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AMD Kaveri A10-7850K Ubuntu 16.04

AMD A10-7850K APU tests by Michael Larabel for a future article on Phoronix.

Test Systems:

fglrx 15.20.3

Processor: AMD A10-7850K APU with Radeon R7 @ 3.70GHz (4 Cores), Motherboard: Gigabyte F2A88XM-D3H, Chipset: AMD Family 15h, Memory: 7168MB, Disk: 120GB KINGSTON SV300S3, Graphics: AMD Radeon R7 1024MB, Audio: AMD Kaveri HDMI/DP, Monitor: G237HL, Network: Realtek RTL8111/8168/8411

OS: Ubuntu 16.04, Kernel: 4.4.0-6-generic (x86_64), Desktop: Unity 7.4.0, Display Driver: fglrx 15.20.3, OpenGL: 4.5.13399, Compiler: GCC 5.3.1 20160211, File-System: ext4, Screen Resolution: 1920x1080

Environment Notes: LIBGL_DRIVERS_PATH=/usr/lib/fglrx/dri:/usr/lib/x86_64-linux-gnu/dri:/usr/lib/dri:/usr/lib32/fglrx/dri:/usr/lib/i386-linux-gnu/dri
Compiler Notes: --build=x86_64-linux-gnu --disable-browser-plugin --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-gnu-unique-object --enable-gtk-cairo --enable-java-awt=gtk --enable-java-home --enable-languages=c,ada,c++,java,go,d,fortran,objc,obj-c++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-arch-directory=amd64 --with-default-libstdcxx-abi=new --with-multilib-list=m32,m64,mx32 --with-tune=generic -v
Processor Notes: Scaling Governor: acpi-cpufreq performance

Linux 4.4 + Mesa 11.1

Linux 4.4 + Mesa 11.1 + DRI3

Processor: AMD A10-7850K APU with Radeon R7 @ 3.70GHz (4 Cores), Motherboard: Gigabyte F2A88XM-D3H, Chipset: AMD Family 15h, Memory: 7168MB, Disk: 120GB KINGSTON SV300S3, Graphics: AMD Radeon R7 1024MB, Audio: AMD Kaveri HDMI/DP, Monitor: G237HL, Network: Realtek RTL8111/8168/8411

OS: Ubuntu 16.04, Kernel: 4.4.0-6-generic (x86_64), Desktop: Unity 7.4.0, Display Driver: radeon 7.6.1, OpenGL: 4.1 Mesa 11.1.2 Gallium 0.4, Compiler: GCC 5.3.1 20160211, File-System: ext4, Screen Resolution: 1920x1080

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

Linux 4.5 + Mesa 11.1 + DRI3

Processor: AMD A10-7850K APU with Radeon R7 @ 3.70GHz (4 Cores), Motherboard: Gigabyte F2A88XM-D3H, Chipset: AMD Family 15h, Memory: 7168MB, Disk: 120GB KINGSTON SV300S3, Graphics: AMD Radeon R7 1024MB, Audio: AMD Kaveri HDMI/DP, Monitor: G237HL, Network: Realtek RTL8111/8168/8411

OS: Ubuntu 16.04, Kernel: 4.5.0-999-generic (x86_64) 20160220, Desktop: Unity 7.4.0, Display Driver: radeon 7.6.1, OpenGL: 4.1 Mesa 11.1.2 Gallium 0.4, Compiler: GCC 5.3.1 20160211, File-System: ext4, Screen Resolution: 1920x1080

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

Linux 4.5 + Mesa 11.2 + DRI3

Processor: AMD A10-7850K APU with Radeon R7 @ 3.70GHz (4 Cores), Motherboard: Gigabyte F2A88XM-D3H, Chipset: AMD Family 15h, Memory: 7168MB, Disk: 120GB KINGSTON SV300S3, Graphics: AMD Radeon R7 1024MB, Audio: AMD Kaveri HDMI/DP, Monitor: G237HL, Network: Realtek RTL8111/8168/8411

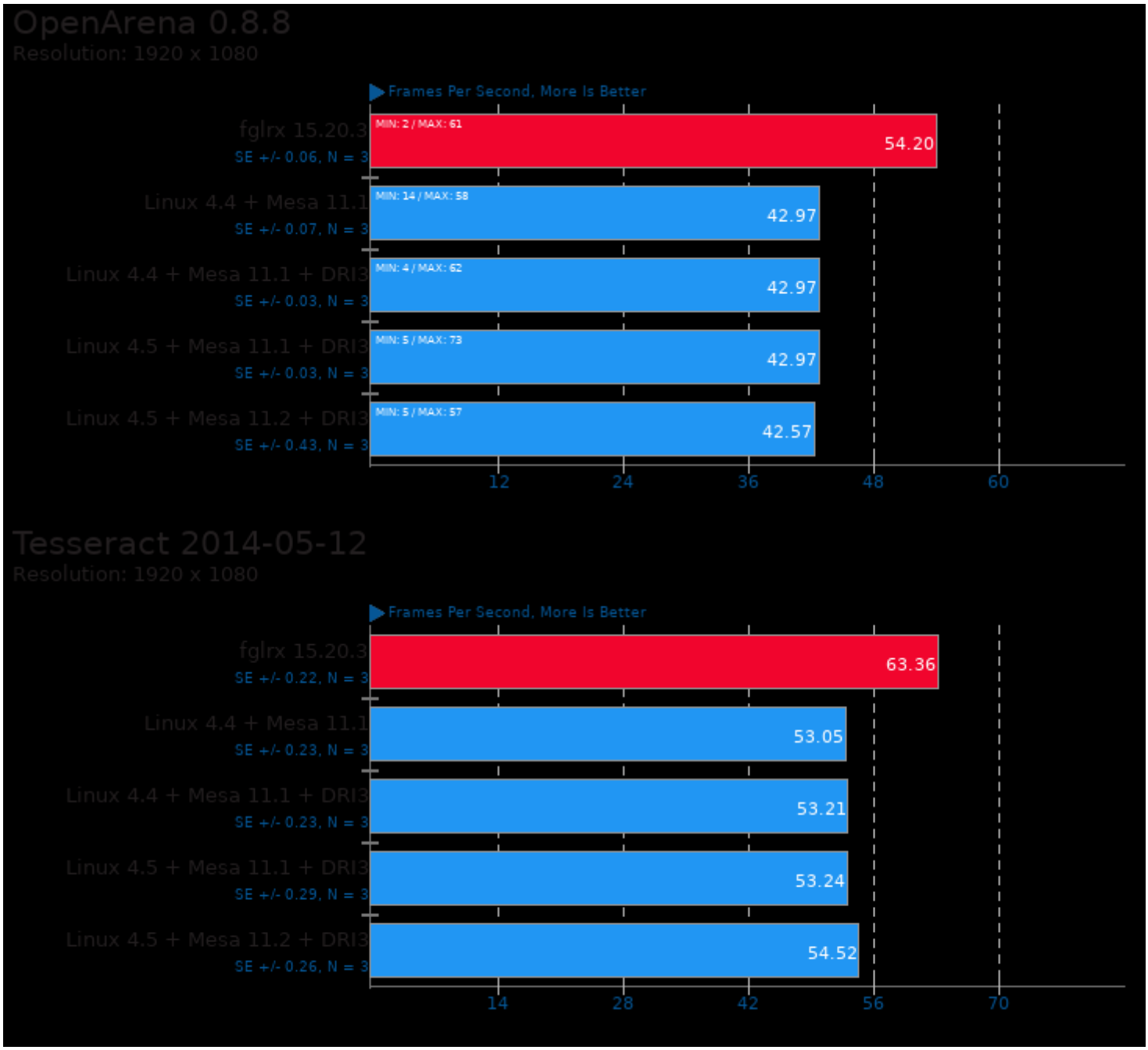
OS: Ubuntu 16.04, Kernel: 4.5.0-999-generic (x86_64) 20160220, Desktop: Unity 7.4.0, Display Driver: radeon 7.6.1, OpenGL: 4.1 Mesa 11.2.0-devel (git-3c9ed20 2016-02-21 xenial-oibaf-ppa) Gallium 0.4, Compiler: GCC 5.3.1 20160211, File-System: ext4, Screen Resolution: 1920x1080

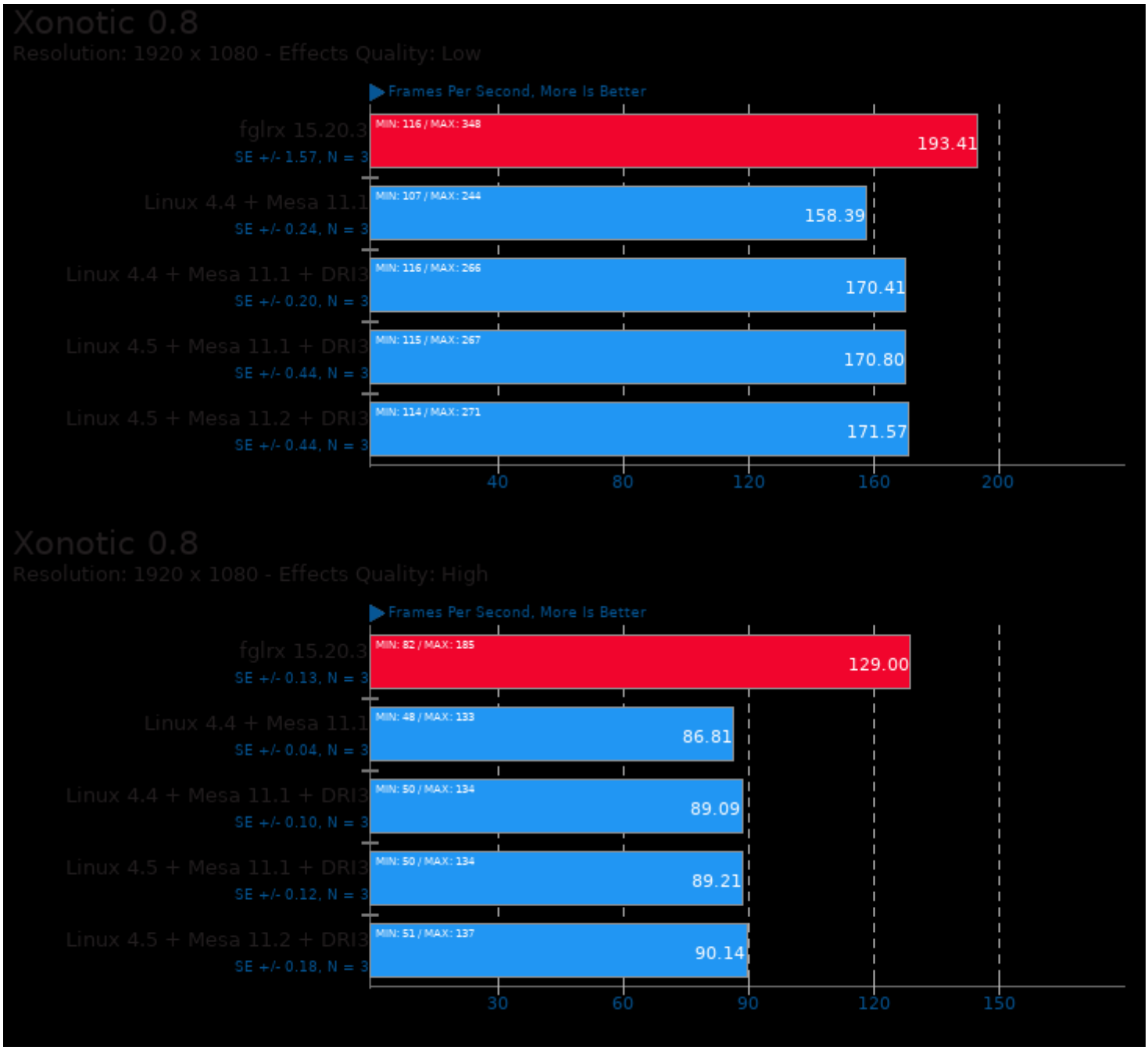
Processor Notes: Scaling Governor: acpi-cpufreq performance
Graphics Notes: GLAMOR

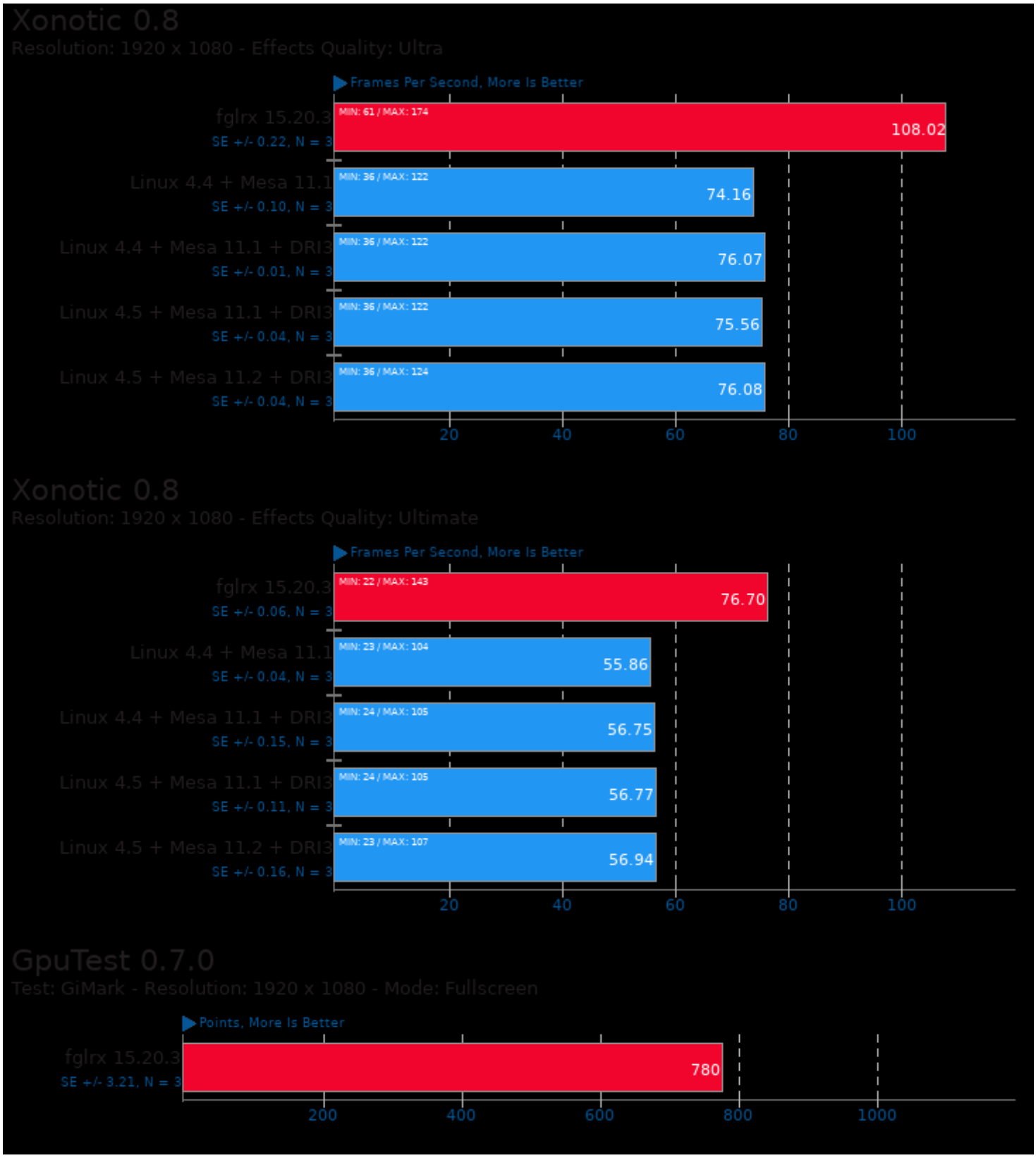
	fglrx 15.20.3	Linux 4.4 + Mesa 11.1	Linux 4.4 + Mesa 11.1 + DRI3	Linux 4.5 + Mesa 11.1 + DRI3	Linux 4.5 + Mesa 11.2 + DRI3
OpenArena - 1920 x 1080 (FPS)	**54.20**	42.97	42.97	42.97	**42.57**
Normalized	100%	79.28%	79.28%	79.28%	78.54%
Standard Deviation	0.2%	0.3%	0.1%	0.1%	1.8%
Tesseract - 1920 x 1080 (FPS)	**63.36**	**53.05**	53.21	53.24	54.52
Normalized	100%	83.73%	83.98%	84.03%	86.05%
Standard Deviation	0.6%	0.7%	0.7%	1%	0.8%

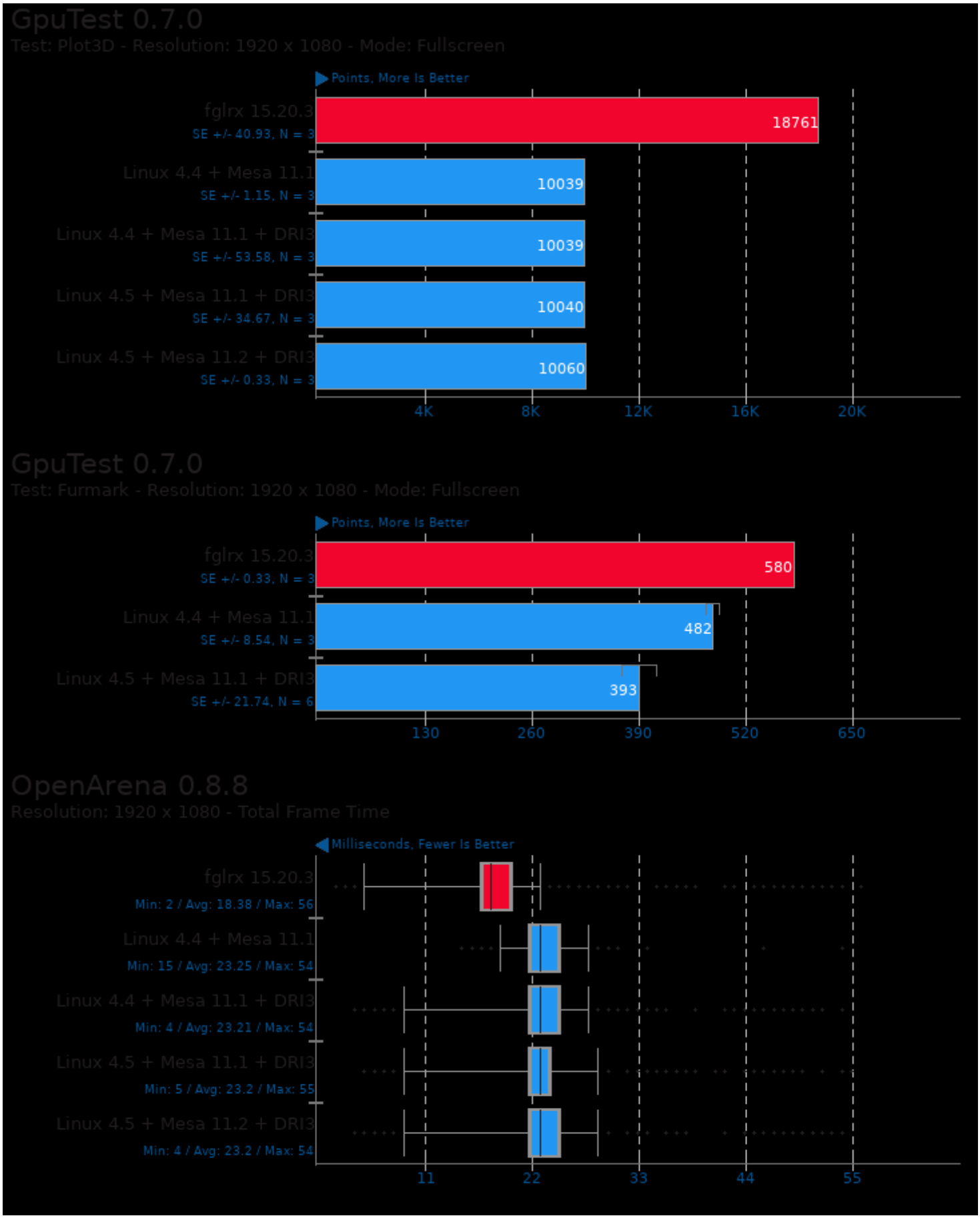
AMD Kaveri A10-7850K Ubuntu 16.04

Xonotic - 1920 x 1080 - Low	**193.41**	**158.39**	170.41	170.80	171.57
Normalized	100%	81.89%	88.11%	88.31%	88.71%
Standard Deviation	1.4%	0.3%	0.2%	0.4%	0.4%
Xonotic - 1920 x 1080 - High	**129.00**	**86.81**	89.09	89.21	90.14
Normalized	100%	67.29%	69.06%	69.16%	69.88%
Standard Deviation	0.2%	0.1%	0.2%	0.2%	0.4%
Xonotic - 1920 x 1080 - Ultra	**108.02**	**74.16**	76.07	75.56	76.08
Normalized	100%	68.65%	70.42%	69.95%	70.43%
Standard Deviation	0.3%	0.2%	0%	0.1%	0.1%
Xonotic - 1920 x 1080 - Ultimate (FPS)	**76.70**	**55.86**	56.75	56.77	56.94
Normalized	100%	72.83%	73.99%	74.02%	74.24%
Standard Deviation	0.1%	0.1%	0.4%	0.3%	0.5%
GpuTest - GiMark - 1920 x 1080 - Fullscreen (Points)	780				
Standard Deviation	0.7%				
GpuTest - Plot3D - 1920 x 1080 - Fullscreen (Points)	**18761**	**10039**	**10039**	10040	10060
Normalized	100%	53.51%	53.51%	53.52%	53.62%
Standard Deviation	0.4%	0%	0.9%	0.6%	0%
GpuTest - Furmark - 1920 x 1080 - Fullscreen (Points)	**580**	482		**393**	
Normalized	100%	83.1%		67.76%	
Standard Deviation	0.1%	3.1%		13.6%	

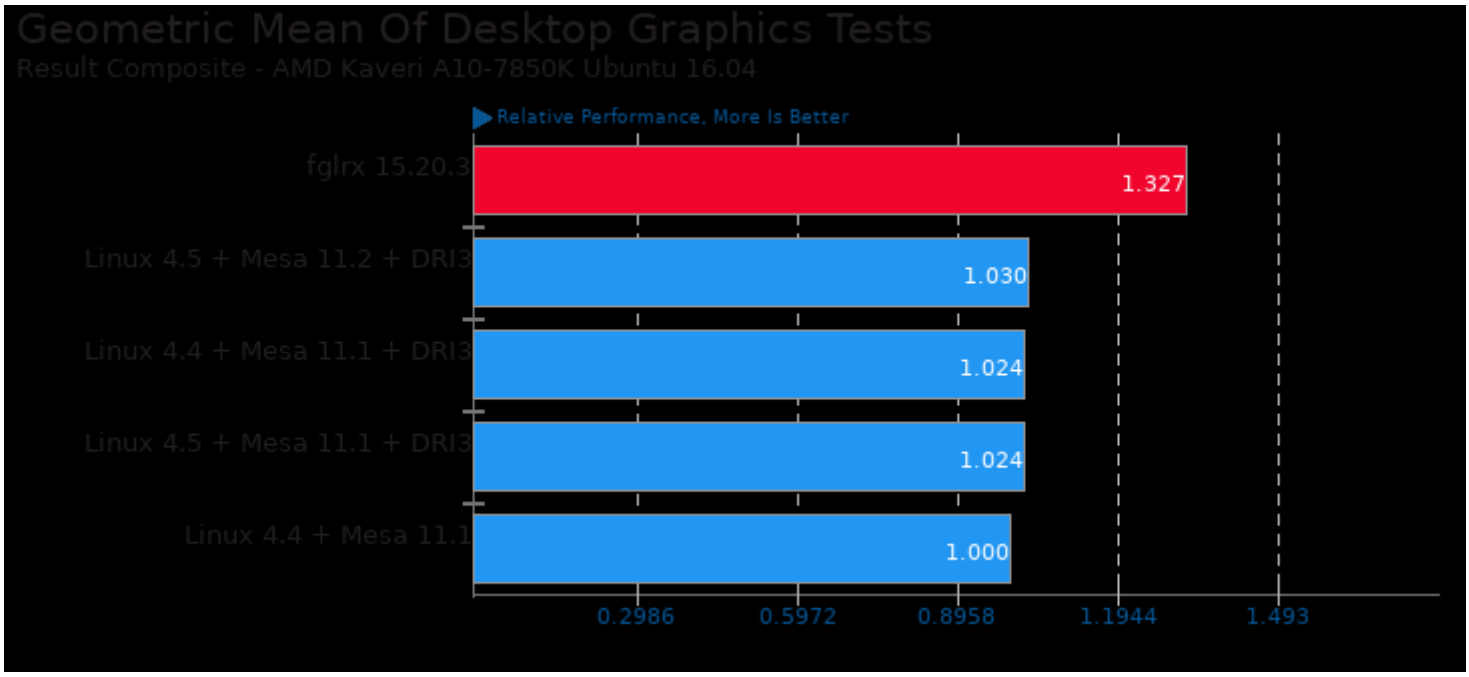

OpenArena 0.8.8
Resolution: 1920 x 1080
Frames Per Second, More Is Better
fglrx 15.20.3
SE +/- 0.06, N = 3
MIN: 2 / MAX: 61
54.20
Linux 4.4 + Mesa 11.1
SE +/- 0.07, N = 3
MIN: 14 / MAX: 58
42.97
Linux 4.4 + Mesa 11.1 + DRI3
SE +/- 0.03, N = 3
MIN: 4 / MAX: 62
42.97
Linux 4.5 + Mesa 11.1 + DRI3
SE +/- 0.03, N = 3
MIN: 5 / MAX: 73
42.97
Linux 4.5 + Mesa 11.2 + DRI3
SE +/- 0.43, N = 3
MIN: 5 / MAX: 57
42.57
12
24
36
48
60
Tesseract 2014-05-12
Resolution: 1920 x 1080
Frames Per Second, More Is Better
fglrx 15.20.3
SE +/- 0.22, N = 3
63.36
Linux 4.4 + Mesa 11.1
SE +/- 0.23, N = 3
53.05
Linux 4.4 + Mesa 11.1 + DRI3
SE +/- 0.23, N = 3
53.21
Linux 4.5 + Mesa 11.1 + DRI3
SE +/- 0.29, N = 3
53.24
Linux 4.5 + Mesa 11.2 + DRI3
SE +/- 0.26, N = 3
54.52
14
28
42
56
70


Xonotic 0.8
Resolution: 1920 x 1080 - Effects Quality: Low
Frames Per Second, More Is Better
fglrx 15.20.3
SE +/- 1.57, N = 3
MIN: 116 / MAX: 348
193.41
Linux 4.4 + Mesa 11.1
SE +/- 0.24, N = 3
MIN: 107 / MAX: 244
158.39
Linux 4.4 + Mesa 11.1 + DRI3
SE +/- 0.20, N = 3
MIN: 116 / MAX: 266
170.41
Linux 4.5 + Mesa 11.1 + DRI3
SE +/- 0.44, N = 3
MIN: 115 / MAX: 267
170.80
Linux 4.5 + Mesa 11.2 + DRI3
SE +/- 0.44, N = 3
MIN: 114 / MAX: 271
171.57
40
80
120
160
200
Xonotic 0.8
Resolution: 1920 x 1080 - Effects Quality: High
Frames Per Second, More Is Better
fglrx 15.20.3
SE +/- 0.13, N = 3
MIN: 82 / MAX: 185
129.00
Linux 4.4 + Mesa 11.1
SE +/- 0.04, N = 3
MIN: 48 / MAX: 133
86.81
Linux 4.4 + Mesa 11.1 + DRI3
SE +/- 0.10, N = 3
MIN: 50 / MAX: 134
89.09
Linux 4.5 + Mesa 11.1 + DRI3
SE +/- 0.12, N = 3
MIN: 50 / MAX: 134
89.21
Linux 4.5 + Mesa 11.2 + DRI3
SE +/- 0.18, N = 3
MIN: 51 / MAX: 137
90.14
30
60
90
120
150


Xonotic 0.8
Resolution: 1920 x 1080 - Effects Quality: Ultra
Frames Per Second, More Is Better
fglrx 15.20.3
SE +/- 0.22, N = 3
MIN: 61 / MAX: 174
108.02
Linux 4.4 + Mesa 11.1
SE +/- 0.10, N = 3
MIN: 36 / MAX: 122
74.16
Linux 4.4 + Mesa 11.1 + DRI3
SE +/- 0.01, N = 3
MIN: 36 / MAX: 122
76.07
Linux 4.5 + Mesa 11.1 + DRI3
SE +/- 0.04, N = 3
MIN: 36 / MAX: 122
75.56
Linux 4.5 + Mesa 11.2 + DRI3
SE +/- 0.04, N = 3
MIN: 36 / MAX: 124
76.08
20
40
60
80
100
Xonotic 0.8
Resolution: 1920 x 1080 - Effects Quality: Ultimate
Frames Per Second, More Is Better
fglrx 15.20.3
SE +/- 0.06, N = 3
MIN: 22 / MAX: 143
76.70
Linux 4.4 + Mesa 11.1
SE +/- 0.04, N = 3
MIN: 23 / MAX: 104
55.86
Linux 4.4 + Mesa 11.1 + DRI3
SE +/- 0.15, N = 3
MIN: 24 / MAX: 105
56.75
Linux 4.5 + Mesa 11.1 + DRI3
SE +/- 0.11, N = 3
MIN: 24 / MAX: 105
56.77
Linux 4.5 + Mesa 11.2 + DRI3
SE +/- 0.16, N = 3
MIN: 23 / MAX: 107
56.94
20
40
60
80
100
GpuTest 0.7.0
Test: GiMark - Resolution: 1920 x 1080 - Mode: Fullscreen
Points, More Is Better
fglrx 15.20.3
SE +/- 3.21, N = 3
780
200
400
600
800
1000


GpuTest 0.7.0
Test: Plot3D - Resolution: 1920 x 1080 - Mode: Fullscreen
Points, More Is Better
fglrx 15.20.3
SE +/- 40.93, N = 3
18761
Linux 4.4 + Mesa 11.1
SE +/- 1.15, N = 3
10039
Linux 4.4 + Mesa 11.1 + DRI3
SE +/- 53.58, N = 3
10039
Linux 4.5 + Mesa 11.1 + DRI3
SE +/- 34.67, N = 3
10040
Linux 4.5 + Mesa 11.2 + DRI3
SE +/- 0.33, N = 3
10060
4K
8K
12K
16K
20K
GpuTest 0.7.0
Test: Furmark - Resolution: 1920 x 1080 - Mode: Fullscreen
Points, More Is Better
fglrx 15.20.3
SE +/- 0.33, N = 3
580
Linux 4.4 + Mesa 11.1
SE +/- 8.54, N = 3
482
Linux 4.5 + Mesa 11.1 + DRI3
SE +/- 21.74, N = 6
393
130
260
390
520
650
OpenArena 0.8.8
Resolution: 1920 x 1080 - Total Frame Time
Milliseconds, Fewer Is Better
fglrx 15.20.3
Min: 2 / Avg: 18.38 / Max: 56
Linux 4.4 + Mesa 11.1
Min: 15 / Avg: 23.25 / Max: 54
Linux 4.4 + Mesa 11.1 + DRI3
Min: 4 / Avg: 23.21 / Max: 54
Linux 4.5 + Mesa 11.1 + DRI3
Min: 5 / Avg: 23.2 / Max: 55
Linux 4.5 + Mesa 11.2 + DRI3
Min: 4 / Avg: 23.2 / Max: 54
11
22
33
44
55

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



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

This file was automatically generated via the Phoronix Test Suite benchmarking software on Friday, 29 March 2024 06:51.