Beam Configurations for EM2 Testing

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Pictures of the target, the EM in position by the target, and the Scintillator Telescope which slides under/over the white EM support stand. In addition a thin plastic scintillator will be between the target and the EM to veto target conversions. The scintillator will be mounted to the stainless table.

Summary of configurations available for the EM2 test

1) EM vertical.
2) EM vertical with scintillator paddles above and below (Pb and no Pb).
3) EM horizontal with VG target by EM front face.
4) EM vertical with VG target by Cal Side hole ??
Summary of beams and rates available for the EM2 test:

<table>
<thead>
<tr>
<th>Source</th>
<th>$[^/\text{sec}]$ into $4\pi$ sterad</th>
<th>EM Trig Rate [Hz]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cosmics (TkrTrig)</td>
<td></td>
<td>10 (EM vert)</td>
</tr>
<tr>
<td>Cosmics (Scint Trig – no Pb)</td>
<td></td>
<td>7 (EM vert)</td>
</tr>
<tr>
<td>Cosmics (Scint Trig – w Pb)</td>
<td></td>
<td>4 (EM vert)</td>
</tr>
<tr>
<td>Li (17.6, 14.6 MeV $\gamma$)</td>
<td>1,200</td>
<td>30</td>
</tr>
<tr>
<td>LiF (17, 15 + 6 MeV $\gamma$)</td>
<td>1,200 + 76,000</td>
<td>30 + 120</td>
</tr>
</tbody>
</table>

(Photons emerge isotropically from ~1 cm diam spot on the target.)

Trigger rates measured with EM1

Trig Meanings:
1=VG front face, TkrTrig , EM Horiz
2=VG side hole, CalLowTrig, EM Vert
3=VG side hole, TkrTrig , EM Vert
4=VG front face, CalLowTrig, EM Horiz
5=VG 45 deg , CalLowTrig, EM Horiz
6=VG 45 deg , TkrTrig , EM Horiz
7=VG front face, Pb, TkrTrig , EM Horiz