

NOTE: The table below was presented at the workshop. A more complete table is still under preparation.

	3rd Gen (ESRF/APS/ Spring-8)	ERL	XFEL Spontaneous	XFEL SASE
Bunch width	20-50 ps	< 3 ps	< 200 fs	< 200 fs
Separation between Bunches	2 μs - 3 ns	> 800 ps	100 ns - 10 ms	100 ns - 10 ms
Corresponding Current charge	~ 15 nC	> 0.08 nC	1 nC	1 nC
Corresponding Photon flux per bunch	10^8	$> 10^7$	10^9	10^{12}
Ave. Maximum Brilliance	~ 10^{21}	10^{22}	$10^{18} - 10^{23}$	$10^{22} - 10^{27}$
Peak Brilliance	~ 10^{24}	10^{25}	10^{29}	10^{33}
Beam (Ex Ex/Em)	~ Flat (100)	~ Round (1)	~ Round (1)	Round (1)

Wavelength ~ 10 keV, trans. coh. length, flux

JA, GS