Information on material before Spectrometers: Fall 2016

Target (Loop 2):

Entrance window thickness: 0.175 mm Al 7075
Target Diameter: 3.0"
Target length: 15 cm
Wall thickness: 0.18 mm Al 7075
Tip radius: 1.5"
Tip thickness: 0.11 mm Al 7075

Above information can be found here:
http://hallaweb.jlab.org/12GeV/experiment/E12-07-108/Documents/Target/Fall2016/HallATargetConfiguration10-11-16.pdf

Technical drawings of the target can be found here:
http://hallaweb.jlab.org/12GeV/experiment/E12-07-108/Documents/Target/A_TGT_2-17.zip
http://hallaweb.jlab.org/12GeV/experiment/E12-07-108/Documents/Target/Loop3.zip

Survey Report for the target can be found here:
http://hallaweb.jlab.org/12GeV/experiment/E12-07-108/Technical_Docs/survey_reports/Fall2016/A1736.pdf

After Target:

Scattering chamber exit window: 16.0 mil (i.e. 0.016”) of Al 2024-T3
Air from scattering chamber to HRS vacuum: 15.23" (LHRS) , 14.79" (RHRS)
Window on spectrometer entrance: 12.0 mil (i.e. 0.012”) kapton

Scattering chamber technical drawing can be found here:
http://hallaweb.jlab.org/12GeV/experiment/E12-07-108/Publications/Technical/Technical_Drawings/A06114-03-03-0100_rev-.pdf

Technical drawing for sieve / spectrometer entrance can be found here:
http://hallaweb.jlab.org/12GeV/experiment/E12-07-108/Publications/Technical/Technical_Drawings/A07108-15-01-0400.pdf
http://hallaweb.jlab.org/12GeV/experiment/E12-07-108/Publications/Technical/Technical_Drawings/A07108-15-01-0401.pdf
http://hallaweb.jlab.org/12GeV/experiment/E12-07-108/Publications/Technical/Technical_Drawings/A07108-15-01-0401RevA.pdf

Older Sieve design (not in use):
http://hallaweb.jlab.org/12GeV/experiment/E12-07-108/Publications/Technical/Technical_Drawings/A07108-15-01-0300.pdf

HRS Schematics:
http://hallaweb.jlab.org/12GeV/experiment/E12-07-108/Publications/Technical/Spectrometer/Fall16/Right&Left_HRS_GMP_Fa16.pdf
http://hallaweb.jlab.org/12GeV/experiment/E12-07-108/Publications/Technical/Spectrometer/65410-E-17010-00.pdf

Sieve & Q1 Survey:
http://hallaweb.jlab.org/12GeV/experiment/E12-07-108/Technical_Docs/survey_reports/Oct2016/DT_A1738.pdf

Material Information:

Density of Al 7075: 2.81 g/cc
Density of Al 2024-T3: 2.78 g/cc

Temperature of LH2 Target: 19K
Pressure of LH2 Target: 25psi
Density of LH2 Target (19K, 25psi): 0.0723 g/cc (training slides), 0.07248 g/cc (NIST table)