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1080p Linux AMD NVIDIA Graphics 2015 Holiday Shopping

Reference AMD Radeon and NVIDIA GeForce graphics tests for 2015 holiday shopping guide on Phoronix.com in a future article.

Automated Executive Summary

GeForce GTX TITAN X had the most wins, coming in first place for 40% of the tests.

Based on the geometric mean of all complete results, the fastest (GeForce GTX TITAN X) was 3.012x the speed of the slowest (EVGA GeForce GT 740 SC).

Test Systems:

XFX Radeon R9 285

Processor: Intel Core i7-5960X @ 3.50GHz (16 Cores), Motherboard: Gigabyte X99-UD4-CF, Chipset: Intel Xeon E7 v3/Xeon, Memory: 16384MB, Disk: 120GB Samsung SSD 850, Graphics: Supported device 6939 2048MB (918/1375MHz), Audio: Realtek ALC1150, Monitor: SyncMaster, Network: Intel Connection

OS: Ubuntu 15.10, Kernel: 4.2.0-18-generic (x86_64), Desktop: Unity, Display Server: X Server 1.17.2, Display Driver: fglrx 15.20.3, OpenGL: 4.4.13399, Compiler: GCC 4.9.3, 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
Processor Notes: Scaling Governor: intel_pstate performance

Diamond Radeon R9 290

Processor: Intel Core i7-5960X @ 3.50GHz (16 Cores), Motherboard: Gigabyte X99-UD4-CF, Chipset: Intel Xeon E7 v3/Xeon, Memory: 16384MB, Disk: 120GB Samsung SSD 850, Graphics: Supported device 67B1 4096MB (947/1250MHz), Audio: Realtek ALC1150, Monitor: SyncMaster, Network: Intel Connection

OS: Ubuntu 15.10, Kernel: 4.2.0-18-generic (x86_64), Desktop: Unity, Display Server: X Server 1.17.2, Display Driver: fglrx 15.20.3, OpenGL: 4.4.13399, Compiler: GCC 4.9.3, 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
Processor Notes: Scaling Governor: intel_pstate performance

MSI Radeon R7 370

Processor: Intel Core i7-5960X @ 3.50GHz (16 Cores), Motherboard: Gigabyte X99-UD4-CF, Chipset: Intel Xeon E7 v3/Xeon, Memory: 16384MB, Disk: 120GB Samsung SSD 850, Graphics: MSI AMD Radeon R7 370 4096MB (1030/1400MHz), Audio: Realtek ALC1150, Monitor: SyncMaster, Network: Intel Connection

OS: Ubuntu 15.10, Kernel: 4.2.0-18-generic (x86_64), Desktop: Unity, Display Server: X Server 1.17.2, Display Driver: fglrx 15.20.3, OpenGL: 4.4.13399, Compiler: GCC 4.9.3, 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
Processor Notes: Scaling Governor: intel_pstate performance

Sapphire Radeon R9 Fury

Processor: Intel Core i7-5960X @ 3.50GHz (16 Cores), Motherboard: Gigabyte X99-UD4-CF, Chipset: Intel Xeon E7 v3/Xeon, Memory: 16384MB, Disk: 120GB Samsung SSD 850, Graphics: Sapphire AMD Radeon R9 Fury 4096MB, Audio: Realtek ALC1150, Monitor: SyncMaster, Network: Intel Connection

OS: Ubuntu 15.10, Kernel: 4.2.0-18-generic (x86_64), Desktop: Unity, Display Server: X Server 1.17.2, Display Driver: fglrx 15.20.3, OpenGL: 4.4.13399, Compiler: GCC 4.9.3, 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
Processor Notes: Scaling Governor: intel_pstate performance

EVGA GeForce GT 740 SC

Processor: Intel Core i7-5960X @ 3.50GHz (16 Cores), Motherboard: Gigabyte X99-UD4-CF, Chipset: Intel Xeon E7 v3/Xeon, Memory: 16384MB, Disk: 120GB Samsung SSD 850, Graphics: eVGA NVIDIA GeForce GT 740 1024MB (1084/2500MHz), Audio: Realtek ALC1150, Network: Intel Connection

OS: Ubuntu 15.10, Kernel: 4.2.0-18-generic (x86_64), Desktop: Unity, Display Server: X Server 1.17.2, Display Driver: NVIDIA 358.16, OpenGL: 4.4.0, Compiler: GCC 4.9.3, File-System: ext4, Screen Resolution: 1920x1080

Processor Notes: Scaling Governor: intel_pstate performance

GeForce GTX 750 Ti

Processor: Intel Core i7-5960X @ 3.50GHz (16 Cores), Motherboard: Gigabyte X99-UD4-CF, Chipset: Intel Xeon E7 v3/Xeon, Memory: 16384MB, Disk: 120GB Samsung SSD 850, Graphics: NVIDIA GeForce GTX 750 Ti 2048MB (1019/2700MHz), Audio: Realtek ALC1150, Network: Intel Connection

OS: Ubuntu 15.10, Kernel: 4.2.0-18-generic (x86_64), Desktop: Unity, Display Server: X Server 1.17.2, Display Driver: NVIDIA 358.16, OpenGL: 4.4.0, Compiler: GCC 4.9.3, File-System: ext4, Screen Resolution: 1920x1080

Processor Notes: Scaling Governor: intel_pstate performance

GeForce GTX 760

Processor: Intel Core i7-5960X @ 3.50GHz (16 Cores), Motherboard: Gigabyte X99-UD4-CF, Chipset: Intel Xeon E7 v3/Xeon, Memory: 16384MB, Disk: 120GB Samsung SSD 850, Graphics: NVIDIA GeForce GTX 760 2048MB (980/3004MHz), Audio: Realtek ALC1150, Network: Intel Connection

OS: Ubuntu 15.10, Kernel: 4.2.0-18-generic (x86_64), Desktop: Unity, Display Server: X Server 1.17.2, Display Driver: NVIDIA 358.16, OpenGL: 4.4.0, Compiler: GCC 4.9.3, File-System: ext4, Screen Resolution: 1920x1080

Processor Notes: Scaling Governor: intel_pstate performance

EVGA GeForce GTX 950

Processor: Intel Core i7-5960X @ 3.50GHz (16 Cores), Motherboard: Gigabyte X99-UD4-CF, Chipset: Intel Xeon E7 v3/Xeon, Memory: 16384MB, Disk: 120GB Samsung SSD 850, Graphics: eVGA NVIDIA GeForce GTX 950 2048MB (1201/3304MHz), Audio: Realtek ALC1150, Network: Intel Connection

OS: Ubuntu 15.10, Kernel: 4.2.0-18-generic (x86_64), Desktop: Unity, Display Server: X Server 1.17.2, Display Driver: NVIDIA 358.16, OpenGL: 4.4.0, Compiler: GCC 4.9.3, File-System: ext4, Screen Resolution: 1920x1080

Processor Notes: Scaling Governor: intel_pstate performance

EVGA GeForce GTX 960

Processor: Intel Core i7-5960X @ 3.50GHz (16 Cores), Motherboard: Gigabyte X99-UD4-CF, Chipset: Intel Xeon E7 v3/Xeon, Memory: 16384MB, Disk: 120GB Samsung SSD 850, Graphics: eVGA NVIDIA GeForce GTX 960 2048MB (1277/3505MHz), Audio: Realtek ALC1150, Network: Intel Connection

OS: Ubuntu 15.10, Kernel: 4.2.0-18-generic (x86_64), Desktop: Unity, Display Server: X Server 1.17.2, Display Driver: NVIDIA 358.16, OpenGL: 4.4.0, Compiler: GCC 4.9.3, File-System: ext4, Screen Resolution: 1920x1080

Processor Notes: Scaling Governor: intel_pstate performance

EVGA GeForce GTX 970

Processor: Intel Core i7-5960X @ 3.50GHz (16 Cores), Motherboard: Gigabyte X99-UD4-CF, Chipset: Intel Xeon E7 v3/Xeon, Memory: 16384MB, Disk: 120GB Samsung SSD 850, Graphics: eVGA NVIDIA GeForce GTX 970 4096MB (1163/3505MHz), Audio: Realtek ALC1150, Network: Intel Connection

OS: Ubuntu 15.10, Kernel: 4.2.0-18-generic (x86_64), Desktop: Unity, Display Server: X Server 1.17.2, Display Driver: NVIDIA 358.16, OpenGL: 4.4.0, Compiler: GCC 4.9.3, File-System: ext4, Screen Resolution: 1920x1080

Processor Notes: Scaling Governor: intel_pstate performance

GeForce GTX 980

Processor: Intel Core i7-5960X @ 3.50GHz (16 Cores), Motherboard: Gigabyte X99-UD4-CF, Chipset: Intel Xeon E7 v3/Xeon, Memory: 16384MB, Disk: 120GB Samsung SSD 850, Graphics: NVIDIA GeForce GTX 980 4096MB (1126/3505MHz), Audio: Realtek ALC1150, Network: Intel Connection

OS: Ubuntu 15.10, Kernel: 4.2.0-18-generic (x86_64), Desktop: Unity, Display Server: X Server 1.17.2, Display Driver: NVIDIA 358.16, OpenGL: 4.4.0, Compiler: GCC 4.9.3, File-System: ext4, Screen Resolution: 1920x1080

Processor Notes: Scaling Governor: intel_pstate performance

GeForce GTX 980 Ti

Processor: Intel Core i7-5960X @ 3.50GHz (16 Cores), Motherboard: Gigabyte X99-UD4-CF, Chipset: Intel Xeon E7 v3/Xeon, Memory: 16384MB, Disk: 120GB Samsung SSD 850, Graphics: NVIDIA GeForce GTX 980 Ti 6144MB (999/3505MHz), Audio: Realtek ALC1150, Network: Intel Connection

OS: Ubuntu 15.10, Kernel: 4.2.0-18-generic (x86_64), Desktop: Unity, Display Server: X Server 1.17.2, Display Driver: NVIDIA 358.16, OpenGL: 4.4.0, Compiler: GCC 4.9.3, File-System: ext4, Screen Resolution: 1920x1080

Processor Notes: Scaling Governor: intel_pstate performance

GeForce GTX TITAN X

Processor: Intel Core i7-5960X @ 3.50GHz (16 Cores), Motherboard: Gigabyte X99-UD4-CF, Chipset: Intel Xeon E7 v3/Xeon, Memory: 16384MB, Disk: 120GB Samsung SSD 850, Graphics: NVIDIA GeForce GTX TITAN X 12288MB (1001/3505MHz), Audio: Realtek ALC1150, Network: Intel Connection

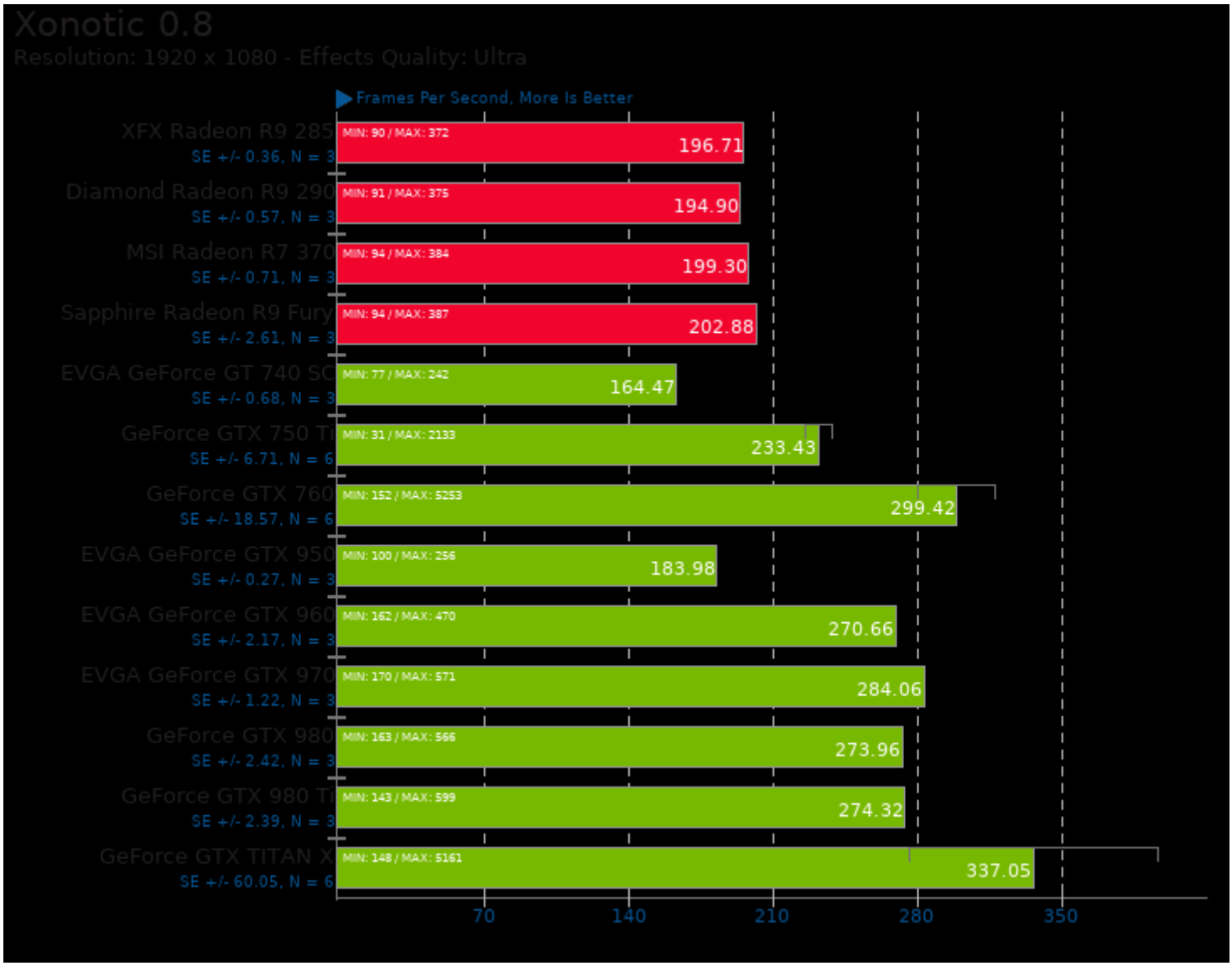
OS: Ubuntu 15.10, Kernel: 4.2.0-18-generic (x86_64), Desktop: Unity, Display Server: X Server 1.17.2, Display Driver: NVIDIA 358.16, OpenGL: 4.4.0, Compiler: GCC 4.9.3, File-System: ext4, Screen Resolution: 1920x1080

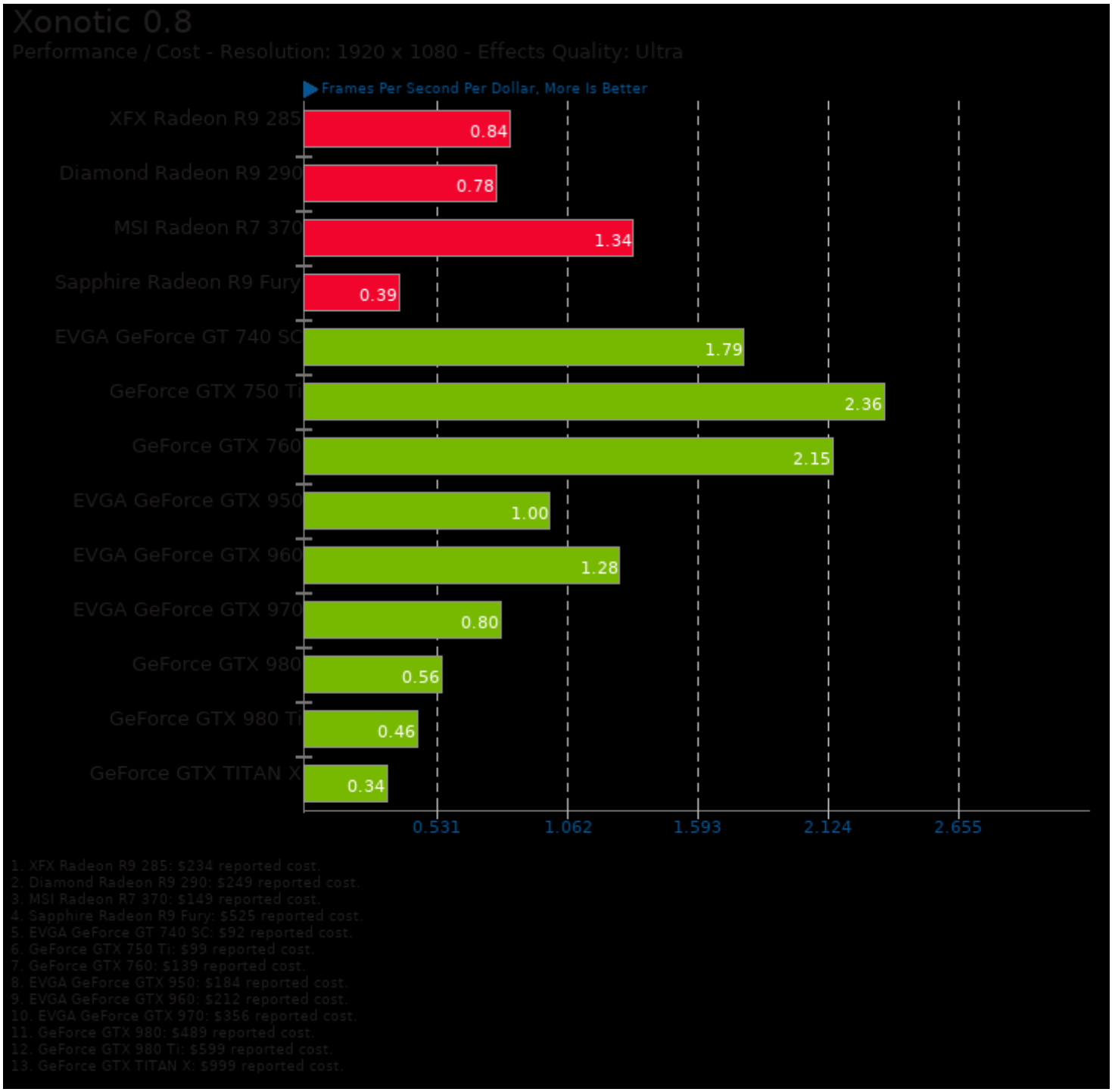
Processor Notes: Scaling Governor: intel_pstate performance

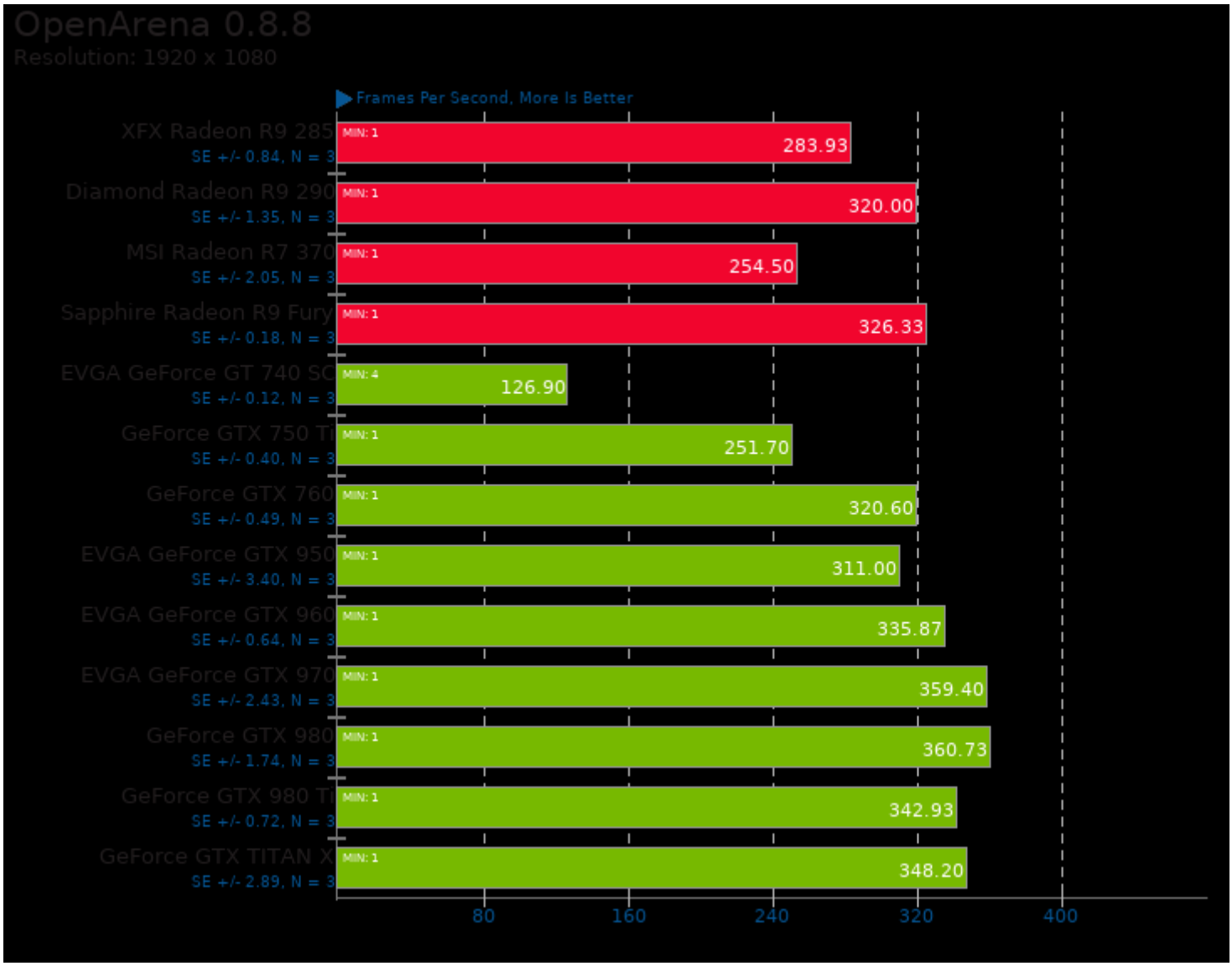
	XFX Radeon R9 285	Diamond Radeon R9 290	MSI Radeon R7 370	Sapphire Radeon R9 Fury	EVGA GeForce GT 740 SC	GeForce GTX 750 Ti	GeForce GTX 760	EVGA GeForce GTX 950	EVGA GeForce GTX 960	EVGA GeForce GTX 970	GeForce GTX 980	GeForce GTX 980 Ti	GeForce GTX TITAN X
Xonotic - 1920 x 1080 - Ultra (FPS)	196.71	194.90	199.30	202.88	**164.47**	233.43	299.42	183.98	270.66	284.06	273.96	274.32	**337.05**
Normalized	58.36%	57.83%	59.13%	60.19%	48.8%	69.26%	88.84%	54.59%	80.3%	84.28%	81.28%	81.39%	100%
Standard Deviation	0.3%	0.5%	0.6%	2.2%	0.7%	7%	15.2%	0.3%	1.4%	0.7%	1.5%	1.5%	43.6%

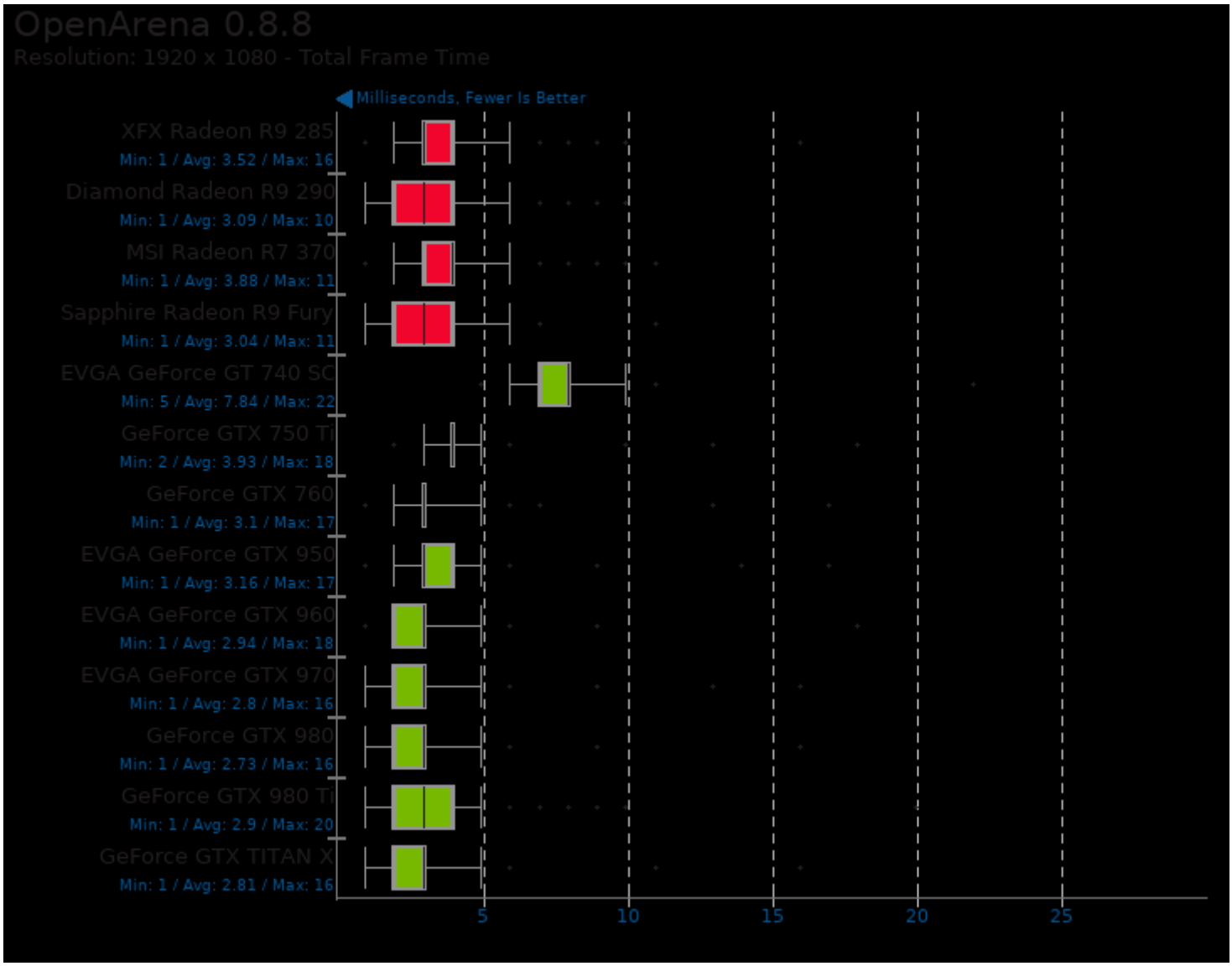
Xonotic - Performance / Cost - 1920 x 1080 - Ultra (FPS/Dollar)	0.84	0.78	1.34	0.39	1.79	**2.36**	2.15	1.00	1.28	0.80	0.56	0.46	**0.34**
Normalized	35.59%	33.05%	56.78%	16.53%	75.85%	100%	91.1%	42.37%	54.24%	33.9%	23.73%	19.49%	14.41%
OpenArena - 1920 x 1080 (FPS)	283.93	320.00	254.50	326.33	**126.90**	251.70	320.60	311.00	335.87	359.40	**360.73**	342.93	348.20
Normalized	78.71%	88.71%	70.55%	90.46%	35.18%	69.78%	88.88%	86.21%	93.11%	99.63%	100%	95.07%	96.53%
Standard Deviation	0.5%	0.7%	1.4%	0.1%	0.2%	0.3%	0.3%	1.9%	0.3%	1.2%	0.8%	0.4%	1.4%
OpenArena - Performance / Cost - 1920 x 1080 (FPS/Dollar)	1.21	1.29	1.71	0.62	1.38	**2.54**	2.31	1.69	1.58	1.01	0.74	0.57	**0.35**
Normalized	47.64%	50.79%	67.32%	24.41%	54.33%	100%	90.94%	66.54%	62.2%	39.76%	29.13%	22.44%	13.78%
Unigine Valley - 1920 x 1080 - Fullscreen	51.37	74.17	38.62	94.39	**20.10**	34.68	55.11	52.83	60.74	85.56	90.28	100.58	**104.59**
Normalized	49.12%	70.92%	36.93%	90.25%	19.22%	33.16%	52.69%	50.51%	58.07%	81.81%	86.32%	96.17%	100%
Standard Deviation	0.1%	0.1%	0%	0.5%	0.1%	0.1%	0.9%	0.2%	0.2%	0.8%	0.3%	0.6%	0.5%
Unigine Valley - Performance / Cost - 1920 x 1080 - Fullscreen (FPS/Dollar)	0.22	0.30	0.26	0.18	0.22	0.35	**0.40**	0.29	0.29	0.24	0.18	0.17	**0.10**
Normalized	55%	75%	65%	45%	55%	87.5%	100%	72.5%	72.5%	60%	45%	42.5%	25%
Metro 2033 Redux - P.T.S.v.0.1 (FPS)	72.08	74.46	67.56	74.37	**55.97**	97.45	129.86	79.63	130.38	137.23	137.16	**139.56**	134.95
Normalized	51.65%	53.35%	48.41%	53.29%	40.1%	69.83%	93.05%	57.06%	93.42%	98.33%	98.28%	100%	96.7%
Standard Deviation	0.6%	4.4%	2.1%	5.1%	0.2%	0.8%	3.3%	0.4%	0.6%	1.2%	1.9%	1.6%	0.5%
Metro 2033 Redux - Performance / Cost - P.T.S.v.0.1 (FPS/Dollar)	0.31	0.30	0.45	**0.14**	0.61	**0.98**	0.93	0.43	0.62	0.39	0.28	0.23	**0.14**
Normalized	31.63%	30.61%	45.92%	14.29%	62.24%	100%	94.9%	43.88%	63.27%	39.8%	28.57%	23.47%	14.29%
Metro: Last Light Redux - P.T.S.v.0.1 (FPS)	80.06	89.40	71.26	90.26	**44.21**	85.65	119.74	72.80	137.06	**157.33**	155.33	153.63	155.48
Normalized	50.89%	56.82%	45.29%	57.37%	28.1%	54.44%	76.11%	46.27%	87.12%	100%	98.73%	97.65%	98.82%
Standard Deviation	0.8%	0.6%	0.2%	0.9%	0.2%	0.1%	0.4%	0.2%	0.3%	0.6%	0.5%	1%	1.8%

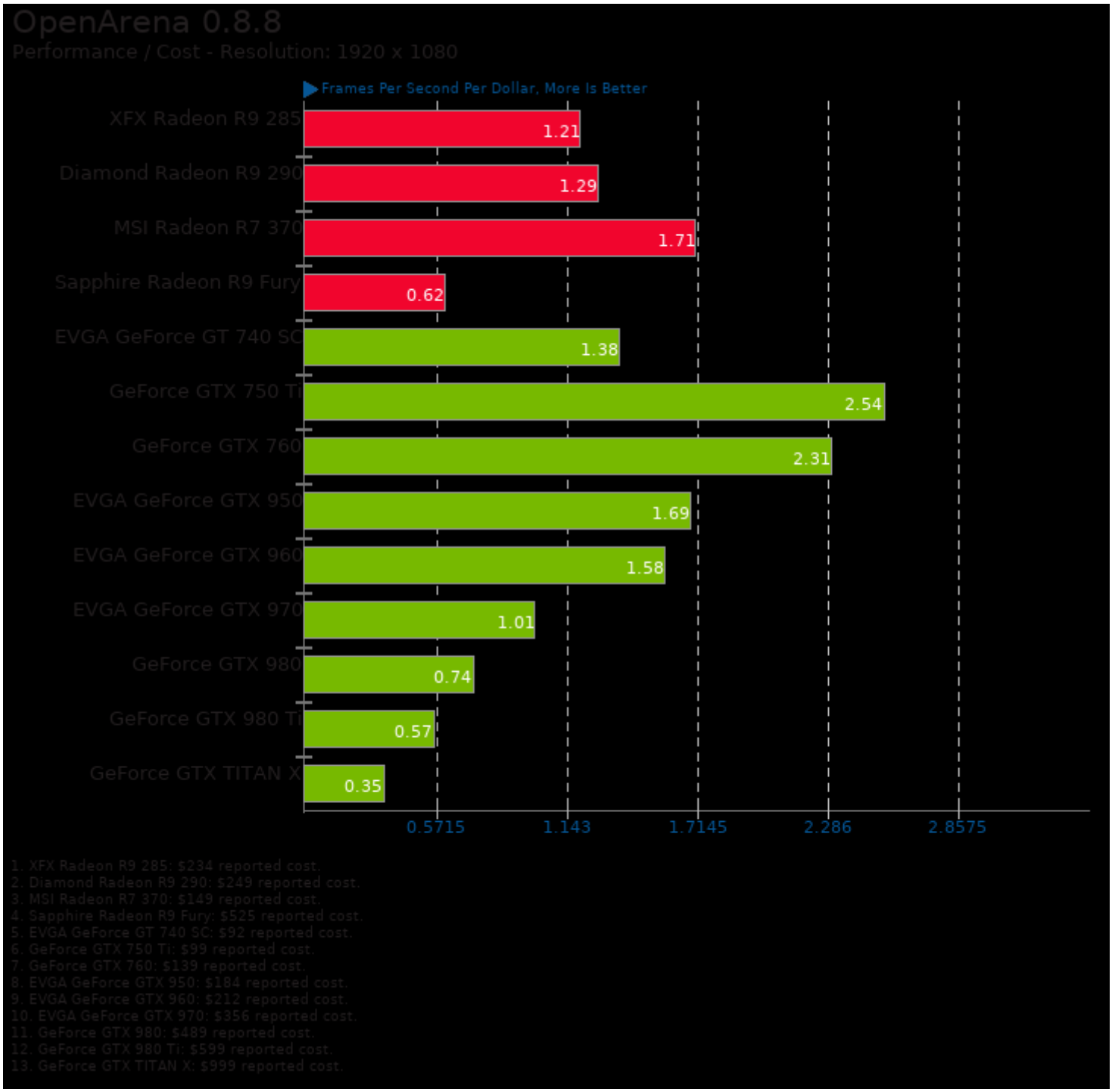
Metro: Last Light Redux - Performance / Cost - P.T.S.v.0.1 (FPS/Dollar)	0.34	0.36	0.48	0.17	0.48	**0.87**	0.86	0.40	0.65	0.44	0.32	0.26	**0.16**
Normalized	39.08%	41.38%	55.17%	19.54%	55.17%	100%	98.85%	45.98%	74.71%	50.57%	36.78%	29.89%	18.39%
Meta Performance Per Dollar - P.P.D (Performance/D	0.58	0.60	0.85	0.30	0.89	**1.42**	1.33	0.76	0.88	0.58	0.42	0.34	**0.22**
Normalized	40.85%	42.25%	59.86%	21.13%	62.68%	100%	93.66%	53.52%	61.97%	40.85%	29.58%	23.94%	15.49%

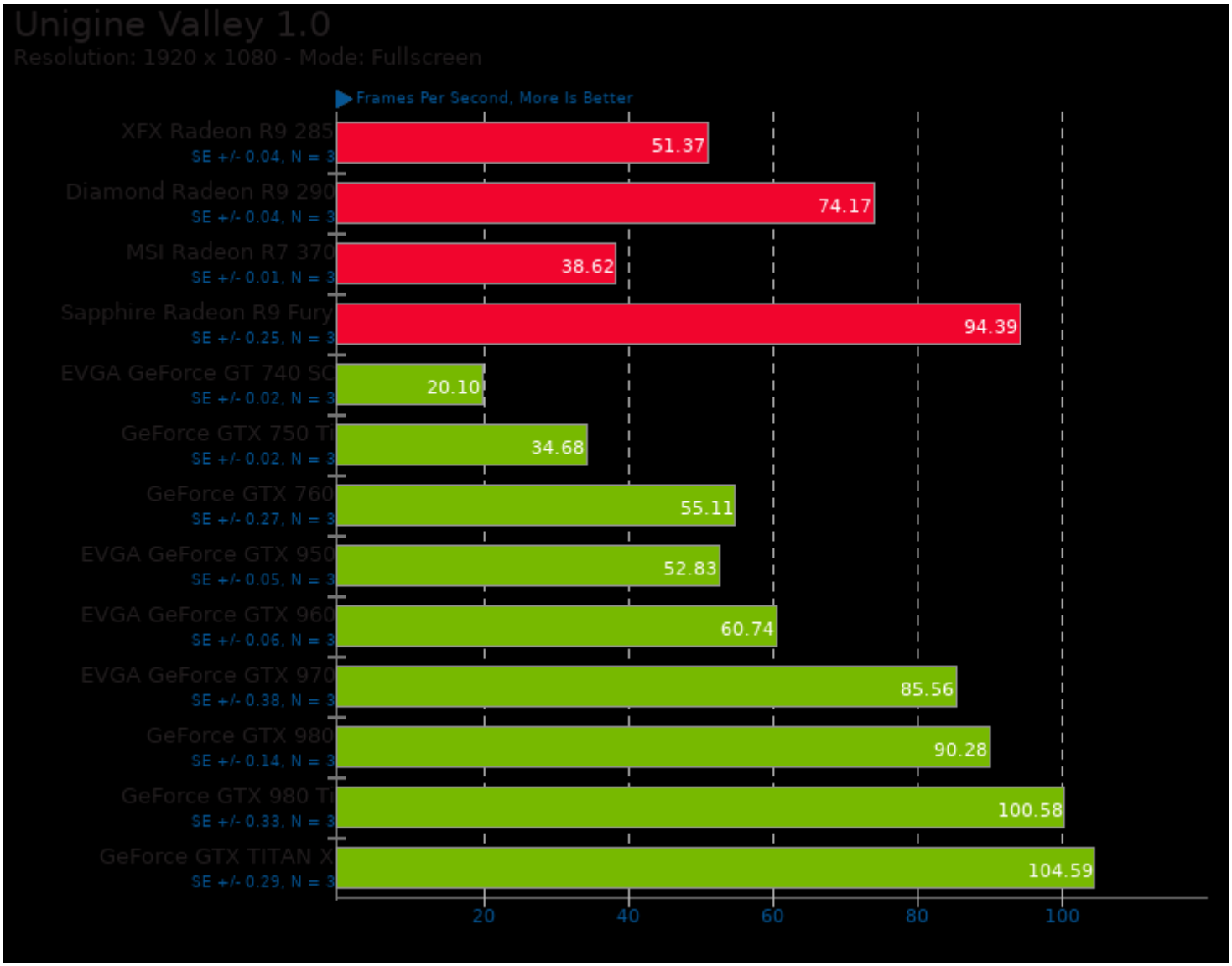

Xonotic 0.8
Resolution: 1920 x 1080 - Effects Quality: Ultra
Frames Per Second, More Is Better
XFX Radeon R9 285
SE +/- 0.36, N = 3
MIN: 90 / MAX: 372
196.71
Diamond Radeon R9 290
SE +/- 0.57, N = 3
MIN: 91 / MAX: 375
194.90
MSI Radeon R7 370
SE +/- 0.71, N = 3
MIN: 94 / MAX: 384
199.30
Sapphire Radeon R9 Fury
SE +/- 2.61, N = 3
MIN: 94 / MAX: 387
202.88
EVGA GeForce GT 740 SC
SE +/- 0.68, N = 3
MIN: 77 / MAX: 242
164.47
GeForce GTX 750 Ti
SE +/- 6.71, N = 6
MIN: 31 / MAX: 2133
233.43
GeForce GTX 760
SE +/- 18.57, N = 6
MIN: 152 / MAX: 5253
299.42
EVGA GeForce GTX 950
SE +/- 0.27, N = 3
MIN: 100 / MAX: 256
183.98
EVGA GeForce GTX 960
SE +/- 2.17, N = 3
MIN: 162 / MAX: 470
270.66
EVGA GeForce GTX 970
SE +/- 1.22, N = 3
MIN: 170 / MAX: 571
284.06
GeForce GTX 980
SE +/- 2.42, N = 3
MIN: 163 / MAX: 566
273.96
GeForce GTX 980 Ti
SE +/- 2.39, N = 3
MIN: 143 / MAX: 599
274.32
GeForce GTX TITAN X
SE +/- 60.05, N = 6
MIN: 148 / MAX: 5161
337.05
70
140
210
280
350

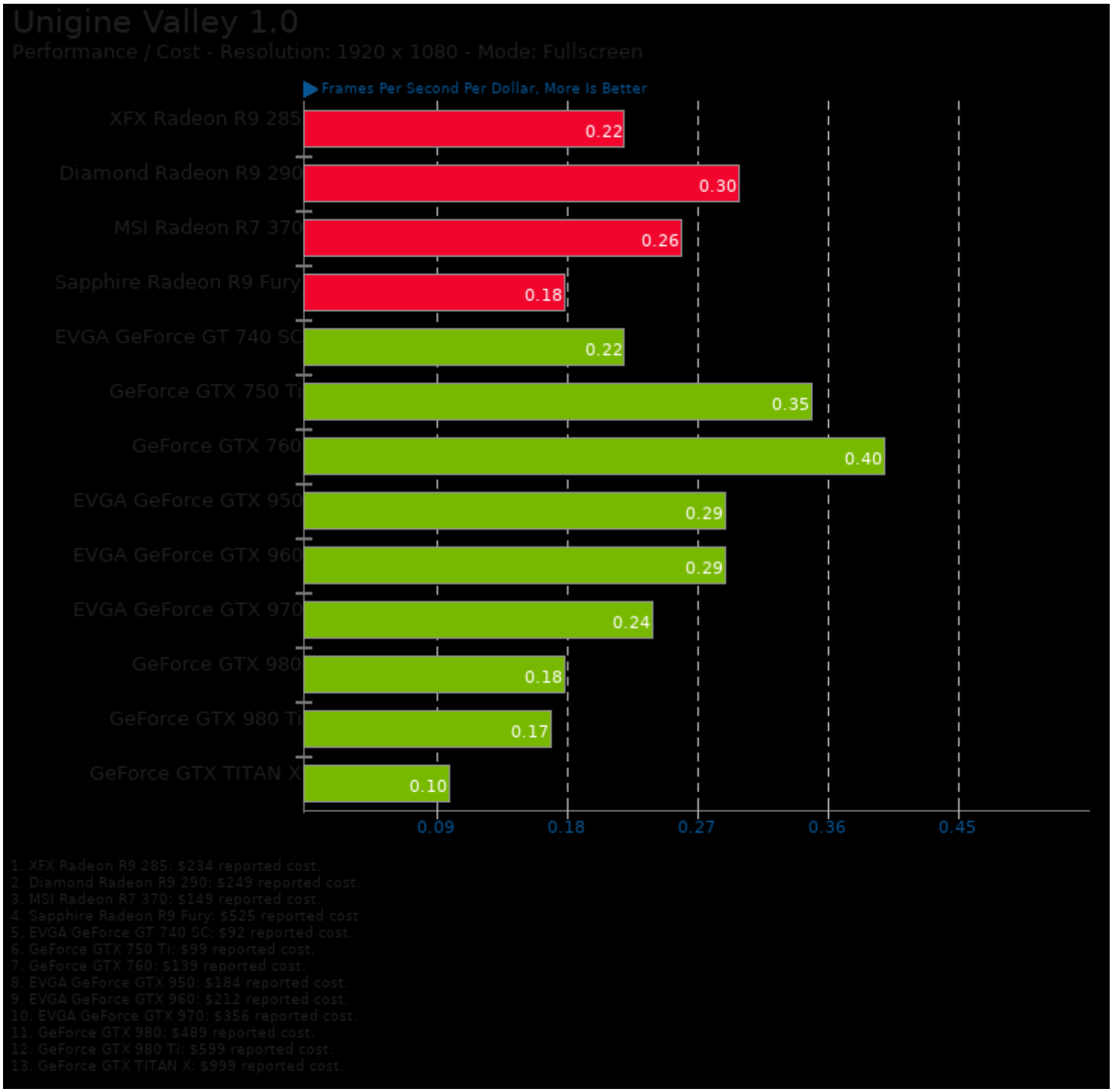

Xonotic 0.8
Performance / Cost - Resolution: 1920 x 1080 - Effects Quality: Ultra
Frames Per Second Per Dollar, More Is Better
XFX Radeon R9 285
Diamond Radeon R9 290
MSI Radeon R7 370
Sapphire Radeon R9 Fury
EVGA GeForce GT 740 SC
GeForce GTX 750 Ti
GeForce GTX 760
EVGA GeForce GTX 950
EVGA GeForce GTX 960
EVGA GeForce GTX 970
GeForce GTX 980
GeForce GTX 980 Ti
GeForce GTX TITAN X
0.84
0.78
1.34
0.39
1.79
2.36
2.15
1.00
1.28
0.80
0.56
0.46
0.34
0.531
1.062
1.593
2.124
2.655
1. XFX Radeon R9 285: $234 reported cost.
2. Diamond Radeon R9 290: $249 reported cost.
3. MSI Radeon R7 370: $149 reported cost.
4. Sapphire Radeon R9 Fury: $525 reported cost.
5. EVGA GeForce GT 740 SC: $92 reported cost.
6. GeForce GTX 750 Ti: $99 reported cost.
7. GeForce GTX 760: $139 reported cost.
8. EVGA GeForce GTX 950: $184 reported cost.
9. EVGA GeForce GTX 960: $212 reported cost.
10. EVGA GeForce GTX 970: $356 reported cost.
11. GeForce GTX 980: $489 reported cost.
12. GeForce GTX 980 Ti: $599 reported cost.
13. GeForce GTX TITAN X: $999 reported cost.

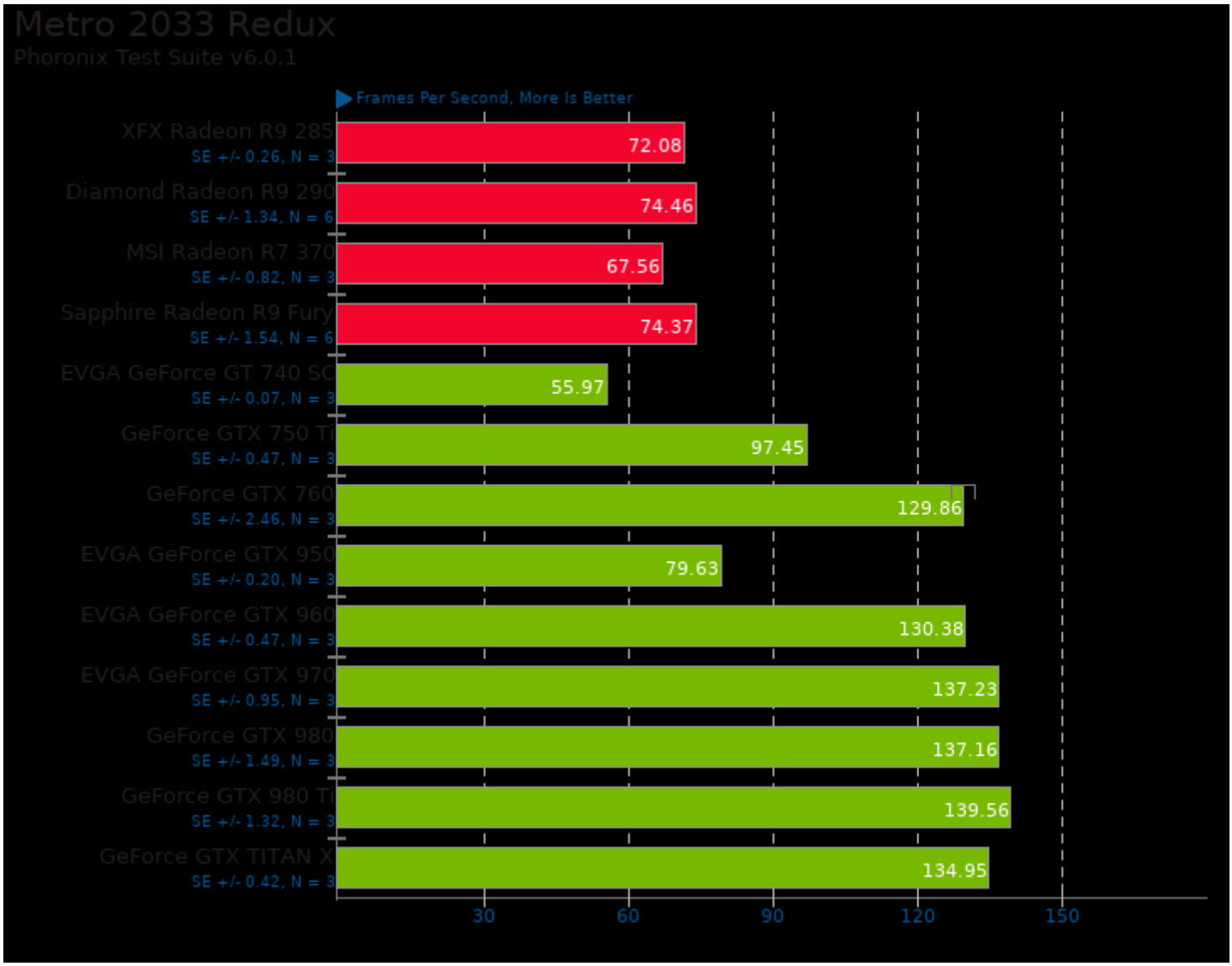

OpenArena 0.8.8
Resolution: 1920 x 1080
Frames Per Second, More Is Better
XFX Radeon R9 285
SE +/- 0.84, N = 3
MIN: 1
283.93
Diamond Radeon R9 290
SE +/- 1.35, N = 3
MIN: 1
320.00
MSI Radeon R7 370
SE +/- 2.05, N = 3
MIN: 1
254.50
Sapphire Radeon R9 Fury
SE +/- 0.18, N = 3
MIN: 1
326.33
EVGA GeForce GT 740 SC
SE +/- 0.12, N = 3
MIN: 4
126.90
GeForce GTX 750 Ti
SE +/- 0.40, N = 3
MIN: 1
251.70
GeForce GTX 760
SE +/- 0.49, N = 3
MIN: 1
320.60
EVGA GeForce GTX 950
SE +/- 3.40, N = 3
MIN: 1
311.00
EVGA GeForce GTX 960
SE +/- 0.64, N = 3
MIN: 1
335.87
EVGA GeForce GTX 970
SE +/- 2.43, N = 3
MIN: 1
359.40
GeForce GTX 980
SE +/- 1.74, N = 3
MIN: 1
360.73
GeForce GTX 980 Ti
SE +/- 0.72, N = 3
MIN: 1
342.93
GeForce GTX TITAN X
SE +/- 2.89, N = 3
MIN: 1
348.20
80
160
240
320
400

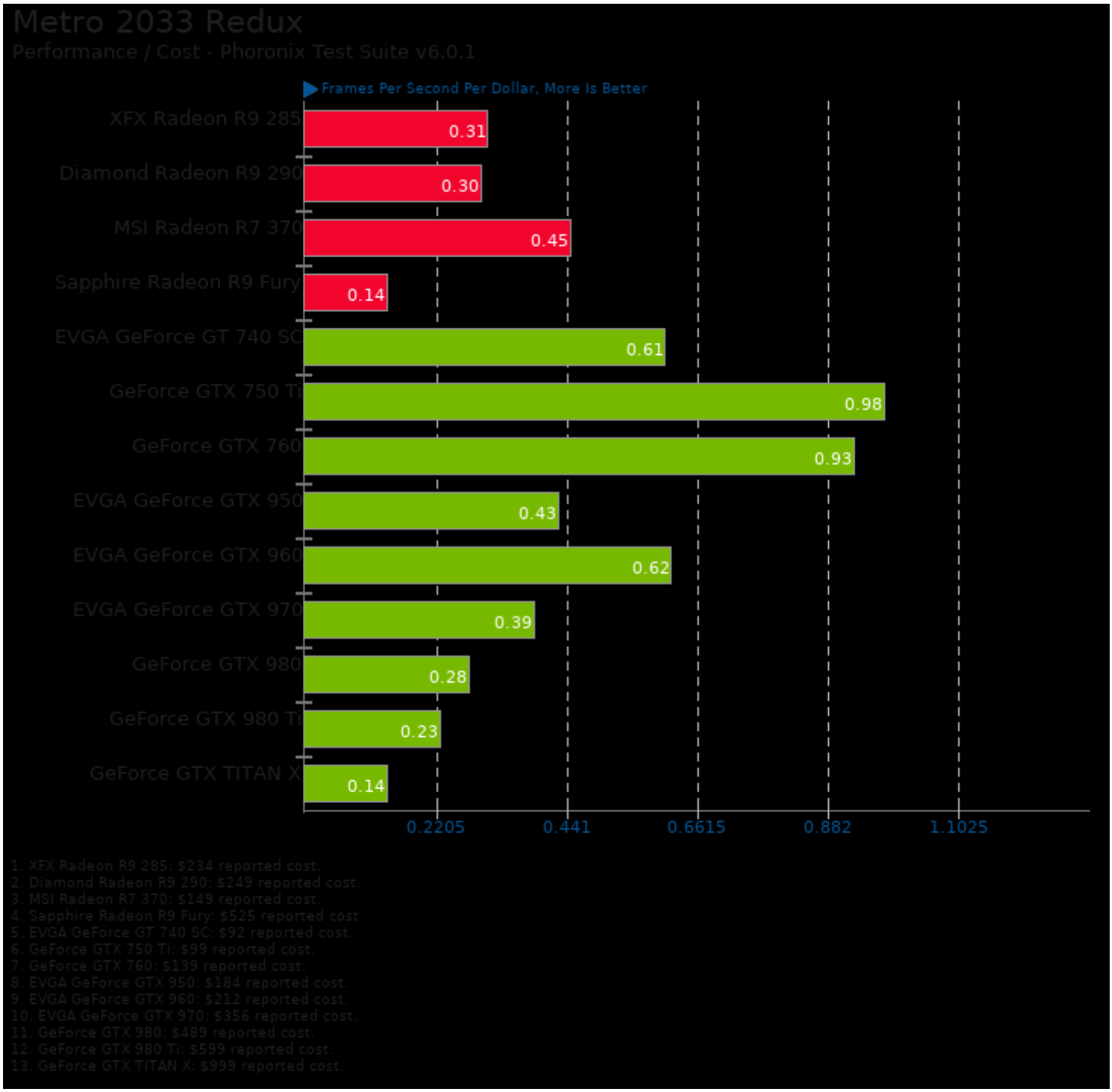

OpenArena 0.8.8
Resolution: 1920 x 1080 - Total Frame Time
Milliseconds, Fewer Is Better
XFX Radeon R9 285
Min: 1 / Avg: 3.52 / Max: 16
Diamond Radeon R9 290
Min: 1 / Avg: 3.09 / Max: 10
MSI Radeon R7 370
Min: 1 / Avg: 3.88 / Max: 11
Sapphire Radeon R9 Fury
Min: 1 / Avg: 3.04 / Max: 11
EVGA GeForce GT 740 SC
Min: 5 / Avg: 7.84 / Max: 22
GeForce GTX 750 Ti
Min: 2 / Avg: 3.93 / Max: 18
GeForce GTX 760
Min: 1 / Avg: 3.1 / Max: 17
EVGA GeForce GTX 950
Min: 1 / Avg: 3.16 / Max: 17
EVGA GeForce GTX 960
Min: 1 / Avg: 2.94 / Max: 18
EVGA GeForce GTX 970
Min: 1 / Avg: 2.8 / Max: 16
GeForce GTX 980
Min: 1 / Avg: 2.73 / Max: 16
GeForce GTX 980 Ti
Min: 1 / Avg: 2.9 / Max: 20
GeForce GTX TITAN X
Min: 1 / Avg: 2.81 / Max: 16
5
10
15
20
25

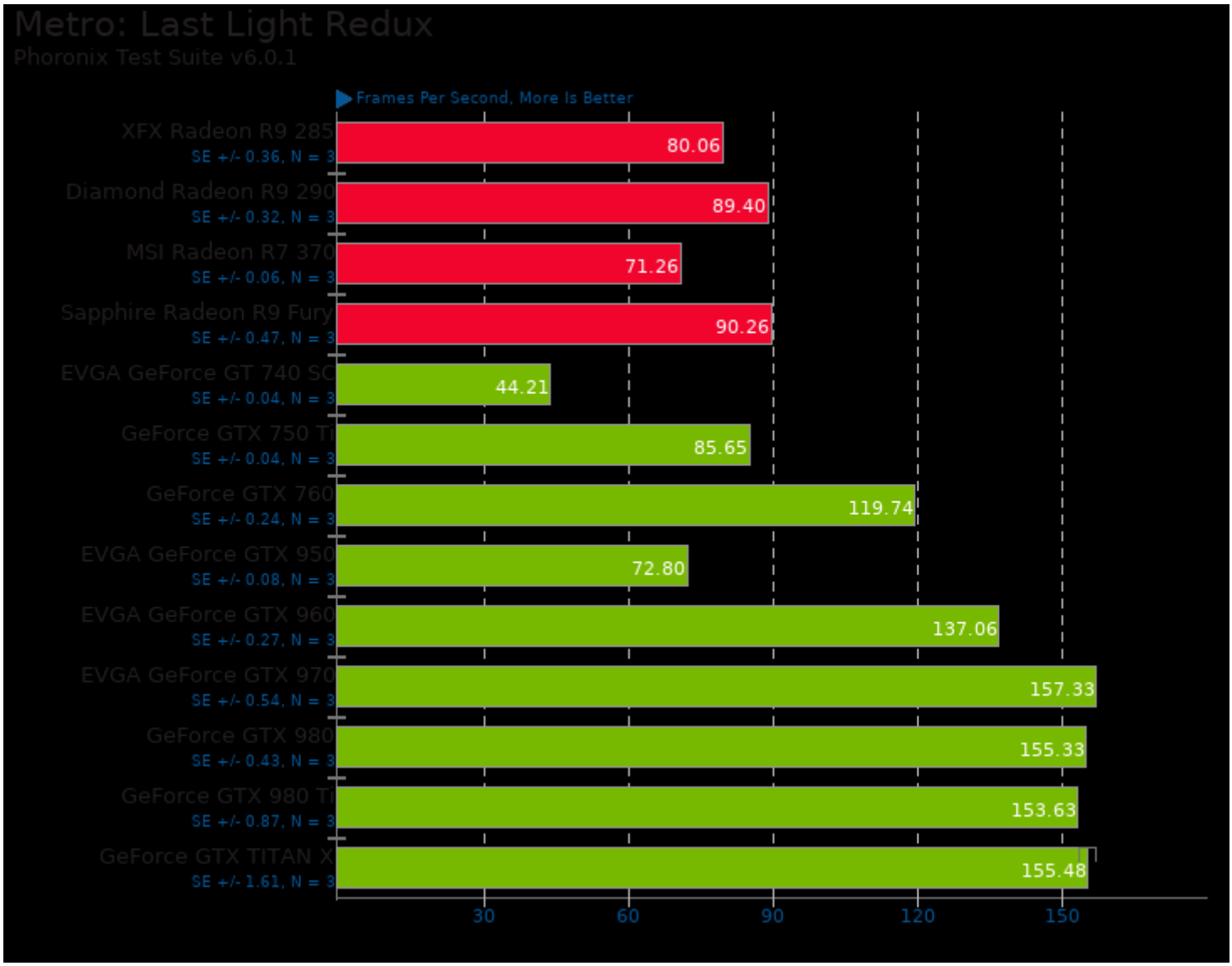

OpenArena 0.8.8
Performance / Cost - Resolution: 1920 x 1080
Frames Per Second Per Dollar, More Is Better
XFX Radeon R9 285
Diamond Radeon R9 290
MSI Radeon R7 370
Sapphire Radeon R9 Fury
EVGA GeForce GT 740 SC
GeForce GTX 750 Ti
GeForce GTX 760
EVGA GeForce GTX 950
EVGA GeForce GTX 960
EVGA GeForce GTX 970
GeForce GTX 980
GeForce GTX 980 Ti
GeForce GTX TITAN X
1.21
1.29
1.71
0.62
1.38
2.54
2.31
1.69
1.58
1.01
0.74
0.57
0.35
0.5715
1.143
1.7145
2.286
2.8575
1. XFX Radeon R9 285: $234 reported cost.
2. Diamond Radeon R9 290: $249 reported cost.
3. MSI Radeon R7 370: $149 reported cost.
4. Sapphire Radeon R9 Fury: $525 reported cost.
5. EVGA GeForce GT 740 SC: $92 reported cost.
6. GeForce GTX 750 Ti: $99 reported cost.
7. GeForce GTX 760: $139 reported cost.
8. EVGA GeForce GTX 950: $184 reported cost.
9. EVGA GeForce GTX 960: $212 reported cost.
10. EVGA GeForce GTX 970: $356 reported cost.
11. GeForce GTX 980: $489 reported cost.
12. GeForce GTX 980 Ti: $599 reported cost.
13. GeForce GTX TITAN X: $999 reported cost.

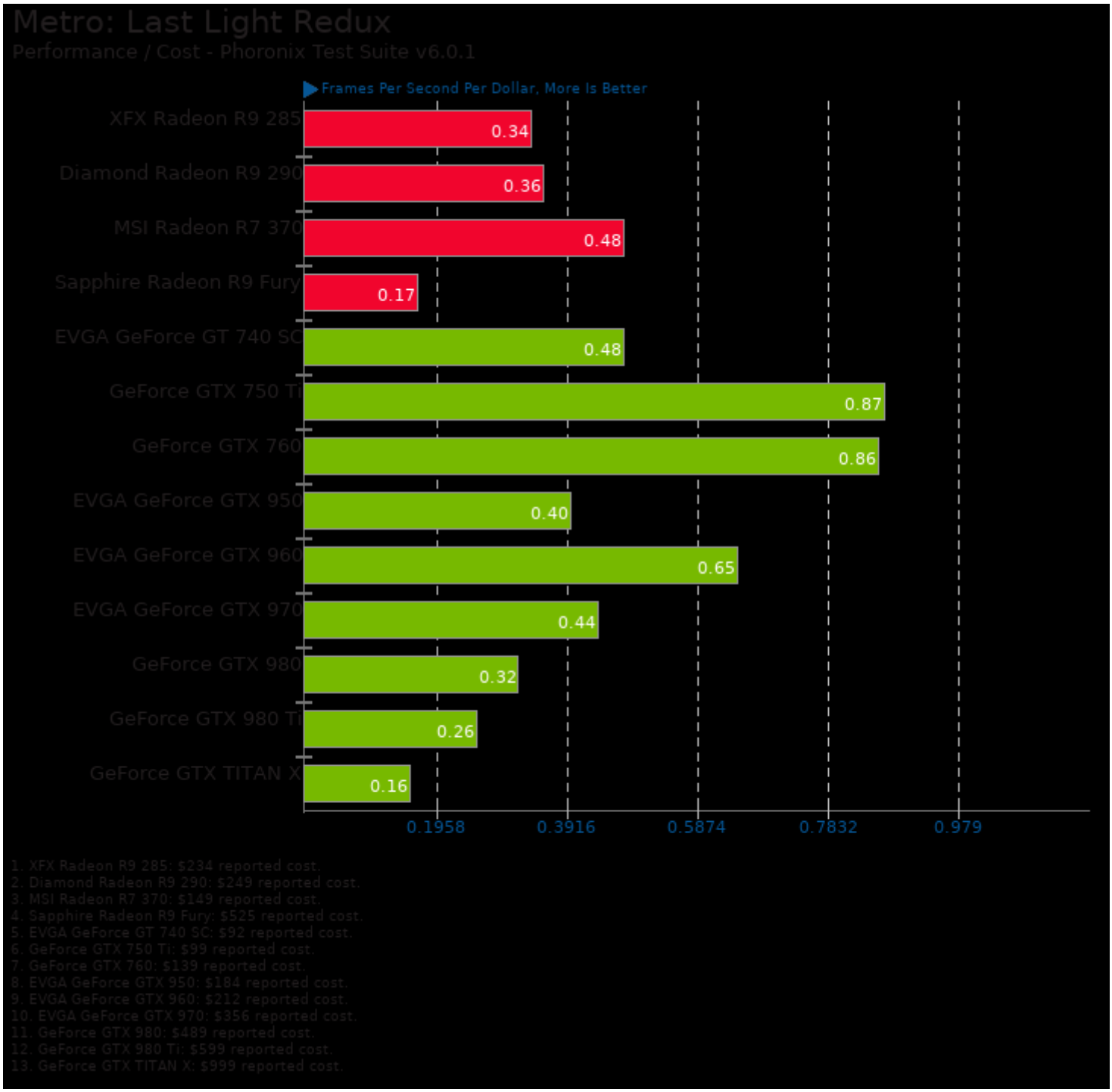

Unigine Valley 1.0
Resolution: 1920 x 1080 - Mode: Fullscreen
Frames Per Second, More Is Better
XFX Radeon R9 285
SE +/- 0.04, N = 3
51.37
Diamond Radeon R9 290
SE +/- 0.04, N = 3
74.17
MSI Radeon R7 370
SE +/- 0.01, N = 3
38.62
Sapphire Radeon R9 Fury
SE +/- 0.25, N = 3
94.39
EVGA GeForce GT 740 SC
SE +/- 0.02, N = 3
20.10
GeForce GTX 750 Ti
SE +/- 0.02, N = 3
34.68
GeForce GTX 760
SE +/- 0.27, N = 3
55.11
EVGA GeForce GTX 950
SE +/- 0.05, N = 3
52.83
EVGA GeForce GTX 960
SE +/- 0.06, N = 3
60.74
EVGA GeForce GTX 970
SE +/- 0.38, N = 3
85.56
GeForce GTX 980
SE +/- 0.14, N = 3
90.28
GeForce GTX 980 Ti
SE +/- 0.33, N = 3
100.58
GeForce GTX TITAN X
SE +/- 0.29, N = 3
104.59
20
40
60
80
100

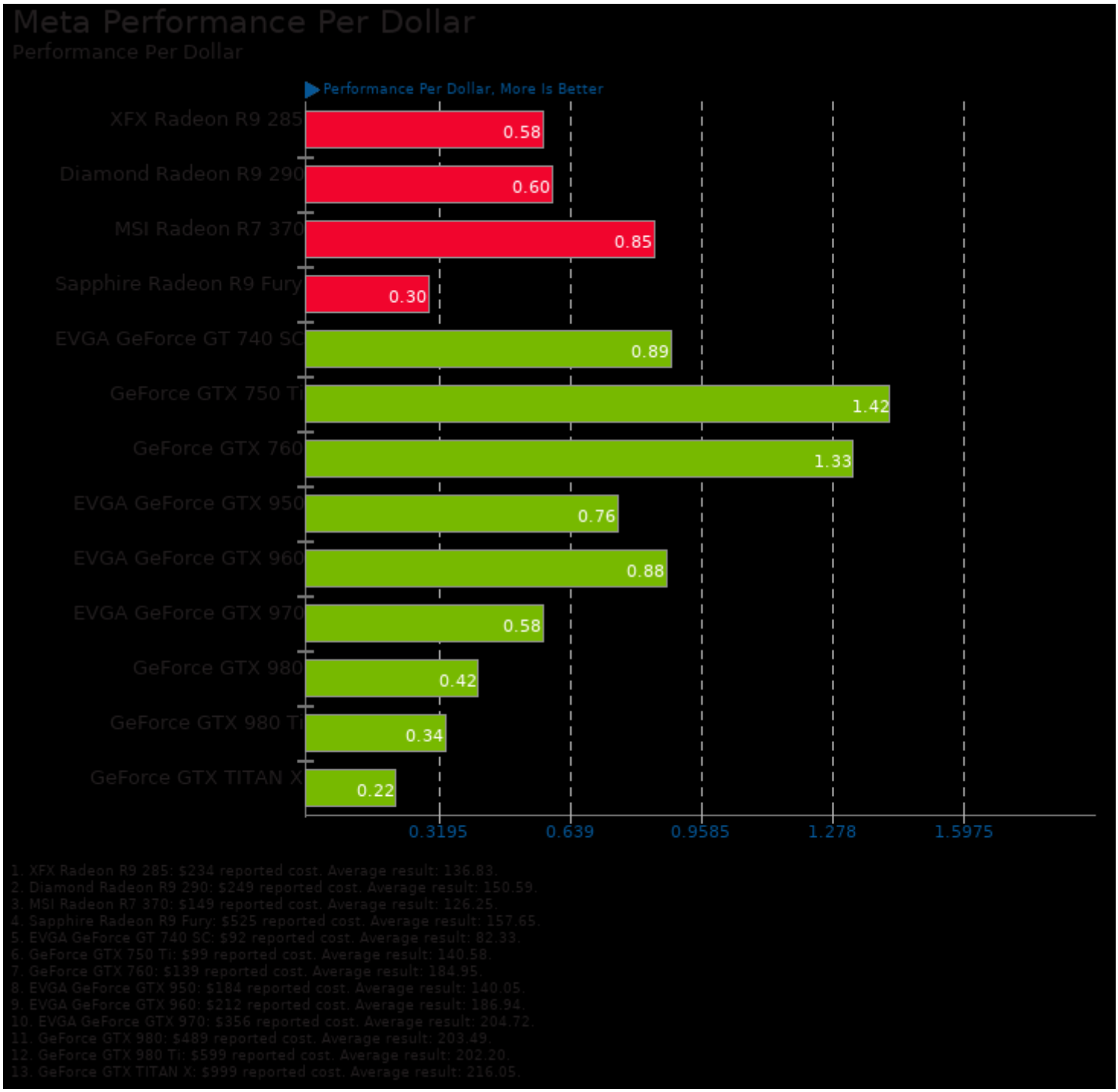

Unigine Valley 1.0
Performance / Cost - Resolution: 1920 x 1080 - Mode: Fullscreen
Frames Per Second Per Dollar, More Is Better
XFX Radeon R9 285
Diamond Radeon R9 290
MSI Radeon R7 370
Sapphire Radeon R9 Fury
EVGA GeForce GT 740 SC
GeForce GTX 750 Ti
GeForce GTX 760
EVGA GeForce GTX 950
EVGA GeForce GTX 960
EVGA GeForce GTX 970
GeForce GTX 980
GeForce GTX 980 Ti
GeForce GTX TITAN X
0.22
0.30
0.26
0.18
0.22
0.35
0.40
0.29
0.29
0.24
0.18
0.17
0.10
0.09
0.18
0.27
0.36
0.45
1. XFX Radeon R9 285: $234 reported cost.
2. Diamond Radeon R9 290: $249 reported cost.
3. MSI Radeon R7 370: $149 reported cost.
4. Sapphire Radeon R9 Fury: $525 reported cost.
5. EVGA GeForce GT 740 SC: $92 reported cost.
6. GeForce GTX 750 Ti: $99 reported cost.
7. GeForce GTX 760: $139 reported cost.
8. EVGA GeForce GTX 950: $184 reported cost.
9. EVGA GeForce GTX 960: $212 reported cost.
10. EVGA GeForce GTX 970: $356 reported cost.
11. GeForce GTX 980: $489 reported cost.
12. GeForce GTX 980 Ti: $599 reported cost.
13. GeForce GTX TITAN X: $999 reported cost.


Metro 2033 Redux
Phoronix Test Suite v6.0.1
Frames Per Second, More Is Better
XFX Radeon R9 285
SE +/- 0.26, N = 3
72.08
Diamond Radeon R9 290
SE +/- 1.34, N = 6
74.46
MSI Radeon R7 370
SE +/- 0.82, N = 3
67.56
Sapphire Radeon R9 Fury
SE +/- 1.54, N = 6
74.37
EVGA GeForce GT 740 SC
SE +/- 0.07, N = 3
55.97
GeForce GTX 750 Ti
SE +/- 0.47, N = 3
97.45
GeForce GTX 760
SE +/- 2.46, N = 3
129.86
EVGA GeForce GTX 950
SE +/- 0.20, N = 3
79.63
EVGA GeForce GTX 960
SE +/- 0.47, N = 3
130.38
EVGA GeForce GTX 970
SE +/- 0.95, N = 3
137.23
GeForce GTX 980
SE +/- 1.49, N = 3
137.16
GeForce GTX 980 Ti
SE +/- 1.32, N = 3
139.56
GeForce GTX TITAN X
SE +/- 0.42, N = 3
134.95
30
60
90
120
150

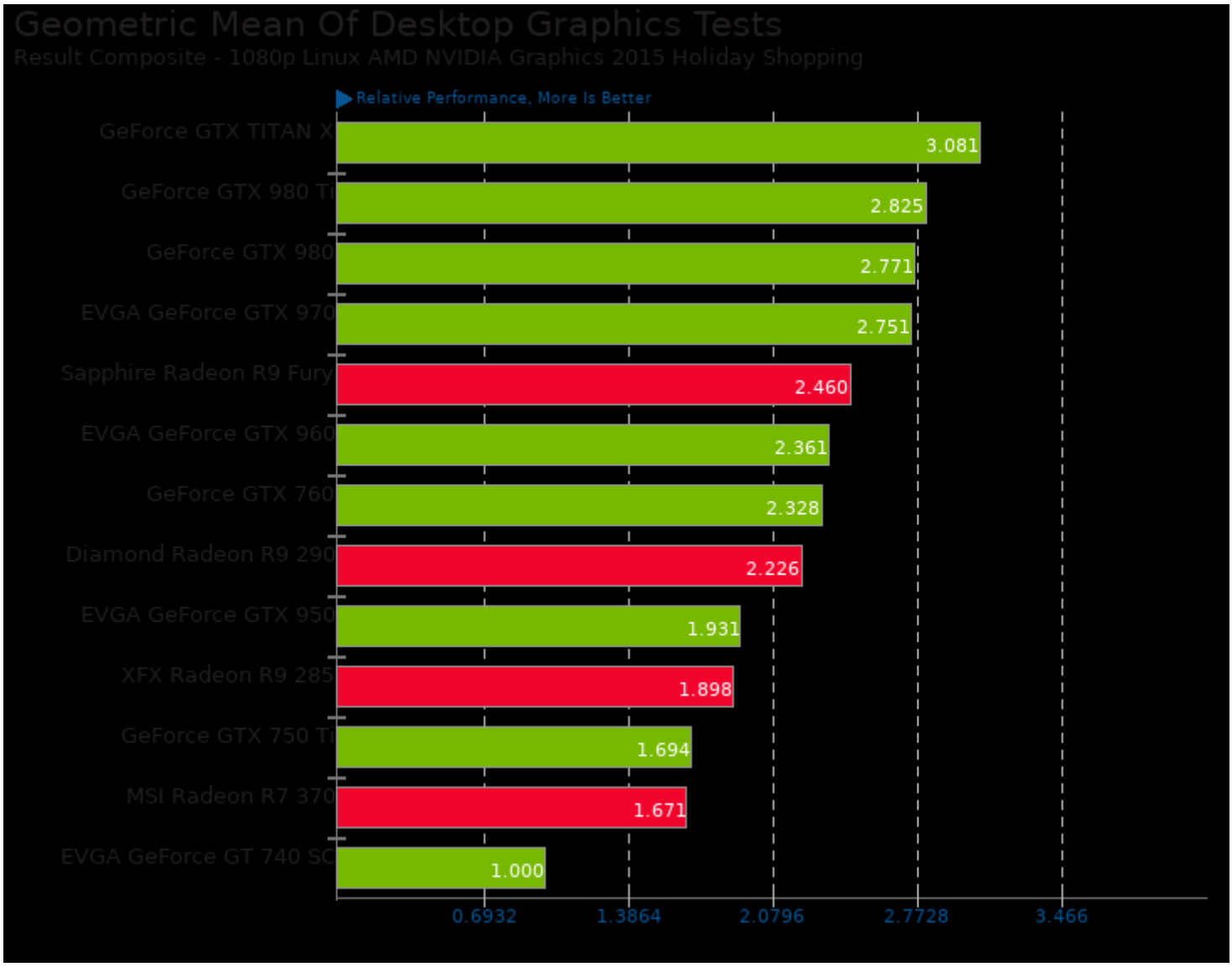

Metro 2033 Redux
Performance / Cost - Phoronix Test Suite v6.0.1
Frames Per Second Per Dollar, More Is Better
XFX Radeon R9 285
0.31
Diamond Radeon R9 290
0.30
MSI Radeon R7 370
0.45
Sapphire Radeon R9 Fury
0.14
EVGA GeForce GT 740 SC
0.61
GeForce GTX 750 Ti
0.98
GeForce GTX 760
0.93
EVGA GeForce GTX 950
0.43
EVGA GeForce GTX 960
0.62
EVGA GeForce GTX 970
0.39
GeForce GTX 980
0.28
GeForce GTX 980 Ti
0.23
GeForce GTX TITAN X
0.14
0.2205
0.441
0.6615
0.882
1.1025
1. XFX Radeon R9 285: $234 reported cost.
2. Diamond Radeon R9 290: $249 reported cost.
3. MSI Radeon R7 370: $149 reported cost.
4. Sapphire Radeon R9 Fury: $525 reported cost.
5. EVGA GeForce GT 740 SC: $92 reported cost.
6. GeForce GTX 750 Ti: $99 reported cost.
7. GeForce GTX 760: $139 reported cost.
8. EVGA GeForce GTX 950: $184 reported cost.
9. EVGA GeForce GTX 960: $212 reported cost.
10. EVGA GeForce GTX 970: $356 reported cost.
11. GeForce GTX 980: $489 reported cost.
12. GeForce GTX 980 Ti: $599 reported cost.
13. GeForce GTX TITAN X: $999 reported cost.


Metro: Last Light Redux
Phoronix Test Suite v6.0.1
Frames Per Second, More Is Better
XFX Radeon R9 285
SE +/- 0.36, N = 3
80.06
Diamond Radeon R9 290
SE +/- 0.32, N = 3
89.40
MSI Radeon R7 370
SE +/- 0.06, N = 3
71.26
Sapphire Radeon R9 Fury
SE +/- 0.47, N = 3
90.26
EVGA GeForce GT 740 SC
SE +/- 0.04, N = 3
44.21
GeForce GTX 750 Ti
SE +/- 0.04, N = 3
85.65
GeForce GTX 760
SE +/- 0.24, N = 3
119.74
EVGA GeForce GTX 950
SE +/- 0.08, N = 3
72.80
EVGA GeForce GTX 960
SE +/- 0.27, N = 3
137.06
EVGA GeForce GTX 970
SE +/- 0.54, N = 3
157.33
GeForce GTX 980
SE +/- 0.43, N = 3
155.33
GeForce GTX 980 Ti
SE +/- 0.87, N = 3
153.63
GeForce GTX TITAN X
SE +/- 1.61, N = 3
155.48
30
60
90
120
150

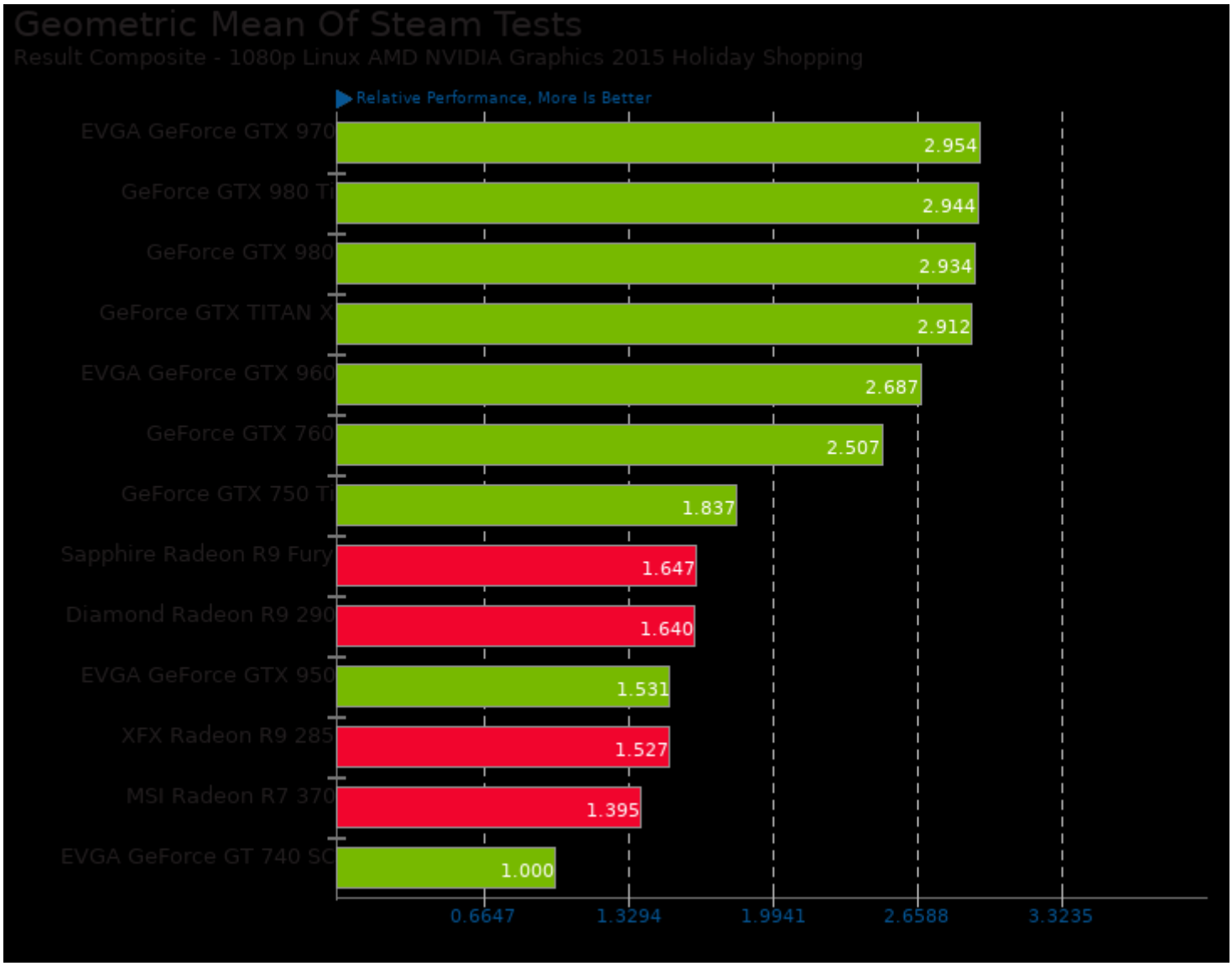

Metro: Last Light Redux
Performance / Cost - Phoronix Test Suite v6.0.1
Frames Per Second Per Dollar, More Is Better
XFX Radeon R9 285
Diamond Radeon R9 290
MSI Radeon R7 370
Sapphire Radeon R9 Fury
EVGA GeForce GT 740 SC
GeForce GTX 750 Ti
GeForce GTX 760
EVGA GeForce GTX 950
EVGA GeForce GTX 960
EVGA GeForce GTX 970
GeForce GTX 980
GeForce GTX 980 Ti
GeForce GTX TITAN X
0.34
0.36
0.48
0.17
0.48
0.87
0.86
0.40
0.65
0.44
0.32
0.26
0.16
0.1958
0.3916
0.5874
0.7832
0.979
1. XFX Radeon R9 285: $234 reported cost.
2. Diamond Radeon R9 290: $249 reported cost.
3. MSI Radeon R7 370: $149 reported cost.
4. Sapphire Radeon R9 Fury: $525 reported cost.
5. EVGA GeForce GT 740 SC: $92 reported cost.
6. GeForce GTX 750 Ti: $99 reported cost.
7. GeForce GTX 760: $139 reported cost.
8. EVGA GeForce GTX 950: $184 reported cost.
9. EVGA GeForce GTX 960: $212 reported cost.
10. EVGA GeForce GTX 970: $356 reported cost.
11. GeForce GTX 980: $489 reported cost.
12. GeForce GTX 980 Ti: $599 reported cost.
13. GeForce GTX TITAN X: $999 reported cost.


Meta Performance Per Dollar
Performance Per Dollar
Performance Per Dollar, More Is Better
XFX Radeon R9 285
Diamond Radeon R9 290
MSI Radeon R7 370
Sapphire Radeon R9 Fury
EVGA GeForce GT 740 SC
GeForce GTX 750 Ti
GeForce GTX 760
EVGA GeForce GTX 950
EVGA GeForce GTX 960
EVGA GeForce GTX 970
GeForce GTX 980
GeForce GTX 980 Ti
GeForce GTX TITAN X
0.58
0.60
0.85
0.30
0.89
1.42
1.33
0.76
0.88
0.58
0.42
0.34
0.22
0.3195
0.639
0.9585
1.278
1.5975
1. XFX Radeon R9 285: $234 reported cost. Average result: 136.83.
2. Diamond Radeon R9 290: $249 reported cost. Average result: 150.59.
3. MSI Radeon R7 370: $149 reported cost. Average result: 126.25.
4. Sapphire Radeon R9 Fury: $525 reported cost. Average result: 157.65.
5. EVGA GeForce GT 740 SC: $92 reported cost. Average result: 82.33.
6. GeForce GTX 750 Ti: $99 reported cost. Average result: 140.58.
7. GeForce GTX 760: $139 reported cost. Average result: 184.95.
8. EVGA GeForce GTX 950: $184 reported cost. Average result: 140.05.
9. EVGA GeForce GTX 960: $212 reported cost. Average result: 186.94.
10. EVGA GeForce GTX 970: $356 reported cost. Average result: 204.72.
11. GeForce GTX 980: $489 reported cost. Average result: 203.49.
12. GeForce GTX 980 Ti: $599 reported cost. Average result: 202.20.
13. GeForce GTX TITAN X: $999 reported cost. Average result: 216.05.

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/unigine-valley



Geometric mean based upon tests: pts/metro2033-redux and pts/metroll-redux

This file was automatically generated via the Phoronix Test Suite benchmarking software on Friday, 29 March 2024 02:00.