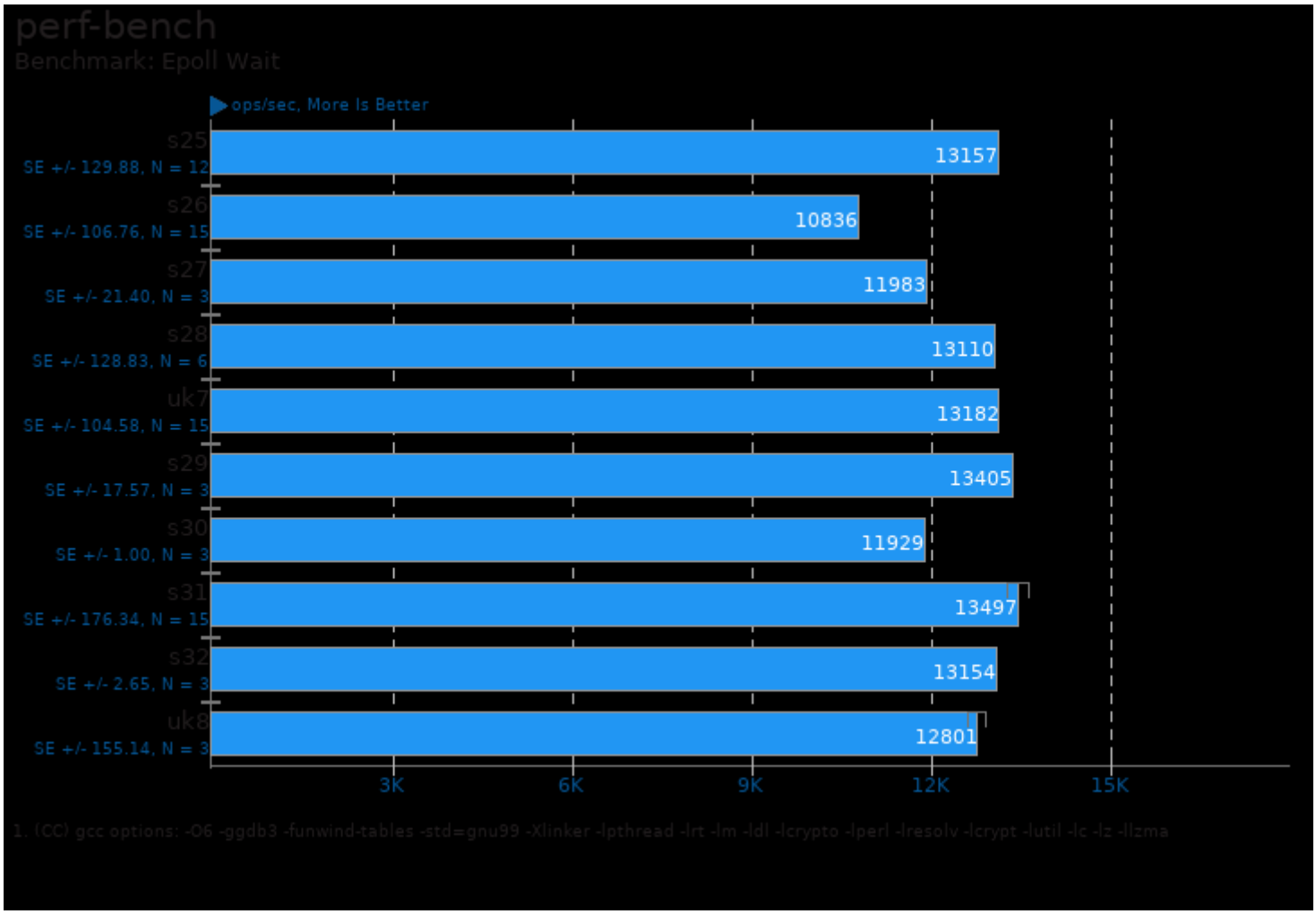

RAMspeed SMP 3.5.0
Type: Add - Benchmark: Floating Point
MB/s, More Is Better
s25
SE +/- 372.04, N = 3
32962.61
s26
SE +/- 285.96, N = 5
27230.37
s27
SE +/- 306.38, N = 15
28158.25
s28
SE +/- 41.36, N = 3
33691.67
uk7
SE +/- 52.31, N = 3
33370.30
s29
SE +/- 106.94, N = 3
33841.44
s30
SE +/- 178.36, N = 3
34127.37
s31
SE +/- 225.62, N = 3
33601.39
s32
SE +/- 16.55, N = 3
33713.55
uk8
SE +/- 138.54, N = 3
33334.61
7K
14K
21K
28K
35K
1. (CC) gcc options: -O3 -march=native

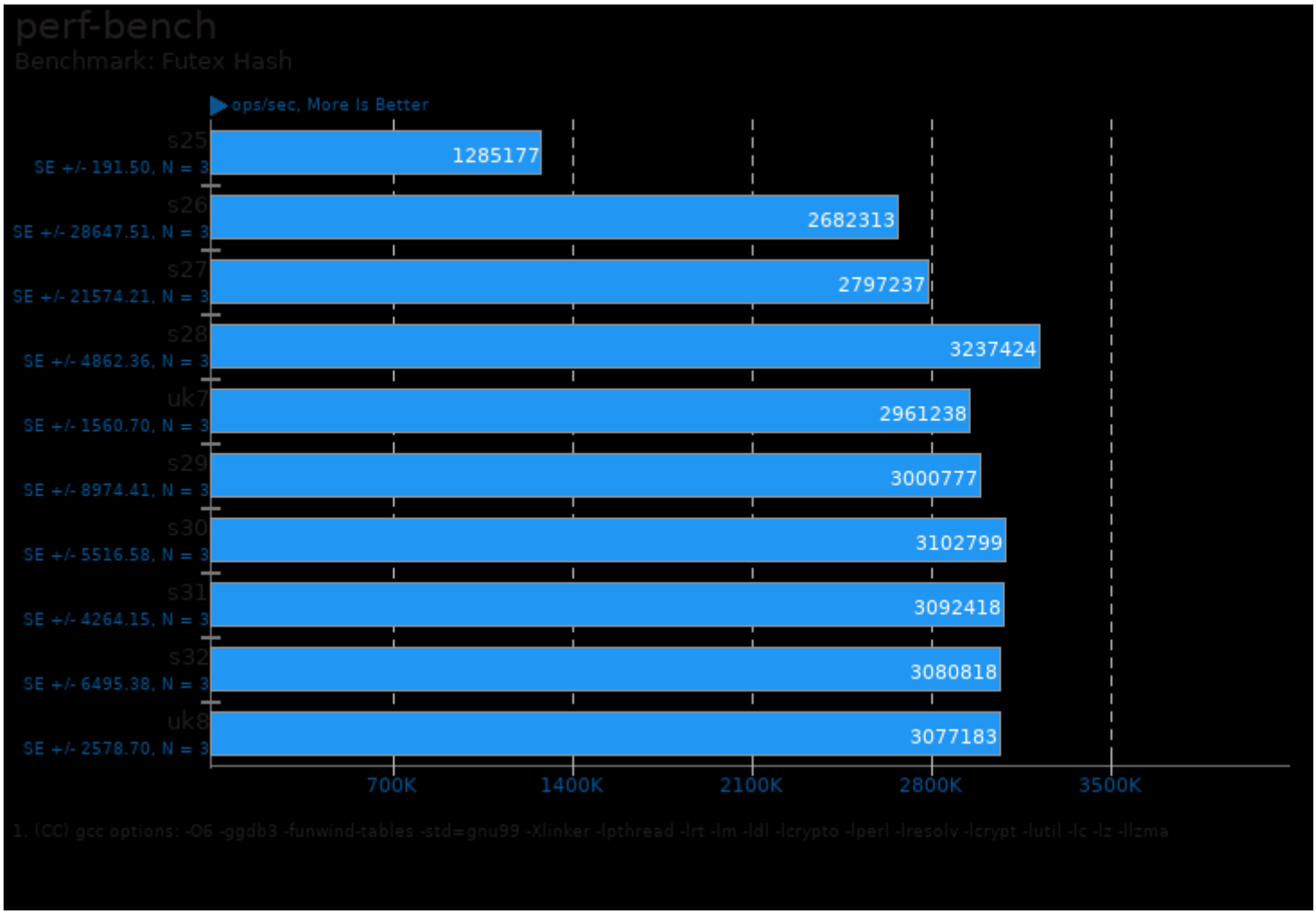

RAMspeed SMP 3.5.0
Type: Copy - Benchmark: Floating Point
MB/s, More Is Better
s25
SE +/- 152.55, N = 3
32704.83
s26
SE +/- 481.02, N = 15
26234.42
s27
SE +/- 325.53, N = 15
26988.30
s28
SE +/- 23.79, N = 3
32840.62
uk7
SE +/- 16.27, N = 3
32535.63
s29
SE +/- 108.36, N = 3
32677.68
s30
SE +/- 123.42, N = 3
32895.66
s31
SE +/- 49.48, N = 3
32417.53
s32
SE +/- 22.68, N = 3
32804.88
uk8
SE +/- 178.46, N = 3
32703.39
7K
14K
21K
28K
35K
1. (CC) gcc options: -O3 -march=native

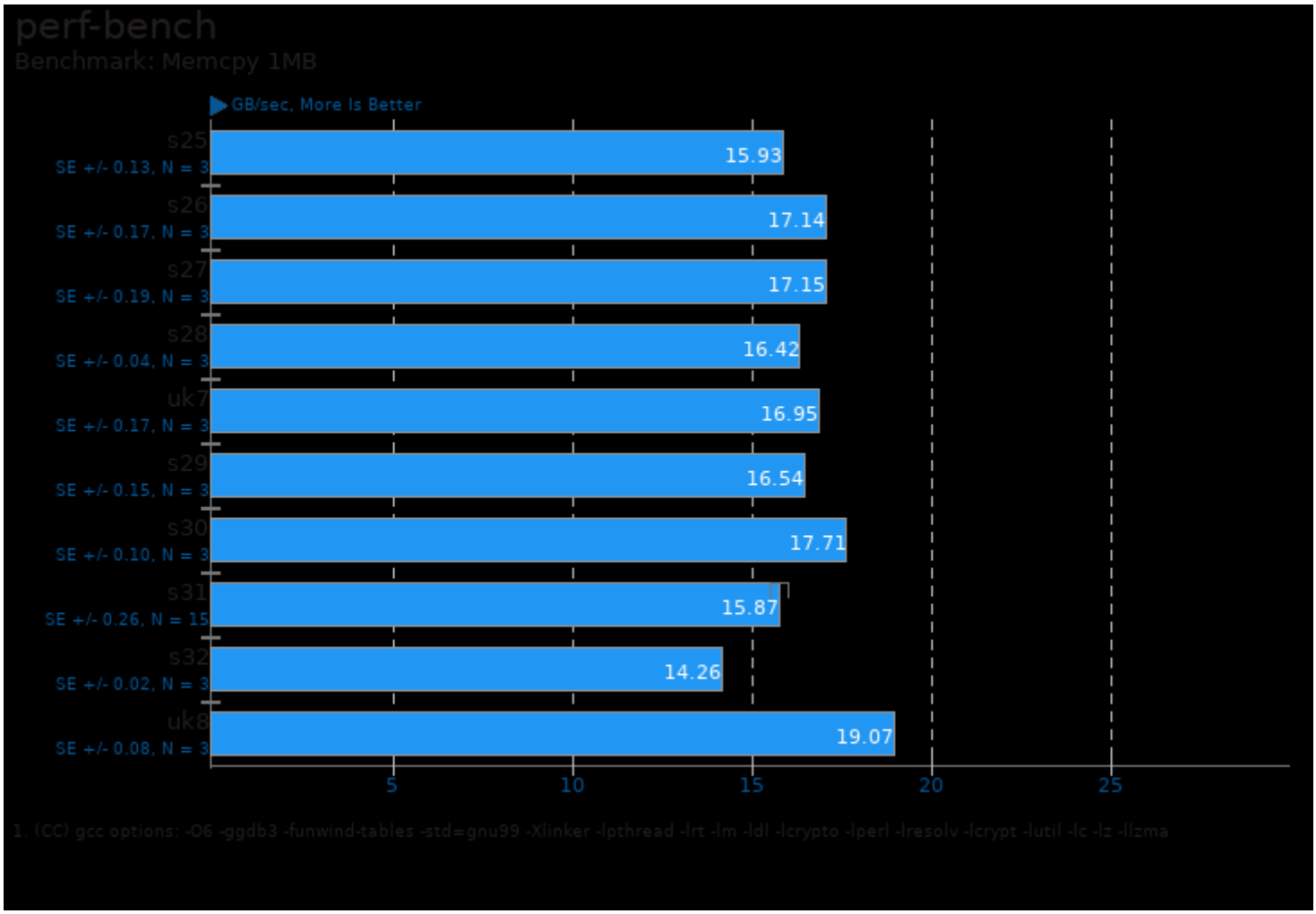

RAMspeed SMP 3.5.0
Type: Scale - Benchmark: Floating Point
MB/s, More Is Better
s25
SE +/- 267.42, N = 3
30928.44
s26
SE +/- 286.96, N = 15
25492.99
s27
SE +/- 260.09, N = 15
26467.46
s28
SE +/- 18.41, N = 3
32395.85
uk7
SE +/- 37.51, N = 3
31984.46
s29
SE +/- 95.05, N = 3
32323.83
s30
SE +/- 110.55, N = 3
32691.64
s31
SE +/- 38.14, N = 3
32010.18
s32
SE +/- 23.12, N = 3
32506.73
uk8
SE +/- 130.47, N = 3
32260.19
7K
14K
21K
28K
35K
1. (CC) gcc options: -O3 -march=native

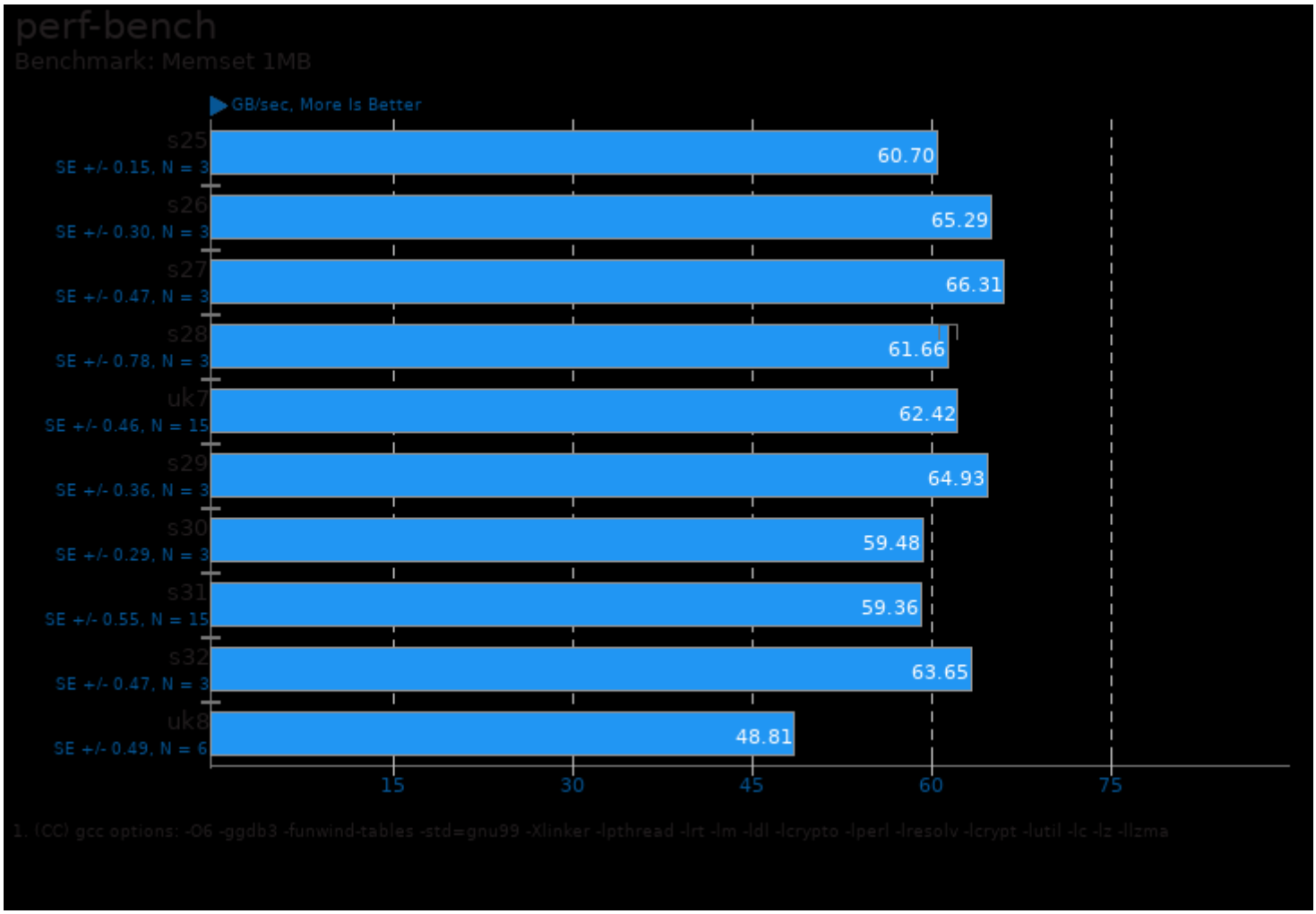

RAMspeed SMP 3.5.0
Type: Triad - Benchmark: Floating Point
MB/s, More Is Better
s25
SE +/- 55.91, N = 3
32819.03
s26
SE +/- 56.48, N = 3
26179.91
s27
SE +/- 323.69, N = 15
28611.10
s28
SE +/- 18.56, N = 3
33669.75
uk7
SE +/- 149.64, N = 3
33297.11
s29
SE +/- 105.67, N = 3
33739.92
s30
SE +/- 222.09, N = 3
34332.85
s31
SE +/- 40.79, N = 3
33217.17
s32
SE +/- 266.10, N = 3
33980.32
uk8
SE +/- 159.85, N = 3
33510.92
7K
14K
21K
28K
35K
1. (CC) gcc options: -O3 -march=native

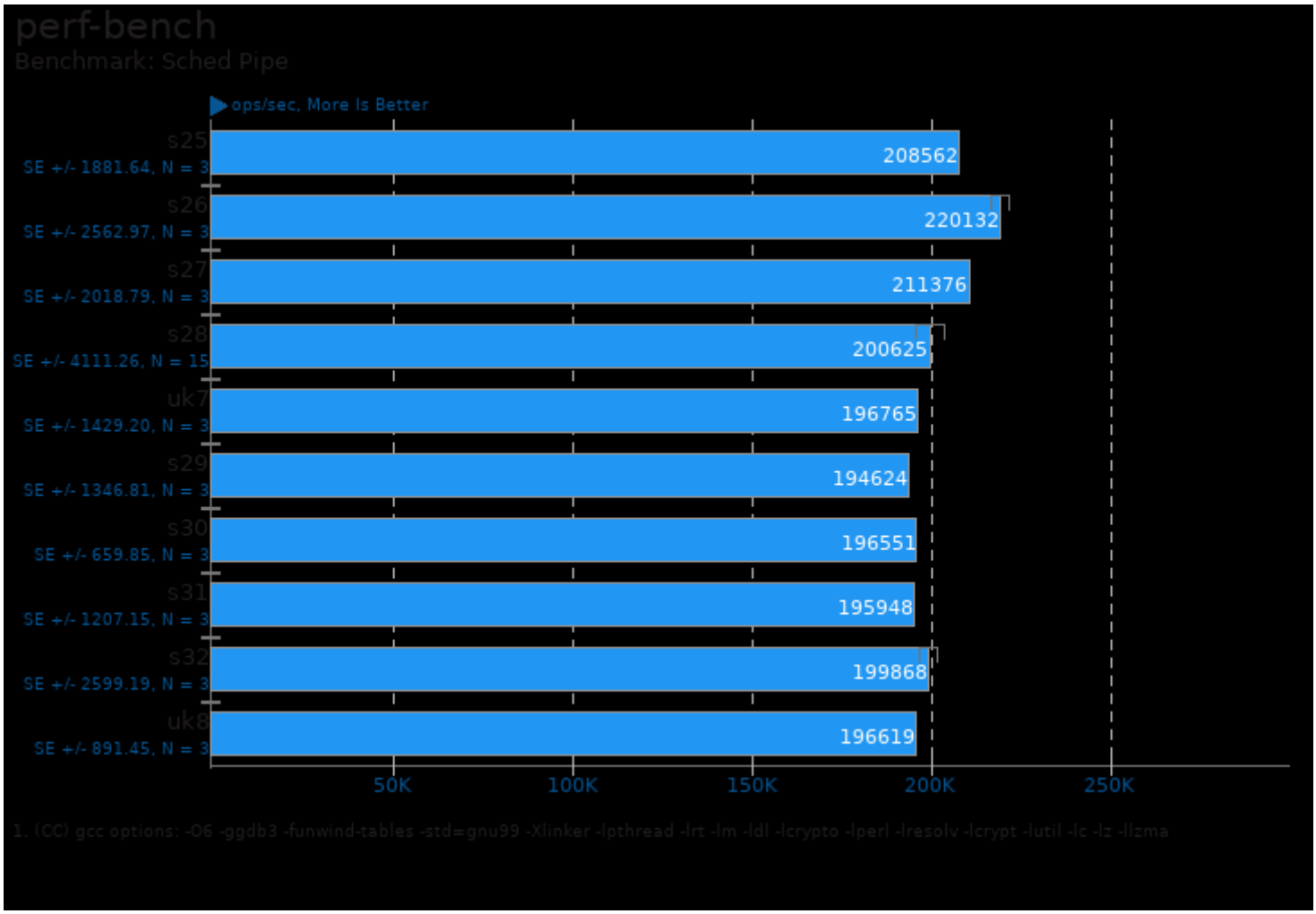

RAMspeed SMP 3.5.0
Type: Average - Benchmark: Floating Point
MB/s, More Is Better
s25
SE +/- 96.14, N = 3
32133.23
s26
SE +/- 425.55, N = 15
26679.15
s27
SE +/- 311.82, N = 15
27312.41
s28
SE +/- 24.07, N = 3
33207.70
uk7
SE +/- 29.49, N = 3
32767.10
s29
SE +/- 104.54, N = 3
33111.11
s30
SE +/- 169.34, N = 3
33369.66
s31
SE +/- 35.66, N = 3
32762.03
s32
SE +/- 13.12, N = 3
33185.83
uk8
SE +/- 127.35, N = 3
33008.08
7K
14K
21K
28K
35K
1. (CC) gcc options: -O3 -march=native

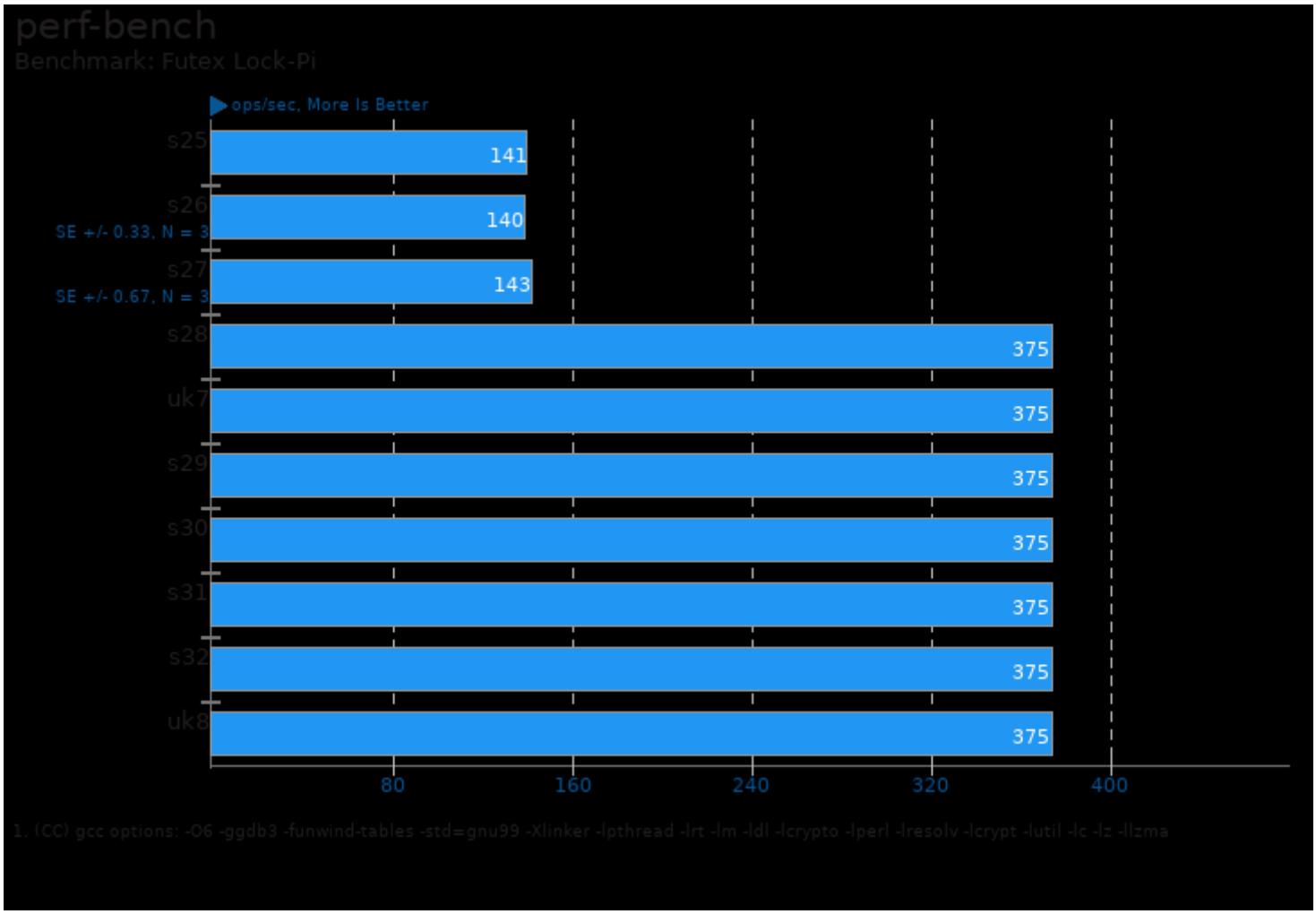

perf-bench
Benchmark: Epoll Wait
ops/sec, More Is Better
s25
SE +/- 129.88, N = 12
13157
s26
SE +/- 106.76, N = 15
10836
s27
SE +/- 21.40, N = 3
11983
s28
SE +/- 128.83, N = 6
13110
uk7
SE +/- 104.58, N = 15
13182
s29
SE +/- 17.57, N = 3
13405
s30
SE +/- 1.00, N = 3
11929
s31
SE +/- 176.34, N = 15
13497
s32
SE +/- 2.65, N = 3
13154
uk8
SE +/- 155.14, N = 3
12801
3K
6K
9K
12K
15K
1. (CC) gcc options: -O6 -ggdb3 -funwind-tables -std=gnu99 -Xlinker -lpthread -lrt -lm -ldl -lcrypto -lperl -lresolv -lcrypt -lutil -lc -lz -llzma

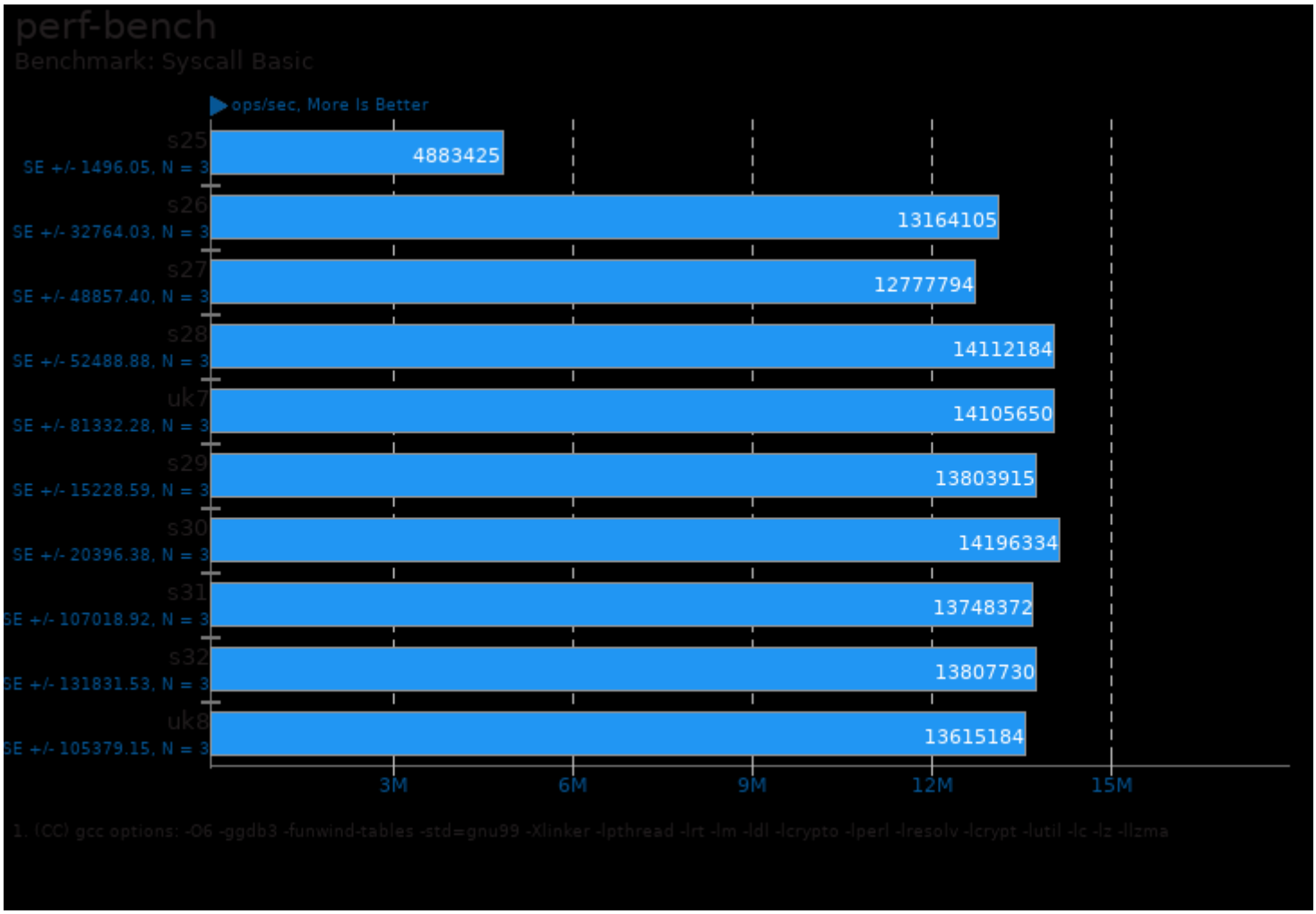

perf-bench
Benchmark: Futex Hash
ops/sec, More Is Better
s25
SE +/- 191.50, N = 3
1285177
s26
SE +/- 28647.51, N = 3
2682313
s27
SE +/- 21574.21, N = 3
2797237
s28
SE +/- 4862.36, N = 3
3237424
uk7
SE +/- 1560.70, N = 3
2961238
s29
SE +/- 8974.41, N = 3
3000777
s30
SE +/- 5516.58, N = 3
3102799
s31
SE +/- 4264.15, N = 3
3092418
s32
SE +/- 6495.38, N = 3
3080818
uk8
SE +/- 2578.70, N = 3
3077183
700K
1400K
2100K
2800K
3500K
1. (CC) gcc options: -O6 -ggdb3 -funwind-tables -std=gnu99 -Xlinker -lpthread -lrt -lm -ldl -lcrypto -lperl -lresolv -lcrypt -lutil -lc -lz -llzma

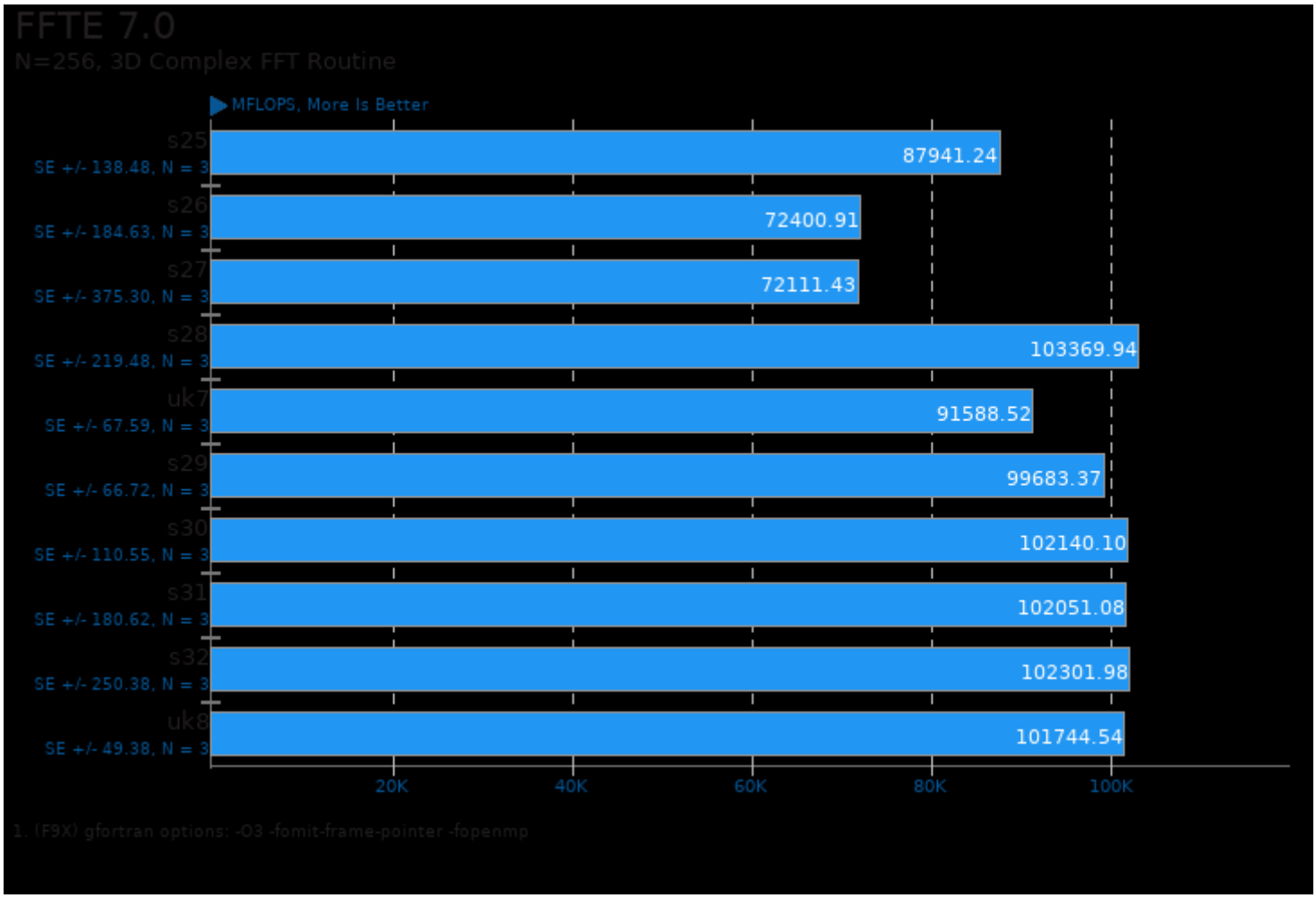

perf-bench
Benchmark: Memcpy 1MB
GB/sec, More Is Better
s25
SE +/- 0.13, N = 3
15.93
s26
SE +/- 0.17, N = 3
17.14
s27
SE +/- 0.19, N = 3
17.15
s28
SE +/- 0.04, N = 3
16.42
uk7
SE +/- 0.17, N = 3
16.95
s29
SE +/- 0.15, N = 3
16.54
s30
SE +/- 0.10, N = 3
17.71
s31
SE +/- 0.26, N = 15
15.87
s32
SE +/- 0.02, N = 3
14.26
uk8
SE +/- 0.08, N = 3
19.07
5
10
15
20
25
1. (CC) gcc options: -O6 -ggdb3 -funwind-tables -std=gnu99 -Xlinker -lpthread -lrt -lm -ldl -lcrypto -lperl -lresolv -lcrypt -lutil -lc -lz -llzma

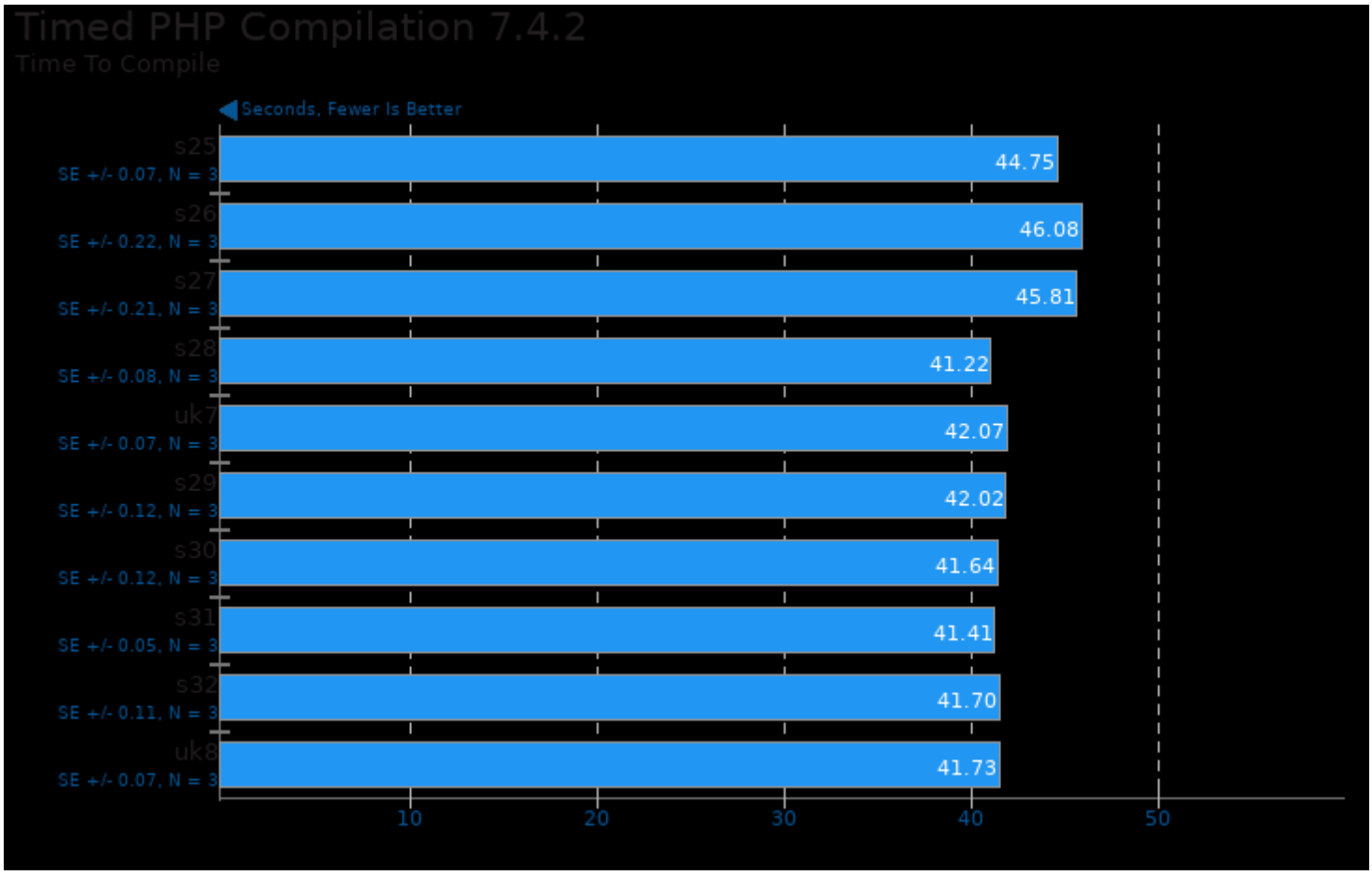

perf-bench
Benchmark: Memset 1MB
GB/sec, More Is Better
s25
SE +/- 0.15, N = 3
60.70
s26
SE +/- 0.30, N = 3
65.29
s27
SE +/- 0.47, N = 3
66.31
s28
SE +/- 0.78, N = 3
61.66
uk7
SE +/- 0.46, N = 15
62.42
s29
SE +/- 0.36, N = 3
64.93
s30
SE +/- 0.29, N = 3
59.48
s31
SE +/- 0.55, N = 15
59.36
s32
SE +/- 0.47, N = 3
63.65
uk8
SE +/- 0.49, N = 6
48.81
15
30
45
60
75
1. (CC) gcc options: -O6 -ggdb3 -funwind-tables -std=gnu99 -Xlinker -lpthread -lrt -lm -ldl -lcrypto -lperl -lresolv -lcrypt -lutil -lc -lz -llzma

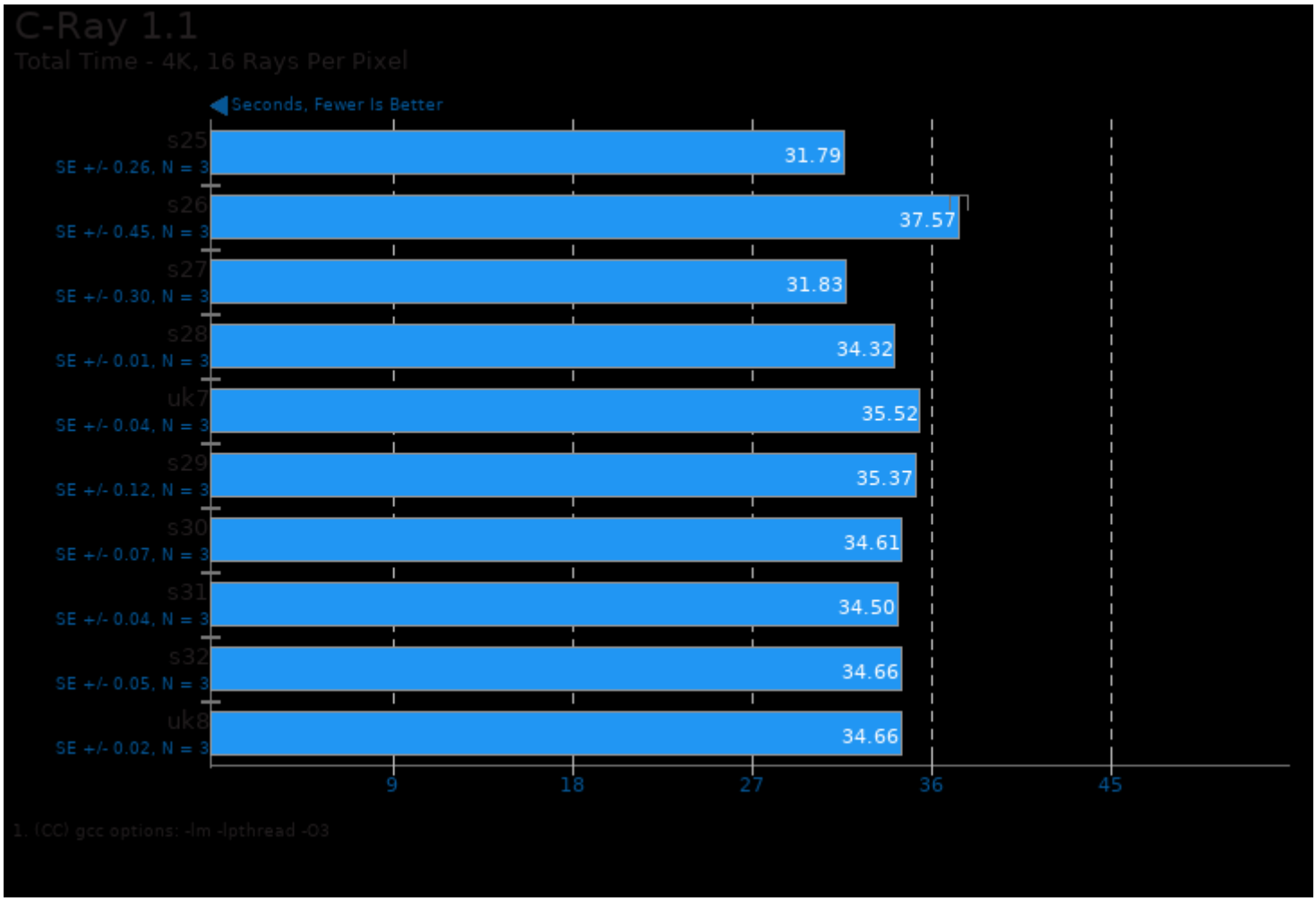

perf-bench
Benchmark: Sched Pipe
ops/sec, More Is Better
s25
SE +/- 1881.64, N = 3
208562
s26
SE +/- 2562.97, N = 3
220132
s27
SE +/- 2018.79, N = 3
211376
s28
SE +/- 4111.26, N = 15
200625
uk7
SE +/- 1429.20, N = 3
196765
s29
SE +/- 1346.81, N = 3
194624
s30
SE +/- 659.85, N = 3
196551
s31
SE +/- 1207.15, N = 3
195948
s32
SE +/- 2599.19, N = 3
199868
uk8
SE +/- 891.45, N = 3
196619
50K
100K
150K
200K
250K
1. (CC) gcc options: -O6 -ggdb3 -funwind-tables -std=gnu99 -Xlinker -lpthread -lrt -lm -ldl -lcrypto -lperl -lresolv -lcrypt -lutil -lc -lz -llzma

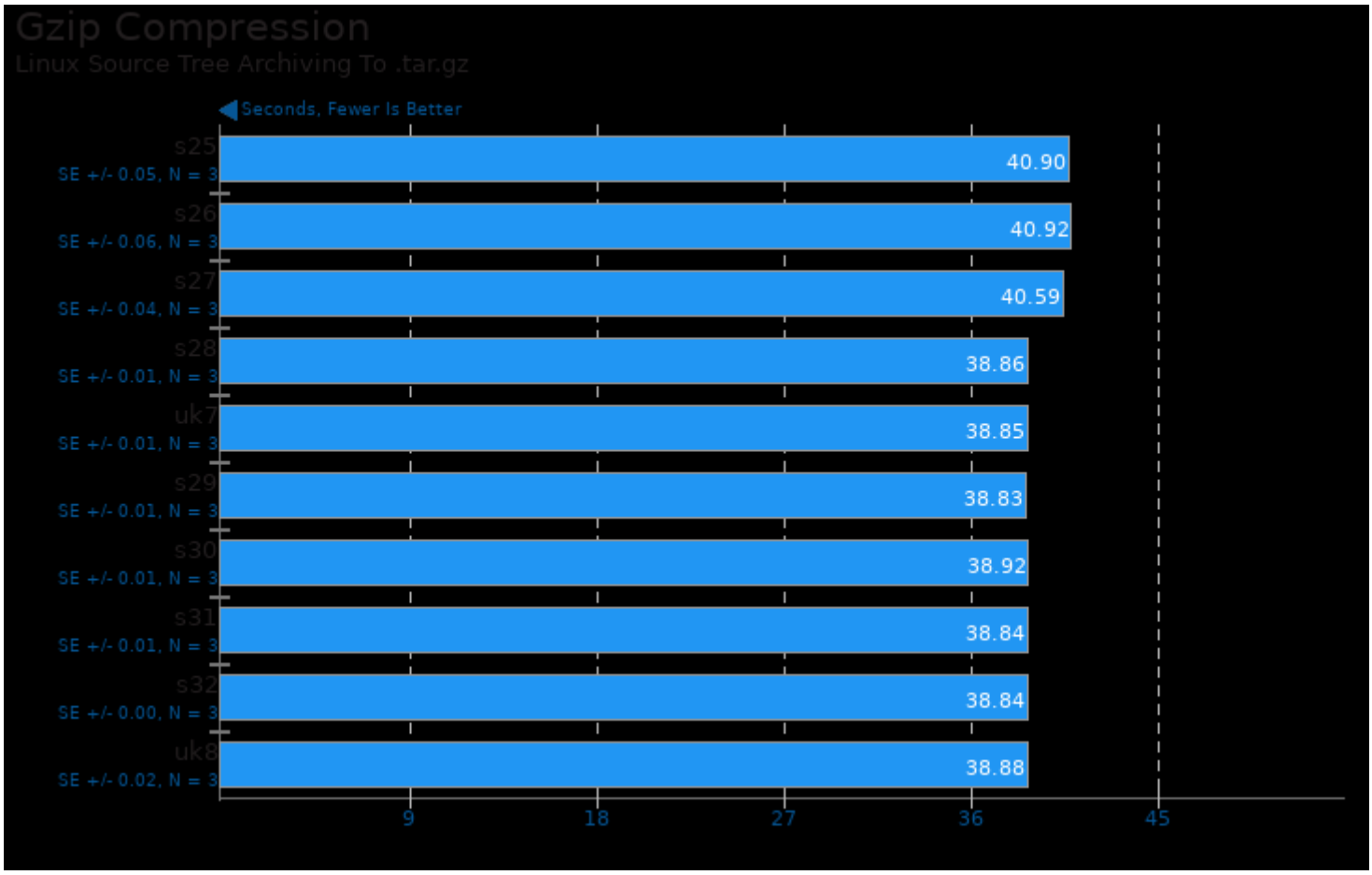

perf-bench
Benchmark: Futex Lock-Pi
ops/sec, More Is Better
s25
141
s26
140
SE +/- 0.33, N = 3
s27
143
SE +/- 0.67, N = 3
s28
375
uk7
375
s29
375
s30
375
s31
375
s32
375
uk8
375
80
160
240
320
400
1. (CC) gcc options: -O6 -ggdb3 -funwind-tables -std=gnu99 -Xlinker -lpthread -lrt -lm -ldl -lcrypto -lperl -lresolv -lcrypt -lutil -lc -lz -llzma

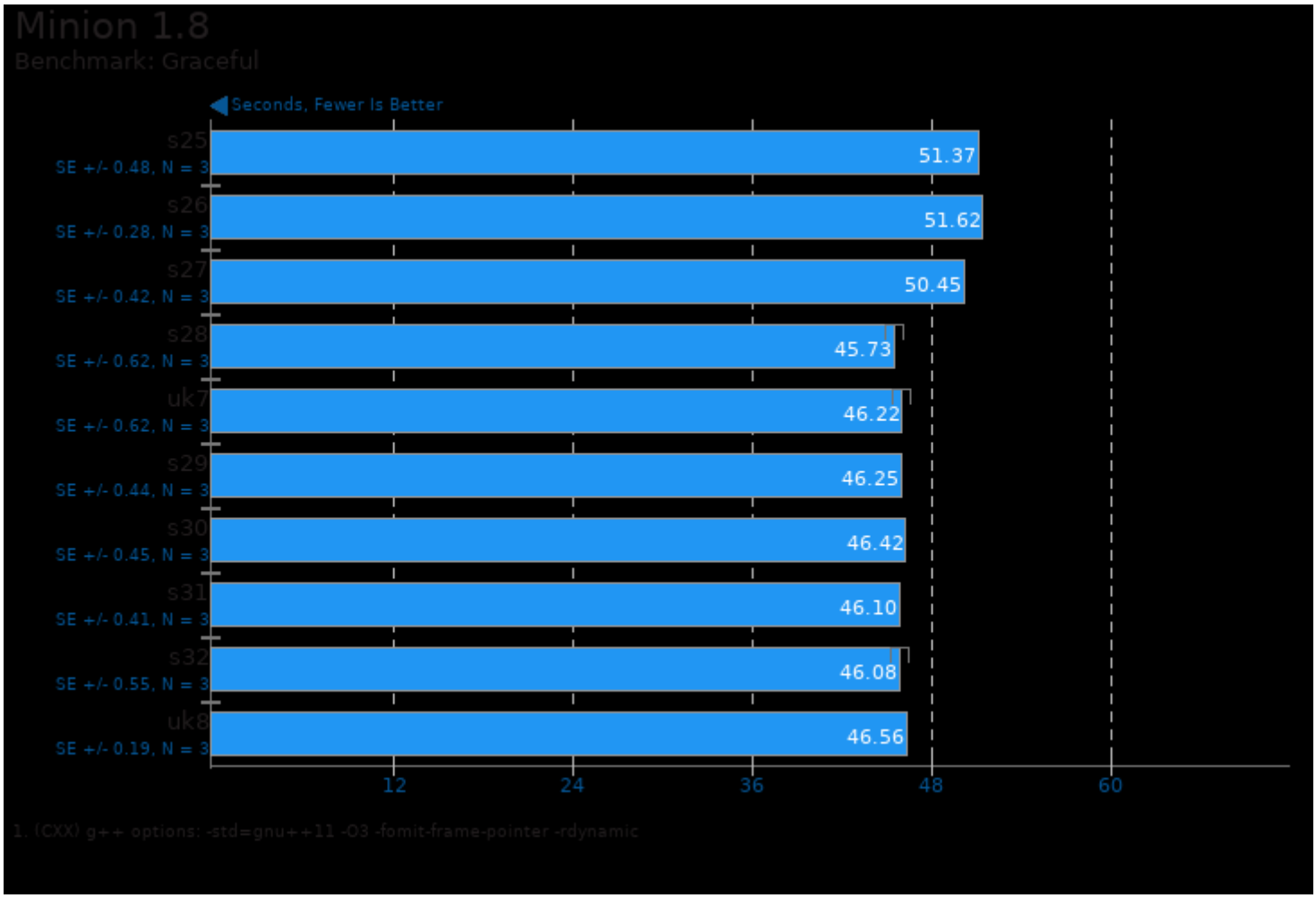

perf-bench
Benchmark: Syscall Basic
ops/sec, More Is Better
s25
SE +/- 1496.05, N = 3
4883425
s26
SE +/- 32764.03, N = 3
13164105
s27
SE +/- 48857.40, N = 3
12777794
s28
SE +/- 52488.88, N = 3
14112184
uk7
SE +/- 81332.28, N = 3
14105650
s29
SE +/- 15228.59, N = 3
13803915
s30
SE +/- 20396.38, N = 3
14196334
s31
SE +/- 107018.92, N = 3
13748372
s32
SE +/- 131831.53, N = 3
13807730
uk8
SE +/- 105379.15, N = 3
13615184
3M
6M
9M
12M
15M
1. (CC) gcc options: -O6 -ggdb3 -funwind-tables -std=gnu99 -Xlinker -lpthread -lrt -lm -ldl -lcrypto -lperl -lresolv -lcrypt -lutil -lc -lz -llzma

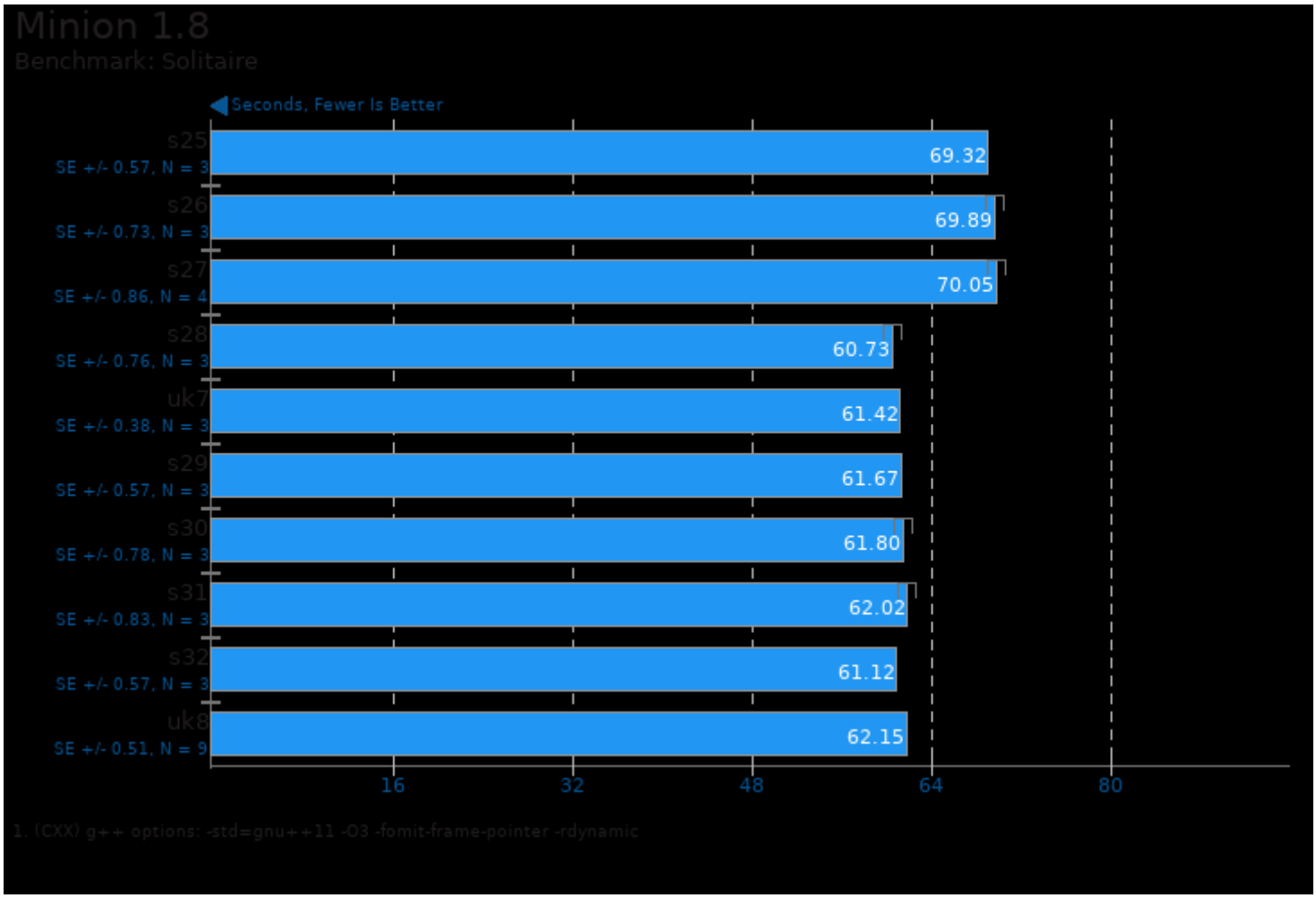

FFTE 7.0
N=256, 3D Complex FFT Routine
MFLOPS, More Is Better
s25
SE +/- 138.48, N = 3
87941.24
s26
SE +/- 184.63, N = 3
72400.91
s27
SE +/- 375.30, N = 3
72111.43
s28
SE +/- 219.48, N = 3
103369.94
uk7
SE +/- 67.59, N = 3
91588.52
s29
SE +/- 66.72, N = 3
99683.37
s30
SE +/- 110.55, N = 3
102140.10
s31
SE +/- 180.62, N = 3
102051.08
s32
SE +/- 250.38, N = 3
102301.98
uk8
SE +/- 49.38, N = 3
101744.54
20K
40K
60K
80K
100K
1. (F9X) gfortran options: -O3 -fomit-frame-pointer -fopenmp

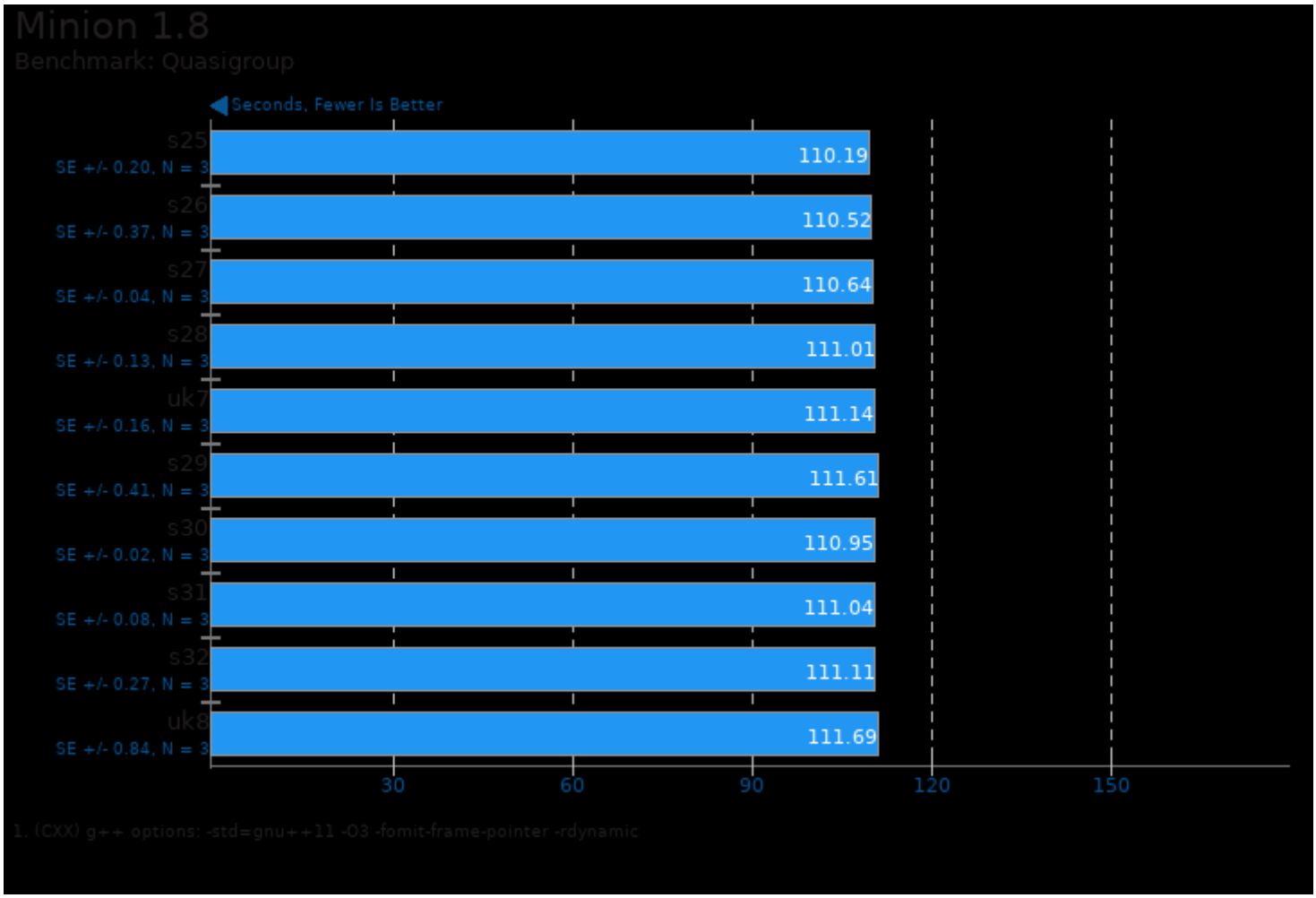

Timed PHP Compilation 7.4.2
Time To Compile
Seconds, Fewer Is Better
s25
SE +/- 0.07, N = 3
44.75
s26
SE +/- 0.22, N = 3
46.08
s27
SE +/- 0.21, N = 3
45.81
s28
SE +/- 0.08, N = 3
41.22
uk7
SE +/- 0.07, N = 3
42.07
s29
SE +/- 0.12, N = 3
42.02
s30
SE +/- 0.12, N = 3
41.64
s31
SE +/- 0.05, N = 3
41.41
s32
SE +/- 0.11, N = 3
41.70
uk8
SE +/- 0.07, N = 3
41.73
10
20
30
40
50

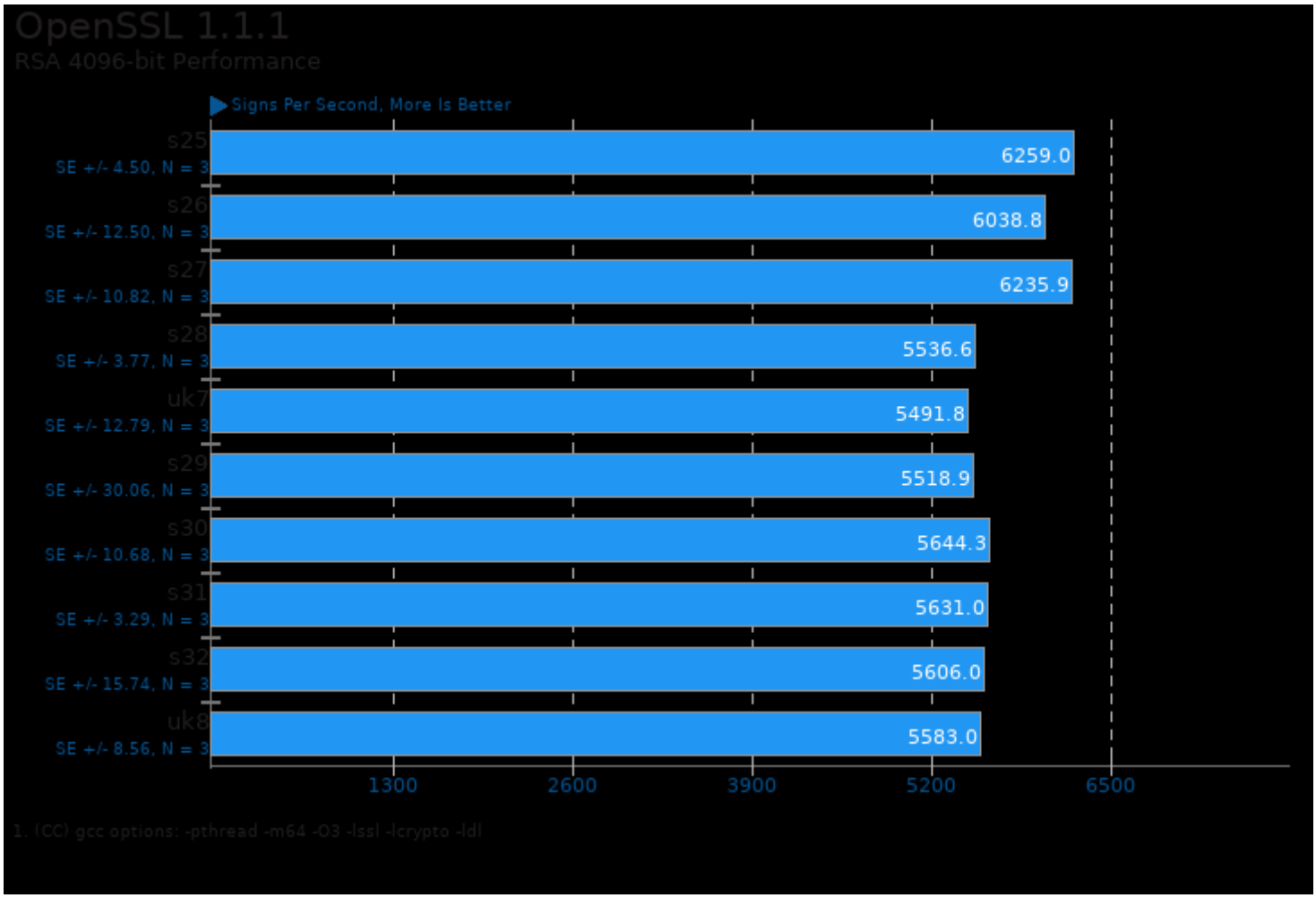

C-Ray 1.1
Total Time - 4K, 16 Rays Per Pixel
Seconds, Fewer Is Better
s25
SE +/- 0.26, N = 3
31.79
s26
SE +/- 0.45, N = 3
37.57
s27
SE +/- 0.30, N = 3
31.83
s28
SE +/- 0.01, N = 3
34.32
uk7
SE +/- 0.04, N = 3
35.52
s29
SE +/- 0.12, N = 3
35.37
s30
SE +/- 0.07, N = 3
34.61
s31
SE +/- 0.04, N = 3
34.50
s32
SE +/- 0.05, N = 3
34.66
uk8
SE +/- 0.02, N = 3
34.66
9
18
27
36
45
1. (CC) gcc options: -lm -lpthread -O3

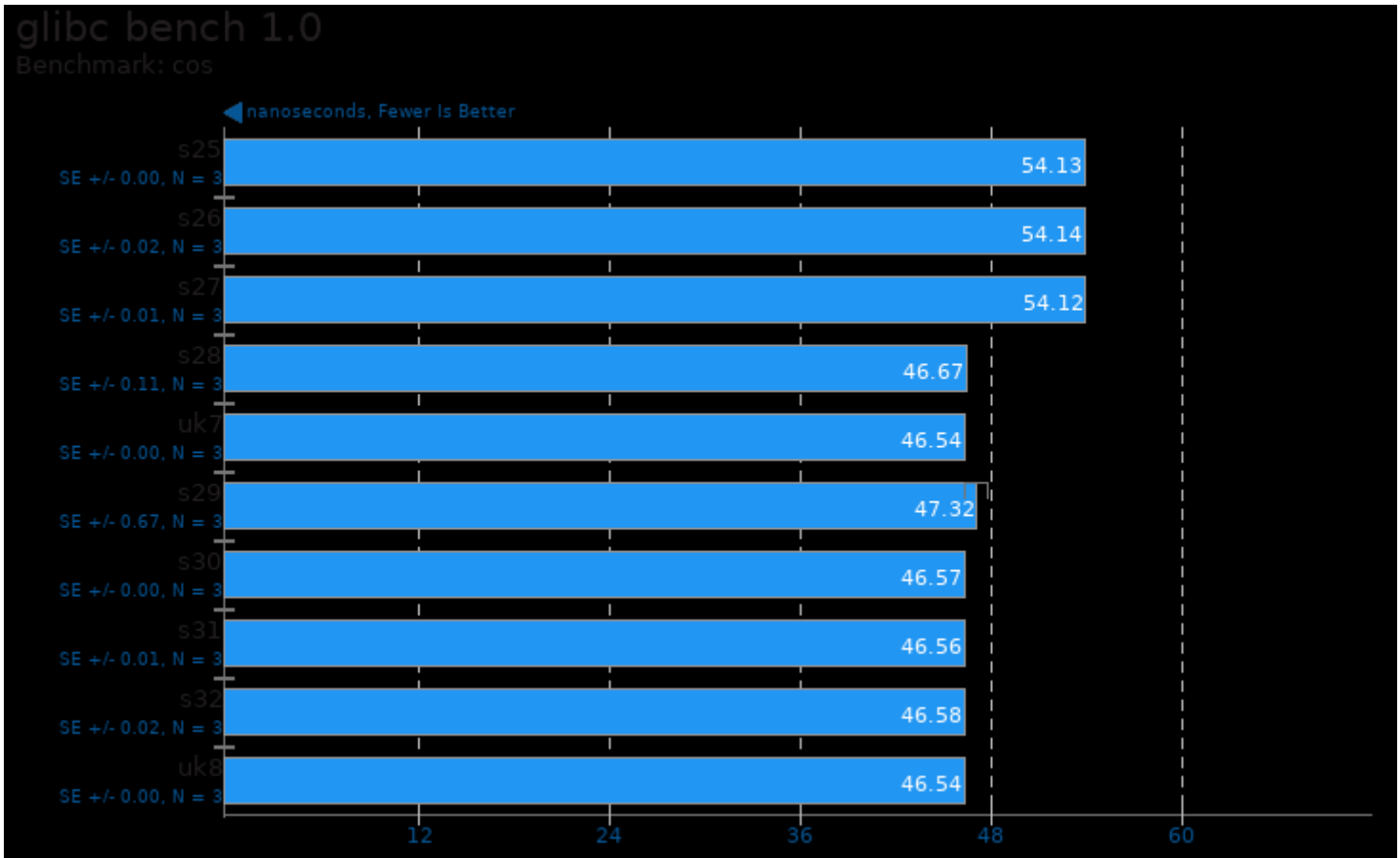

Gzip Compression
Linux Source Tree Archiving To .tar.gz
Seconds, Fewer Is Better
s25
SE +/- 0.05, N = 3
40.90
s26
SE +/- 0.06, N = 3
40.92
s27
SE +/- 0.04, N = 3
40.59
s28
SE +/- 0.01, N = 3
38.86
uk7
SE +/- 0.01, N = 3
38.85
s29
SE +/- 0.01, N = 3
38.83
s30
SE +/- 0.01, N = 3
38.92
s31
SE +/- 0.01, N = 3
38.84
s32
SE +/- 0.00, N = 3
38.84
uk8
SE +/- 0.02, N = 3
38.88
9
18
27
36
45

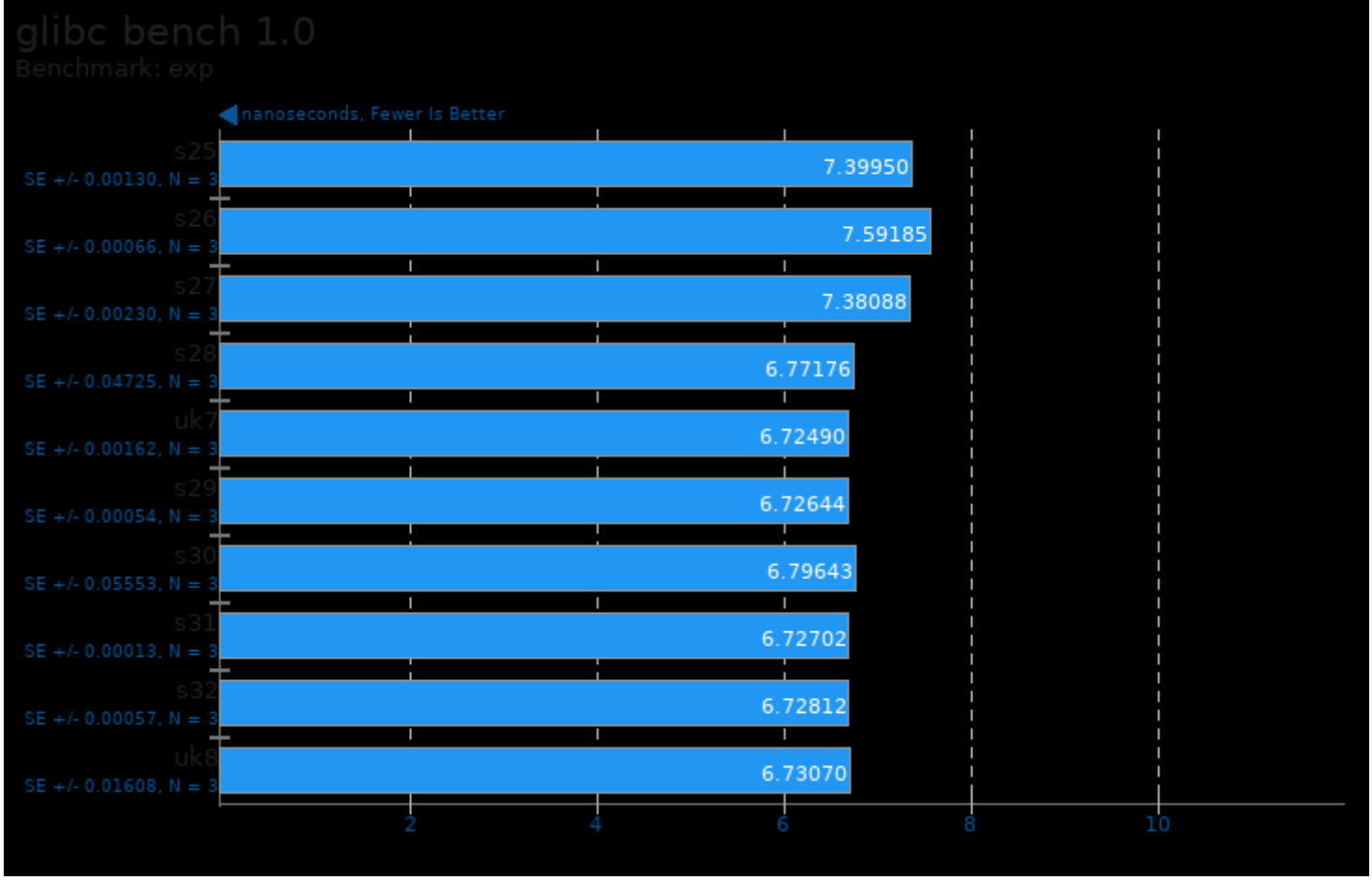

Minion 1.8
Benchmark: Graceful
Seconds, Fewer Is Better
s25
SE +/- 0.48, N = 3
51.37
s26
SE +/- 0.28, N = 3
51.62
s27
SE +/- 0.42, N = 3
50.45
s28
SE +/- 0.62, N = 3
45.73
uk7
SE +/- 0.62, N = 3
46.22
s29
SE +/- 0.44, N = 3
46.25
s30
SE +/- 0.45, N = 3
46.42
s31
SE +/- 0.41, N = 3
46.10
s32
SE +/- 0.55, N = 3
46.08
uk8
SE +/- 0.19, N = 3
46.56
12
24
36
48
60
1. (CXX) g++ options: -std=gnu++11 -O3 -fomit-frame-pointer -rdynamic

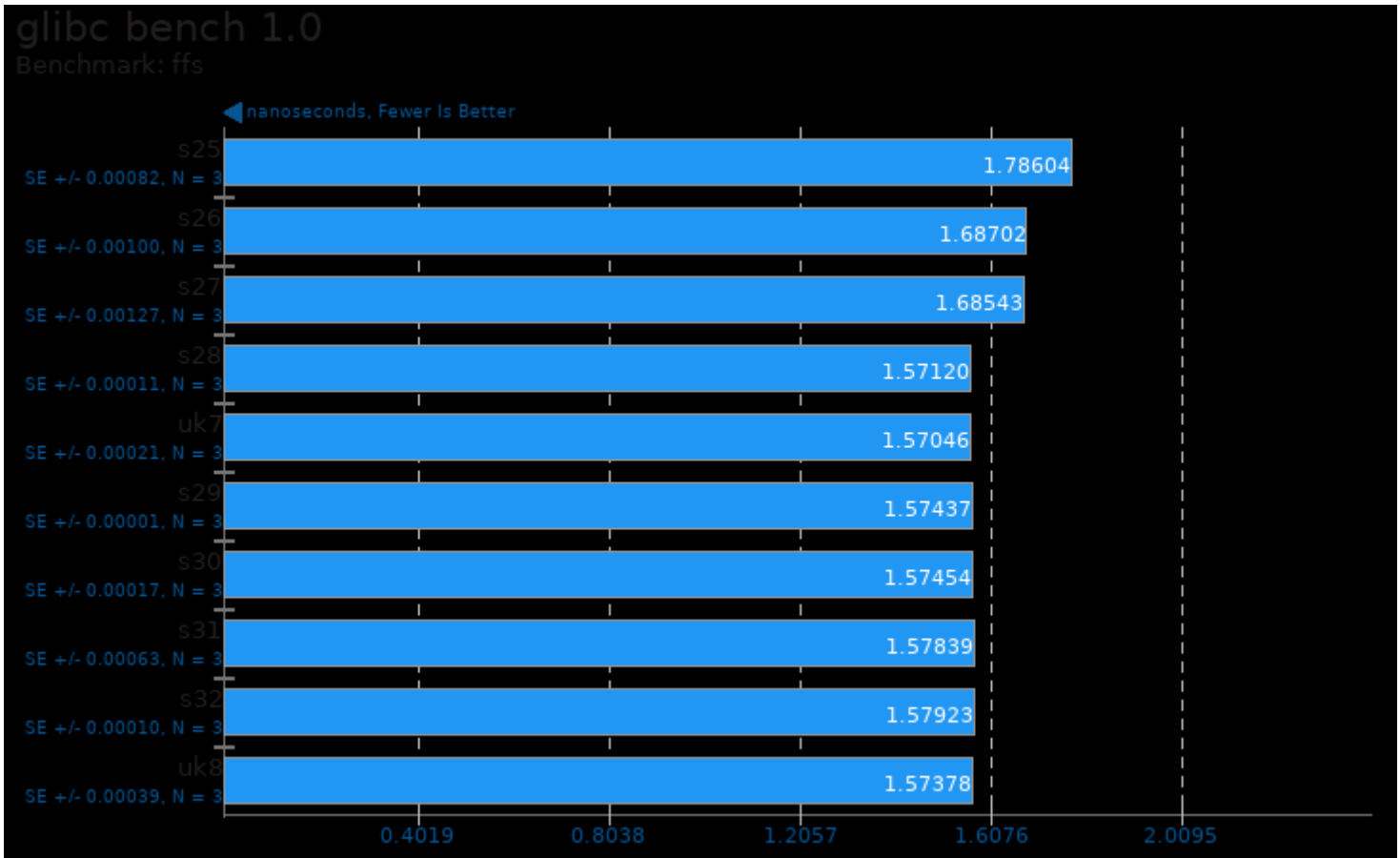

Minion 1.8
Benchmark: Solitaire
Seconds, Fewer Is Better
s25
SE +/- 0.57, N = 3
69.32
s26
SE +/- 0.73, N = 3
69.89
s27
SE +/- 0.86, N = 4
70.05
s28
SE +/- 0.76, N = 3
60.73
uk7
SE +/- 0.38, N = 3
61.42
s29
SE +/- 0.57, N = 3
61.67
s30
SE +/- 0.78, N = 3
61.80
s31
SE +/- 0.83, N = 3
62.02
s32
SE +/- 0.57, N = 3
61.12
uk8
SE +/- 0.51, N = 9
62.15
16
32
48
64
80
1. (CXX) g++ options: -std=gnu++11 -O3 -fomit-frame-pointer -rdynamic

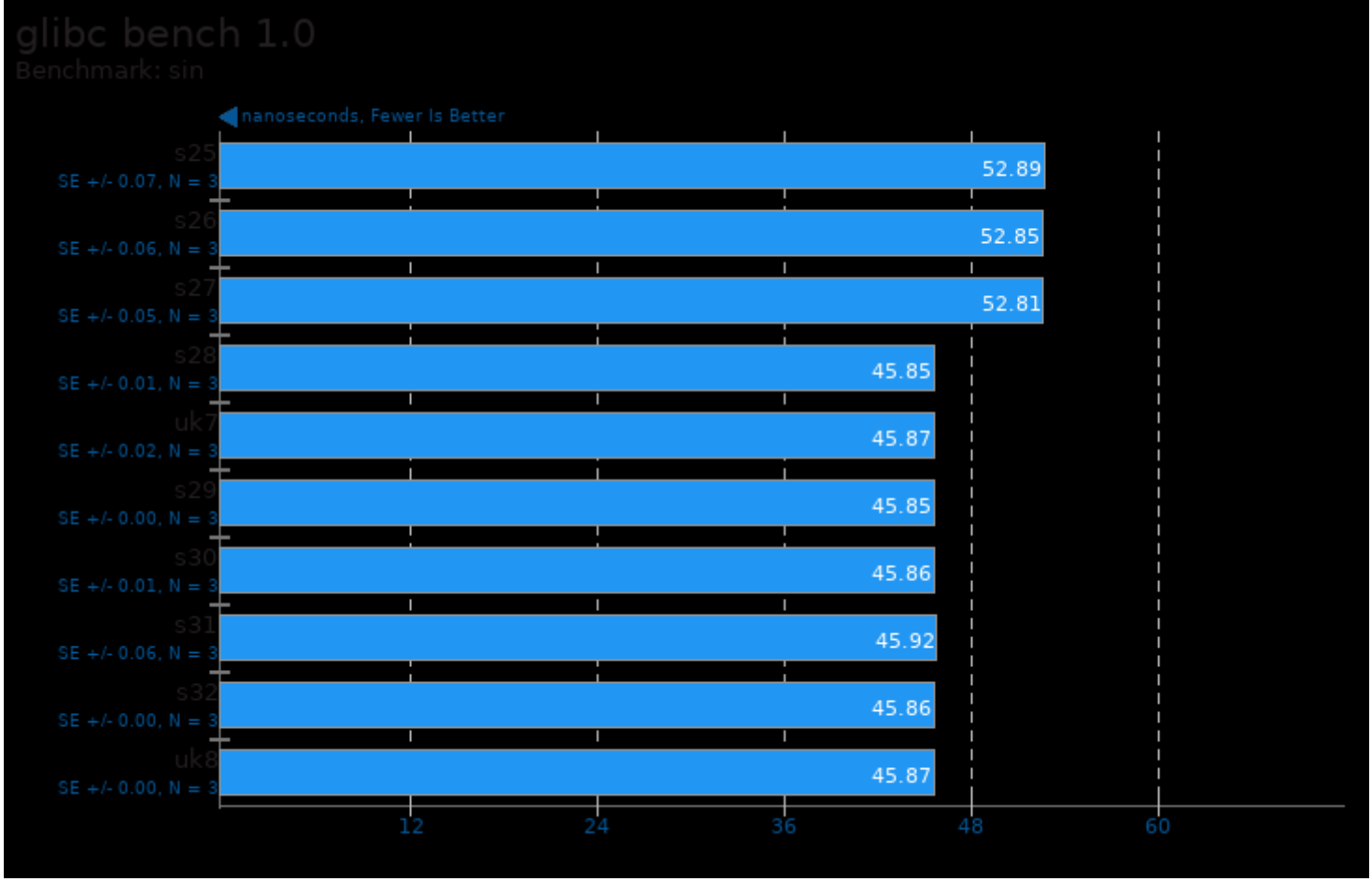

Minion 1.8
Benchmark: Quasigroup
Seconds, Fewer Is Better
s25
SE +/- 0.20, N = 3
110.19
s26
SE +/- 0.37, N = 3
110.52
s27
SE +/- 0.04, N = 3
110.64
s28
SE +/- 0.13, N = 3
111.01
uk7
SE +/- 0.16, N = 3
111.14
s29
SE +/- 0.41, N = 3
111.61
s30
SE +/- 0.02, N = 3
110.95
s31
SE +/- 0.08, N = 3
111.04
s32
SE +/- 0.27, N = 3
111.11
uk8
SE +/- 0.84, N = 3
111.69
30
60
90
120
150
1. (CXX) g++ options: -std=gnu++11 -O3 -fomit-frame-pointer -rdynamic

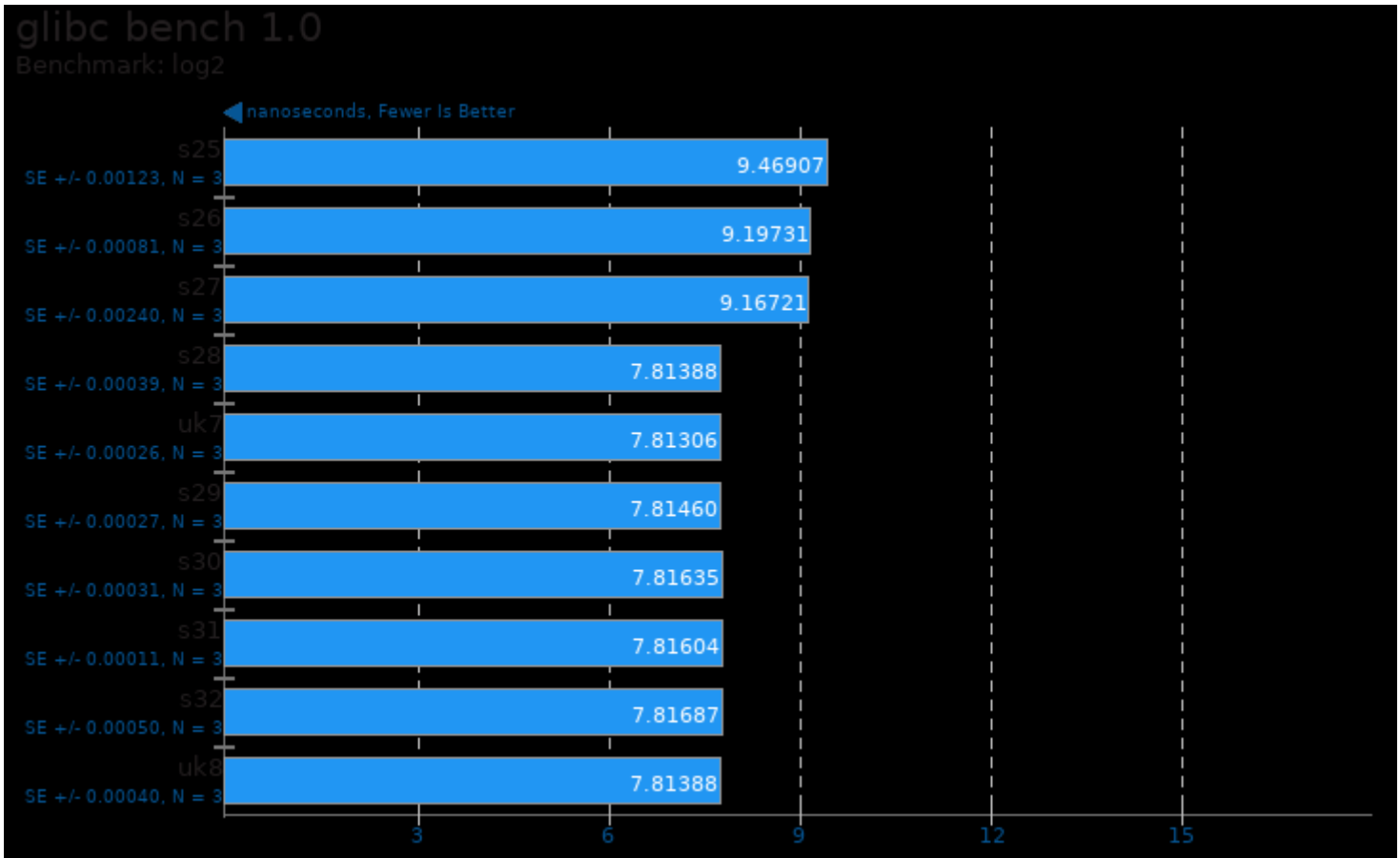

OpenSSL 1.1.1
RSA 4096-bit Performance
Signs Per Second, More Is Better
s25
SE +/- 4.50, N = 3
6259.0
s26
SE +/- 12.50, N = 3
6038.8
s27
SE +/- 10.82, N = 3
6235.9
s28
SE +/- 3.77, N = 3
5536.6
uk7
SE +/- 12.79, N = 3
5491.8
s29
SE +/- 30.06, N = 3
5518.9
s30
SE +/- 10.68, N = 3
5644.3
s31
SE +/- 3.29, N = 3
5631.0
s32
SE +/- 15.74, N = 3
5606.0
uk8
SE +/- 8.56, N = 3
5583.0
1300
2600
3900
5200
6500
1. (CC) gcc options: -pthread -m64 -O3 -lssl -lcrypto -ldl

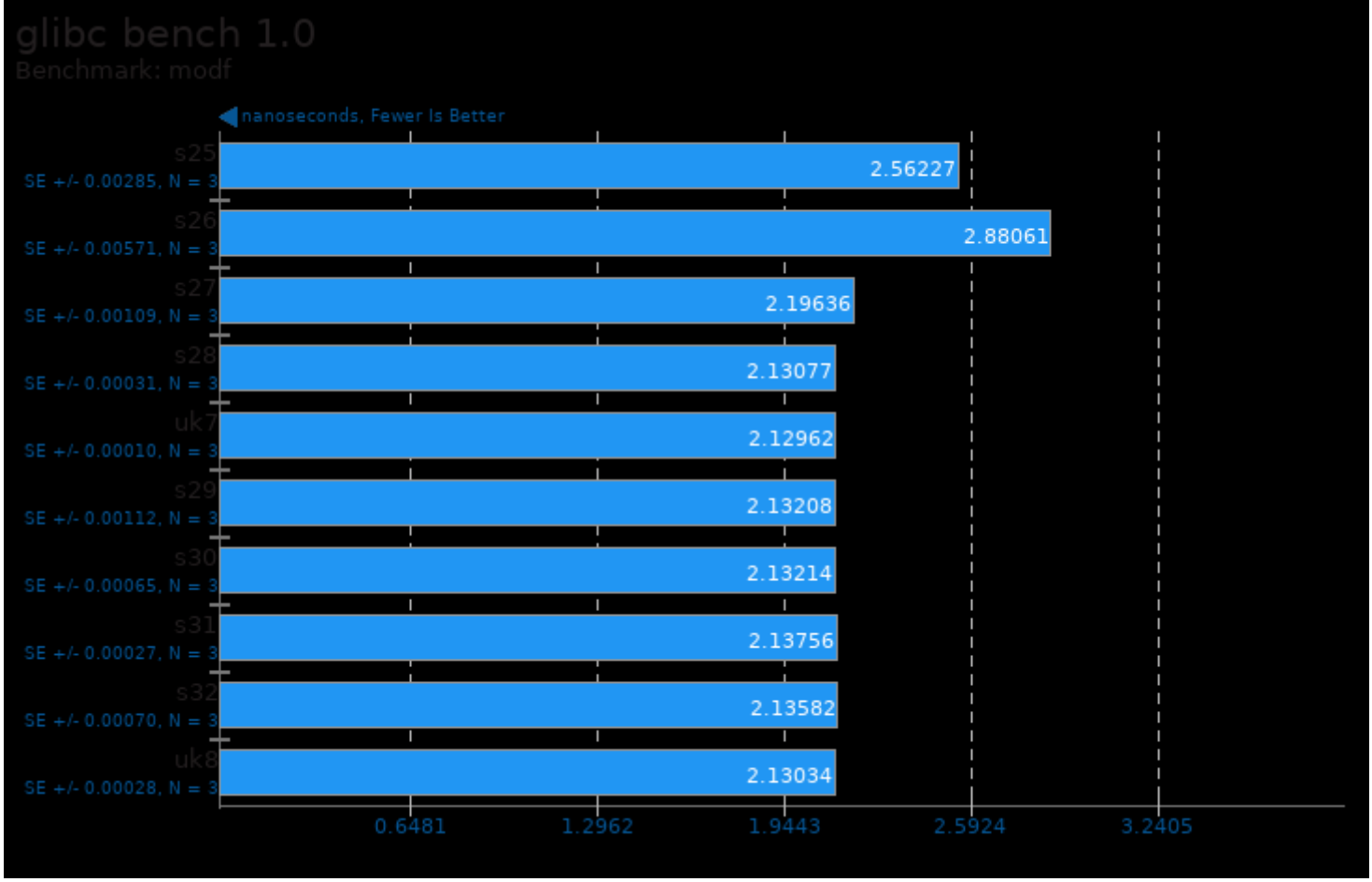

glibc bench 1.0
Benchmark: cos
nanoseconds, Fewer Is Better
s25
SE +/- 0.00, N = 3
54.13
s26
SE +/- 0.02, N = 3
54.14
s27
SE +/- 0.01, N = 3
54.12
s28
SE +/- 0.11, N = 3
46.67
uk7
SE +/- 0.00, N = 3
46.54
s29
SE +/- 0.67, N = 3
47.32
s30
SE +/- 0.00, N = 3
46.57
s31
SE +/- 0.01, N = 3
46.56
s32
SE +/- 0.02, N = 3
46.58
uk8
SE +/- 0.00, N = 3
46.54
12
24
36
48
60

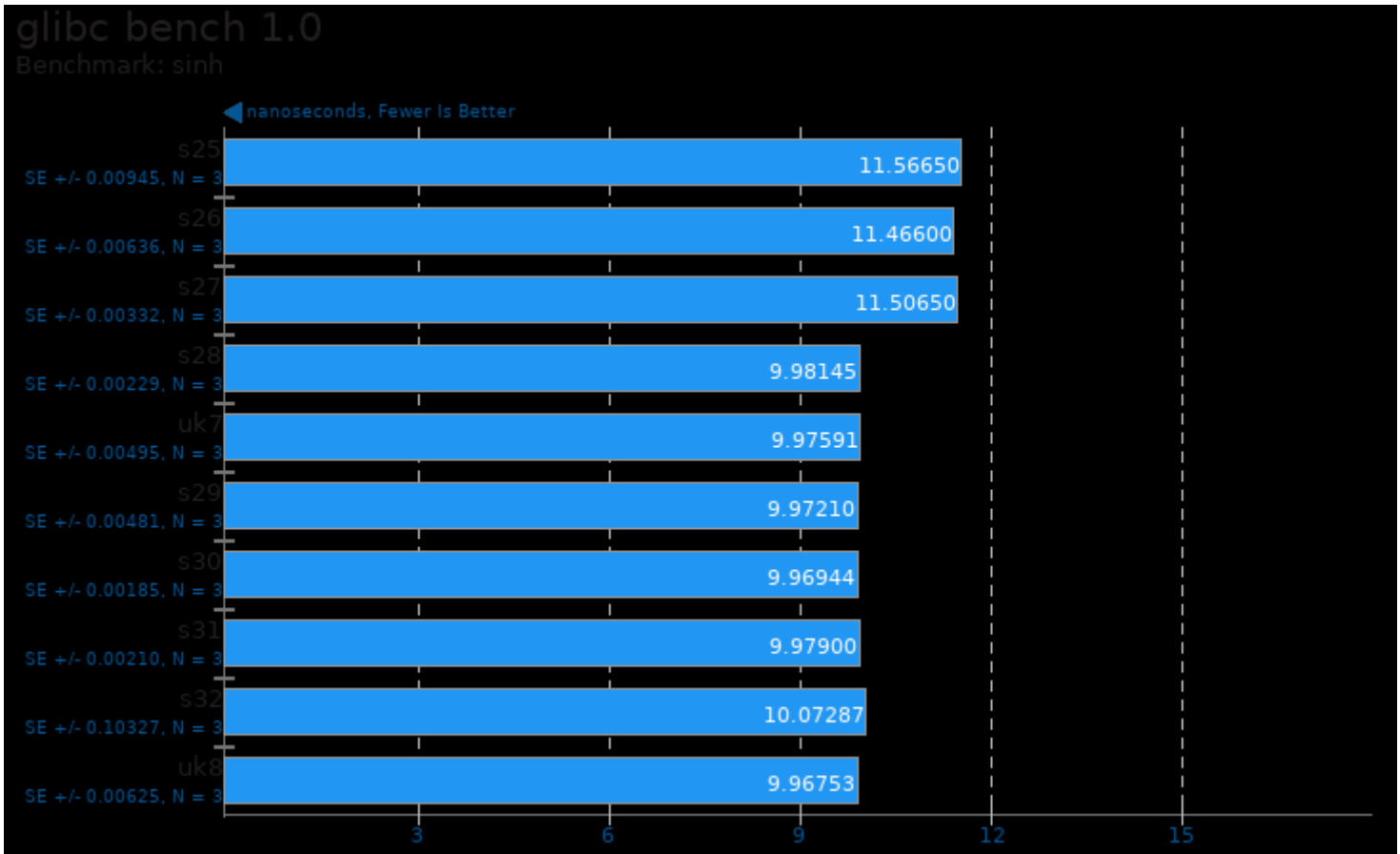

glibc bench 1.0
Benchmark: exp
nanoseconds, Fewer Is Better
s25
SE +/- 0.00130, N = 3
7.39950
s26
SE +/- 0.00066, N = 3
7.59185
s27
SE +/- 0.00230, N = 3
7.38088
s28
SE +/- 0.04725, N = 3
6.77176
uk7
SE +/- 0.00162, N = 3
6.72490
s29
SE +/- 0.00054, N = 3
6.72644
s30
SE +/- 0.05553, N = 3
6.79643
s31
SE +/- 0.00013, N = 3
6.72702
s32
SE +/- 0.00057, N = 3
6.72812
uk8
SE +/- 0.01608, N = 3
6.73070
2
4
6
8
10

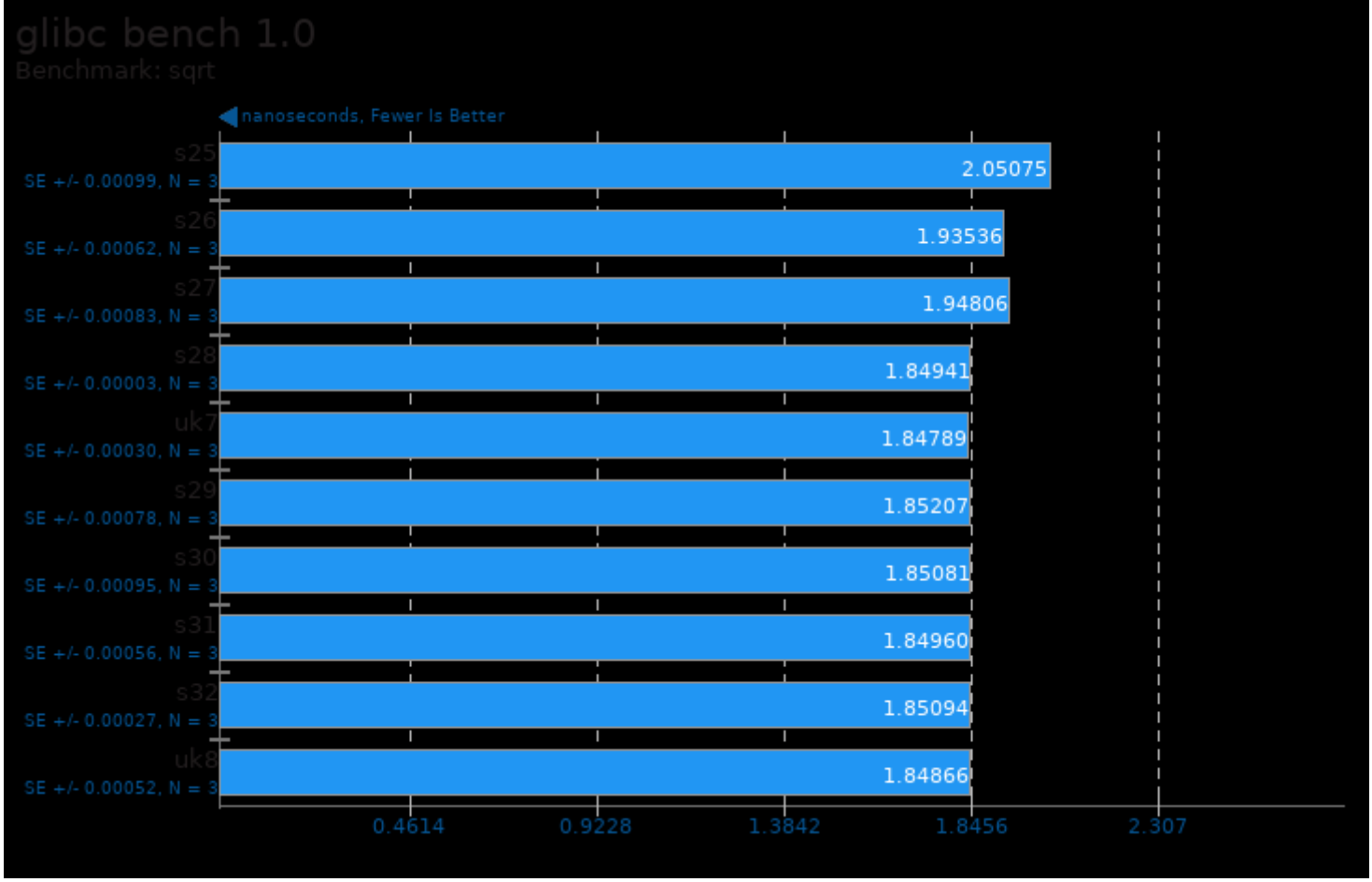

glibc bench 1.0
Benchmark: ffs
nanoseconds, Fewer Is Better
s25
SE +/- 0.00082, N = 3
1.78604
s26
SE +/- 0.00100, N = 3
1.68702
s27
SE +/- 0.00127, N = 3
1.68543
s28
SE +/- 0.00011, N = 3
1.57120
uk7
SE +/- 0.00021, N = 3
1.57046
s29
SE +/- 0.00001, N = 3
1.57437
s30
SE +/- 0.00017, N = 3
1.57454
s31
SE +/- 0.00063, N = 3
1.57839
s32
SE +/- 0.00010, N = 3
1.57923
uk8
SE +/- 0.00039, N = 3
1.57378
0.4019
0.8038
1.2057
1.6076
2.0095

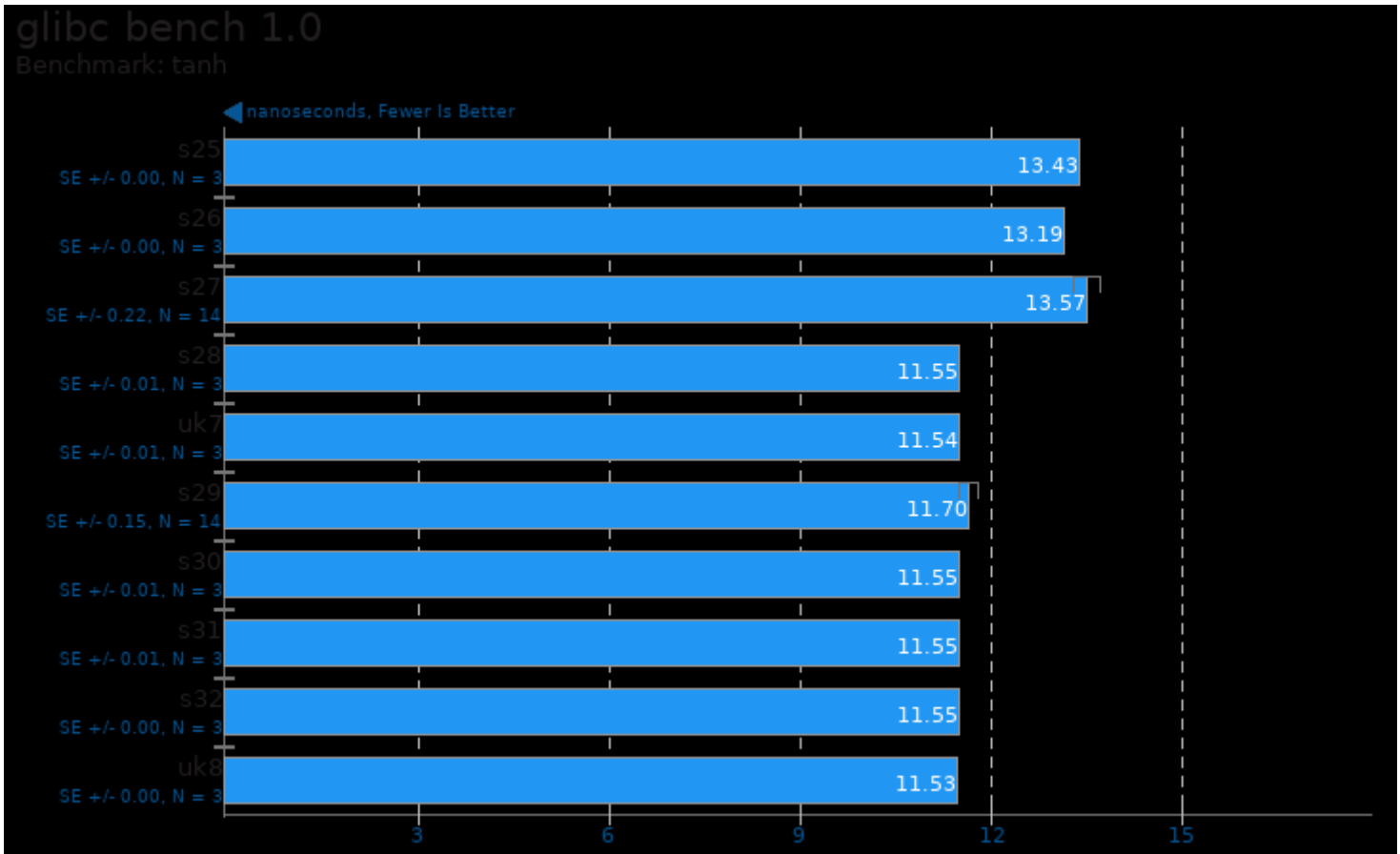

glibc bench 1.0
Benchmark: sin
nanoseconds, Fewer Is Better
s25
SE +/- 0.07, N = 3
52.89
s26
SE +/- 0.06, N = 3
52.85
s27
SE +/- 0.05, N = 3
52.81
s28
SE +/- 0.01, N = 3
45.85
uk7
SE +/- 0.02, N = 3
45.87
s29
SE +/- 0.00, N = 3
45.85
s30
SE +/- 0.01, N = 3
45.86
s31
SE +/- 0.06, N = 3
45.92
s32
SE +/- 0.00, N = 3
45.86
uk8
SE +/- 0.00, N = 3
45.87
12
24
36
48
60

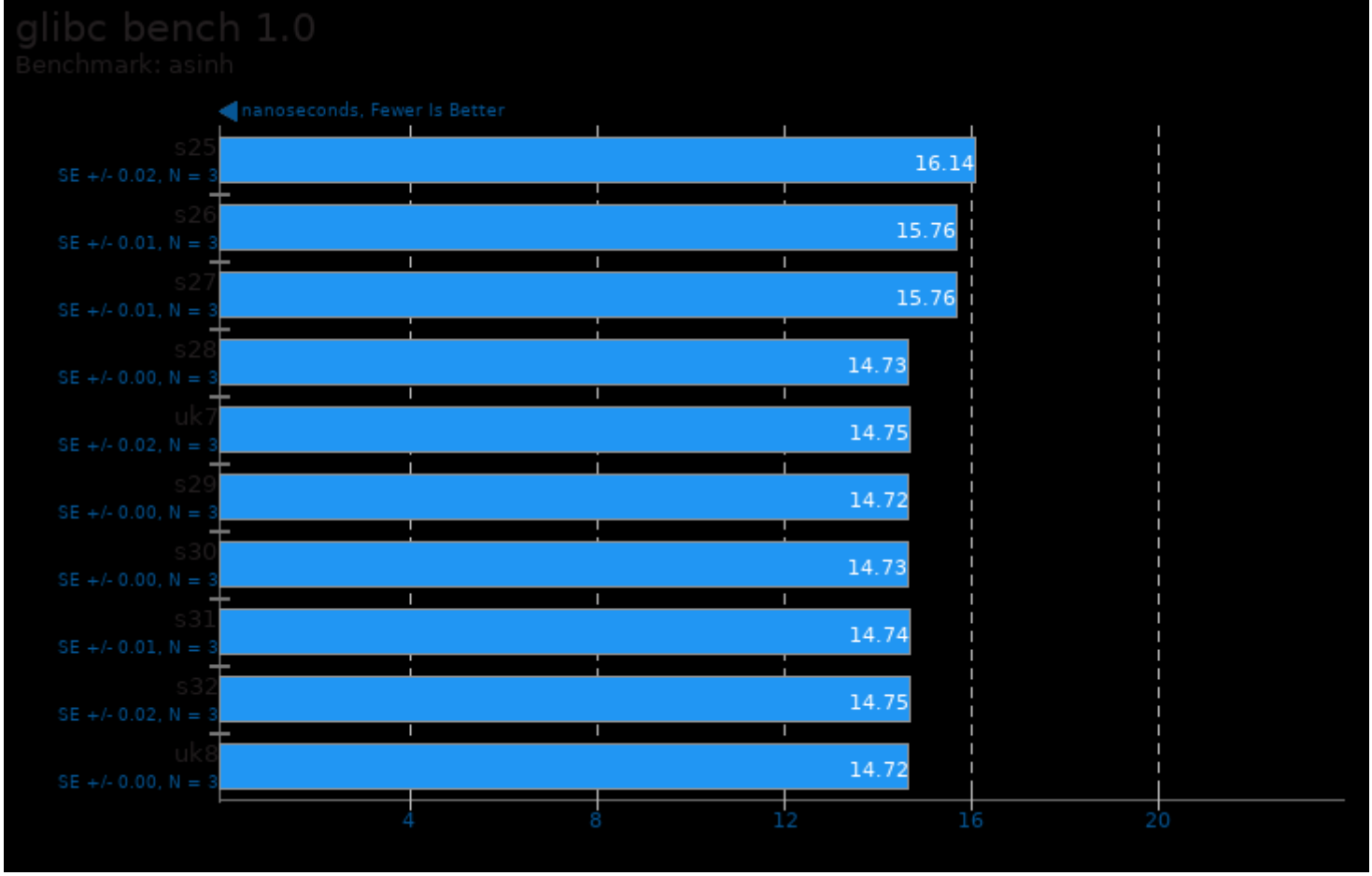

glibc bench 1.0
Benchmark: log2
nanoseconds, Fewer Is Better
s25
SE +/- 0.00123, N = 3
9.46907
s26
SE +/- 0.00081, N = 3
9.19731
s27
SE +/- 0.00240, N = 3
9.16721
s28
SE +/- 0.00039, N = 3
7.81388
uk7
SE +/- 0.00026, N = 3
7.81306
s29
SE +/- 0.00027, N = 3
7.81460
s30
SE +/- 0.00031, N = 3
7.81635
s31
SE +/- 0.00011, N = 3
7.81604
s32
SE +/- 0.00050, N = 3
7.81687
uk8
SE +/- 0.00040, N = 3
7.81388
3
6
9
12
15

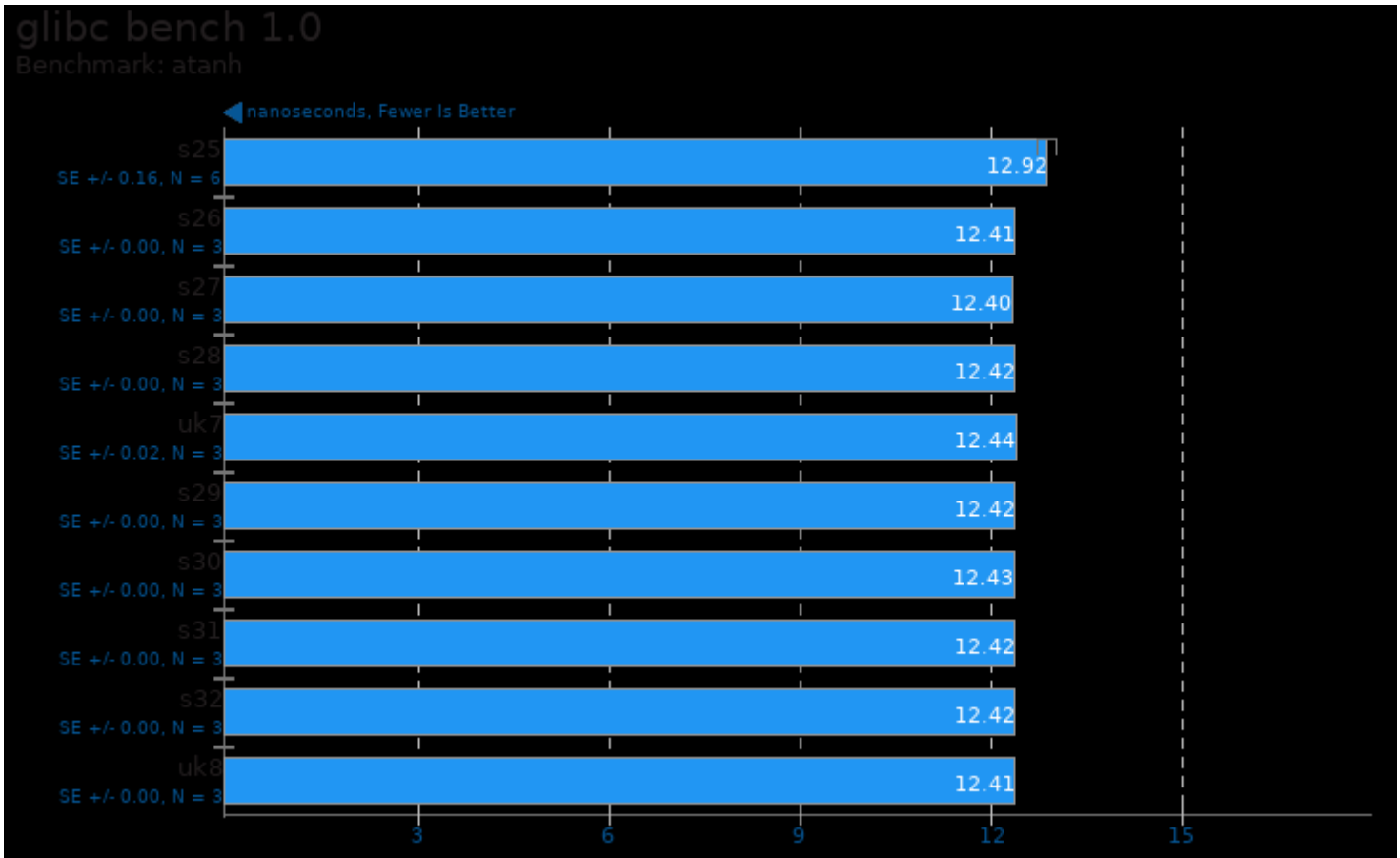

glibc bench 1.0
Benchmark: modf
nanoseconds, Fewer Is Better
s25
SE +/- 0.00285, N = 3
2.56227
s26
SE +/- 0.00571, N = 3
2.88061
s27
SE +/- 0.00109, N = 3
2.19636
s28
SE +/- 0.00031, N = 3
2.13077
uk7
SE +/- 0.00010, N = 3
2.12962
s29
SE +/- 0.00112, N = 3
2.13208
s30
SE +/- 0.00065, N = 3
2.13214
s31
SE +/- 0.00027, N = 3
2.13756
s32
SE +/- 0.00070, N = 3
2.13582
uk8
SE +/- 0.00028, N = 3
2.13034
0.6481
1.2962
1.9443
2.5924
3.2405

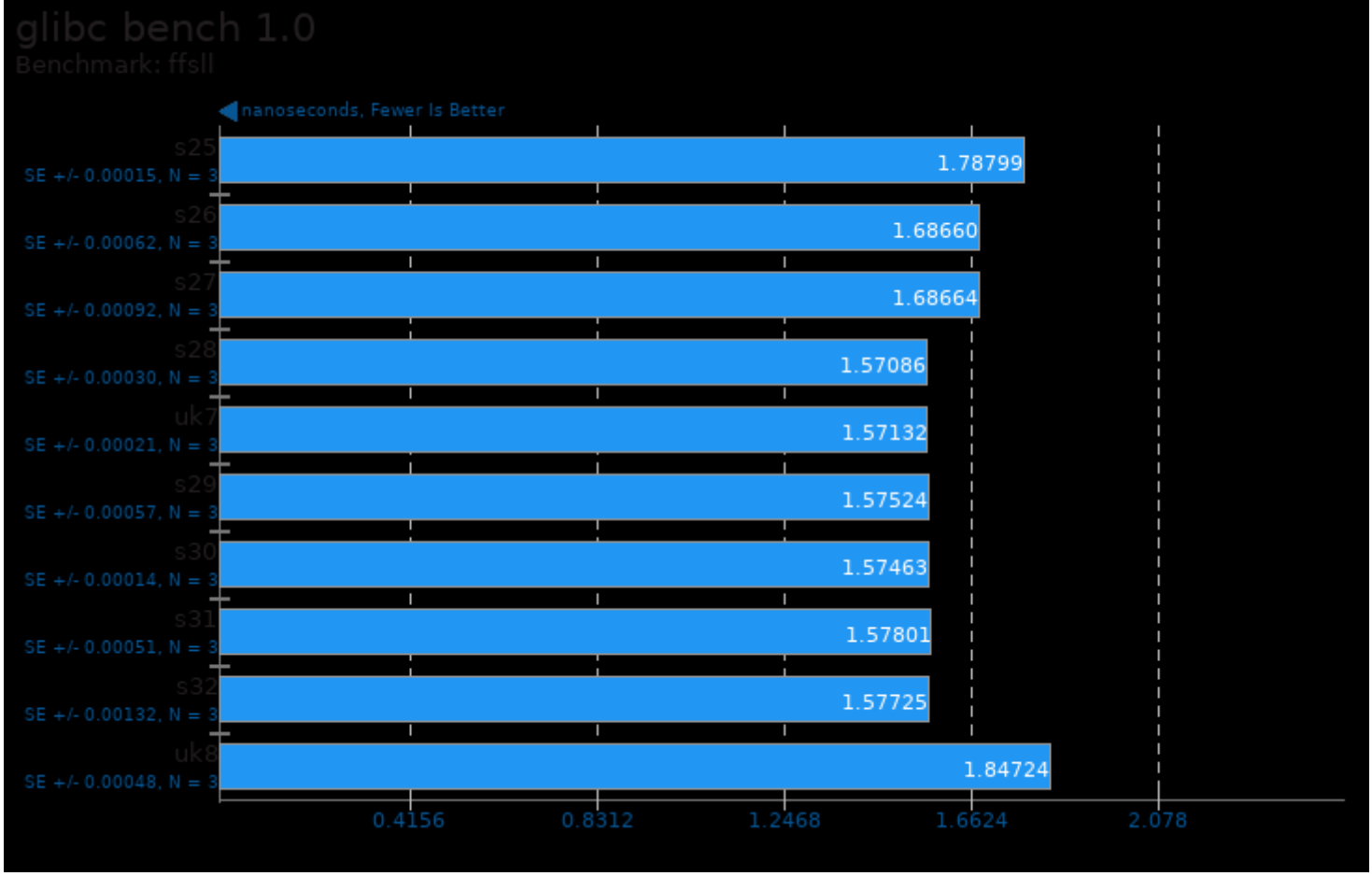

glibc bench 1.0
Benchmark: sinh
nanoseconds, Fewer Is Better
s25
SE +/- 0.00945, N = 3
11.56650
s26
SE +/- 0.00636, N = 3
11.46600
s27
SE +/- 0.00332, N = 3
11.50650
s28
SE +/- 0.00229, N = 3
9.98145
uk7
SE +/- 0.00495, N = 3
9.97591
s29
SE +/- 0.00481, N = 3
9.97210
s30
SE +/- 0.00185, N = 3
9.96944
s31
SE +/- 0.00210, N = 3
9.97900
s32
SE +/- 0.10327, N = 3
10.07287
uk8
SE +/- 0.00625, N = 3
9.96753
3
6
9
12
15

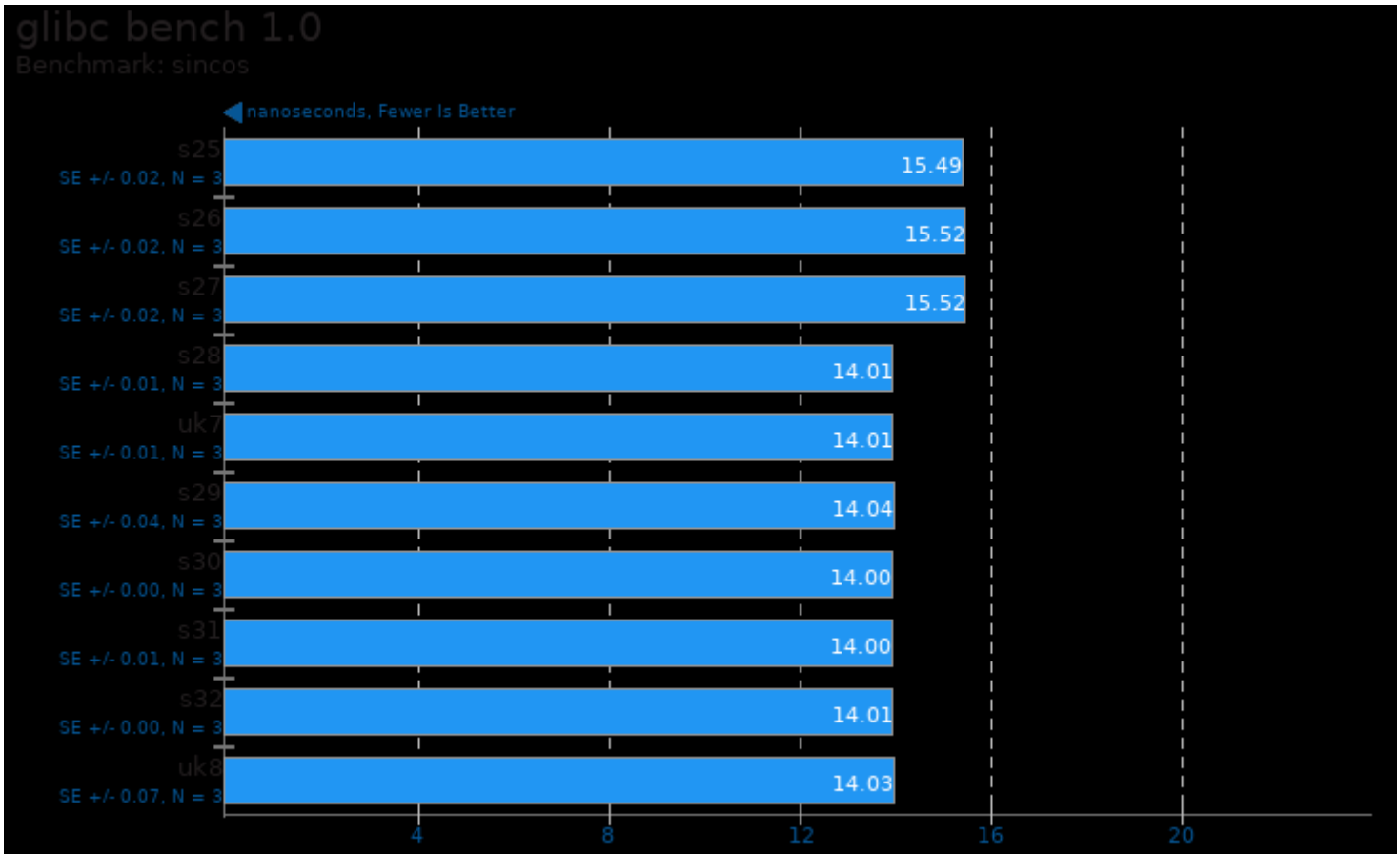

glibc bench 1.0
Benchmark: sqrt
nanoseconds, Fewer Is Better
s25
SE +/- 0.00099, N = 3
2.05075
s26
SE +/- 0.00062, N = 3
1.93536
s27
SE +/- 0.00083, N = 3
1.94806
s28
SE +/- 0.00003, N = 3
1.84941
uk7
SE +/- 0.00030, N = 3
1.84789
s29
SE +/- 0.00078, N = 3
1.85207
s30
SE +/- 0.00095, N = 3
1.85081
s31
SE +/- 0.00056, N = 3
1.84960
s32
SE +/- 0.00027, N = 3
1.85094
uk8
SE +/- 0.00052, N = 3
1.84866
0.4614
0.9228
1.3842
1.8456
2.307

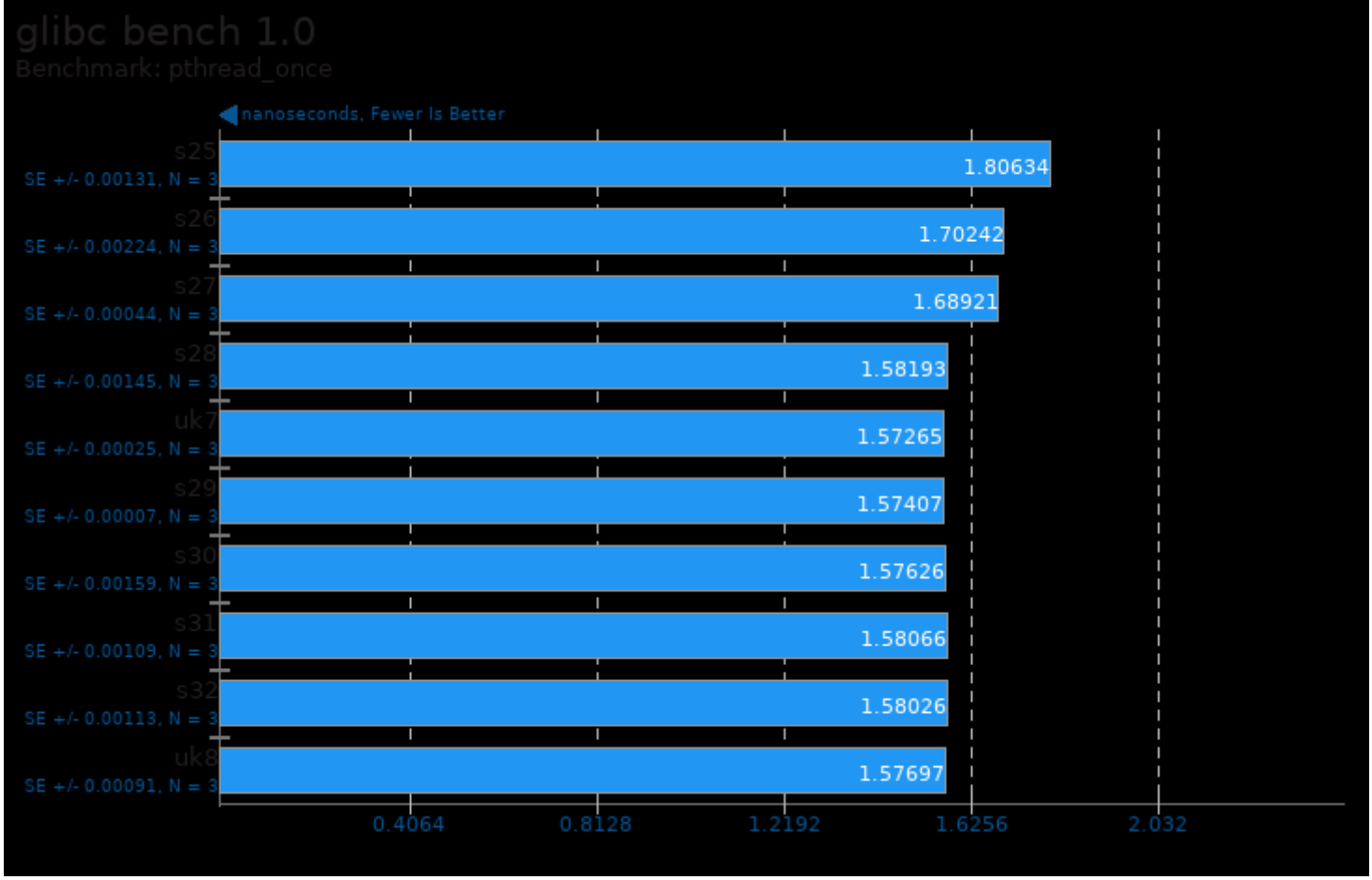

glibc bench 1.0
Benchmark: tanh
nanoseconds, Fewer Is Better
s25
SE +/- 0.00, N = 3
13.43
s26
SE +/- 0.00, N = 3
13.19
s27
SE +/- 0.22, N = 14
13.57
s28
SE +/- 0.01, N = 3
11.55
uk7
SE +/- 0.01, N = 3
11.54
s29
SE +/- 0.15, N = 14
11.70
s30
SE +/- 0.01, N = 3
11.55
s31
SE +/- 0.01, N = 3
11.55
s32
SE +/- 0.00, N = 3
11.55
uk8
SE +/- 0.00, N = 3
11.53
3
6
9
12
15

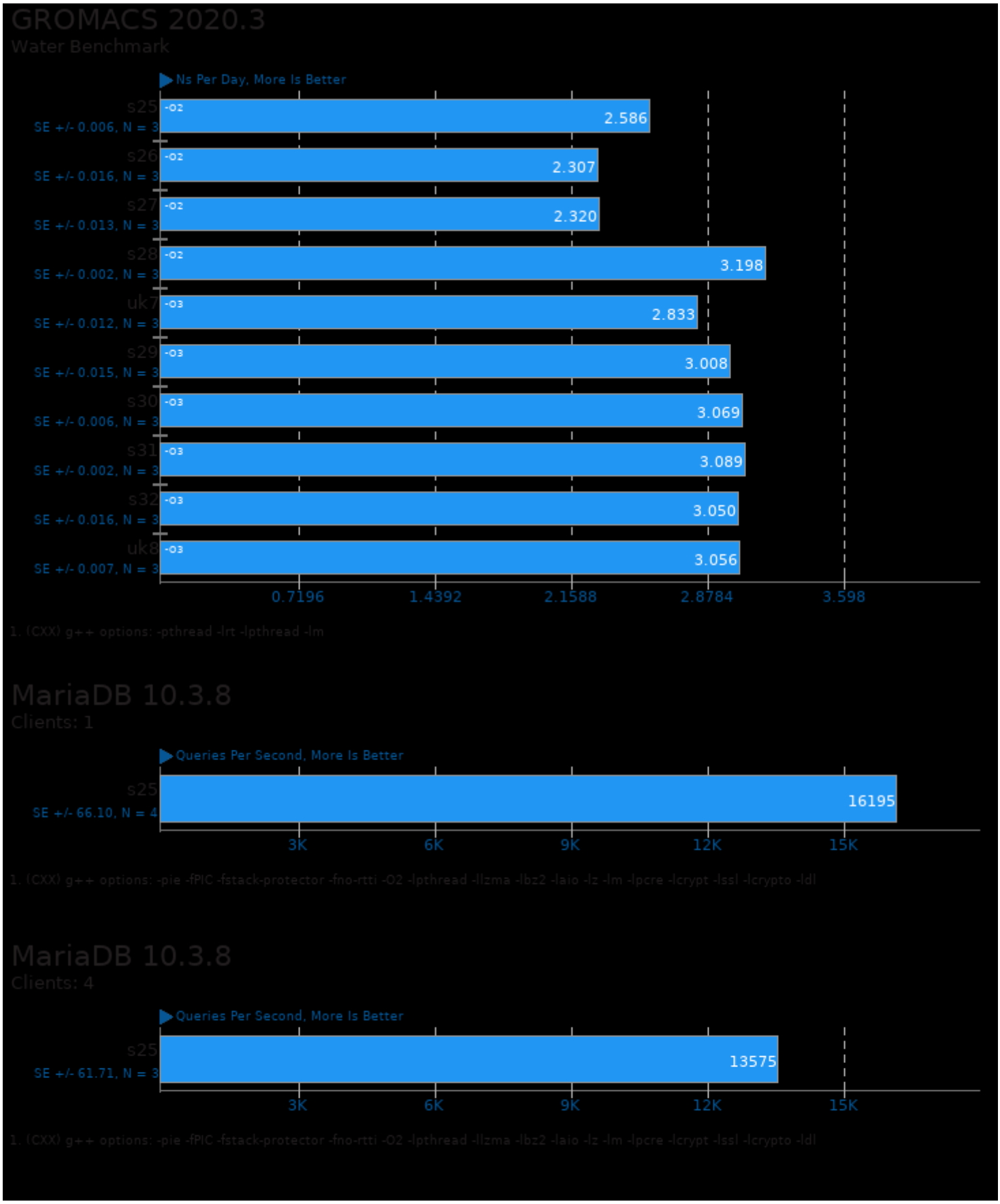

glibc bench 1.0
Benchmark: asinh
nanoseconds, Fewer Is Better
s25
SE +/- 0.02, N = 3
16.14
s26
SE +/- 0.01, N = 3
15.76
s27
SE +/- 0.01, N = 3
15.76
s28
SE +/- 0.00, N = 3
14.73
uk7
SE +/- 0.02, N = 3
14.75
s29
SE +/- 0.00, N = 3
14.72
s30
SE +/- 0.00, N = 3
14.73
s31
SE +/- 0.01, N = 3
14.74
s32
SE +/- 0.02, N = 3
14.75
uk8
SE +/- 0.00, N = 3
14.72
4
8
12
16
20

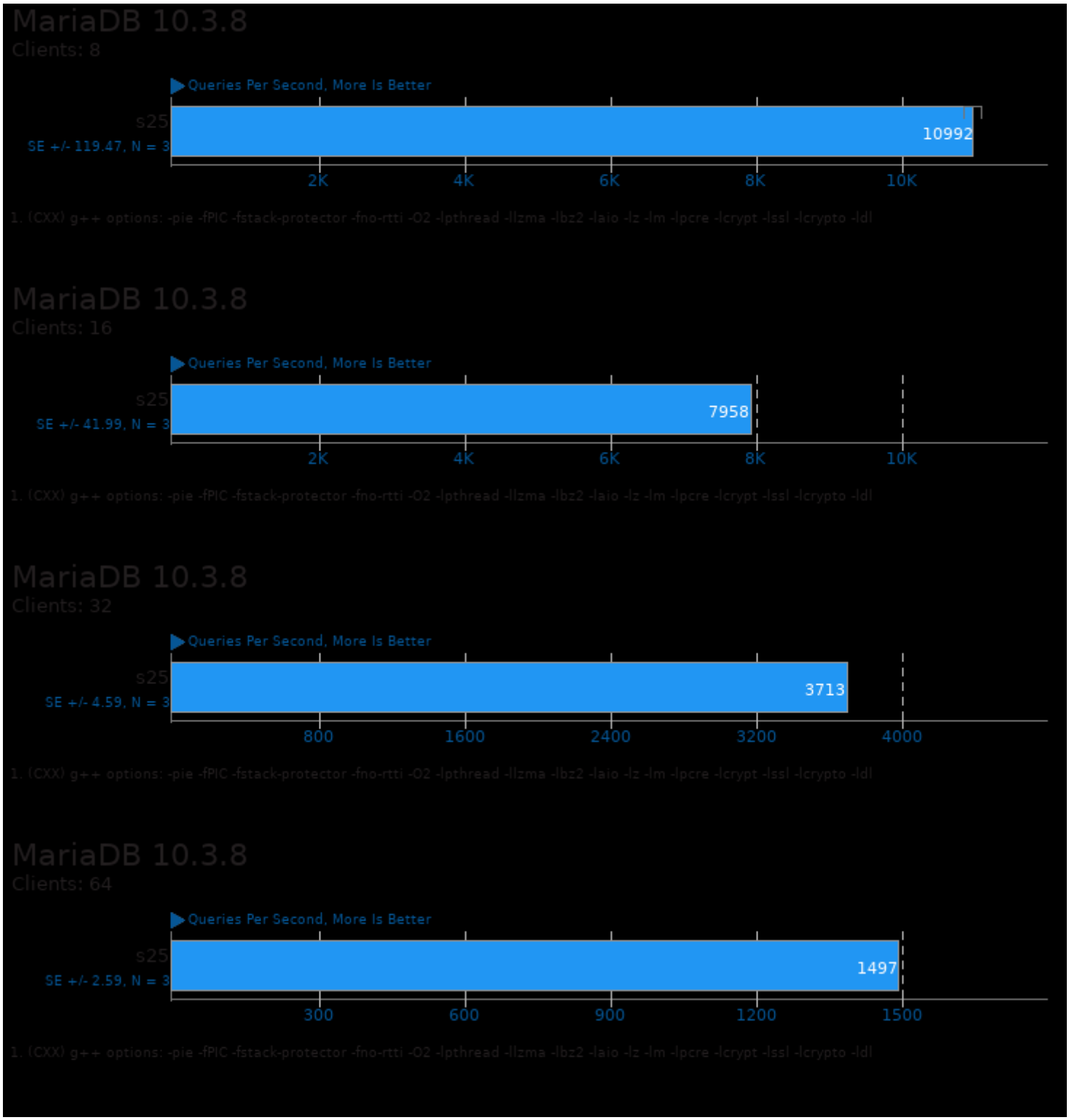

glibc bench 1.0
Benchmark: atanh
nanoseconds, Fewer Is Better
s25
SE +/- 0.16, N = 6
12.92
s26
SE +/- 0.00, N = 3
12.41
s27
SE +/- 0.00, N = 3
12.40
s28
SE +/- 0.00, N = 3
12.42
uk7
SE +/- 0.02, N = 3
12.44
s29
SE +/- 0.00, N = 3
12.42
s30
SE +/- 0.00, N = 3
12.43
s31
SE +/- 0.00, N = 3
12.42
s32
SE +/- 0.00, N = 3
12.42
uk8
SE +/- 0.00, N = 3
12.41
3
6
9
12
15

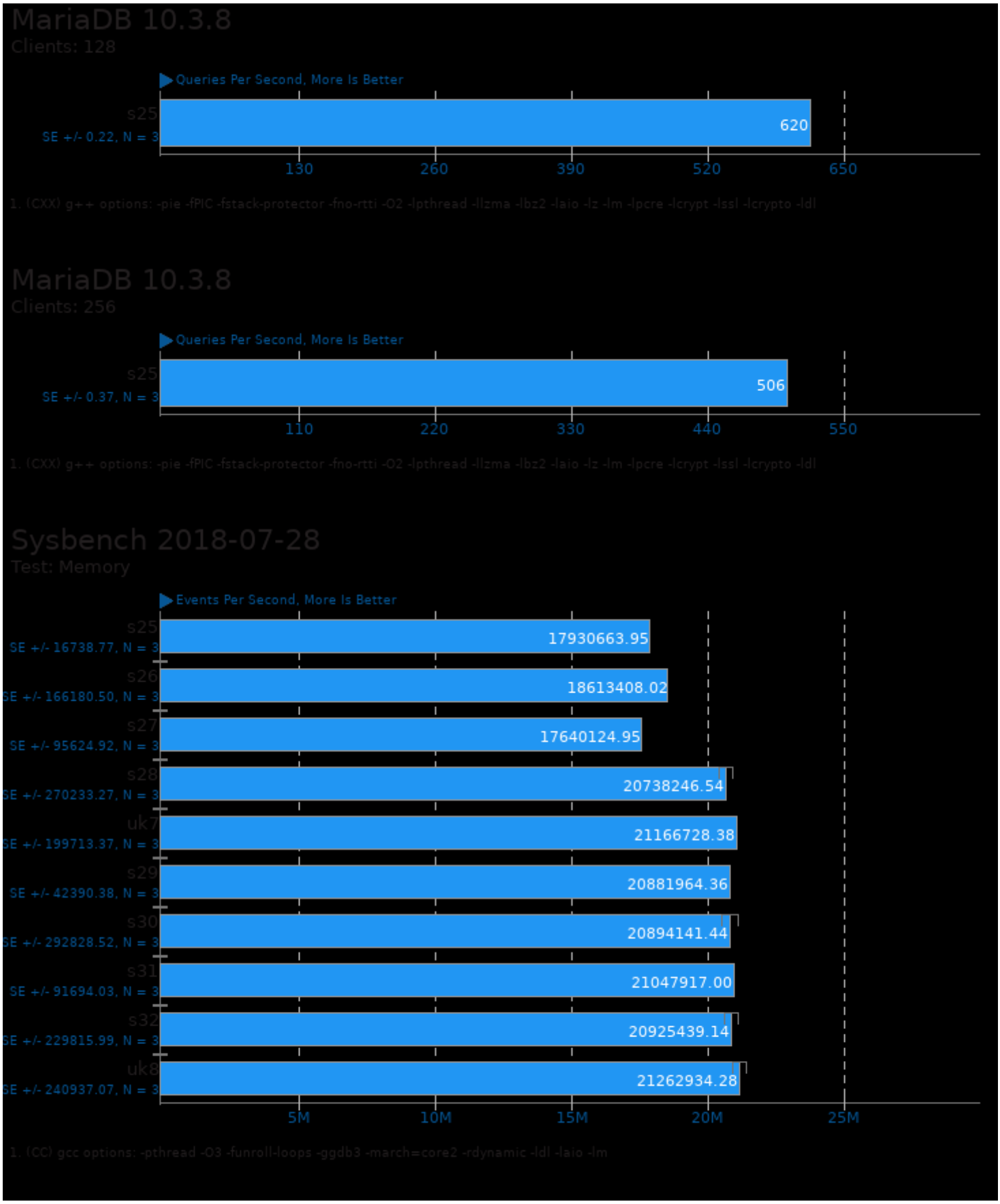

glibc bench 1.0
Benchmark: ffsll
nanoseconds, Fewer Is Better
s25
SE +/- 0.00015, N = 3
1.78799
s26
SE +/- 0.00062, N = 3
1.68660
s27
SE +/- 0.00092, N = 3
1.68664
s28
SE +/- 0.00030, N = 3
1.57086
uk7
SE +/- 0.00021, N = 3
1.57132
s29
SE +/- 0.00057, N = 3
1.57524
s30
SE +/- 0.00014, N = 3
1.57463
s31
SE +/- 0.00051, N = 3
1.57801
s32
SE +/- 0.00132, N = 3
1.57725
uk8
SE +/- 0.00048, N = 3
1.84724
0.4156
0.8312
1.2468
1.6624
2.078

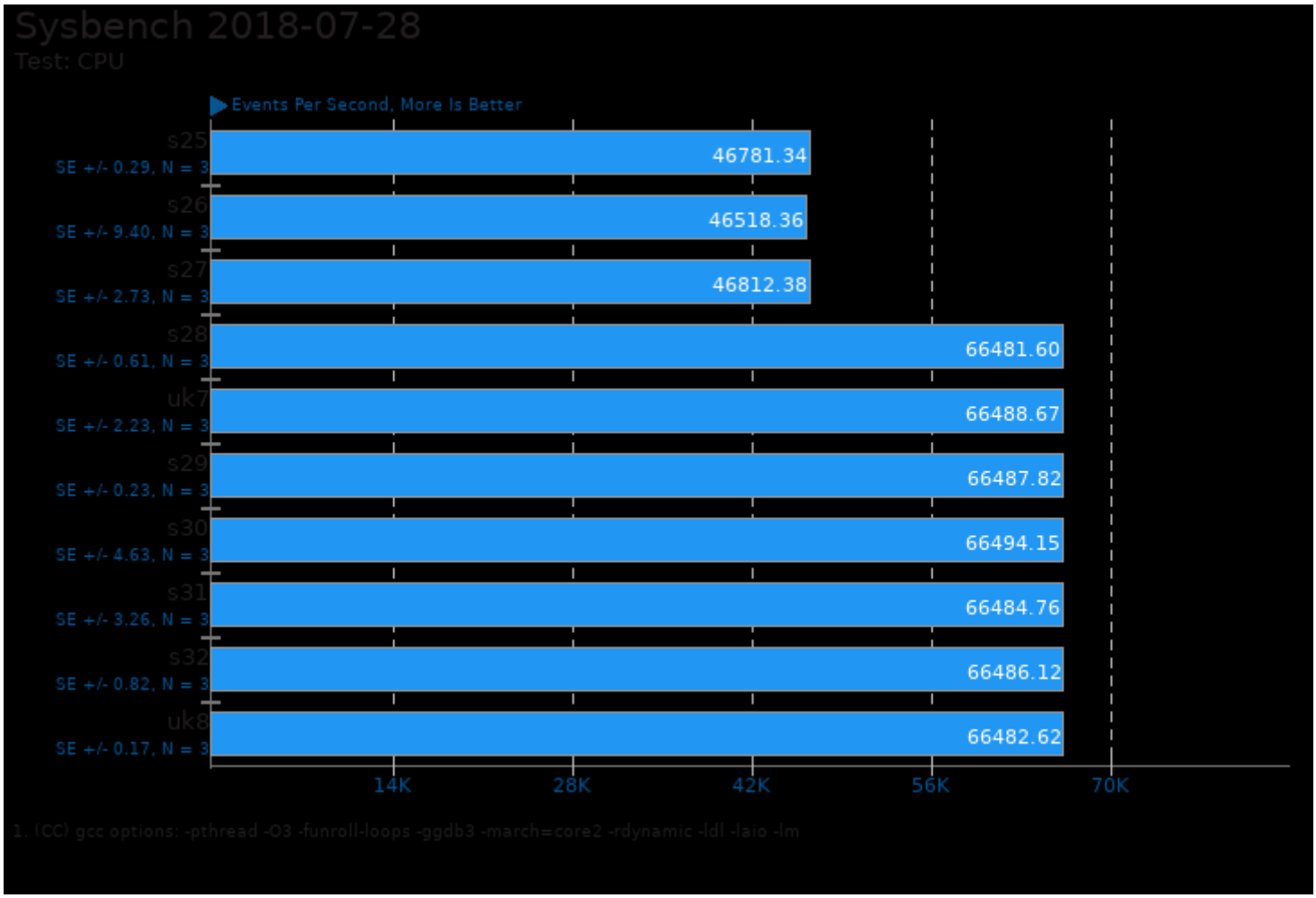

glibc bench 1.0
Benchmark: sincos
nanoseconds, Fewer Is Better
s25
SE +/- 0.02, N = 3
15.49
s26
SE +/- 0.02, N = 3
15.52
s27
SE +/- 0.02, N = 3
15.52
s28
SE +/- 0.01, N = 3
14.01
uk7
SE +/- 0.01, N = 3
14.01
s29
SE +/- 0.04, N = 3
14.04
s30
SE +/- 0.00, N = 3
14.00
s31
SE +/- 0.01, N = 3
14.00
s32
SE +/- 0.00, N = 3
14.01
uk8
SE +/- 0.07, N = 3
14.03
4
8
12
16
20

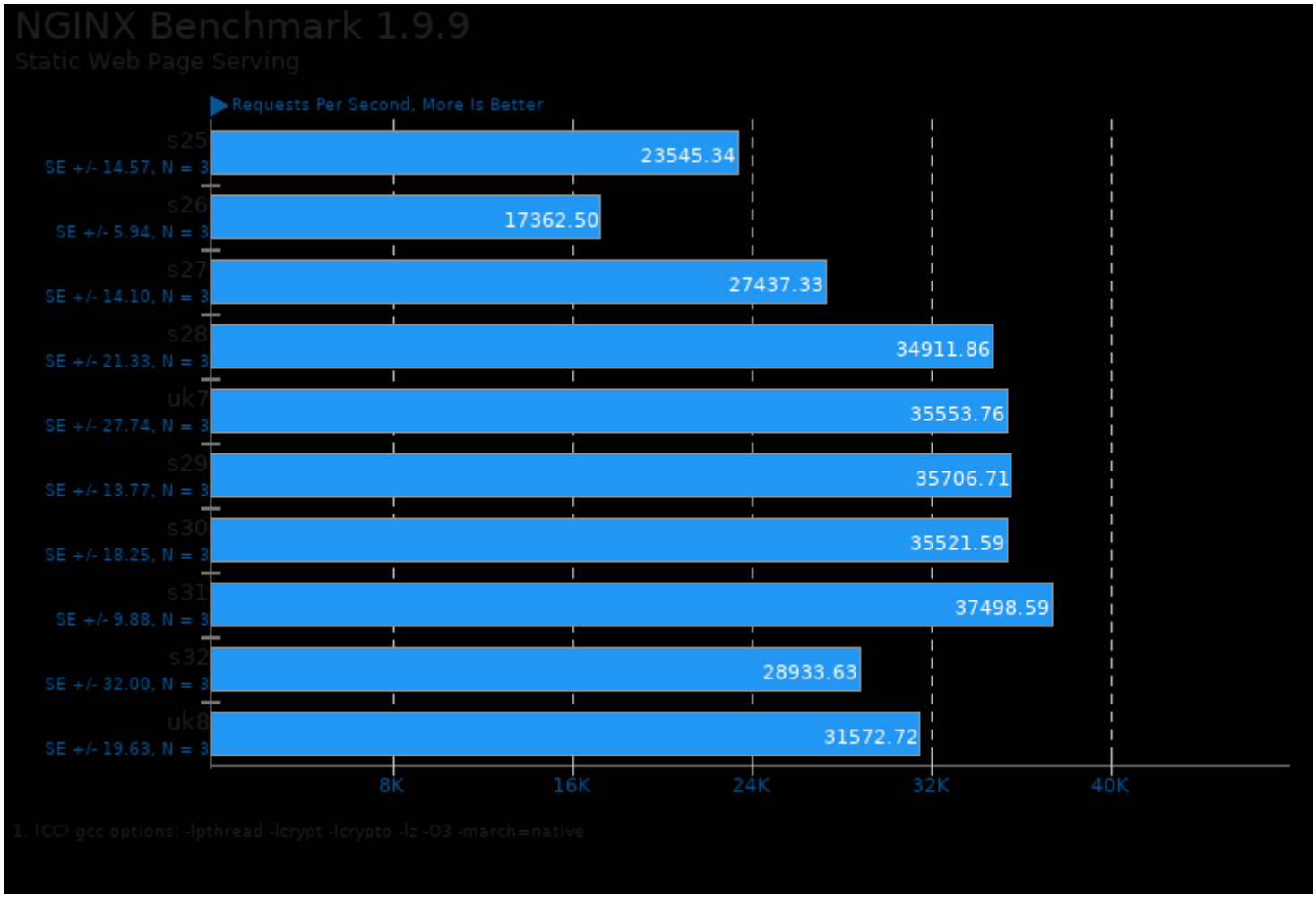

glibc bench 1.0
Benchmark: pthread_once
nanoseconds, Fewer Is Better
s25
SE +/- 0.00131, N = 3
1.80634
s26
SE +/- 0.00224, N = 3
1.70242
s27
SE +/- 0.00044, N = 3
1.68921
s28
SE +/- 0.00145, N = 3
1.58193
uk7
SE +/- 0.00025, N = 3
1.57265
s29
SE +/- 0.00007, N = 3
1.57407
s30
SE +/- 0.00159, N = 3
1.57626
s31
SE +/- 0.00109, N = 3
1.58066
s32
SE +/- 0.00113, N = 3
1.58026
uk8
SE +/- 0.00091, N = 3
1.57697
0.4064
0.8128
1.2192
1.6256
2.032

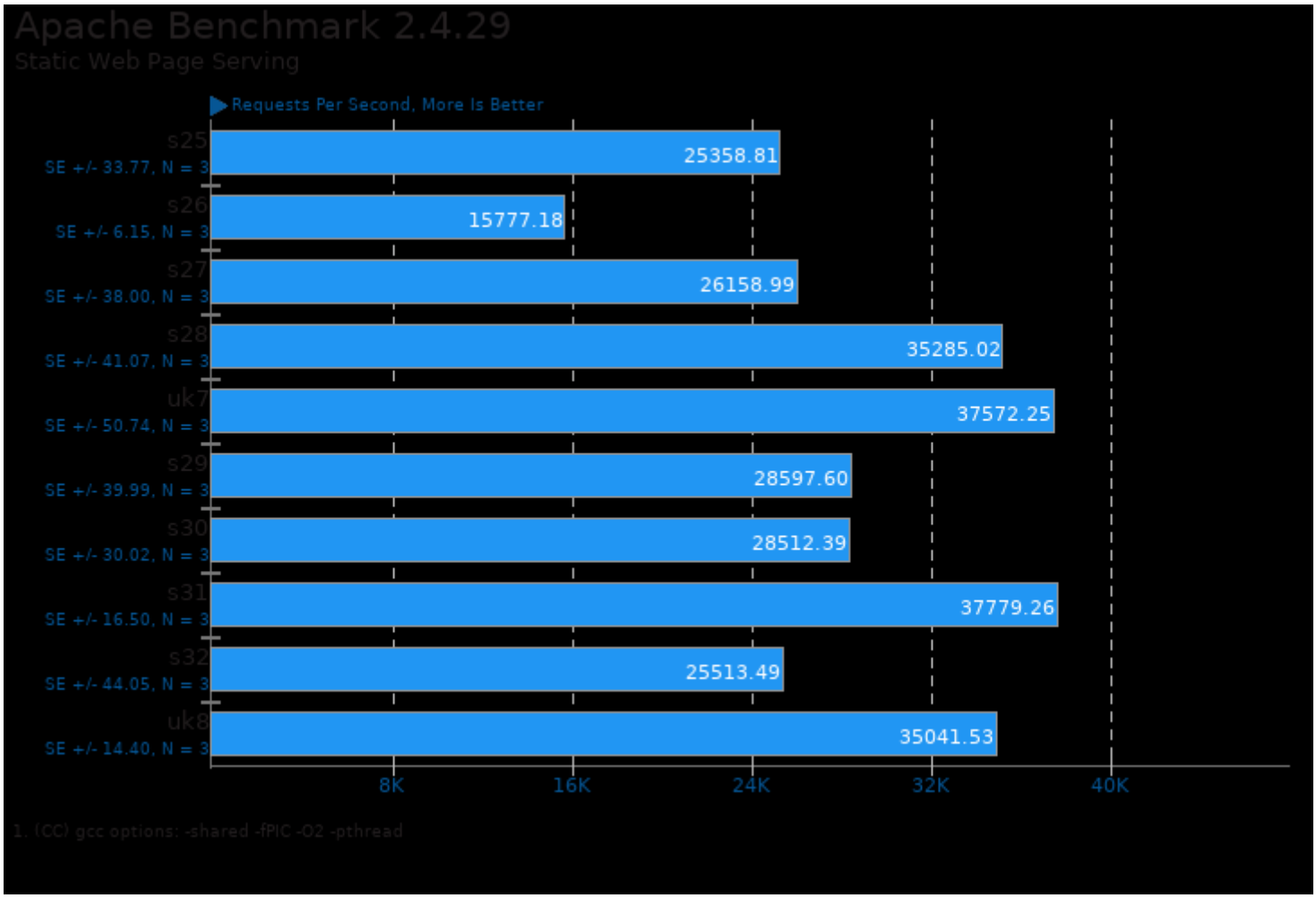

GROMACS 2020.3
Water Benchmark
Ns Per Day, More Is Better
s25
SE +/- 0.006, N = 3
-O2
2.586
s26
SE +/- 0.016, N = 3
-O2
2.307
s27
SE +/- 0.013, N = 3
-O2
2.320
s28
SE +/- 0.002, N = 3
-O2
3.198
uk7
SE +/- 0.012, N = 3
-O3
2.833
s29
SE +/- 0.015, N = 3
-O3
3.008
s30
SE +/- 0.006, N = 3
-O3
3.069
s31
SE +/- 0.002, N = 3
-O3
3.089
s32
SE +/- 0.016, N = 3
-O3
3.050
uk8
SE +/- 0.007, N = 3
-O3
3.056
0.7196
1.4392
2.1588
2.8784
3.598
1. (CXX) g++ options: -pthread -lrt -lpthread -lm
MariaDB 10.3.8
Clients: 1
Queries Per Second, More Is Better
s25
SE +/- 66.10, N = 4
16195
3K
6K
9K
12K
15K
1. (CXX) g++ options: -pie -fPIC -fstack-protector -fno-rtti -O2 -lpthread -llzma -lbz2 -laio -lz -lm -lpcre -lcrypt -lssl -lcrypto -ldl
MariaDB 10.3.8
Clients: 4
Queries Per Second, More Is Better
s25
SE +/- 61.71, N = 3
13575
3K
6K
9K
12K
15K
1. (CXX) g++ options: -pie -fPIC -fstack-protector -fno-rtti -O2 -lpthread -llzma -lbz2 -laio -lz -lm -lpcre -lcrypt -lssl -lcrypto -ldl

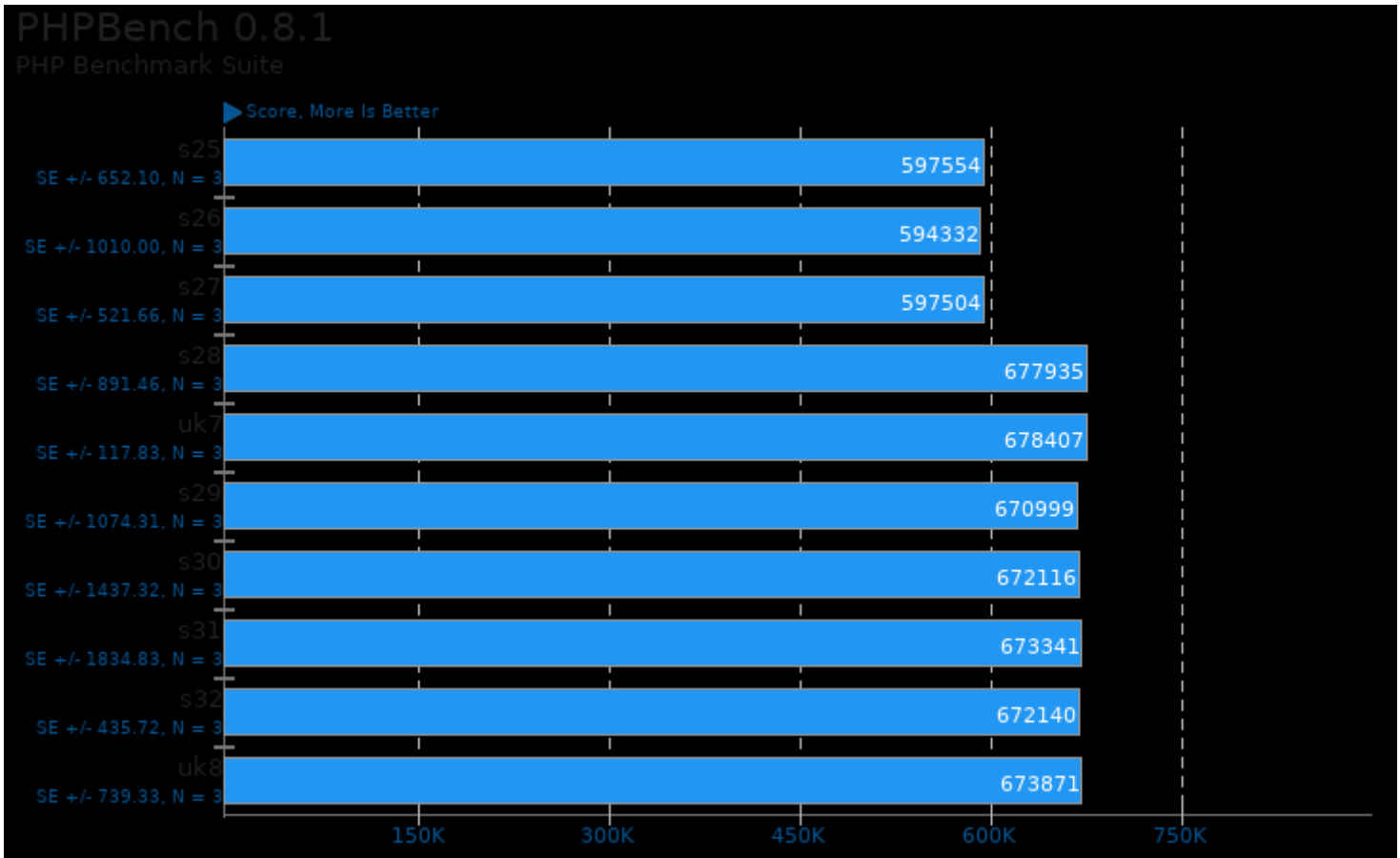

MariaDB 10.3.8
Clients: 8
Queries Per Second, More Is Better
s25
SE +/- 119.47, N = 3
10992
2K
4K
6K
8K
10K
1. (CXX) g++ options: -pie -fPIC -fstack-protector -fno-rtti -O2 -lpthread -llzma -lbz2 -laio -lz -lm -lpcre -lcrypt -lssl -lcrypto -ldl
MariaDB 10.3.8
Clients: 16
Queries Per Second, More Is Better
s25
SE +/- 41.99, N = 3
7958
2K
4K
6K
8K
10K
1. (CXX) g++ options: -pie -fPIC -fstack-protector -fno-rtti -O2 -lpthread -llzma -lbz2 -laio -lz -lm -lpcre -lcrypt -lssl -lcrypto -ldl
MariaDB 10.3.8
Clients: 32
Queries Per Second, More Is Better
s25
SE +/- 4.59, N = 3
3713
800
1600
2400
3200
4000
1. (CXX) g++ options: -pie -fPIC -fstack-protector -fno-rtti -O2 -lpthread -llzma -lbz2 -laio -lz -lm -lpcre -lcrypt -lssl -lcrypto -ldl
MariaDB 10.3.8
Clients: 64
Queries Per Second, More Is Better
s25
SE +/- 2.59, N = 3
1497
300
600
900
1200
1500
1. (CXX) g++ options: -pie -fPIC -fstack-protector -fno-rtti -O2 -lpthread -llzma -lbz2 -laio -lz -lm -lpcre -lcrypt -lssl -lcrypto -ldl

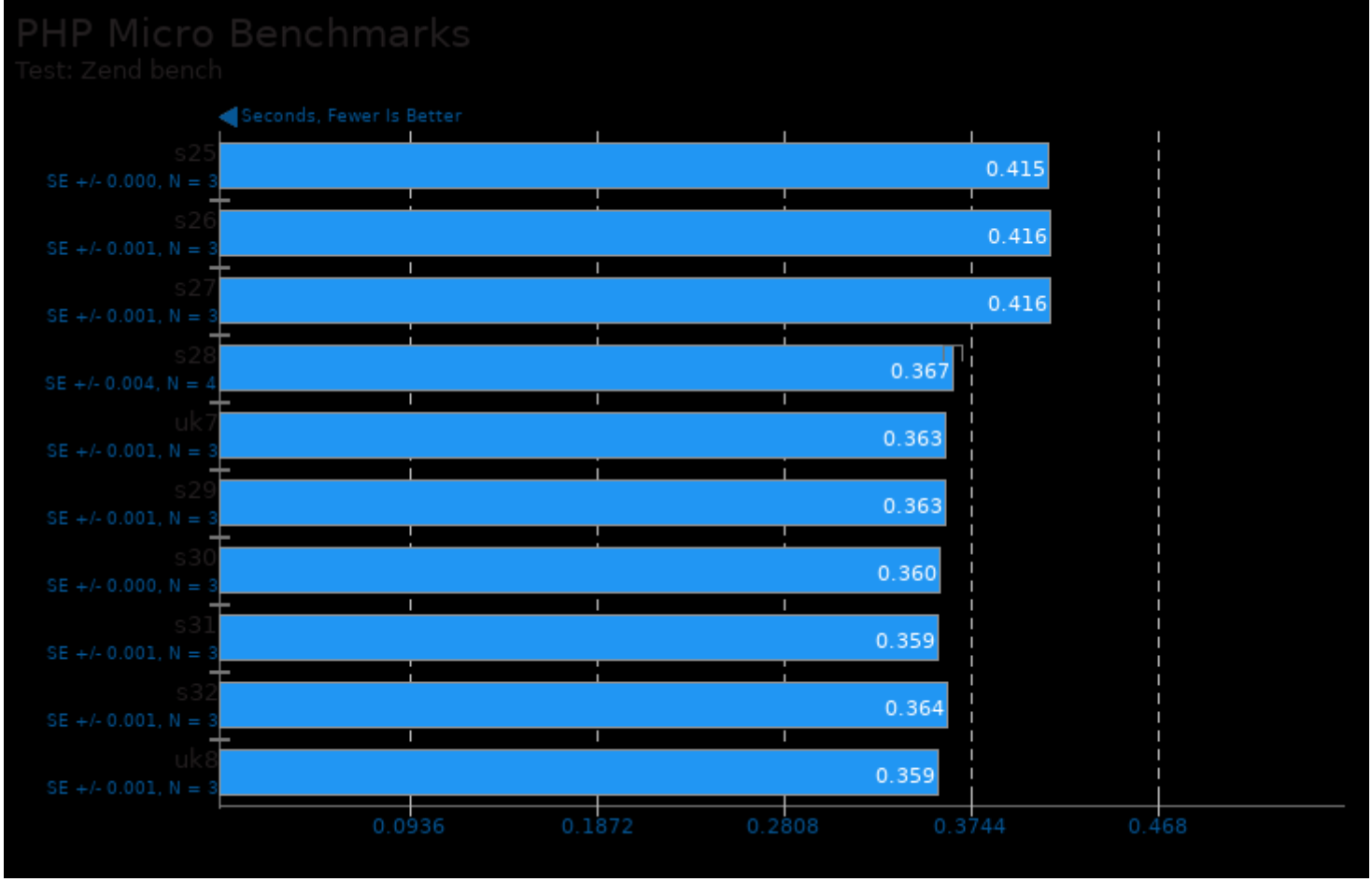

MariaDB 10.3.8
Clients: 128
Queries Per Second, More Is Better
s25
SE +/- 0.22, N = 3
620
130
260
390
520
650
1. (CXX) g++ options: -pie -fPIC -fstack-protector -fno-rtti -O2 -lpthread -llzma -lbz2 -laio -lz -lm -lpcre -lcrypt -lssl -lcrypto -ldl
MariaDB 10.3.8
Clients: 256
Queries Per Second, More Is Better
s25
SE +/- 0.37, N = 3
506
110
220
330
440
550
1. (CXX) g++ options: -pie -fPIC -fstack-protector -fno-rtti -O2 -lpthread -llzma -lbz2 -laio -lz -lm -lpcre -lcrypt -lssl -lcrypto -ldl
Sysbench 2018-07-28
Test: Memory
Events Per Second, More Is Better
s25
SE +/- 16738.77, N = 3
17930663.95
s26
SE +/- 166180.50, N = 3
18613408.02
s27
SE +/- 95624.92, N = 3
17640124.95
s28
SE +/- 270233.27, N = 3
20738246.54
uk7
SE +/- 199713.37, N = 3
21166728.38
s29
SE +/- 42390.38, N = 3
20881964.36
s30
SE +/- 292828.52, N = 3
20894141.44
s31
SE +/- 91694.03, N = 3
21047917.00
s32
SE +/- 229815.99, N = 3
20925439.14
uk8
SE +/- 240937.07, N = 3
21262934.28
5M
10M
15M
20M
25M
1. (CC) gcc options: -pthread -O3 -funroll-loops -ggdb3 -march=core2 -rdynamic -ldl -laio -lm

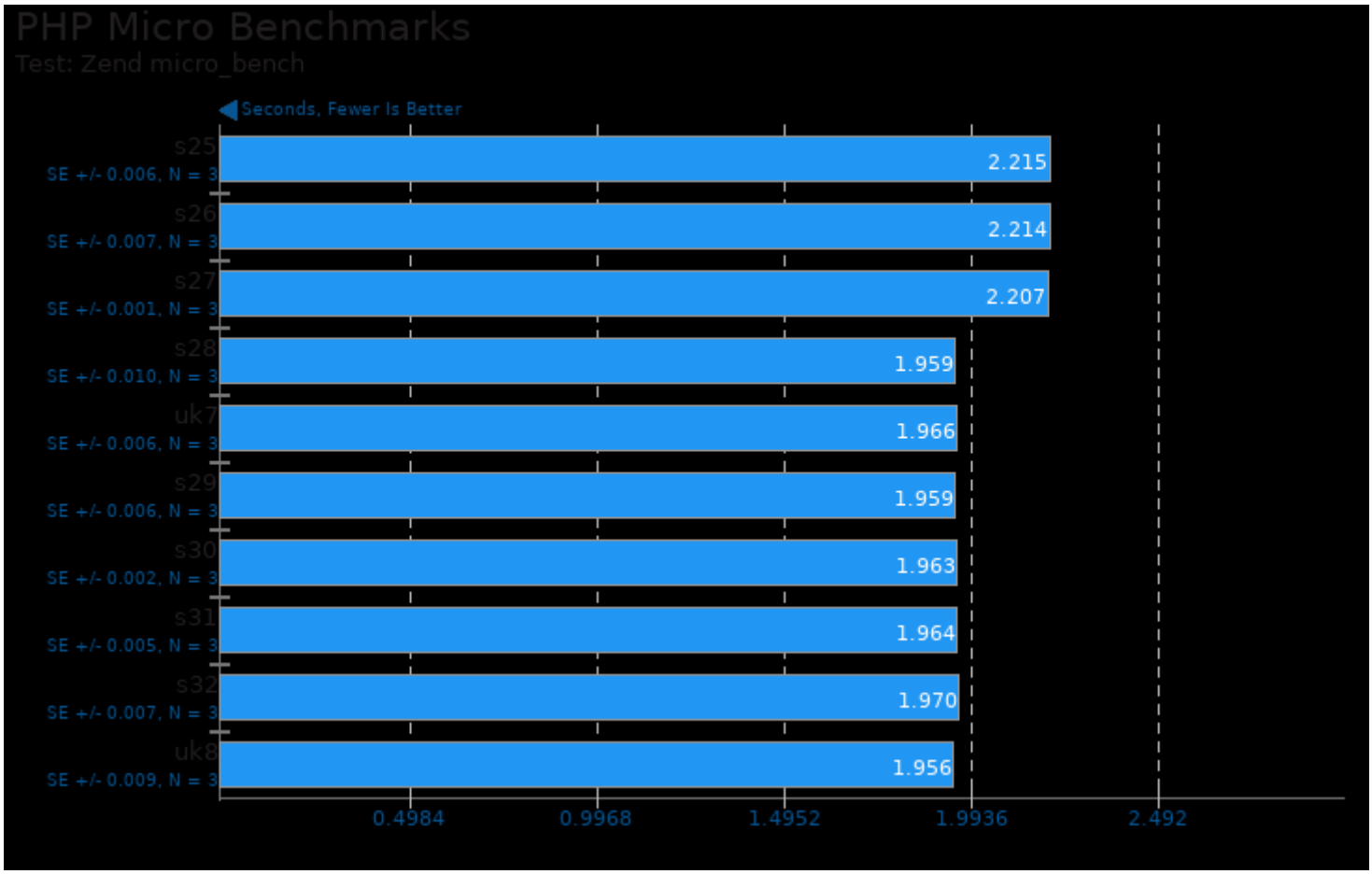

Sysbench 2018-07-28
Test: CPU
Events Per Second, More Is Better
s25
SE +/- 0.29, N = 3
46781.34
s26
SE +/- 9.40, N = 3
46518.36
s27
SE +/- 2.73, N = 3
46812.38
s28
SE +/- 0.61, N = 3
66481.60
uk7
SE +/- 2.23, N = 3
66488.67
s29
SE +/- 0.23, N = 3
66487.82
s30
SE +/- 4.63, N = 3
66494.15
s31
SE +/- 3.26, N = 3
66484.76
s32
SE +/- 0.82, N = 3
66486.12
uk8
SE +/- 0.17, N = 3
66482.62
14K
28K
42K
56K
70K
1. (CC) gcc options: -pthread -O3 -funroll-loops -ggdb3 -march=core2 -rdynamic -ldl -laio -lm


NGINX Benchmark 1.9.9
Static Web Page Serving
Requests Per Second, More Is Better
s25
SE +/- 14.57, N = 3
23545.34
s26
SE +/- 5.94, N = 3
17362.50
s27
SE +/- 14.10, N = 3
27437.33
s28
SE +/- 21.33, N = 3
34911.86
uk7
SE +/- 27.74, N = 3
35553.76
s29
SE +/- 13.77, N = 3
35706.71
s30
SE +/- 18.25, N = 3
35521.59
s31
SE +/- 9.88, N = 3
37498.59
s32
SE +/- 32.00, N = 3
28933.63
uk8
SE +/- 19.63, N = 3
31572.72
8K
16K
24K
32K
40K
1. (CC) gcc options: -lpthread -lcrypt -lcrypto -lz -O3 -march=native


Apache Benchmark 2.4.29
Static Web Page Serving
Requests Per Second, More Is Better
s25
SE +/- 33.77, N = 3
25358.81
s26
SE +/- 6.15, N = 3
15777.18
s27
SE +/- 38.00, N = 3
26158.99
s28
SE +/- 41.07, N = 3
35285.02
uk7
SE +/- 50.74, N = 3
37572.25
s29
SE +/- 39.99, N = 3
28597.60
s30
SE +/- 30.02, N = 3
28512.39
s31
SE +/- 16.50, N = 3
37779.26
s32
SE +/- 44.05, N = 3
25513.49
uk8
SE +/- 14.40, N = 3
35041.53
8K
16K
24K
32K
40K
1. (CC) gcc options: -shared -fPIC -O2 -pthread


PHPBench 0.8.1
PHP Benchmark Suite
Score, More Is Better
s25
SE +/- 652.10, N = 3
597554
s26
SE +/- 1010.00, N = 3
594332
s27
SE +/- 521.66, N = 3
597504
s28
SE +/- 891.46, N = 3
677935
uk7
SE +/- 117.83, N = 3
678407
s29
SE +/- 1074.31, N = 3
670999
s30
SE +/- 1437.32, N = 3
672116
s31
SE +/- 1834.83, N = 3
673341
s32
SE +/- 435.72, N = 3
672140
uk8
SE +/- 739.33, N = 3
673871
150K
300K
450K
600K
750K


PHP Micro Benchmarks
Test: Zend bench
Seconds, Fewer Is Better
s25
SE +/- 0.000, N = 3
0.415
s26
SE +/- 0.001, N = 3
0.416
s27
SE +/- 0.001, N = 3
0.416
s28
SE +/- 0.004, N = 4
0.367
uk7
SE +/- 0.001, N = 3
0.363
s29
SE +/- 0.001, N = 3
0.363
s30
SE +/- 0.000, N = 3
0.360
s31
SE +/- 0.001, N = 3
0.359
s32
SE +/- 0.001, N = 3
0.364
uk8
SE +/- 0.001, N = 3
0.359
0.0936
0.1872
0.2808
0.3744
0.468



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