Hall C Target Configuration
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General

The target configuration can be found in JLAB Drawing TGT-301-1001-0110 Rev B.

Target List and Lifter Positions

Target name	Lifter position	Target Material
Loop 1 4 cm	33180985	4 cm Loop 1
Loop 1 10 cm	29397888	10 cm Loop 1
Loop 2 10 cm	23648467	10 cm Loop 2
Loop 3 10 cm	16026425	10 cm Loop 3
10 cm dummy with C *	11245789	Aluminum 7075/Carbon
10 cm dummy	10628061	Aluminum 7075
4 cm dummy	9880285	Aluminum 7075
Optics #1 +/-10 and 0	8319709	Carbon
Optics #2 +/-5 cm	7604445	Carbon
Carbon Hole	6329565	Carbon
Carbon 6%	5614301	Carbon
Carbon 1.5%	4899037	Carbon
Carbon 0.5%	4183773	Carbon
10B4C	3468509	B4C
11B4C	2753245	B4C
Be	2037981	Be 99.99%
Raster/HALO	1322205	BeO
Home	0	N/A

* Note: Carbon target located at Z=0 on 10 cm dummy target position one.
Lifter positions are correct prior to vacuum and cryo-motion adjustments.

Target Thicknesses

Hydrogen loops

Entrance and exit window thicknesses are given below. To start both Loop 3 and 2 are connected to hydrogen. Loop 1 is in standby with helium gas.

Target	Entrance (mm)	Exit (mm)	Length (mm)	Material
Loop 1 (4 cm)	0.165 ± 0.0019	0.151 ± 0.0053 Tip 0.151 ± 0.0097 Wall	40 ± 0.26	AL 7075
Loop 1 (10 cm)	0.104 ± 0.0025	0.133 ± 0.0096 Tip 0.162 ±0.014 Wall	100 ± 0.26	AL 7075
Loop 2 (10 cm)	0.150 ± 0.011	0.191± 0.019 Tip 0.219 ± 0.018 wall	100 ± 0.26	AL 7075
Loop 3 (10 cm)	0.130 ± 0.012	0.188 ± 0.013 Tip 0.184 ± 0.017 wall	100 ± 0.26	AL 7075

Dummy Targets

The dummy targets are aluminum foils mounted on separate frames with foils located at Z positions corresponding to the cryotarget exit and entrance windows.

Target	Thickness Total (g/cm^2)	Material
4 cm Dummy	0.0789 ± 0.00014 0.0811 ± 0.00014	Al 7075
10 cm Dummy	0.1816 ± 0.0003 0.1815 ± 0.0003	Al 7075

Optics Target

The optics target has two positions with carbon (99.95% C) foils in a linear array with foils located nominally at:

1. Three foils located at Z = 0 cm and ± 10 cm
2. Two foils located at Z = ± 5 cm

The nominal thickness of each carbon foil is: 0.044 ± 0.001 g/cm^2.

Solid Targets

Solid targets are located on the solid target ladder nominally at Z = 0.

Target name	Thickness (g/cm^2)	Target Material
Carbon on 10 cm dummy	0.4426 ± 0.0008	Aluminum 7075/Carbon 99.95%
Carbon Hole	0.171 ± 0.001	Carbon 99.95%
Carbon 6%	2.068 ± 0.004	Carbon 99.95%
Carbon 1.5%	0.5244 ± 0.001	Carbon 99.95%
Carbon 0.5%	0.1749 ± 0.00035	Carbon 99.95%
10B4C	0.5722 ± 0.001	B4C (99.9% Chem/ 95% enrichment)
11B4C	0.6348 ± 0.001	B4C (99.9% Chem/ 95% enrichment)
Be	1.314 ± 0.001	Be (99.99%)
Raster/HALO	N/A	N/A
Home	0	N/A

Pictures: