

G12 Analysis Checklist

The following procedures are common for most g12 analyses and have been approved by the g12 procedure review committee in the g12 analysis procedures manuscript [1]. By checking the "yes" boxes below, I hereby confirm that I understood and applied the procedures in accordance with the g12 analysis note. I also understand that if a procedure in the analysis is not done in accordance with the g12 analysis procedures, the box "no" should be checked and a separate analysis note on the procedure is required. If a procedure in the g12 analysis note is not applicable, to the analysis, the box "N/A" should be checked.

Procedure			
Used PART bank reconstruction for the analysis. EVNT was NOT used	N/A <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Momentum corrections as described in the g12 note	N/A <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Beam energy correction as described in the g12 note	N/A <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Inclusive Good run list as described in table 7. Individual analysis may use a subset of it	N/A <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Target density and its uncertainty as described in the g12 note	N/A <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Photon flux calculation procedure as described in the g12 note	N/A <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Lower limit for the systematic uncertainty of normalized yield is 5.7%	N/A <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Photon polarization calculation procedure as described in the g12 note	N/A <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Systematic uncertainty of the photon polarization as described in the g12 note	N/A <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
gsim parameters	N/A <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
gpp smearing parameters	N/A <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>

DC efficiency map	N/A <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
EC knockout	N/A <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Minimal TOF knockout	N/A <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Lepton ID is used	N/A <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
AUTHOR REMARKS (click below)			

Although the analysis note focuses on π^0 decaying into leptons and a photon, lepton PID was not used. Lepton ID for π^0 can be achieved by conservation of energy, mass.

References

- [1] g12 working group *g12 Analysis Procedures, Statistics and Systematics*.
2016