

Time (min)	L	B/B ₀	>96MeV	>97MeV	>98MeV	>99MeV	TOTALS
5	1.44168	2.14962	1.494E+02 (0.06119rad, 0.00367rad)	1.482E+02 (0.06134rad, 0.00368rad)	1.469E+02 (0.06142rad, 0.00369rad)	1.457E+02 (0.06154rad, 0.00369rad)	0.24549rad, 0.01473rad
6	1.51254	2.50334	2.064E+02 (0.08454rad, 0.00507rad)	2.041E+02 (0.08263rad, 0.00507rad)	2.018E+02 (0.08438rad, 0.00506rad)	1.994E+02 (0.08423rad, 0.00505rad)	0.33578rad, 0.02025rad
7	1.62236	2.90373	3.203E+02 (0.13119rad, 0.00795rad)	3.151E+02 (0.13041rad, 0.00782rad)	3.099E+02 (0.12958rad, 0.00777rad)	3.048E+02 (0.12875rad, 0.00772rad)	0.51993rad, 0.03126rad
8	1.73976	3.34539	1.679E+02 (0.06877rad, 0.00413rad)	1.640E+02 (0.06787rad, 0.00407rad)	1.601E+02 (0.06694rad, 0.00402rad)	1.564E+02 (0.06606rad, 0.00396rad)	0.26964rad, 0.01618rad
9	1.86325	3.82043	8.259E+01 (0.03383rad, 0.00203rad)	8.037E+01 (0.03326rad, 0.00200rad)	7.822E+01 (0.03271rad, 0.00196rad)	7.613E+01 (0.03216rad, 0.00193rad)	0.13196rad, 0.00792rad
10	1.99131	4.31882	4.736E+01 (0.01940rad, 0.00116rad)	4.605E+01 (0.01906rad, 0.00114rad)	4.478E+01 (0.01872rad, 0.00112rad)	4.355E+01 (0.01840rad, 0.00110rad)	0.07558rad, 0.00452rad
11	2.12248	4.82912	1.691E+01 (0.00693rad, 0.00042rad)	1.641E+01 (0.00679rad, 0.00041rad)	1.593E+00 (0.00666rad, 0.00040rad)	1.547E+01 (0.00653rad, 0.00039rad)	0.02691rad, 0.00162rad
12	2.25532	5.33932	4.924E+00 (0.00202rad, 0.00012rad)	4.740E+00 (0.00196rad, 0.00012rad)	4.562E+00 (0.00191rad, 0.00011rad)	4.391E+00 (0.00185rad, 0.00011rad)	0.00774rad, 0.00046rad
13	2.38857	5.83768	1.611E+00 (0.00066rad, 0.00004rad)	1.539E+00 (0.00064rad, 0.00004rad)	1.470E+00 (0.00061rad, 0.00004rad)	1.404E+00 (0.00059rad, 0.00004rad)	0.00250rad, 0.00016rad
TOTALS							1.61553rad, 0.09710rad

Skin dose Calculations

$(\text{Protons/cm}^2/\text{s}) * (100^2\text{cm}^2) * (3600\text{s/hr}) = \text{Protons/m}^2/\text{hr}$
 $(\text{Protons/m}^2/\text{hr}) * 2\text{m}^2 = \text{Protons/hr}$
 $\text{Protons/hr} * (E \text{ MeV/Proton}) = E \text{ MeV/hr}$
 $(E \text{ MeV/hr}) * (1.6 * 10^{-13} / \text{MeV}) = \text{Joules/hr}$
 $(\text{Joules/hr}) / 4.5\text{kg} = \text{Gray/hr}$
 $(\text{Gray/hr}) * 100\text{rad/Gray} = \text{rad/hr}$
 $\text{Rad/hr} * 1/60 = \text{rad/min}$

Depth dose Calculations

$(\text{Protons/cm}^2/\text{s}) * (100^2\text{cm}^2) * (3600\text{s/hr}) = \text{Protons/m}^2/\text{hr}$

$(\text{Protons}/\text{m}^2/\text{hr}) * 2\text{m}^2 = \text{Protons}/\text{hr}$
 $\text{Protons}/\text{hr} * (E \text{ MeV}/\text{Proton}) = E \text{ MeV}/\text{hr}$
 $(E \text{ MeV}/\text{hr}) * (1.6 * 10^{-13}/\text{MeV}) = \text{Joules}/\text{hr}$
 $(\text{Joules}/\text{hr})/75\text{kg} = \text{Gray}/\text{hr}$
 $(\text{Gray}/\text{hr}) * 100\text{rad}/\text{Gray} = \text{rad}/\text{hr}$
 $\text{Rad}/\text{hr} * 1/60 = \text{rad}/\text{min}$