

Time (min)	L	B/B ₀	>251MeV	>260MeV	>270MeV	>280MeV	>290MeV	>300MeV	>310MeV	>320MeV	>330MeV	>340MeV	>350MeV	>360MeV	>370MeV	>380MeV	>390MeV	>400MeV	TOTAL RADS	
5	1.44168	2.14962	2.338E+01 (0.00010rad)	2.081E+01 (0.00010rad)	1.828E+01 (0.00009rad)	1.607E+01 (0.00008rad)	1.412E+01 (0.00007rad)	1.241E+01 (0.00007rad)	1.090E+01 (0.00006rad)	9.578E+00 (0.00005rad)	8.417E+00 (0.00005rad)	7.396E+00 (0.00004rad)	6.499E+00 (0.00004rad)	5.710E+00 (0.00004rad)	5.018E+00 (0.00003rad)	4.409E+00 (0.00003rad)	3.874E+00 (0.00003rad)	3.404E+00 (0.00002rad)	0.00090rad	
6	1.51254	2.50334	2.412E+01 (0.00011rad)	2.115E+01 (0.00010rad)	1.827E+01 (0.00009rad)	1.579E+01 (0.00008rad)	1.364E+01 (0.00007rad)	1.179E+01 (0.00006rad)	1.018E+01 (0.00006rad)	8.800E+00 (0.00005rad)	7.604E+00 (0.00004rad)	6.570E+00 (0.00004rad)	5.677E+00 (0.00003rad)	4.905E+00 (0.00003rad)	4.238E+00 (0.00003rad)	3.662E+00 (0.00002rad)	3.164E+00 (0.00002rad)	2.734E+00 (0.00002rad)	0.00085rad	
7	1.62236	2.90373	2.158E+01 (0.00010rad)	1.850E+01 (0.00008rad)	1.559E+01 (0.00007rad)	1.314E+01 (0.00006rad)	1.107E+01 (0.00006rad)	9.333E+00 (0.00005rad)	7.866E+00 (0.00004rad)	6.629E+00 (0.00004rad)	5.587E+00 (0.00003rad)	4.708E+00 (0.00003rad)	3.968E+00 (0.00002rad)	3.344E+00 (0.00002rad)	2.818E+00 (0.00002rad)	2.375E+00 (0.00002rad)	2.002E+00 (0.00001rad)	1.687E+00 (0.00001rad)	0.00066rad	
8	1.73976	3.34539	4.877E+00 (0.00002rad)	3.972E+00 (0.00002rad)	3.162E+00 (0.00002rad)	2.517E+00 (0.00001rad)	2.004E+00 (0.00001rad)	1.595E+00 (0.00001rad)	1.270E+00 (0.00001rad)	1.011E+00 (0.00001rad)	0	0	0	0	0	0	0	0	0.00011rad	
9	1.86325	3.82043	1.659E+00 (0.00001rad)	1.323E+00 (0.00001rad)	1.028E+00 (0.00000rad)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00002rad
10	1.99131	4.31882	1.518E+00 (0.00001rad)	1.244E+00 (0.00001rad)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00002rad
TOTALS																				0.00256rad

Depth dose Calculations

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

$(\text{Protons/m}^2/\text{hr}) * 0.11\text{m}^2 = \text{Protons/hr}$

$\text{Protons/hr} * (E \text{ MeV/Proton}) = E \text{ MeV/hr}$

$(E \text{ MeV/hr}) * (1.6 * 10^{-13} / \text{MeV}) = \text{Joules/hr}$

$(\text{Joules/hr}) / 60\text{kg} = \text{Gray/hr}$

$(\text{Gray/hr}) * 100\text{rad/hr} = \text{rad/hr}$

$\text{Rad/hr} * 1/60 = \text{rad/min}$