

Selected xp4572 for PANDA

To select xp4572 phototubes for the PANDA we have measured relative quantum efficiencies of xp4500 (from BLAST) and xp4572 (from G0 & HMS-aero spare).

For the Bates PMTs xp4500 an average $\langle \text{NPE} \rangle \approx 80$. The HMS aerogel spare PMTs (xp4572) quantum efficiency higher relative to xp4500 by factor of ~ 1.5

During second test the number of detected photoelectrons by one xp4500 (SN# 09643) have been compared with the number PE detected by 16 different xp4572 (one from HMS spare and 15 from G0). For the PANDA have been selected PMTs

PMT type & source	Serial number & HV	NPE	Relative QE
xp4572, G0	60087, 1600	130	1.38 →5
xp4572, G0	60225, 1700	123	1.31 →7
xp4572, G0	60090, 1700	138	1.47 →3
xp4572, G0	60096, 1700	134	1.43 →4
xp4572, G0	60227, 1800	149	1.58 →1
xp4572, G0	60226, 1800	141	1.50 →2
xp4572, G0	60231, 1800	129	1.37 →8
xp4572, G0	60229, 1700	129	1.37 →6

PMTs marked by numbers #1-6 are mounted in cylinders, #7 and #8 are spare.