

Facility “Standard Table”

FCC-ee / K. Oide	e <sup>+</sup> e <sup>-</sup>	<a href="mailto:katsunobu.oide@cern.ch">katsunobu.oide@cern.ch</a>			
Beam Energy, range	GeV	45.6, ±2	80, ±2	120, -10+5	182.5, -12+2
Peak Luminosity (10 <sup>34</sup> )	cm <sup>-2</sup> s <sup>-1</sup>	460 / 2IP	56 / 2IP	17 / 2IP	3.1 / 2IP
Int. Luminosity	ab <sup>-1</sup> /yr	48 / 2IP	6 / 2IP	1.7 / 2IP	0.34 / 2IP
Beam equilibrium dE/E	%	0.132	0.131	0.165	0.192
Beam dE/E, caused by a collision	10 <sup>-6</sup>	3.8	10	26	73
Transv. Beam sizes at IP x/y	um	6.4 / 0.028	13.0 / 0.041	13.7 / 0.036	38.2 / 0.068
Rms bunch length /length of interaction area/ beta*	cm	1.21/0.042/0.08	0.60/0.085/0.1	0.53/0.09/0.1	0.25/0.18/0.16
Crossing angle	urad	±15000			
Rep./Rev. frequency	Hz	3066.7			
Bunch spacing	ns	17.5	160	990	3400
# of IPs		2			
# of bunches		16640 / ring	2000 / ring	328 / ring	48 / ring
Length/Circumference	km	97.756			
Facility site power	MW	259	277	282	340
Cost range	\$B US	10.5 (BCHF)			+1.1 (BCHF)
Timescale till operations	yr	19	+4	+2	+4