TECHNICAL PROGRESS REPORT

on

PREDICTIONS OF DOSE FROM ELECTRONS IN SPACE

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by

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1. Introduction

This progress report covers the work done through December, 1992, on the project "Predictions of Dose from Electrons in Space". The objective of the project is to develop a general-purpose, user-friendly computerized database and code package, for the PC as well as larger computers, which can be used for the routine prediction of the absorbed dose from incident electrons and their secondary bremsstrahlung (and from incident protons) as functions of the thickness of aluminum shielding in space. The assumption of homogeneous aluminum shields and of isotropic incident fluxes (at least in a time-averaged sense) allows for the rather reliable conversion of doses in slabs to those in other simple bodies, such as spherical and cylindrical solids and shells. On such a basis, depth-dose data for monoenergetic incident radiation can be generated once-and-for-all from accurate transport calculations, and this database can then be used repeatedly in rapid dose predictions for arbitrary radiation spectra and for a variety of spacecraft sizes and shapes, without recourse to the very time-consuming Monte Carlo calculations. This project entails a thorough updating, extension, and refinement of our earlier SHIELDOSE package[1,2], with the goal of a more reliable, fool-proof, and general system.

The preparation of the database has involved extensive Monte Carlo calculations of the penetration, scattering and energy loss of electrons in aluminum slabs, the production of secondary bremsstrahlung, and the penetration and scattering of these photons to greater depths. (The proton depth-dose distributions has been evaluated in a straight-ahead approximation.) This work has drawn on earlier experience in calculating electron and bremsstrahlung transport for space-shielding applications, but with improved cross-section information and transport models. The resultant database spans the relevant energy regions for the incident radiation (1 keV to 50 MeV for electrons, 1 keV to as high as 10 GeV for protons) and aluminum depths from 0 to 50 g/cm^2. The computer code package will rapidly perform the necessary interpolation over the database and the integration for any specified spectra of incident electrons and protons. The dose will be given as a function of depth in a semi-infinite slab, at the transmission surfaces of finite slabs, and at the centers of spheres; on option, the doses in the other simple bodies can be obtained. The specification of dose will be selectable in terms of rads in small detector volumes of Al, graphite, Si, air, bone, CaF_2, LiF, GaAs, SiO_2, tissue, or H_2O, through the application of appropriate dose ratios.

2. Accomplishments

Electron and Bremsstrahlung Transport Calculations

Using the revised ETRAN code[3] with the latest cross-section information, Monte Carlo calculations have been done for electrons incident on a semi-infinite aluminum slab. The incident electron angular distribution corresponds to that of an isotropic flux. Separate runs for done for incident electron kinetic energies of 0.002, 0.005, 0.01, 0.02, 0.05, 0.1, 0.2, 0.5, 1, 2, 5, 10, 20, and 50 MeV. Each run is based on 100k incident electron histories and, using a feature of the code which allows for arbitrary bremsstrahlung production, 10M bremsstrahlung photons. The resultant photon fluence was scored in depth bins from 0 to 50 g/cm^2, in energy bins extending from the incident energy down to 1 keV. Separate scores were kept forward- and backward-directed photons,

information important for the extension of these results to the case of transmission through finite slab thicknesses and subsequently to other geometries.

A second set of calculations was done at the same electron energies, and based on 100k incident electron histories. In this set, the electron fluence without the contribution from bremsstrahlung secondary electrons was scored from 0 to 1.25 times the csda range of the electrons. These results (for both forward-and backward-directed electrons) are used to describe the dose contribution from the primary electron (and knock-on electrons) only.

Our just-completed calculation[4] of photon mass energy-absorption coefficients, and our current calculations of electron stopping powers[5], have been run to obtain the data for conversion of fluence to dose for photons and electrons, respectively, in small volumes of Al, graphite, Si, air, bone, CaF_2, LiF, GaAs, SiO_2, tissue, and H_2O. Fluence-to-dose conversions have been done for the forward-directed and the total (forward- plus backward-directed) fluence spectra. The resultant forward and total dose ratios have been applied to the aluminum dose to obtain forward and total, electron and bremsstrahlung doses in all the detector materials. These results have then been smoothed as a function of depth by least-squares spline-fitting techniques so as to improve interpolation.

Proton Transport Calculations

The latest information on proton stopping powers and ranges in the materials of interest has been taken from work detailed in a forthcoming ICRU Report[6]. A special set of calculations was needed for GaAs which was not included in the work of the ICRU Report Committee. The numerical algorithms to calculate, in the straight-ahead approximation, the depth dose for an incident isotropic flux of protons has been reviewed and updated. A comparison of these results with those from a full Monte Carlo calculation confirm the overall adequacy of using the straight-ahead approximation for such calculations. Systematic straight-ahead calculations have been completed for an isotropic flux of protons incident, with energies from 10 GeV down to 10 keV, on aluminum slab shields. In the straight-ahead approximation (and very nearly in the actual case), there is no distinction between forward-directed and total fluence. The dose in the various detector materials has been obtained from the integral of the product of the fluence spectrum and the stopping power. The effects of nonelastic nuclear interactions (attenuation of the primary proton beam and the production of secondary charged particles, neutrons and gamma rays) has been neglected.

3. Results

The present results are given in tables which follow this text for: (a) the proton dose, (b) the electron, and (c) the bremsstrahlung dose, with all contributions given for forward-directed and total dose in each of the eleven detector materials considered. These results, although they must be considered somewhat preliminary, provide the very extensive database necessary for the new version of SHIELDOSE.

4. Future Work

The following work is planned for the next six months to complete this project:

(a) Carefully check the present database for accuracy.

(b) Explore scaling (and some additional conditioning) of the bremsstrahlung dose distributions to facilitate interpolation with respect to incident electron energy.

(c) Investigate the effects of including the effects of nonelastic nuclear interactions on the proton results.

(d) Revise the old SHIELDOSE software toward a more efficient, user-friendly version with perhaps somewhat more generality.

(e) Write the report(s) describing the work and the use of the new code.

REFERENCES

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[4] M.J. Berger and S.M. Seltzer, Stopping powers and ranges of electrons and positrons (2nd ed.), National Bureau of Standards Report NBSIR 82-2550-A (1983); and ICRU Report 37, Stopping powers for electrons and positrons, International Commission on Radiation Units and Measurements, Bethesda, MD (1984).

[5] S.M. Seltzer, Calculation of photon mass energy-transfer and mass energy-absorption coefficients, Rad. Res. (accepted for publication).

[6] ICRU Report 49, Stopping powers and ranges for protons and alpha particles, International Commission on Radiation Units and Measurements, Bethesda, MD (in press).

Scaled, dimensionless proton depth dose distributions, (ro/To)D(z/ro).
Detector material: aluminum

z/ro	10000	8000	6000	5000	4000	3000	2000	1500	1000	800	600	500	400	300	200	150	100	80	60	50
0.00	2.035	2.000	1.944	1.903	1.845	1.764	1.643	1.556	1.443	1.387	1.325	1.290	1.254	1.215	1.174	1.154	1.136	1.129	1.125	1.123
0.02	1.979	1.946	1.894	1.856	1.803	1.730	1.622	1.543	1.442	1.392	1.336	1.305	1.272	1.237	1.201	1.183	1.167	1.161	1.157	1.156
0.04	1.929	1.898	1.850	1.815	1.766	1.699	1.600	1.529	1.437	1.391	1.340	1.312	1.282	1.250	1.217	1.201	1.187	1.182	1.178	1.177
0.06	1.881	1.852	1.807	1.774	1.730	1.668	1.578	1.513	1.429	1.388	1.342	1.316	1.288	1.259	1.230	1.215	1.202	1.197	1.195	1.194
0.08	1.834	1.807	1.765	1.735	1.694	1.638	1.556	1.497	1.420	1.383	1.341	1.318	1.292	1.266	1.239	1.226	1.214	1.210	1.207	1.207
0.10	1.789	1.763	1.725	1.697	1.659	1.608	1.533	1.480	1.411	1.376	1.338	1.317	1.294	1.270	1.245	1.234	1.223	1.219	1.218	1.217
0.12	1.744	1.720	1.685	1.659	1.625	1.578	1.511	1.462	1.400	1.369	1.334	1.315	1.294	1.273	1.250	1.240	1.230	1.227	1.226	1.226
0.14	1.700	1.678	1.645	1.622	1.591	1.549	1.488	1.444	1.388	1.360	1.329	1.312	1.293	1.273	1.253	1.244	1.236	1.233	1.232	1.232
0.16	1.656	1.636	1.606	1.585	1.557	1.519	1.465	1.426	1.375	1.350	1.323	1.307	1.290	1.273	1.255	1.247	1.239	1.237	1.236	1.237
0.18	1.613	1.595	1.568	1.549	1.523	1.490	1.441	1.407	1.362	1.340	1.315	1.302	1.287	1.271	1.255	1.248	1.242	1.240	1.239	1.240
0.20	1.570	1.554	1.530	1.513	1.490	1.461	1.418	1.388	1.348	1.329	1.307	1.295	1.282	1.268	1.254	1.248	1.243	1.241	1.241	1.242
0.22	1.528	1.513	1.492	1.477	1.457	1.431	1.394	1.368	1.334	1.317	1.298	1.287	1.276	1.264	1.252	1.247	1.242	1.241	1.241	1.242
0.24	1.487	1.473	1.454	1.441	1.424	1.402	1.370	1.348	1.318	1.304	1.288	1.279	1.269	1.259	1.249	1.244	1.241	1.240	1.240	1.241
0.26	1.445	1.434	1.417	1.406	1.391	1.373	1.346	1.327	1.303	1.291	1.277	1.270	1.261	1.253	1.244	1.241	1.238	1.237	1.238	1.239
0.28	1.404	1.394	1.380	1.371	1.359	1.344	1.322	1.306	1.286	1.277	1.266	1.260	1.253	1.246	1.239	1.236	1.234	1.234	1.235	1.236
0.30	1.364	1.355	1.344	1.336	1.326	1.314	1.297	1.285	1.270	1.262	1.253	1.249	1.243	1.238	1.233	1.231	1.229	1.229	1.230	1.231
0.32	1.324	1.317	1.307	1.301	1.294	1.285	1.273	1.264	1.252	1.247	1.240	1.237	1.233	1.229	1.225	1.224	1.223	1.224	1.225	1.226
0.34	1.284	1.278	1.271	1.267	1.261	1.256	1.248	1.242	1.234	1.231	1.227	1.224	1.222	1.219	1.217	1.216	1.217	1.217	1.218	1.220
0.36	1.244	1.240	1.235	1.232	1.229	1.226	1.222	1.219	1.216	1.214	1.212	1.211	1.210	1.208	1.208	1.208	1.209	1.209	1.211	1.212
0.38	1.205	1.202	1.199	1.198	1.197	1.197	1.197	1.197	1.197	1.197	1.197	1.197	1.197	1.197	1.197	1.198	1.200	1.200	1.202	1.204
0.40	1.165	1.164	1.164	1.164	1.165	1.167	1.171	1.174	1.177	1.179	1.181	1.182	1.183	1.185	1.186	1.188	1.190	1.191	1.193	1.194
0.42	1.127	1.127	1.128	1.130	1.133	1.138	1.145	1.150	1.157	1.161	1.165	1.167	1.169	1.171	1.174	1.176	1.179	1.180	1.182	1.183
0.44	1.088	1.090	1.093	1.096	1.101	1.108	1.119	1.127	1.137	1.142	1.147	1.150	1.154	1.157	1.161	1.164	1.167	1.168	1.171	1.172
0.46	1.050	1.052	1.058	1.062	1.069	1.078	1.093	1.102	1.116	1.122	1.129	1.133	1.138	1.142	1.148	1.150	1.154	1.156	1.158	1.159
0.48	1.012	1.016	1.023	1.029	1.037	1.048	1.066	1.078	1.094	1.102	1.111	1.116	1.121	1.126	1.133	1.136	1.140	1.142	1.144	1.146
0.50	0.974	0.979	0.988	0.995	1.004	1.018	1.039	1.053	1.072	1.081	1.091	1.097	1.103	1.110	1.117	1.121	1.126	1.127	1.130	1.131
0.52	0.936	0.943	0.953	0.961	0.972	0.988	1.011	1.027	1.049	1.059	1.071	1.078	1.084	1.092	1.100	1.105	1.110	1.112	1.114	1.115
0.54	0.899	0.906	0.919	0.928	0.940	0.958	0.984	1.002	1.025	1.037	1.050	1.057	1.065	1.073	1.083	1.087	1.093	1.095	1.097	1.099
0.56	0.862	0.870	0.884	0.894	0.908	0.927	0.956	0.975	1.001	1.014	1.028	1.036	1.045	1.054	1.064	1.069	1.075	1.077	1.079	1.081
0.58	0.825	0.834	0.850	0.861	0.876	0.896	0.927	0.948	0.976	0.990	1.006	1.014	1.023	1.033	1.044	1.050	1.056	1.058	1.060	1.062
0.60	0.788	0.799	0.815	0.827	0.843	0.865	0.898	0.921	0.951	0.965	0.982	0.991	1.001	1.012	1.023	1.029	1.035	1.038	1.040	1.041
0.62	0.752	0.763	0.781	0.794	0.811	0.834	0.869	0.893	0.924	0.940	0.958	0.967	0.978	0.989	1.001	1.007	1.014	1.016	1.019	1.020
0.64	0.715	0.728	0.747	0.760	0.778	0.803	0.839	0.864	0.897	0.914	0.932	0.943	0.954	0.965	0.978	0.984	0.991	0.994	0.996	0.997
0.66	0.679	0.692	0.712	0.726	0.745	0.771	0.809	0.835	0.869	0.886	0.906	0.917	0.928	0.941	0.954	0.960	0.967	0.970	0.972	0.973
0.68	0.643	0.657	0.678	0.693	0.712	0.739	0.778	0.805	0.841	0.858	0.879	0.890	0.902	0.914	0.928	0.935	0.942	0.944	0.947	0.948
0.70	0.607	0.622	0.643	0.659	0.679	0.706	0.747	0.775	0.811	0.829	0.850	0.862	0.874	0.887	0.901	0.908	0.915	0.918	0.920	0.921
0.72	0.571	0.586	0.609	0.624	0.645	0.674	0.715	0.743	0.781	0.799	0.820	0.832	0.845	0.858	0.872	0.880	0.887	0.889	0.891	0.892
0.74	0.536	0.551	0.574	0.590	0.611	0.640	0.682	0.711	0.749	0.768	0.789	0.801	0.814	0.828	0.842	0.850	0.857	0.859	0.861	0.862
0.76	0.500	0.516	0.539	0.556	0.577	0.606	0.648	0.678	0.716	0.735	0.757	0.769	0.782	0.796	0.810	0.818	0.825	0.827	0.829	0.830
0.78	0.465	0.481	0.504	0.521	0.542	0.571	0.614	0.643	0.682	0.701	0.723	0.735	0.748	0.762	0.777	0.784	0.791	0.793	0.795	0.795
0.80	0.429	0.445	0.469	0.486	0.507	0.536	0.578	0.608	0.646	0.665	0.687	0.700	0.712	0.726	0.741	0.748	0.755	0.757	0.758	0.759
0.82	0.394	0.410	0.433	0.450	0.471	0.500	0.542	0.571	0.609	0.628	0.650	0.662	0.675	0.688	0.703	0.710	0.716	0.718	0.720	0.720
0.84	0.358	0.374	0.397	0.414	0.434	0.463	0.504	0.532	0.570	0.588	0.610	0.622	0.634	0.648	0.662	0.669	0.675	0.677	0.678	0.678
0.86	0.322	0.338	0.361	0.376	0.397	0.424	0.464	0.492	0.528	0.546	0.567	0.579	0.591	0.604	0.618	0.624	0.630	0.632	0.633	0.632
0.88	0.286	0.301	0.323	0.338	0.358	0.384	0.423	0.449	0.484	0.502	0.522	0.533	0.545	0.557	0.570	0.576	0.582	0.583	0.584	0.583
0.90	0.249	0.264	0.285	0.299	0.317	0.342	0.378	0.403	0.437	0.453	0.472	0.483	0.494	0.506	0.518	0.524	0.529	0.530	0.530	0.529
0.92	0.212	0.225	0.244	0.258	0.275	0.298	0.331	0.354	0.385	0.400	0.418	0.428	0.438	0.449	0.460	0.465	0.469	0.470	0.470	0.469
0.94	0.172	0.185	0.202	0.214	0.229	0.249	0.279	0.300	0.327	0.341	0.356	0.365	0.374	0.384	0.394	0.398	0.402	0.402	0.401	0.400
0.96	0.131	0.141	0.155	0.165	0.178	0.195	0.220	0.237	0.260	0.272	0.285	0.292	0.300	0.308	0.316	0.319	0.321	0.321	0.320	0.319
0.98	0.084	0.091	0.101	0.108	0.117	0.130	0.148	0.160	0.176	0.185	0.194	0.199	0.205	0.210	0.215	0.217	0.218	0.217	0.215	0.214
1.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless proton depth dose distributions, (ro/To)D(z/ro).
Detector material: aluminum

z/ro	40	30	20	15	10	8	6	5	4	3	2	1.5	1	0.8	0.6	0.5	0.4	0.3	0.2	0.15
0.00	1.123	1.125	1.131	1.138	1.151	1.159	1.172	1.181	1.194	1.215	1.254	1.290	1.357	1.405	1.478	1.533	1.608	1.716	1.893	2.056
0.02	1.157	1.159	1.165	1.172	1.185	1.193	1.206	1.215	1.228	1.249	1.288	1.324	1.390	1.436	1.507	1.560	1.631	1.732	1.901	2.056
0.04	1.178	1.181	1.187	1.194	1.206	1.215	1.227	1.237	1.250	1.270	1.309	1.343	1.407	1.451	1.520	1.570	1.637	1.732	1.892	2.038
0.06	1.195	1.197	1.204	1.211	1.223	1.231	1.243	1.253	1.265	1.285	1.323	1.356	1.417	1.460	1.525	1.573	1.636	1.726	1.877	2.014
0.08	1.208	1.211	1.217	1.224	1.236	1.244	1.256	1.265	1.277	1.297	1.333	1.364	1.423	1.464	1.526	1.571	1.631	1.715	1.858	1.986
0.10	1.219	1.221	1.228	1.234	1.246	1.254	1.266	1.274	1.287	1.306	1.340	1.370	1.426	1.466	1.524	1.567	1.623	1.701	1.835	1.954
0.12	1.227	1.230	1.236	1.243	1.254	1.261	1.273	1.281	1.293	1.311	1.344	1.373	1.427	1.464	1.520	1.559	1.611	1.685	1.810	1.920
0.14	1.233	1.236	1.243	1.249	1.260	1.267	1.278	1.286	1.298	1.315	1.346	1.373	1.425	1.460	1.512	1.549	1.598	1.666	1.783	1.883
0.16	1.238	1.241	1.247	1.253	1.264	1.271	1.282	1.290	1.300	1.317	1.346	1.372	1.421	1.454	1.503	1.538	1.582	1.645	1.753	1.844
0.18	1.241	1.244	1.250	1.256	1.267	1.273	1.284	1.291	1.301	1.316	1.344	1.369	1.415	1.446	1.492	1.524	1.565	1.623	1.722	1.804
0.20	1.243	1.246	1.252	1.258	1.268	1.274	1.284	1.291	1.301	1.315	1.341	1.365	1.408	1.437	1.479	1.508	1.546	1.599	1.689	1.762
0.22	1.243	1.247	1.252	1.258	1.267	1.273	1.283	1.290	1.298	1.312	1.336	1.358	1.399	1.426	1.465	1.491	1.525	1.574	1.655	1.718
0.24	1.243	1.246	1.251	1.256	1.266	1.271	1.280	1.287	1.295	1.307	1.330	1.351	1.388	1.413	1.449	1.473	1.503	1.547	1.619	1.674
0.26	1.241	1.244	1.249	1.254	1.263	1.268	1.277	1.282	1.290	1.301	1.323	1.342	1.377	1.399	1.431	1.453	1.480	1.519	1.583	1.627
0.28	1.237	1.240	1.246	1.250	1.259	1.264	1.272	1.277	1.284	1.294	1.314	1.332	1.363	1.384	1.413	1.432	1.455	1.489	1.544	1.580
0.30	1.233	1.236	1.241	1.246	1.253	1.258	1.265	1.270	1.276	1.286	1.304	1.321	1.349	1.368	1.393	1.409	1.429	1.459	1.505	1.532
0.32	1.228	1.231	1.235	1.240	1.247	1.251	1.258	1.262	1.268	1.277	1.293	1.308	1.333	1.350	1.371	1.385	1.402	1.427	1.464	1.482
0.34	1.221	1.224	1.229	1.233	1.240	1.243	1.249	1.253	1.258	1.266	1.281	1.294	1.317	1.331	1.349	1.360	1.374	1.395	1.423	1.432
0.36	1.214	1.217	1.221	1.225	1.231	1.234	1.240	1.243	1.247	1.255	1.268	1.279	1.299	1.311	1.325	1.334	1.345	1.361	1.380	1.380
0.38	1.205	1.208	1.212	1.215	1.221	1.224	1.229	1.232	1.236	1.242	1.253	1.263	1.280	1.289	1.300	1.307	1.314	1.326	1.337	1.328
0.40	1.196	1.198	1.202	1.205	1.211	1.213	1.217	1.219	1.223	1.228	1.238	1.246	1.259	1.267	1.275	1.279	1.283	1.290	1.292	1.275
0.42	1.185	1.188	1.191	1.194	1.199	1.201	1.204	1.206	1.209	1.213	1.221	1.228	1.238	1.243	1.247	1.249	1.251	1.253	1.246	1.221
0.44	1.173	1.176	1.179	1.182	1.186	1.188	1.190	1.191	1.194	1.197	1.204	1.208	1.215	1.218	1.219	1.219	1.217	1.215	1.199	1.167
0.46	1.161	1.163	1.166	1.168	1.172	1.173	1.175	1.176	1.178	1.180	1.185	1.188	1.191	1.192	1.190	1.187	1.183	1.176	1.152	1.111
0.48	1.147	1.149	1.152	1.154	1.157	1.158	1.159	1.159	1.160	1.162	1.165	1.166	1.167	1.165	1.160	1.154	1.147	1.136	1.103	1.056
0.50	1.133	1.135	1.137	1.138	1.141	1.141	1.141	1.142	1.142	1.143	1.144	1.143	1.140	1.137	1.128	1.121	1.111	1.095	1.054	0.999
0.52	1.117	1.119	1.120	1.122	1.124	1.123	1.123	1.123	1.123	1.122	1.121	1.119	1.113	1.107	1.095	1.086	1.073	1.054	1.004	0.943
0.54	1.100	1.102	1.103	1.104	1.105	1.104	1.104	1.103	1.102	1.101	1.098	1.094	1.085	1.077	1.062	1.050	1.035	1.011	0.953	0.886
0.56	1.082	1.083	1.085	1.085	1.085	1.084	1.083	1.082	1.081	1.078	1.073	1.068	1.055	1.045	1.027	1.013	0.995	0.967	0.901	0.830
0.58	1.063	1.064	1.065	1.065	1.065	1.063	1.061	1.060	1.058	1.054	1.048	1.040	1.025	1.012	0.991	0.975	0.955	0.922	0.848	0.773
0.60	1.042	1.044	1.044	1.044	1.042	1.040	1.038	1.036	1.033	1.029	1.021	1.012	0.992	0.978	0.954	0.937	0.913	0.876	0.795	0.716
0.62	1.021	1.022	1.022	1.022	1.019	1.017	1.014	1.011	1.008	1.002	0.992	0.981	0.959	0.942	0.915	0.896	0.870	0.829	0.741	0.660
0.64	0.998	0.999	0.999	0.998	0.994	0.992	0.988	0.985	0.981	0.975	0.963	0.950	0.924	0.906	0.876	0.855	0.827	0.781	0.687	0.605
0.66	0.974	0.974	0.974	0.973	0.969	0.965	0.961	0.958	0.953	0.946	0.932	0.917	0.888	0.868	0.835	0.813	0.782	0.732	0.633	0.550
0.68	0.948	0.949	0.948	0.946	0.941	0.937	0.933	0.929	0.924	0.915	0.899	0.883	0.851	0.828	0.794	0.769	0.735	0.682	0.578	0.497
0.70	0.921	0.921	0.920	0.918	0.912	0.908	0.903	0.899	0.892	0.883	0.865	0.847	0.812	0.787	0.750	0.724	0.688	0.631	0.524	0.445
0.72	0.892	0.892	0.890	0.887	0.881	0.877	0.871	0.867	0.860	0.849	0.829	0.809	0.771	0.745	0.706	0.678	0.640	0.578	0.470	0.395
0.74	0.862	0.862	0.859	0.856	0.849	0.844	0.838	0.833	0.825	0.813	0.791	0.770	0.729	0.701	0.660	0.631	0.590	0.525	0.417	0.347
0.76	0.830	0.829	0.826	0.822	0.815	0.810	0.803	0.797	0.789	0.776	0.752	0.728	0.685	0.655	0.612	0.581	0.538	0.472	0.366	0.301
0.78	0.795	0.794	0.791	0.786	0.779	0.773	0.765	0.759	0.750	0.736	0.710	0.685	0.639	0.608	0.563	0.531	0.486	0.417	0.316	0.257
0.80	0.758	0.757	0.753	0.748	0.740	0.734	0.726	0.719	0.710	0.695	0.666	0.640	0.591	0.559	0.512	0.479	0.432	0.363	0.268	0.217
0.82	0.719	0.718	0.713	0.708	0.699	0.693	0.684	0.677	0.666	0.650	0.620	0.592	0.540	0.508	0.460	0.425	0.377	0.309	0.223	0.179
0.84	0.677	0.675	0.670	0.664	0.655	0.648	0.638	0.631	0.620	0.603	0.571	0.541	0.488	0.454	0.405	0.369	0.320	0.256	0.181	0.144
0.86	0.632	0.630	0.623	0.618	0.608	0.601	0.590	0.582	0.571	0.552	0.519	0.487	0.433	0.399	0.348	0.312	0.264	0.205	0.142	0.113
0.88	0.582	0.580	0.573	0.567	0.556	0.549	0.538	0.530	0.517	0.498	0.462	0.430	0.375	0.340	0.289	0.253	0.208	0.158	0.108	0.085
0.90	0.528	0.525	0.518	0.511	0.500	0.493	0.481	0.472	0.459	0.439	0.402	0.369	0.314	0.279	0.227	0.193	0.154	0.114	0.077	0.062
0.92	0.467	0.464	0.456	0.450	0.438	0.430	0.418	0.408	0.395	0.374	0.336	0.303	0.248	0.213	0.165	0.136	0.106	0.077	0.052	0.042
0.94	0.398	0.394	0.387	0.380	0.368	0.359	0.347	0.337	0.323	0.301	0.263	0.231	0.178	0.145	0.105	0.083	0.064	0.046	0.031	0.025
0.96	0.316	0.312	0.304	0.298	0.285	0.277	0.263	0.253	0.239	0.217	0.181	0.151	0.102	0.077	0.052	0.041	0.031	0.022	0.015	0.012
0.98	0.211	0.207	0.200	0.193	0.181	0.172	0.159	0.149	0.136	0.116	0.085	0.060	0.033	0.023	0.015	0.012	0.009	0.007	0.004	0.003
1.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless proton depth dose distributions, (ro/To)D(z/ro).
Detector material: aluminum

z/ro	0.1	0.08	0.06	0.05	0.04	0.03	0.02	0.015	0.01
0.00	2.356	2.551	2.810	2.962	3.125	3.282	3.420	3.477	3.524
0.02	2.332	2.504	2.719	2.839	2.962	3.073	3.170	3.207	3.220
0.04	2.292	2.444	2.625	2.723	2.819	2.904	2.975	3.001	2.995
0.06	2.246	2.379	2.532	2.610	2.687	2.750	2.803	2.820	2.803
0.08	2.196	2.311	2.439	2.501	2.561	2.607	2.645	2.655	2.631
0.10	2.143	2.242	2.346	2.395	2.440	2.473	2.498	2.503	2.475
0.12	2.088	2.172	2.255	2.292	2.324	2.345	2.360	2.360	2.331
0.14	2.031	2.100	2.164	2.190	2.212	2.223	2.230	2.226	2.196
0.16	1.972	2.028	2.075	2.091	2.104	2.107	2.107	2.099	2.070
0.18	1.912	1.955	1.986	1.995	1.999	1.996	1.991	1.978	1.952
0.20	1.851	1.882	1.899	1.900	1.898	1.890	1.879	1.863	1.841
0.22	1.790	1.809	1.813	1.808	1.801	1.787	1.773	1.754	1.735
0.24	1.727	1.736	1.728	1.718	1.706	1.689	1.671	1.651	1.635
0.26	1.663	1.663	1.645	1.631	1.615	1.595	1.574	1.553	1.540
0.28	1.600	1.590	1.564	1.545	1.526	1.504	1.480	1.460	1.450
0.30	1.535	1.517	1.484	1.462	1.440	1.416	1.391	1.372	1.364
0.32	1.471	1.445	1.405	1.381	1.358	1.332	1.305	1.288	1.282
0.34	1.406	1.374	1.328	1.303	1.278	1.251	1.223	1.208	1.203
0.36	1.341	1.303	1.253	1.226	1.200	1.173	1.144	1.132	1.129
0.38	1.276	1.234	1.180	1.152	1.126	1.098	1.070	1.059	1.057
0.40	1.211	1.165	1.109	1.080	1.054	1.026	0.999	0.989	0.989
0.42	1.147	1.097	1.040	1.011	0.984	0.957	0.931	0.923	0.924
0.44	1.083	1.031	0.973	0.944	0.917	0.890	0.866	0.860	0.862
0.46	1.020	0.966	0.907	0.879	0.853	0.826	0.805	0.799	0.802
0.48	0.957	0.902	0.844	0.817	0.791	0.765	0.746	0.742	0.745
0.50	0.895	0.840	0.783	0.756	0.732	0.707	0.690	0.687	0.691
0.52	0.834	0.780	0.724	0.698	0.675	0.651	0.637	0.635	0.639
0.54	0.775	0.721	0.668	0.643	0.620	0.599	0.587	0.585	0.589
0.56	0.717	0.664	0.613	0.590	0.568	0.549	0.538	0.537	0.542
0.58	0.660	0.609	0.561	0.539	0.518	0.502	0.493	0.492	0.496
0.60	0.605	0.557	0.511	0.490	0.471	0.457	0.449	0.449	0.453
0.62	0.551	0.506	0.463	0.443	0.427	0.414	0.408	0.408	0.412
0.64	0.500	0.457	0.417	0.400	0.385	0.374	0.369	0.369	0.373
0.66	0.450	0.411	0.374	0.358	0.345	0.336	0.332	0.333	0.336
0.68	0.403	0.366	0.333	0.319	0.308	0.300	0.297	0.298	0.301
0.70	0.358	0.325	0.295	0.283	0.273	0.267	0.264	0.265	0.267
0.72	0.315	0.285	0.259	0.249	0.241	0.235	0.233	0.234	0.235
0.74	0.275	0.248	0.226	0.217	0.210	0.206	0.204	0.204	0.205
0.76	0.236	0.213	0.195	0.188	0.182	0.178	0.177	0.177	0.177
0.78	0.201	0.182	0.166	0.160	0.156	0.152	0.151	0.151	0.151
0.80	0.169	0.153	0.140	0.135	0.131	0.128	0.127	0.127	0.126
0.82	0.139	0.126	0.116	0.112	0.109	0.106	0.105	0.105	0.103
0.84	0.112	0.102	0.094	0.091	0.088	0.086	0.085	0.084	0.082
0.86	0.088	0.081	0.074	0.072	0.070	0.068	0.066	0.065	0.063
0.88	0.067	0.061	0.057	0.055	0.053	0.051	0.050	0.049	0.046
0.90	0.049	0.045	0.041	0.040	0.038	0.037	0.035	0.034	0.031
0.92	0.033	0.030	0.028	0.026	0.025	0.024	0.022	0.021	0.019
0.94	0.020	0.018	0.016	0.015	0.014	0.013	0.012	0.011	0.010
0.96	0.010	0.008	0.007	0.007	0.006	0.006	0.005	0.004	0.003
0.98	0.002	0.002	0.002	0.001	0.001	0.001	0.001	0.001	0.000
1.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless proton depth dose distributions, (ro/To)D(z/ro).
Detector material: graphite

z/ro	10000	8000	6000	5000	4000	3000	2000	1500	1000	800	600	500	400	300	200	150	100	80	60	50
0.00	2.165	2.130	2.077	2.039	1.987	1.912	1.800	1.715	1.605	1.549	1.486	1.452	1.414	1.375	1.337	1.318	1.305	1.301	1.302	1.304
0.02	2.107	2.076	2.027	1.993	1.946	1.880	1.779	1.704	1.606	1.557	1.500	1.470	1.437	1.402	1.368	1.353	1.342	1.339	1.341	1.344
0.04	2.055	2.026	1.982	1.951	1.908	1.849	1.758	1.691	1.602	1.557	1.507	1.479	1.449	1.418	1.388	1.375	1.366	1.365	1.367	1.371
0.06	2.005	1.979	1.939	1.910	1.872	1.818	1.736	1.675	1.595	1.555	1.509	1.484	1.458	1.430	1.403	1.392	1.385	1.384	1.388	1.392
0.08	1.957	1.933	1.896	1.871	1.836	1.787	1.714	1.659	1.587	1.550	1.510	1.487	1.463	1.438	1.415	1.405	1.400	1.400	1.404	1.409
0.10	1.909	1.887	1.855	1.832	1.800	1.757	1.691	1.642	1.577	1.544	1.508	1.488	1.466	1.444	1.423	1.415	1.412	1.413	1.418	1.422
0.12	1.863	1.843	1.814	1.793	1.765	1.727	1.667	1.624	1.566	1.537	1.504	1.486	1.467	1.448	1.430	1.423	1.421	1.423	1.429	1.434
0.14	1.817	1.799	1.773	1.755	1.730	1.696	1.644	1.605	1.554	1.528	1.499	1.483	1.467	1.449	1.434	1.429	1.428	1.431	1.437	1.443
0.16	1.772	1.756	1.733	1.717	1.695	1.666	1.620	1.586	1.541	1.518	1.493	1.479	1.464	1.450	1.437	1.433	1.434	1.437	1.444	1.450
0.18	1.727	1.713	1.693	1.680	1.660	1.635	1.595	1.566	1.527	1.507	1.486	1.474	1.461	1.449	1.438	1.436	1.438	1.441	1.449	1.455
0.20	1.683	1.671	1.654	1.642	1.626	1.605	1.571	1.546	1.512	1.496	1.477	1.467	1.456	1.446	1.438	1.437	1.440	1.444	1.452	1.458
0.22	1.639	1.629	1.615	1.605	1.592	1.574	1.546	1.525	1.497	1.483	1.468	1.459	1.450	1.442	1.436	1.436	1.441	1.445	1.454	1.460
0.24	1.596	1.587	1.576	1.568	1.557	1.543	1.521	1.504	1.481	1.470	1.457	1.450	1.443	1.437	1.433	1.434	1.440	1.445	1.454	1.461
0.26	1.553	1.546	1.537	1.531	1.523	1.512	1.495	1.482	1.464	1.455	1.446	1.441	1.435	1.431	1.429	1.431	1.438	1.443	1.452	1.460
0.28	1.510	1.505	1.499	1.495	1.489	1.482	1.469	1.460	1.447	1.440	1.433	1.430	1.426	1.424	1.424	1.427	1.435	1.440	1.450	1.457
0.30	1.468	1.464	1.461	1.458	1.455	1.451	1.443	1.437	1.429	1.424	1.420	1.418	1.416	1.415	1.417	1.421	1.430	1.436	1.446	1.454
0.32	1.426	1.424	1.422	1.422	1.421	1.419	1.417	1.414	1.410	1.408	1.406	1.406	1.405	1.406	1.410	1.415	1.424	1.431	1.441	1.449
0.34	1.384	1.384	1.385	1.385	1.386	1.388	1.390	1.390	1.391	1.391	1.391	1.392	1.393	1.395	1.401	1.407	1.417	1.424	1.435	1.443
0.36	1.342	1.344	1.347	1.349	1.352	1.357	1.363	1.366	1.371	1.373	1.376	1.378	1.380	1.384	1.391	1.398	1.409	1.416	1.427	1.435
0.38	1.301	1.304	1.309	1.313	1.318	1.326	1.336	1.342	1.350	1.354	1.359	1.363	1.366	1.372	1.380	1.388	1.400	1.407	1.418	1.427
0.40	1.260	1.264	1.272	1.277	1.284	1.294	1.308	1.317	1.329	1.335	1.342	1.346	1.351	1.358	1.368	1.376	1.389	1.397	1.409	1.417
0.42	1.219	1.225	1.234	1.241	1.250	1.262	1.280	1.291	1.307	1.314	1.324	1.329	1.336	1.344	1.355	1.364	1.378	1.386	1.397	1.406
0.44	1.179	1.186	1.197	1.205	1.216	1.230	1.252	1.266	1.284	1.294	1.305	1.312	1.319	1.328	1.341	1.351	1.365	1.373	1.385	1.393
0.46	1.139	1.147	1.160	1.169	1.181	1.198	1.223	1.239	1.261	1.272	1.285	1.293	1.301	1.312	1.326	1.336	1.351	1.359	1.372	1.380
0.48	1.099	1.108	1.123	1.133	1.147	1.166	1.194	1.212	1.237	1.250	1.265	1.273	1.283	1.294	1.310	1.320	1.336	1.345	1.357	1.365
0.50	1.059	1.069	1.086	1.097	1.113	1.134	1.164	1.185	1.213	1.227	1.243	1.253	1.263	1.276	1.293	1.304	1.320	1.329	1.341	1.349
0.52	1.019	1.031	1.049	1.062	1.078	1.101	1.134	1.157	1.187	1.203	1.221	1.231	1.243	1.256	1.274	1.286	1.302	1.311	1.324	1.332
0.54	0.980	0.992	1.012	1.026	1.043	1.068	1.104	1.129	1.162	1.178	1.198	1.209	1.221	1.236	1.255	1.267	1.284	1.293	1.305	1.314
0.56	0.940	0.954	0.975	0.990	1.008	1.035	1.073	1.100	1.135	1.152	1.173	1.185	1.199	1.214	1.234	1.246	1.264	1.273	1.286	1.294
0.58	0.901	0.916	0.938	0.953	0.974	1.002	1.042	1.070	1.107	1.126	1.148	1.161	1.175	1.191	1.212	1.225	1.242	1.252	1.264	1.273
0.60	0.862	0.878	0.901	0.917	0.938	0.968	1.011	1.040	1.079	1.099	1.122	1.135	1.150	1.167	1.188	1.202	1.220	1.229	1.242	1.250
0.62	0.823	0.840	0.864	0.881	0.903	0.934	0.978	1.009	1.050	1.071	1.095	1.109	1.124	1.142	1.164	1.178	1.196	1.205	1.218	1.226
0.64	0.784	0.802	0.827	0.845	0.868	0.900	0.946	0.978	1.020	1.041	1.067	1.081	1.097	1.115	1.138	1.152	1.170	1.180	1.192	1.201
0.66	0.746	0.764	0.790	0.808	0.832	0.865	0.912	0.945	0.989	1.011	1.037	1.052	1.069	1.088	1.111	1.125	1.143	1.153	1.165	1.173
0.68	0.707	0.726	0.753	0.771	0.796	0.829	0.878	0.912	0.957	0.980	1.007	1.022	1.039	1.058	1.082	1.096	1.115	1.124	1.137	1.145
0.70	0.669	0.688	0.715	0.734	0.759	0.794	0.844	0.878	0.924	0.947	0.975	0.990	1.008	1.027	1.051	1.066	1.084	1.094	1.106	1.114
0.72	0.630	0.650	0.678	0.697	0.723	0.757	0.808	0.843	0.890	0.914	0.941	0.957	0.975	0.995	1.019	1.034	1.052	1.061	1.074	1.081
0.74	0.592	0.612	0.640	0.660	0.686	0.721	0.772	0.807	0.855	0.878	0.907	0.923	0.941	0.961	0.985	0.999	1.018	1.027	1.039	1.047
0.76	0.554	0.573	0.602	0.622	0.648	0.683	0.734	0.770	0.818	0.842	0.870	0.886	0.904	0.925	0.949	0.963	0.982	0.991	1.002	1.010
0.78	0.515	0.535	0.564	0.584	0.610	0.645	0.696	0.732	0.780	0.803	0.832	0.848	0.866	0.887	0.910	0.925	0.943	0.952	0.963	0.970
0.80	0.477	0.497	0.525	0.545	0.571	0.606	0.656	0.692	0.739	0.763	0.792	0.808	0.826	0.846	0.870	0.884	0.902	0.910	0.922	0.928
0.82	0.438	0.458	0.486	0.506	0.531	0.566	0.616	0.651	0.697	0.721	0.749	0.765	0.783	0.803	0.826	0.840	0.858	0.866	0.877	0.883
0.84	0.399	0.419	0.447	0.466	0.490	0.524	0.573	0.608	0.653	0.677	0.704	0.720	0.737	0.757	0.780	0.793	0.810	0.818	0.828	0.835
0.86	0.360	0.379	0.406	0.425	0.449	0.481	0.529	0.562	0.607	0.629	0.656	0.671	0.688	0.707	0.729	0.743	0.759	0.766	0.776	0.782
0.88	0.320	0.338	0.364	0.382	0.405	0.437	0.482	0.514	0.557	0.579	0.604	0.619	0.635	0.653	0.675	0.687	0.703	0.710	0.719	0.725
0.90	0.280	0.297	0.322	0.338	0.360	0.389	0.433	0.463	0.503	0.524	0.548	0.562	0.577	0.595	0.615	0.627	0.641	0.648	0.656	0.661
0.92	0.238	0.254	0.277	0.292	0.312	0.340	0.379	0.407	0.445	0.464	0.486	0.499	0.513	0.529	0.548	0.559	0.572	0.578	0.585	0.589
0.94	0.195	0.209	0.229	0.243	0.261	0.285	0.321	0.345	0.379	0.396	0.416	0.428	0.441	0.455	0.472	0.481	0.493	0.498	0.504	0.507
0.96	0.148	0.160	0.177	0.189	0.204	0.224	0.254	0.275	0.303	0.317	0.335	0.344	0.355	0.367	0.381	0.389	0.399	0.403	0.406	0.408
0.98	0.095	0.104	0.116	0.125	0.135	0.150	0.171	0.187	0.207	0.218	0.230	0.237	0.245	0.254	0.264	0.269	0.275	0.277	0.279	0.279
1.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless proton depth dose distributions, (ro/To)D(z/ro).
Detector material: graphite

z/ro	40	30	20	15	10	8	6	5	4	3	2	1.5	1	0.8	0.6	0.5	0.4	0.3	0.2	0.15
0.00	1.309	1.320	1.340	1.359	1.392	1.413	1.445	1.466	1.496	1.539	1.614	1.681	1.812	1.909	2.068	2.196	2.372	2.657	3.209	3.631
0.02	1.350	1.362	1.383	1.403	1.437	1.458	1.491	1.513	1.543	1.588	1.666	1.736	1.872	1.971	2.134	2.262	2.438	2.728	3.255	3.626
0.04	1.378	1.390	1.412	1.432	1.467	1.489	1.522	1.545	1.575	1.621	1.700	1.771	1.907	2.007	2.170	2.297	2.472	2.759	3.256	3.583
0.06	1.399	1.412	1.435	1.455	1.491	1.513	1.546	1.569	1.601	1.647	1.725	1.796	1.933	2.032	2.196	2.320	2.492	2.774	3.240	3.526
0.08	1.417	1.430	1.453	1.474	1.510	1.532	1.566	1.590	1.621	1.667	1.744	1.815	1.952	2.051	2.213	2.335	2.504	2.779	3.212	3.461
0.10	1.431	1.444	1.468	1.489	1.525	1.548	1.582	1.606	1.638	1.682	1.759	1.830	1.966	2.065	2.225	2.344	2.509	2.775	3.176	3.389
0.12	1.442	1.456	1.480	1.502	1.538	1.561	1.596	1.620	1.650	1.694	1.771	1.841	1.977	2.075	2.232	2.348	2.509	2.765	3.132	3.312
0.14	1.451	1.466	1.490	1.512	1.549	1.572	1.606	1.630	1.660	1.703	1.779	1.849	1.984	2.080	2.235	2.347	2.504	2.749	3.083	3.231
0.16	1.459	1.473	1.498	1.520	1.557	1.580	1.615	1.638	1.667	1.709	1.785	1.855	1.988	2.083	2.234	2.343	2.495	2.729	3.029	3.147
0.18	1.464	1.479	1.504	1.526	1.563	1.587	1.621	1.643	1.672	1.714	1.789	1.858	1.989	2.083	2.229	2.335	2.482	2.703	2.971	3.060
0.20	1.468	1.483	1.508	1.530	1.568	1.591	1.625	1.647	1.675	1.716	1.790	1.858	1.988	2.079	2.222	2.324	2.466	2.673	2.908	2.970
0.22	1.470	1.485	1.511	1.533	1.571	1.594	1.626	1.648	1.676	1.717	1.790	1.857	1.984	2.074	2.212	2.310	2.446	2.640	2.842	2.878
0.24	1.470	1.486	1.512	1.534	1.572	1.595	1.627	1.647	1.675	1.715	1.787	1.853	1.978	2.066	2.199	2.293	2.423	2.603	2.773	2.784
0.26	1.470	1.485	1.511	1.533	1.571	1.594	1.625	1.645	1.672	1.712	1.783	1.848	1.970	2.055	2.183	2.273	2.398	2.562	2.700	2.689
0.28	1.467	1.483	1.509	1.532	1.569	1.591	1.621	1.641	1.668	1.707	1.777	1.841	1.960	2.043	2.165	2.251	2.369	2.518	2.625	2.593
0.30	1.464	1.480	1.506	1.528	1.566	1.587	1.616	1.636	1.662	1.700	1.769	1.832	1.948	2.028	2.145	2.227	2.337	2.470	2.548	2.495
0.32	1.459	1.475	1.501	1.524	1.561	1.581	1.610	1.629	1.655	1.692	1.760	1.821	1.933	2.011	2.122	2.200	2.303	2.420	2.468	2.397
0.34	1.453	1.469	1.495	1.518	1.554	1.574	1.602	1.621	1.646	1.683	1.748	1.808	1.918	1.992	2.097	2.171	2.265	2.367	2.386	2.298
0.36	1.446	1.462	1.488	1.510	1.546	1.566	1.593	1.611	1.635	1.672	1.736	1.794	1.900	1.971	2.070	2.139	2.225	2.310	2.302	2.198
0.38	1.437	1.453	1.480	1.502	1.537	1.556	1.582	1.600	1.624	1.659	1.722	1.778	1.880	1.948	2.041	2.105	2.183	2.251	2.216	2.099
0.40	1.428	1.444	1.470	1.492	1.526	1.544	1.570	1.587	1.610	1.645	1.706	1.761	1.859	1.923	2.010	2.069	2.137	2.189	2.129	1.999
0.42	1.417	1.433	1.459	1.481	1.514	1.531	1.556	1.573	1.596	1.629	1.688	1.742	1.835	1.896	1.976	2.030	2.089	2.124	2.040	1.900
0.44	1.404	1.421	1.446	1.468	1.500	1.517	1.541	1.558	1.580	1.612	1.670	1.721	1.810	1.867	1.941	1.989	2.038	2.056	1.950	1.801
0.46	1.391	1.407	1.433	1.454	1.485	1.501	1.525	1.541	1.562	1.593	1.649	1.698	1.783	1.835	1.903	1.946	1.985	1.986	1.859	1.702
0.48	1.376	1.392	1.418	1.439	1.468	1.484	1.507	1.523	1.543	1.573	1.627	1.674	1.754	1.802	1.863	1.900	1.928	1.914	1.767	1.605
0.50	1.360	1.376	1.402	1.422	1.450	1.466	1.488	1.503	1.523	1.552	1.603	1.648	1.723	1.767	1.821	1.851	1.869	1.839	1.674	1.508
0.52	1.343	1.359	1.384	1.404	1.431	1.446	1.467	1.482	1.501	1.529	1.578	1.621	1.690	1.729	1.776	1.800	1.807	1.761	1.581	1.413
0.54	1.325	1.340	1.365	1.384	1.410	1.424	1.445	1.459	1.477	1.504	1.551	1.591	1.655	1.690	1.729	1.746	1.743	1.682	1.488	1.319
0.56	1.305	1.320	1.345	1.363	1.388	1.402	1.421	1.435	1.452	1.478	1.523	1.560	1.618	1.648	1.680	1.690	1.675	1.600	1.394	1.226
0.58	1.284	1.299	1.323	1.341	1.364	1.377	1.396	1.409	1.426	1.450	1.492	1.527	1.579	1.604	1.628	1.630	1.605	1.516	1.301	1.136
0.60	1.261	1.276	1.300	1.316	1.339	1.351	1.369	1.381	1.397	1.420	1.460	1.492	1.538	1.558	1.574	1.568	1.532	1.430	1.209	1.048
0.62	1.237	1.252	1.275	1.290	1.312	1.324	1.341	1.352	1.367	1.389	1.426	1.455	1.494	1.509	1.516	1.503	1.456	1.343	1.117	0.962
0.64	1.211	1.226	1.248	1.263	1.283	1.294	1.310	1.321	1.335	1.356	1.390	1.415	1.448	1.458	1.456	1.434	1.377	1.254	1.027	0.879
0.66	1.184	1.199	1.220	1.233	1.252	1.263	1.278	1.288	1.302	1.320	1.352	1.374	1.399	1.404	1.392	1.363	1.296	1.164	0.938	0.799
0.68	1.155	1.169	1.189	1.202	1.220	1.230	1.244	1.254	1.266	1.283	1.311	1.330	1.348	1.348	1.325	1.288	1.211	1.073	0.851	0.721
0.70	1.124	1.138	1.157	1.169	1.186	1.195	1.208	1.217	1.228	1.244	1.268	1.284	1.294	1.288	1.255	1.209	1.125	0.981	0.767	0.647
0.72	1.091	1.105	1.122	1.133	1.149	1.158	1.170	1.178	1.188	1.202	1.223	1.235	1.236	1.225	1.180	1.127	1.036	0.890	0.685	0.575
0.74	1.056	1.070	1.086	1.096	1.110	1.118	1.129	1.136	1.145	1.158	1.175	1.183	1.176	1.158	1.102	1.042	0.945	0.798	0.607	0.507
0.76	1.019	1.032	1.046	1.056	1.069	1.076	1.086	1.092	1.100	1.111	1.124	1.127	1.112	1.087	1.020	0.953	0.852	0.708	0.531	0.442
0.78	0.980	0.991	1.005	1.013	1.025	1.031	1.040	1.046	1.052	1.061	1.070	1.069	1.044	1.012	0.934	0.862	0.758	0.619	0.460	0.380
0.80	0.937	0.948	0.960	0.967	0.978	0.984	0.991	0.996	1.001	1.008	1.012	1.006	0.972	0.932	0.843	0.767	0.663	0.533	0.392	0.322
0.82	0.892	0.901	0.912	0.919	0.928	0.932	0.939	0.942	0.947	0.951	0.950	0.938	0.895	0.846	0.748	0.670	0.569	0.450	0.328	0.268
0.84	0.842	0.851	0.860	0.866	0.874	0.877	0.882	0.885	0.888	0.889	0.883	0.866	0.811	0.755	0.649	0.571	0.477	0.372	0.268	0.219
0.86	0.789	0.796	0.804	0.809	0.815	0.818	0.821	0.823	0.824	0.823	0.811	0.788	0.721	0.656	0.547	0.473	0.387	0.299	0.213	0.173
0.88	0.730	0.736	0.743	0.747	0.751	0.753	0.755	0.756	0.755	0.751	0.732	0.703	0.623	0.552	0.444	0.376	0.303	0.231	0.163	0.132
0.90	0.665	0.670	0.675	0.678	0.681	0.682	0.682	0.682	0.679	0.671	0.645	0.609	0.515	0.442	0.340	0.283	0.225	0.170	0.119	0.097
0.92	0.592	0.596	0.600	0.601	0.603	0.602	0.601	0.599	0.594	0.582	0.548	0.503	0.398	0.327	0.242	0.198	0.156	0.116	0.081	0.066
0.94	0.509	0.511	0.513	0.514	0.513	0.511	0.508	0.504	0.496	0.479	0.435	0.381	0.274	0.214	0.153	0.123	0.096	0.071	0.049	0.040
0.96	0.409	0.410	0.410	0.410	0.407	0.403	0.397	0.390	0.378	0.355	0.299	0.239	0.150	0.113	0.078	0.062	0.048	0.035	0.024	0.019
0.98	0.280	0.279	0.277	0.275	0.269	0.263	0.252	0.241	0.224	0.192	0.130	0.088	0.049	0.035	0.024	0.019	0.014	0.011	0.007	0.005
1.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless proton depth dose distributions, (ro/To)D(z/ro).
Detector material: graphite

z/ro	0.1	0.08	0.06	0.05	0.04	0.03	0.02	0.015	0.01
0.00	4.115	4.302	4.467	4.537	4.597	4.697	4.874	4.982	5.113
0.02	4.008	4.135	4.235	4.270	4.308	4.392	4.529	4.619	4.722
0.04	3.889	3.978	4.035	4.050	4.078	4.149	4.263	4.339	4.426
0.06	3.768	3.824	3.849	3.852	3.873	3.932	4.026	4.092	4.167
0.08	3.645	3.675	3.674	3.667	3.683	3.731	3.810	3.866	3.931
0.10	3.522	3.529	3.507	3.493	3.504	3.542	3.609	3.657	3.714
0.12	3.399	3.386	3.347	3.328	3.335	3.363	3.420	3.461	3.511
0.14	3.276	3.246	3.192	3.171	3.174	3.194	3.242	3.276	3.320
0.16	3.153	3.109	3.044	3.020	3.019	3.032	3.072	3.101	3.141
0.18	3.031	2.974	2.901	2.875	2.871	2.877	2.911	2.935	2.971
0.20	2.910	2.843	2.763	2.736	2.728	2.729	2.756	2.777	2.809
0.22	2.790	2.714	2.630	2.602	2.591	2.587	2.609	2.626	2.656
0.24	2.672	2.588	2.501	2.472	2.458	2.451	2.467	2.482	2.510
0.26	2.554	2.465	2.376	2.347	2.329	2.319	2.331	2.344	2.370
0.28	2.438	2.344	2.256	2.225	2.205	2.193	2.201	2.212	2.238
0.30	2.324	2.227	2.139	2.107	2.085	2.071	2.076	2.085	2.110
0.32	2.212	2.112	2.025	1.993	1.969	1.954	1.956	1.964	1.989
0.34	2.101	2.001	1.915	1.882	1.857	1.841	1.840	1.847	1.872
0.36	1.992	1.893	1.809	1.775	1.749	1.732	1.729	1.735	1.761
0.38	1.885	1.788	1.705	1.671	1.645	1.627	1.623	1.628	1.653
0.40	1.781	1.685	1.604	1.570	1.544	1.525	1.521	1.526	1.550
0.42	1.679	1.586	1.506	1.473	1.447	1.428	1.422	1.428	1.452
0.44	1.579	1.490	1.412	1.379	1.353	1.334	1.328	1.334	1.356
0.46	1.482	1.396	1.320	1.288	1.263	1.243	1.237	1.244	1.264
0.48	1.388	1.305	1.231	1.200	1.176	1.157	1.151	1.157	1.176
0.50	1.297	1.217	1.145	1.116	1.092	1.073	1.068	1.075	1.091
0.52	1.208	1.131	1.063	1.034	1.011	0.993	0.989	0.995	1.009
0.54	1.122	1.049	0.983	0.956	0.933	0.917	0.913	0.919	0.930
0.56	1.038	0.968	0.906	0.880	0.859	0.843	0.840	0.846	0.856
0.58	0.957	0.891	0.832	0.808	0.788	0.773	0.771	0.776	0.785
0.60	0.879	0.816	0.761	0.738	0.720	0.706	0.705	0.709	0.717
0.62	0.804	0.745	0.693	0.672	0.655	0.643	0.642	0.644	0.652
0.64	0.731	0.676	0.628	0.609	0.593	0.583	0.582	0.583	0.590
0.66	0.661	0.610	0.566	0.548	0.534	0.525	0.524	0.525	0.531
0.68	0.594	0.548	0.507	0.491	0.479	0.471	0.469	0.470	0.476
0.70	0.530	0.488	0.452	0.437	0.426	0.419	0.417	0.418	0.422
0.72	0.469	0.431	0.399	0.386	0.377	0.371	0.368	0.369	0.372
0.74	0.412	0.378	0.349	0.338	0.331	0.324	0.322	0.323	0.324
0.76	0.357	0.328	0.303	0.294	0.287	0.281	0.279	0.279	0.278
0.78	0.306	0.281	0.260	0.252	0.245	0.240	0.239	0.238	0.235
0.80	0.259	0.237	0.220	0.213	0.207	0.203	0.201	0.199	0.195
0.82	0.215	0.197	0.183	0.176	0.172	0.168	0.166	0.163	0.158
0.84	0.175	0.161	0.148	0.143	0.139	0.136	0.133	0.130	0.123
0.86	0.139	0.127	0.117	0.113	0.110	0.107	0.103	0.099	0.092
0.88	0.106	0.097	0.089	0.086	0.083	0.080	0.076	0.072	0.064
0.90	0.077	0.070	0.065	0.062	0.059	0.056	0.051	0.047	0.040
0.92	0.052	0.047	0.043	0.041	0.038	0.035	0.031	0.027	0.022
0.94	0.031	0.028	0.025	0.023	0.021	0.018	0.015	0.012	0.009
0.96	0.014	0.012	0.010	0.009	0.008	0.006	0.004	0.003	0.002
0.98	0.003	0.002	0.001	0.001	0.001	0.000	0.000	0.000	0.000
1.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless proton depth dose distributions, (ro/To)D(z/ro).
Detector material: silicon

z/ro	10000	8000	6000	5000	4000	3000	2000	1500	1000	800	600	500	400	300	200	150	100	80	60	50
0.00	2.106	2.067	2.006	1.962	1.901	1.818	1.692	1.602	1.485	1.428	1.363	1.328	1.290	1.250	1.208	1.187	1.168	1.161	1.156	1.154
0.02	2.048	2.010	1.954	1.914	1.858	1.782	1.670	1.589	1.484	1.433	1.375	1.343	1.309	1.273	1.235	1.217	1.200	1.193	1.189	1.188
0.04	1.995	1.960	1.908	1.870	1.819	1.750	1.647	1.574	1.479	1.432	1.379	1.350	1.319	1.286	1.252	1.235	1.220	1.214	1.211	1.210
0.06	1.944	1.912	1.863	1.829	1.782	1.718	1.625	1.558	1.471	1.429	1.381	1.354	1.326	1.296	1.265	1.249	1.236	1.230	1.227	1.227
0.08	1.896	1.865	1.820	1.788	1.745	1.687	1.602	1.541	1.462	1.423	1.380	1.356	1.330	1.302	1.274	1.260	1.248	1.243	1.240	1.240
0.10	1.848	1.820	1.778	1.749	1.709	1.656	1.579	1.523	1.452	1.417	1.377	1.355	1.332	1.307	1.281	1.268	1.257	1.253	1.251	1.251
0.12	1.801	1.775	1.737	1.709	1.674	1.625	1.555	1.505	1.441	1.409	1.373	1.353	1.332	1.309	1.286	1.275	1.265	1.261	1.259	1.259
0.14	1.755	1.731	1.696	1.671	1.638	1.595	1.532	1.486	1.429	1.400	1.368	1.350	1.330	1.310	1.289	1.279	1.270	1.267	1.265	1.265
0.16	1.710	1.687	1.655	1.633	1.604	1.564	1.508	1.467	1.416	1.390	1.361	1.345	1.328	1.309	1.291	1.282	1.274	1.271	1.270	1.270
0.18	1.665	1.645	1.615	1.595	1.569	1.534	1.484	1.448	1.402	1.379	1.353	1.339	1.324	1.307	1.291	1.283	1.276	1.274	1.273	1.273
0.20	1.621	1.602	1.576	1.558	1.535	1.504	1.460	1.428	1.388	1.367	1.345	1.332	1.319	1.304	1.290	1.283	1.277	1.275	1.274	1.275
0.22	1.577	1.560	1.537	1.521	1.501	1.474	1.435	1.408	1.373	1.355	1.336	1.325	1.313	1.300	1.287	1.281	1.277	1.275	1.274	1.275
0.24	1.534	1.519	1.498	1.485	1.467	1.444	1.411	1.387	1.357	1.342	1.325	1.316	1.306	1.295	1.284	1.279	1.275	1.273	1.273	1.274
0.26	1.491	1.478	1.460	1.448	1.433	1.413	1.386	1.366	1.341	1.328	1.314	1.306	1.298	1.289	1.279	1.275	1.272	1.271	1.271	1.272
0.28	1.448	1.437	1.422	1.412	1.399	1.383	1.361	1.344	1.324	1.314	1.302	1.296	1.289	1.281	1.274	1.271	1.268	1.267	1.268	1.268
0.30	1.406	1.397	1.384	1.376	1.366	1.353	1.335	1.323	1.307	1.298	1.290	1.285	1.279	1.273	1.267	1.265	1.263	1.262	1.263	1.264
0.32	1.365	1.357	1.346	1.340	1.332	1.323	1.310	1.300	1.289	1.283	1.276	1.272	1.268	1.264	1.260	1.258	1.257	1.257	1.257	1.258
0.34	1.323	1.317	1.309	1.305	1.299	1.293	1.284	1.278	1.270	1.266	1.262	1.260	1.257	1.254	1.251	1.250	1.250	1.250	1.251	1.251
0.36	1.282	1.278	1.272	1.269	1.266	1.262	1.258	1.255	1.251	1.249	1.247	1.246	1.244	1.243	1.241	1.241	1.242	1.242	1.243	1.244
0.38	1.242	1.238	1.235	1.234	1.232	1.232	1.232	1.232	1.232	1.231	1.232	1.231	1.231	1.231	1.231	1.231	1.232	1.233	1.234	1.235
0.40	1.201	1.199	1.198	1.199	1.199	1.202	1.205	1.208	1.212	1.213	1.215	1.216	1.217	1.218	1.219	1.220	1.222	1.223	1.224	1.225
0.42	1.161	1.161	1.162	1.164	1.166	1.171	1.179	1.184	1.191	1.194	1.198	1.200	1.202	1.204	1.207	1.209	1.211	1.212	1.213	1.214
0.44	1.121	1.122	1.126	1.129	1.133	1.141	1.152	1.160	1.170	1.175	1.180	1.183	1.186	1.190	1.194	1.196	1.199	1.200	1.201	1.202
0.46	1.082	1.084	1.089	1.094	1.100	1.110	1.124	1.135	1.148	1.154	1.162	1.166	1.170	1.174	1.179	1.182	1.185	1.186	1.188	1.189
0.48	1.042	1.046	1.053	1.059	1.067	1.079	1.097	1.109	1.125	1.133	1.142	1.147	1.152	1.158	1.164	1.167	1.171	1.172	1.174	1.175
0.50	1.003	1.008	1.017	1.024	1.034	1.048	1.069	1.084	1.102	1.112	1.122	1.128	1.134	1.141	1.148	1.152	1.156	1.157	1.159	1.160
0.52	0.965	0.971	0.982	0.990	1.001	1.017	1.041	1.057	1.079	1.089	1.102	1.108	1.115	1.123	1.131	1.135	1.139	1.141	1.143	1.144
0.54	0.926	0.933	0.946	0.955	0.968	0.986	1.012	1.031	1.055	1.066	1.080	1.087	1.095	1.103	1.112	1.117	1.122	1.124	1.126	1.127
0.56	0.888	0.896	0.910	0.921	0.934	0.954	0.983	1.003	1.030	1.043	1.058	1.066	1.074	1.083	1.093	1.098	1.103	1.105	1.107	1.108
0.58	0.849	0.859	0.875	0.886	0.901	0.923	0.954	0.976	1.004	1.018	1.034	1.043	1.052	1.062	1.073	1.078	1.084	1.086	1.088	1.088
0.60	0.812	0.822	0.839	0.852	0.868	0.891	0.924	0.947	0.978	0.993	1.010	1.019	1.029	1.040	1.051	1.057	1.063	1.065	1.067	1.068
0.62	0.774	0.786	0.804	0.817	0.834	0.859	0.894	0.919	0.951	0.967	0.985	0.995	1.005	1.017	1.029	1.035	1.041	1.043	1.045	1.045
0.64	0.736	0.749	0.768	0.782	0.801	0.826	0.864	0.889	0.923	0.940	0.959	0.969	0.980	0.992	1.005	1.011	1.017	1.019	1.021	1.022
0.66	0.699	0.712	0.733	0.748	0.767	0.793	0.832	0.859	0.894	0.912	0.932	0.943	0.954	0.966	0.980	0.986	0.993	0.995	0.997	0.997
0.68	0.662	0.676	0.698	0.713	0.733	0.760	0.801	0.828	0.865	0.883	0.904	0.915	0.927	0.940	0.953	0.960	0.967	0.969	0.970	0.971
0.70	0.625	0.640	0.662	0.678	0.698	0.727	0.768	0.797	0.834	0.853	0.874	0.886	0.898	0.911	0.925	0.932	0.939	0.941	0.943	0.943
0.72	0.588	0.604	0.627	0.643	0.664	0.693	0.735	0.765	0.803	0.822	0.844	0.855	0.868	0.882	0.896	0.903	0.910	0.912	0.913	0.914
0.74	0.551	0.567	0.591	0.608	0.629	0.659	0.702	0.731	0.770	0.789	0.812	0.824	0.837	0.851	0.865	0.872	0.879	0.881	0.882	0.883
0.76	0.515	0.531	0.555	0.572	0.594	0.624	0.667	0.697	0.737	0.756	0.778	0.791	0.804	0.818	0.832	0.839	0.846	0.848	0.849	0.850
0.78	0.478	0.495	0.519	0.536	0.558	0.588	0.632	0.662	0.701	0.721	0.743	0.756	0.769	0.783	0.798	0.805	0.811	0.813	0.814	0.815
0.80	0.442	0.458	0.483	0.500	0.522	0.552	0.595	0.625	0.665	0.684	0.707	0.719	0.732	0.746	0.761	0.768	0.774	0.776	0.777	0.777
0.82	0.405	0.422	0.446	0.463	0.485	0.514	0.557	0.587	0.626	0.646	0.668	0.680	0.693	0.707	0.721	0.728	0.735	0.736	0.737	0.737
0.84	0.368	0.385	0.409	0.426	0.447	0.476	0.518	0.547	0.586	0.605	0.627	0.639	0.652	0.665	0.679	0.686	0.692	0.693	0.694	0.694
0.86	0.331	0.348	0.371	0.387	0.408	0.436	0.477	0.506	0.543	0.562	0.583	0.595	0.607	0.621	0.634	0.641	0.646	0.647	0.648	0.648
0.88	0.294	0.310	0.333	0.348	0.368	0.395	0.435	0.462	0.498	0.516	0.536	0.547	0.559	0.572	0.585	0.591	0.596	0.597	0.598	0.597
0.90	0.256	0.271	0.293	0.308	0.326	0.352	0.389	0.415	0.449	0.466	0.485	0.496	0.507	0.519	0.531	0.537	0.542	0.543	0.543	0.542
0.92	0.218	0.232	0.251	0.265	0.282	0.306	0.340	0.364	0.396	0.411	0.429	0.439	0.449	0.461	0.472	0.477	0.481	0.481	0.481	0.481
0.94	0.177	0.190	0.208	0.220	0.235	0.256	0.287	0.308	0.336	0.350	0.366	0.375	0.384	0.394	0.404	0.408	0.411	0.412	0.411	0.410
0.96	0.134	0.145	0.160	0.170	0.183	0.201	0.226	0.244	0.268	0.279	0.293	0.300	0.308	0.316	0.324	0.327	0.329	0.329	0.328	0.326
0.98	0.086	0.094	0.104	0.111	0.121	0.133	0.152	0.164	0.181	0.190	0.199	0.204	0.210	0.215	0.221	0.222	0.223	0.223	0.221	0.219
1.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless proton depth dose distributions, (ro/To)D(z/ro).
Detector material: silicon

z/ro	40	30	20	15	10	8	6	5	4	3	2	1.5	1	0.8	0.6	0.5	0.4	0.3	0.2	0.15
0.00	1.154	1.155	1.161	1.167	1.179	1.187	1.200	1.209	1.222	1.242	1.281	1.316	1.383	1.436	1.501	1.544	1.618	1.740	1.982	2.223
0.02	1.188	1.190	1.195	1.201	1.214	1.221	1.234	1.243	1.256	1.276	1.315	1.351	1.418	1.470	1.529	1.573	1.647	1.769	2.010	2.245
0.04	1.210	1.212	1.218	1.224	1.236	1.244	1.256	1.265	1.278	1.298	1.336	1.371	1.437	1.485	1.541	1.586	1.658	1.778	2.015	2.240
0.06	1.227	1.229	1.235	1.241	1.253	1.260	1.272	1.281	1.294	1.314	1.351	1.384	1.448	1.494	1.547	1.592	1.663	1.781	2.011	2.226
0.08	1.240	1.243	1.248	1.254	1.266	1.273	1.285	1.294	1.306	1.326	1.361	1.393	1.455	1.499	1.549	1.594	1.663	1.778	2.002	2.205
0.10	1.251	1.253	1.259	1.265	1.276	1.283	1.295	1.304	1.316	1.335	1.368	1.399	1.459	1.500	1.548	1.592	1.659	1.771	1.987	2.179
0.12	1.260	1.262	1.268	1.273	1.284	1.291	1.302	1.311	1.323	1.341	1.373	1.402	1.460	1.498	1.545	1.588	1.653	1.762	1.969	2.149
0.14	1.266	1.268	1.274	1.280	1.290	1.297	1.308	1.316	1.327	1.344	1.375	1.403	1.459	1.494	1.539	1.581	1.644	1.750	1.948	2.115
0.16	1.271	1.273	1.279	1.284	1.294	1.301	1.312	1.319	1.330	1.346	1.375	1.403	1.455	1.488	1.532	1.572	1.633	1.735	1.924	2.078
0.18	1.274	1.276	1.282	1.287	1.297	1.303	1.314	1.321	1.331	1.346	1.374	1.400	1.450	1.480	1.522	1.561	1.620	1.718	1.897	2.038
0.20	1.276	1.278	1.283	1.288	1.298	1.304	1.314	1.321	1.330	1.344	1.371	1.396	1.443	1.471	1.511	1.549	1.605	1.699	1.868	1.995
0.22	1.276	1.278	1.283	1.288	1.297	1.303	1.313	1.320	1.328	1.341	1.367	1.390	1.435	1.460	1.499	1.535	1.589	1.679	1.836	1.951
0.24	1.275	1.278	1.282	1.287	1.295	1.301	1.311	1.317	1.325	1.337	1.361	1.383	1.425	1.448	1.485	1.519	1.571	1.656	1.803	1.904
0.26	1.273	1.275	1.280	1.284	1.293	1.298	1.307	1.312	1.319	1.331	1.354	1.374	1.413	1.434	1.470	1.502	1.551	1.632	1.767	1.855
0.28	1.269	1.272	1.276	1.280	1.288	1.293	1.302	1.307	1.313	1.324	1.345	1.364	1.400	1.419	1.453	1.484	1.530	1.607	1.730	1.804
0.30	1.265	1.268	1.271	1.275	1.283	1.288	1.295	1.300	1.306	1.316	1.335	1.353	1.386	1.403	1.435	1.464	1.508	1.579	1.691	1.751
0.32	1.259	1.262	1.265	1.269	1.277	1.281	1.288	1.292	1.297	1.306	1.325	1.341	1.371	1.385	1.416	1.443	1.484	1.551	1.650	1.697
0.34	1.253	1.255	1.258	1.262	1.269	1.273	1.279	1.282	1.287	1.296	1.312	1.328	1.354	1.367	1.396	1.421	1.460	1.521	1.607	1.641
0.36	1.245	1.247	1.250	1.254	1.260	1.264	1.269	1.272	1.277	1.284	1.299	1.313	1.336	1.347	1.374	1.398	1.433	1.489	1.562	1.583
0.38	1.236	1.238	1.241	1.244	1.251	1.254	1.258	1.261	1.265	1.271	1.285	1.297	1.316	1.327	1.351	1.373	1.406	1.456	1.516	1.524
0.40	1.226	1.228	1.231	1.234	1.240	1.242	1.246	1.248	1.252	1.257	1.269	1.280	1.296	1.305	1.328	1.347	1.377	1.421	1.469	1.464
0.42	1.215	1.217	1.220	1.222	1.228	1.230	1.232	1.234	1.237	1.242	1.252	1.262	1.275	1.282	1.303	1.320	1.347	1.386	1.420	1.403
0.44	1.203	1.205	1.207	1.210	1.214	1.216	1.218	1.220	1.222	1.226	1.235	1.242	1.252	1.259	1.276	1.292	1.316	1.348	1.369	1.340
0.46	1.190	1.192	1.194	1.196	1.200	1.201	1.203	1.204	1.206	1.209	1.216	1.222	1.228	1.234	1.249	1.263	1.283	1.309	1.316	1.277
0.48	1.176	1.178	1.179	1.182	1.185	1.185	1.186	1.187	1.188	1.191	1.196	1.200	1.204	1.208	1.221	1.232	1.249	1.269	1.263	1.213
0.50	1.161	1.162	1.164	1.166	1.168	1.168	1.169	1.169	1.170	1.171	1.175	1.178	1.178	1.181	1.191	1.201	1.214	1.227	1.208	1.148
0.52	1.145	1.146	1.147	1.149	1.151	1.150	1.150	1.150	1.150	1.151	1.152	1.154	1.151	1.153	1.160	1.168	1.177	1.184	1.151	1.082
0.54	1.127	1.129	1.130	1.131	1.132	1.130	1.130	1.130	1.129	1.129	1.129	1.128	1.123	1.124	1.128	1.133	1.139	1.139	1.093	1.017
0.56	1.109	1.110	1.111	1.112	1.112	1.110	1.109	1.108	1.107	1.106	1.104	1.102	1.094	1.093	1.095	1.098	1.100	1.093	1.034	0.951
0.58	1.089	1.090	1.091	1.091	1.090	1.088	1.087	1.085	1.084	1.082	1.078	1.074	1.064	1.061	1.061	1.061	1.059	1.045	0.974	0.885
0.60	1.068	1.069	1.069	1.069	1.068	1.065	1.063	1.062	1.059	1.056	1.051	1.045	1.032	1.028	1.025	1.023	1.017	0.996	0.913	0.819
0.62	1.046	1.047	1.047	1.046	1.044	1.041	1.038	1.036	1.034	1.029	1.022	1.015	1.000	0.994	0.988	0.983	0.973	0.945	0.851	0.754
0.64	1.023	1.023	1.023	1.022	1.018	1.016	1.012	1.010	1.006	1.001	0.993	0.983	0.966	0.959	0.949	0.942	0.928	0.892	0.788	0.690
0.66	0.998	0.998	0.997	0.996	0.992	0.989	0.985	0.982	0.978	0.972	0.961	0.950	0.930	0.922	0.909	0.899	0.881	0.837	0.725	0.627
0.68	0.971	0.971	0.970	0.969	0.964	0.960	0.956	0.952	0.948	0.941	0.928	0.915	0.894	0.883	0.868	0.855	0.832	0.781	0.662	0.566
0.70	0.943	0.943	0.942	0.940	0.934	0.930	0.925	0.922	0.916	0.908	0.894	0.878	0.856	0.843	0.825	0.809	0.781	0.723	0.599	0.506
0.72	0.914	0.914	0.912	0.909	0.903	0.899	0.893	0.889	0.883	0.874	0.858	0.840	0.816	0.802	0.780	0.761	0.728	0.664	0.537	0.449
0.74	0.883	0.882	0.880	0.877	0.870	0.865	0.859	0.854	0.848	0.838	0.820	0.801	0.774	0.758	0.733	0.711	0.673	0.603	0.476	0.394
0.76	0.850	0.849	0.846	0.842	0.835	0.830	0.823	0.818	0.811	0.800	0.780	0.760	0.731	0.713	0.683	0.658	0.616	0.541	0.417	0.341
0.78	0.814	0.813	0.810	0.805	0.798	0.792	0.785	0.780	0.772	0.760	0.737	0.716	0.686	0.666	0.632	0.603	0.557	0.478	0.359	0.292
0.80	0.777	0.776	0.771	0.766	0.758	0.753	0.745	0.739	0.730	0.717	0.693	0.671	0.638	0.616	0.578	0.546	0.495	0.415	0.304	0.245
0.82	0.737	0.735	0.730	0.725	0.716	0.710	0.702	0.695	0.686	0.672	0.646	0.624	0.588	0.564	0.522	0.486	0.432	0.352	0.253	0.202
0.84	0.693	0.692	0.686	0.681	0.671	0.665	0.656	0.649	0.640	0.624	0.596	0.573	0.535	0.508	0.462	0.423	0.367	0.292	0.205	0.163
0.86	0.647	0.645	0.638	0.633	0.623	0.616	0.607	0.600	0.589	0.573	0.544	0.520	0.479	0.449	0.398	0.357	0.302	0.233	0.161	0.127
0.88	0.596	0.594	0.587	0.581	0.571	0.564	0.553	0.546	0.535	0.518	0.487	0.463	0.419	0.386	0.331	0.289	0.237	0.179	0.122	0.096
0.90	0.541	0.538	0.530	0.524	0.513	0.506	0.495	0.487	0.476	0.457	0.427	0.401	0.354	0.318	0.261	0.221	0.176	0.130	0.087	0.069
0.92	0.479	0.475	0.468	0.461	0.450	0.442	0.431	0.423	0.411	0.391	0.361	0.334	0.283	0.245	0.189	0.154	0.120	0.087	0.058	0.047
0.94	0.408	0.404	0.396	0.390	0.378	0.370	0.359	0.350	0.337	0.318	0.287	0.259	0.204	0.166	0.119	0.095	0.072	0.052	0.035	0.028
0.96	0.324	0.320	0.312	0.306	0.294	0.286	0.274	0.265	0.252	0.234	0.203	0.172	0.117	0.088	0.059	0.046	0.035	0.025	0.017	0.014
0.98	0.216	0.213	0.205	0.199	0.187	0.179	0.168	0.159	0.148	0.131	0.097	0.069	0.037	0.026	0.017	0.013	0.010	0.007	0.005	0.004
1.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless proton depth dose distributions, (ro/To)D(z/ro).
Detector material: silicon

z/ro	0.1	0.08	0.06	0.05	0.04	0.03	0.02	0.015	0.01
0.00	2.659	2.924	3.246	3.421	3.599	3.760	3.899	3.954	3.999
0.02	2.649	2.878	3.140	3.274	3.404	3.515	3.609	3.644	3.653
0.04	2.612	2.813	3.030	3.136	3.236	3.318	3.385	3.408	3.398
0.06	2.566	2.740	2.920	3.004	3.080	3.140	3.187	3.201	3.178
0.08	2.514	2.663	2.810	2.875	2.933	2.974	3.006	3.013	2.983
0.10	2.457	2.584	2.702	2.750	2.792	2.819	2.838	2.840	2.805
0.12	2.397	2.503	2.594	2.629	2.657	2.672	2.681	2.677	2.640
0.14	2.334	2.420	2.488	2.510	2.527	2.532	2.533	2.524	2.487
0.16	2.268	2.336	2.383	2.395	2.402	2.398	2.392	2.379	2.344
0.18	2.200	2.251	2.279	2.282	2.281	2.271	2.259	2.242	2.210
0.20	2.131	2.166	2.177	2.173	2.164	2.148	2.132	2.111	2.083
0.22	2.060	2.081	2.077	2.066	2.052	2.031	2.010	1.987	1.963
0.24	1.988	1.995	1.978	1.962	1.943	1.919	1.895	1.870	1.849
0.26	1.914	1.910	1.882	1.860	1.838	1.811	1.784	1.759	1.741
0.28	1.840	1.825	1.787	1.762	1.736	1.707	1.677	1.653	1.638
0.30	1.766	1.740	1.694	1.666	1.638	1.607	1.575	1.553	1.540
0.32	1.690	1.657	1.604	1.573	1.543	1.511	1.478	1.457	1.447
0.34	1.615	1.574	1.515	1.482	1.451	1.419	1.384	1.366	1.358
0.36	1.539	1.491	1.428	1.395	1.363	1.330	1.295	1.279	1.273
0.38	1.464	1.410	1.344	1.310	1.277	1.244	1.210	1.196	1.192
0.40	1.389	1.331	1.262	1.228	1.195	1.162	1.129	1.117	1.114
0.42	1.314	1.253	1.183	1.148	1.116	1.084	1.052	1.042	1.040
0.44	1.240	1.176	1.106	1.071	1.040	1.008	0.979	0.970	0.970
0.46	1.166	1.101	1.031	0.997	0.967	0.935	0.909	0.902	0.902
0.48	1.093	1.027	0.959	0.926	0.896	0.866	0.842	0.836	0.837
0.50	1.022	0.956	0.889	0.858	0.829	0.799	0.779	0.774	0.775
0.52	0.952	0.887	0.822	0.791	0.764	0.736	0.719	0.715	0.716
0.54	0.883	0.820	0.757	0.728	0.702	0.677	0.661	0.658	0.660
0.56	0.816	0.754	0.695	0.668	0.642	0.620	0.607	0.604	0.607
0.58	0.751	0.692	0.636	0.610	0.586	0.566	0.555	0.553	0.555
0.60	0.688	0.631	0.578	0.554	0.533	0.515	0.505	0.504	0.506
0.62	0.626	0.573	0.524	0.501	0.482	0.467	0.458	0.457	0.460
0.64	0.567	0.518	0.472	0.451	0.435	0.421	0.414	0.413	0.416
0.66	0.511	0.465	0.423	0.404	0.390	0.378	0.372	0.372	0.374
0.68	0.457	0.415	0.377	0.360	0.347	0.338	0.333	0.332	0.334
0.70	0.405	0.367	0.333	0.319	0.308	0.299	0.295	0.295	0.296
0.72	0.356	0.322	0.292	0.280	0.271	0.264	0.260	0.260	0.260
0.74	0.310	0.280	0.255	0.244	0.236	0.230	0.227	0.227	0.227
0.76	0.267	0.241	0.219	0.211	0.204	0.199	0.197	0.196	0.195
0.78	0.227	0.205	0.187	0.180	0.174	0.170	0.168	0.167	0.165
0.80	0.190	0.172	0.157	0.151	0.147	0.143	0.141	0.140	0.138
0.82	0.157	0.142	0.130	0.125	0.121	0.118	0.116	0.115	0.112
0.84	0.126	0.115	0.105	0.101	0.098	0.096	0.093	0.092	0.089
0.86	0.099	0.090	0.083	0.080	0.077	0.075	0.073	0.071	0.067
0.88	0.075	0.069	0.063	0.061	0.058	0.056	0.054	0.052	0.049
0.90	0.055	0.050	0.045	0.044	0.042	0.040	0.037	0.036	0.032
0.92	0.037	0.033	0.030	0.029	0.027	0.026	0.023	0.022	0.019
0.94	0.022	0.020	0.018	0.017	0.015	0.014	0.012	0.011	0.009
0.96	0.010	0.009	0.008	0.007	0.006	0.005	0.004	0.004	0.003
0.98	0.002	0.002	0.001	0.001	0.001	0.001	0.001	0.000	0.000
1.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless proton depth dose distributions, (ro/To)D(z/ro).
Detector material: air

z/ro	10000	8000	6000	5000	4000	3000	2000	1500	1000	800	600	500	400	300	200	150	100	80	60	50
0.00	2.362	2.304	2.222	2.165	2.091	1.992	1.849	1.748	1.619	1.555	1.486	1.447	1.408	1.366	1.324	1.304	1.289	1.285	1.284	1.287
0.02	2.291	2.237	2.161	2.109	2.042	1.952	1.823	1.733	1.617	1.561	1.499	1.465	1.429	1.392	1.355	1.338	1.325	1.322	1.323	1.326
0.04	2.228	2.178	2.108	2.060	1.998	1.916	1.799	1.716	1.611	1.560	1.504	1.473	1.441	1.407	1.374	1.359	1.349	1.347	1.349	1.352
0.06	2.169	2.122	2.056	2.012	1.955	1.881	1.773	1.699	1.603	1.557	1.506	1.478	1.449	1.418	1.389	1.376	1.367	1.366	1.369	1.372
0.08	2.112	2.068	2.007	1.967	1.914	1.846	1.748	1.680	1.593	1.552	1.505	1.480	1.453	1.426	1.400	1.389	1.382	1.381	1.385	1.388
0.10	2.056	2.015	1.959	1.922	1.874	1.812	1.723	1.661	1.582	1.545	1.503	1.480	1.456	1.431	1.408	1.399	1.394	1.394	1.398	1.402
0.12	2.002	1.964	1.912	1.878	1.834	1.778	1.697	1.641	1.570	1.536	1.498	1.478	1.457	1.435	1.414	1.406	1.403	1.404	1.408	1.412
0.14	1.949	1.914	1.866	1.835	1.795	1.744	1.671	1.621	1.557	1.527	1.493	1.475	1.456	1.436	1.419	1.412	1.410	1.411	1.417	1.421
0.16	1.897	1.864	1.821	1.792	1.756	1.710	1.645	1.600	1.544	1.516	1.486	1.470	1.453	1.436	1.421	1.416	1.415	1.417	1.423	1.428
0.18	1.846	1.816	1.776	1.750	1.718	1.677	1.619	1.579	1.529	1.505	1.478	1.464	1.449	1.435	1.422	1.418	1.419	1.421	1.428	1.433
0.20	1.795	1.768	1.732	1.709	1.680	1.643	1.592	1.558	1.513	1.492	1.469	1.457	1.444	1.432	1.422	1.419	1.421	1.424	1.431	1.436
0.22	1.745	1.720	1.688	1.668	1.642	1.610	1.566	1.535	1.497	1.479	1.460	1.449	1.438	1.428	1.420	1.418	1.421	1.425	1.432	1.438
0.24	1.696	1.674	1.645	1.627	1.604	1.577	1.539	1.513	1.480	1.465	1.449	1.440	1.431	1.423	1.417	1.416	1.420	1.424	1.432	1.438
0.26	1.648	1.627	1.602	1.586	1.567	1.544	1.512	1.490	1.463	1.450	1.437	1.430	1.423	1.416	1.413	1.413	1.418	1.423	1.431	1.437
0.28	1.599	1.582	1.560	1.546	1.530	1.511	1.484	1.467	1.445	1.435	1.424	1.419	1.414	1.409	1.407	1.409	1.415	1.419	1.428	1.434
0.30	1.552	1.536	1.518	1.507	1.493	1.477	1.457	1.443	1.426	1.419	1.411	1.407	1.403	1.401	1.400	1.403	1.410	1.415	1.424	1.430
0.32	1.505	1.492	1.476	1.467	1.456	1.444	1.429	1.419	1.407	1.402	1.397	1.394	1.392	1.391	1.393	1.396	1.404	1.410	1.419	1.425
0.34	1.458	1.447	1.434	1.428	1.420	1.411	1.401	1.394	1.387	1.384	1.382	1.381	1.380	1.381	1.384	1.388	1.397	1.403	1.412	1.419
0.36	1.412	1.403	1.393	1.388	1.383	1.378	1.373	1.369	1.367	1.366	1.366	1.366	1.367	1.369	1.374	1.379	1.389	1.395	1.405	1.412
0.38	1.367	1.359	1.353	1.350	1.347	1.345	1.344	1.344	1.346	1.347	1.349	1.351	1.353	1.357	1.363	1.369	1.380	1.386	1.396	1.403
0.40	1.321	1.316	1.312	1.311	1.310	1.312	1.315	1.318	1.324	1.327	1.332	1.335	1.338	1.343	1.351	1.358	1.369	1.376	1.386	1.393
0.42	1.277	1.273	1.272	1.272	1.274	1.278	1.286	1.292	1.302	1.307	1.313	1.317	1.322	1.329	1.338	1.346	1.358	1.365	1.375	1.382
0.44	1.232	1.231	1.232	1.234	1.238	1.245	1.257	1.266	1.279	1.285	1.294	1.300	1.306	1.313	1.324	1.332	1.345	1.352	1.363	1.370
0.46	1.188	1.188	1.192	1.196	1.201	1.211	1.227	1.239	1.255	1.264	1.274	1.281	1.288	1.297	1.309	1.318	1.331	1.338	1.349	1.356
0.48	1.144	1.146	1.152	1.157	1.165	1.178	1.197	1.211	1.231	1.241	1.254	1.261	1.269	1.279	1.293	1.302	1.316	1.324	1.334	1.342
0.50	1.101	1.104	1.112	1.119	1.129	1.144	1.167	1.183	1.206	1.218	1.232	1.240	1.250	1.261	1.276	1.286	1.300	1.308	1.319	1.326
0.52	1.058	1.063	1.073	1.081	1.093	1.110	1.136	1.155	1.181	1.194	1.210	1.219	1.229	1.242	1.257	1.268	1.283	1.290	1.301	1.309
0.54	1.015	1.022	1.034	1.043	1.056	1.076	1.105	1.126	1.154	1.169	1.186	1.197	1.208	1.221	1.238	1.249	1.264	1.272	1.283	1.290
0.56	0.973	0.981	0.995	1.006	1.020	1.042	1.074	1.097	1.128	1.143	1.162	1.173	1.185	1.199	1.217	1.229	1.244	1.252	1.263	1.271
0.58	0.930	0.940	0.956	0.968	0.984	1.007	1.042	1.067	1.100	1.117	1.137	1.149	1.162	1.177	1.195	1.207	1.223	1.231	1.243	1.250
0.60	0.889	0.899	0.917	0.930	0.947	0.972	1.010	1.036	1.072	1.090	1.111	1.123	1.137	1.153	1.172	1.184	1.201	1.209	1.220	1.227
0.62	0.847	0.859	0.878	0.892	0.911	0.937	0.977	1.005	1.042	1.061	1.084	1.097	1.111	1.128	1.148	1.160	1.177	1.185	1.196	1.204
0.64	0.806	0.819	0.839	0.854	0.874	0.902	0.944	0.973	1.012	1.032	1.056	1.069	1.084	1.101	1.122	1.135	1.152	1.160	1.171	1.178
0.66	0.765	0.779	0.800	0.816	0.837	0.866	0.910	0.940	0.981	1.002	1.026	1.040	1.056	1.074	1.095	1.108	1.125	1.133	1.144	1.151
0.68	0.724	0.739	0.762	0.778	0.800	0.830	0.875	0.907	0.949	0.971	0.996	1.010	1.026	1.045	1.066	1.080	1.097	1.105	1.116	1.123
0.70	0.683	0.699	0.723	0.740	0.763	0.794	0.840	0.873	0.916	0.938	0.964	0.979	0.995	1.014	1.036	1.050	1.067	1.075	1.086	1.093
0.72	0.643	0.659	0.684	0.702	0.725	0.757	0.804	0.838	0.882	0.905	0.931	0.946	0.963	0.982	1.004	1.018	1.035	1.043	1.054	1.060
0.74	0.603	0.620	0.645	0.663	0.687	0.720	0.768	0.802	0.847	0.869	0.896	0.912	0.929	0.948	0.970	0.984	1.001	1.009	1.019	1.026
0.76	0.562	0.580	0.606	0.625	0.649	0.682	0.730	0.764	0.810	0.833	0.860	0.876	0.893	0.912	0.935	0.948	0.965	0.973	0.983	0.990
0.78	0.522	0.540	0.567	0.585	0.610	0.643	0.692	0.726	0.772	0.795	0.822	0.838	0.855	0.874	0.897	0.910	0.927	0.935	0.945	0.951
0.80	0.482	0.501	0.527	0.546	0.570	0.603	0.652	0.686	0.732	0.755	0.782	0.798	0.815	0.834	0.857	0.870	0.886	0.894	0.903	0.909
0.82	0.442	0.461	0.487	0.506	0.530	0.563	0.611	0.645	0.690	0.713	0.740	0.755	0.772	0.791	0.813	0.826	0.842	0.850	0.859	0.865
0.84	0.402	0.420	0.447	0.465	0.489	0.521	0.569	0.602	0.646	0.669	0.695	0.711	0.727	0.746	0.767	0.780	0.795	0.803	0.812	0.817
0.86	0.362	0.380	0.406	0.424	0.447	0.478	0.524	0.557	0.600	0.622	0.648	0.662	0.679	0.697	0.718	0.730	0.745	0.751	0.760	0.765
0.88	0.321	0.339	0.364	0.381	0.403	0.433	0.478	0.509	0.550	0.572	0.596	0.611	0.626	0.644	0.664	0.675	0.689	0.696	0.704	0.708
0.90	0.280	0.297	0.320	0.337	0.358	0.386	0.428	0.458	0.497	0.517	0.541	0.554	0.569	0.586	0.604	0.615	0.628	0.634	0.641	0.645
0.92	0.238	0.253	0.275	0.290	0.310	0.336	0.375	0.403	0.439	0.458	0.479	0.492	0.506	0.521	0.538	0.549	0.560	0.566	0.572	0.575
0.94	0.194	0.208	0.228	0.241	0.259	0.282	0.317	0.341	0.374	0.391	0.410	0.422	0.434	0.447	0.463	0.472	0.482	0.487	0.492	0.494
0.96	0.147	0.159	0.176	0.187	0.202	0.222	0.251	0.271	0.299	0.313	0.329	0.339	0.349	0.361	0.374	0.381	0.390	0.393	0.396	0.397
0.98	0.095	0.103	0.115	0.123	0.134	0.148	0.169	0.184	0.204	0.214	0.226	0.233	0.241	0.249	0.258	0.264	0.269	0.270	0.271	0.271
1.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless proton depth dose distributions, (ro/To)D(z/ro).
Detector material: air

z/ro	40	30	20	15	10	8	6	5	4	3	2	1.5	1	0.8	0.6	0.5	0.4	0.3	0.2	0.15
0.00	1.291	1.300	1.318	1.335	1.366	1.384	1.413	1.433	1.460	1.499	1.571	1.635	1.758	1.848	1.993	2.104	2.270	2.542	3.021	3.391
0.02	1.331	1.341	1.360	1.378	1.409	1.428	1.458	1.478	1.505	1.546	1.620	1.687	1.814	1.905	2.052	2.165	2.332	2.602	3.057	3.384
0.04	1.357	1.368	1.388	1.406	1.438	1.458	1.488	1.508	1.536	1.578	1.653	1.719	1.846	1.937	2.084	2.196	2.363	2.625	3.054	3.344
0.06	1.378	1.389	1.410	1.429	1.460	1.481	1.511	1.532	1.560	1.602	1.677	1.743	1.869	1.960	2.105	2.217	2.381	2.635	3.035	3.291
0.08	1.395	1.407	1.428	1.447	1.479	1.499	1.530	1.551	1.579	1.621	1.694	1.760	1.886	1.976	2.120	2.230	2.390	2.635	3.007	3.230
0.10	1.409	1.421	1.442	1.461	1.494	1.514	1.545	1.567	1.595	1.636	1.708	1.774	1.898	1.988	2.129	2.237	2.393	2.628	2.971	3.164
0.12	1.420	1.432	1.454	1.473	1.506	1.527	1.558	1.579	1.607	1.647	1.719	1.784	1.907	1.995	2.134	2.239	2.391	2.615	2.929	3.092
0.14	1.429	1.441	1.463	1.483	1.516	1.537	1.567	1.588	1.616	1.655	1.726	1.791	1.912	1.999	2.135	2.238	2.384	2.596	2.882	3.018
0.16	1.436	1.448	1.471	1.490	1.524	1.544	1.575	1.596	1.622	1.661	1.731	1.795	1.915	2.000	2.132	2.232	2.373	2.574	2.830	2.940
0.18	1.441	1.454	1.476	1.496	1.529	1.550	1.580	1.600	1.626	1.665	1.734	1.797	1.915	1.998	2.127	2.224	2.359	2.547	2.775	2.859
0.20	1.444	1.457	1.480	1.500	1.533	1.554	1.584	1.603	1.629	1.667	1.735	1.797	1.912	1.994	2.118	2.212	2.341	2.516	2.716	2.776
0.22	1.446	1.459	1.482	1.502	1.535	1.556	1.585	1.604	1.629	1.666	1.733	1.794	1.907	1.987	2.107	2.198	2.320	2.482	2.654	2.691
0.24	1.447	1.460	1.483	1.503	1.536	1.556	1.585	1.603	1.628	1.664	1.730	1.790	1.901	1.977	2.094	2.181	2.296	2.445	2.589	2.604
0.26	1.446	1.459	1.482	1.502	1.535	1.555	1.583	1.601	1.625	1.661	1.725	1.784	1.891	1.966	2.078	2.161	2.269	2.405	2.521	2.516
0.28	1.443	1.457	1.480	1.500	1.533	1.552	1.579	1.597	1.620	1.655	1.719	1.776	1.880	1.952	2.060	2.139	2.240	2.361	2.451	2.426
0.30	1.440	1.453	1.477	1.496	1.529	1.548	1.574	1.591	1.614	1.649	1.711	1.766	1.868	1.937	2.040	2.114	2.207	2.315	2.379	2.336
0.32	1.435	1.449	1.472	1.491	1.524	1.542	1.567	1.584	1.606	1.640	1.701	1.755	1.853	1.919	2.017	2.087	2.173	2.267	2.305	2.244
0.34	1.428	1.442	1.466	1.485	1.517	1.535	1.559	1.575	1.597	1.630	1.689	1.742	1.836	1.900	1.993	2.058	2.135	2.215	2.228	2.152
0.36	1.421	1.435	1.458	1.478	1.509	1.526	1.549	1.565	1.587	1.619	1.676	1.727	1.818	1.878	1.966	2.026	2.096	2.161	2.150	2.059
0.38	1.412	1.427	1.450	1.469	1.499	1.516	1.538	1.554	1.575	1.606	1.662	1.711	1.798	1.855	1.937	1.992	2.053	2.105	2.071	1.966
0.40	1.403	1.417	1.440	1.459	1.488	1.504	1.526	1.541	1.562	1.592	1.646	1.693	1.776	1.830	1.907	1.956	2.009	2.046	1.989	1.873
0.42	1.392	1.406	1.429	1.448	1.476	1.491	1.513	1.527	1.547	1.577	1.629	1.674	1.753	1.803	1.874	1.918	1.962	1.984	1.907	1.780
0.44	1.379	1.394	1.416	1.435	1.463	1.477	1.498	1.512	1.531	1.560	1.610	1.653	1.727	1.774	1.839	1.877	1.912	1.921	1.823	1.687
0.46	1.366	1.380	1.403	1.421	1.447	1.461	1.481	1.495	1.514	1.541	1.589	1.630	1.700	1.744	1.802	1.834	1.861	1.855	1.738	1.595
0.48	1.351	1.365	1.388	1.406	1.431	1.444	1.464	1.477	1.495	1.521	1.567	1.606	1.671	1.711	1.762	1.789	1.806	1.787	1.652	1.503
0.50	1.336	1.349	1.372	1.389	1.413	1.426	1.445	1.457	1.474	1.500	1.544	1.580	1.641	1.677	1.721	1.742	1.750	1.716	1.566	1.411
0.52	1.318	1.332	1.354	1.371	1.394	1.406	1.424	1.436	1.453	1.477	1.518	1.553	1.608	1.641	1.678	1.692	1.691	1.644	1.479	1.321
0.54	1.300	1.314	1.335	1.351	1.373	1.385	1.402	1.414	1.430	1.453	1.492	1.524	1.574	1.602	1.632	1.640	1.629	1.570	1.392	1.232
0.56	1.280	1.294	1.315	1.330	1.351	1.362	1.379	1.390	1.405	1.427	1.463	1.493	1.538	1.562	1.583	1.585	1.566	1.493	1.304	1.144
0.58	1.259	1.273	1.293	1.308	1.328	1.338	1.354	1.365	1.379	1.399	1.433	1.460	1.499	1.519	1.533	1.528	1.499	1.415	1.217	1.058
0.60	1.237	1.250	1.270	1.284	1.302	1.313	1.327	1.337	1.351	1.370	1.401	1.426	1.459	1.474	1.480	1.468	1.430	1.335	1.130	0.974
0.62	1.213	1.226	1.245	1.258	1.276	1.285	1.299	1.309	1.321	1.339	1.368	1.389	1.417	1.427	1.424	1.406	1.359	1.254	1.044	0.891
0.64	1.187	1.200	1.219	1.231	1.247	1.256	1.270	1.278	1.290	1.306	1.332	1.351	1.372	1.378	1.366	1.341	1.285	1.171	0.958	0.812
0.66	1.160	1.173	1.191	1.202	1.217	1.226	1.238	1.246	1.257	1.272	1.295	1.310	1.325	1.325	1.305	1.273	1.209	1.087	0.874	0.734
0.68	1.132	1.144	1.161	1.171	1.185	1.193	1.205	1.212	1.222	1.235	1.255	1.267	1.276	1.271	1.241	1.202	1.130	1.002	0.792	0.660
0.70	1.101	1.113	1.129	1.138	1.152	1.159	1.169	1.176	1.185	1.196	1.213	1.222	1.223	1.213	1.174	1.129	1.049	0.916	0.711	0.588
0.72	1.069	1.080	1.095	1.104	1.116	1.122	1.132	1.138	1.145	1.155	1.169	1.174	1.168	1.152	1.103	1.052	0.966	0.830	0.633	0.520
0.74	1.034	1.045	1.059	1.067	1.078	1.083	1.092	1.097	1.104	1.112	1.122	1.123	1.110	1.087	1.029	0.972	0.881	0.745	0.558	0.455
0.76	0.998	1.008	1.020	1.027	1.037	1.042	1.050	1.054	1.060	1.066	1.072	1.070	1.048	1.020	0.952	0.889	0.795	0.660	0.485	0.394
0.78	0.959	0.968	0.979	0.985	0.994	0.998	1.005	1.009	1.013	1.017	1.019	1.013	0.983	0.948	0.871	0.804	0.707	0.576	0.417	0.336
0.80	0.917	0.926	0.935	0.940	0.948	0.952	0.957	0.960	0.963	0.965	0.963	0.952	0.914	0.871	0.786	0.715	0.618	0.494	0.352	0.283
0.82	0.872	0.880	0.887	0.892	0.899	0.902	0.906	0.908	0.909	0.909	0.903	0.887	0.839	0.790	0.698	0.625	0.530	0.415	0.292	0.234
0.84	0.823	0.830	0.837	0.841	0.846	0.848	0.851	0.852	0.852	0.850	0.838	0.818	0.760	0.704	0.605	0.533	0.443	0.340	0.236	0.189
0.86	0.771	0.776	0.782	0.785	0.789	0.790	0.791	0.791	0.790	0.785	0.768	0.743	0.674	0.612	0.510	0.440	0.358	0.271	0.186	0.148
0.88	0.713	0.717	0.721	0.724	0.726	0.727	0.726	0.725	0.722	0.715	0.692	0.661	0.581	0.515	0.413	0.349	0.278	0.207	0.141	0.112
0.90	0.649	0.652	0.655	0.657	0.658	0.657	0.655	0.653	0.648	0.638	0.609	0.571	0.480	0.412	0.317	0.261	0.204	0.150	0.101	0.082
0.92	0.578	0.580	0.582	0.582	0.581	0.580	0.576	0.572	0.566	0.551	0.515	0.470	0.371	0.305	0.223	0.180	0.138	0.101	0.068	0.055
0.94	0.495	0.497	0.497	0.496	0.494	0.491	0.486	0.480	0.471	0.452	0.408	0.355	0.255	0.198	0.138	0.109	0.083	0.060	0.042	0.034
0.96	0.398	0.398	0.397	0.395	0.390	0.386	0.378	0.370	0.358	0.334	0.279	0.223	0.139	0.102	0.068	0.053	0.040	0.030	0.021	0.017
0.98	0.271	0.270	0.267	0.264	0.256	0.250	0.238	0.227	0.210	0.179	0.121	0.081	0.043	0.030	0.020	0.016	0.012	0.009	0.006	0.004
1.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless proton depth dose distributions, (ro/To)D(z/ro).
Detector material: air

z/ro	0.1	0.08	0.06	0.05	0.04	0.03	0.02	0.015	0.01
0.00	3.842	4.033	4.217	4.302	4.384	4.453	4.516	4.544	4.575
0.02	3.747	3.884	4.003	4.053	4.099	4.133	4.167	4.182	4.181
0.04	3.640	3.740	3.816	3.844	3.869	3.884	3.902	3.909	3.892
0.06	3.530	3.599	3.642	3.653	3.663	3.663	3.669	3.670	3.644
0.08	3.417	3.460	3.476	3.474	3.471	3.461	3.457	3.455	3.423
0.10	3.304	3.324	3.317	3.304	3.292	3.273	3.262	3.256	3.221
0.12	3.190	3.190	3.163	3.142	3.121	3.096	3.079	3.070	3.035
0.14	3.076	3.059	3.015	2.987	2.960	2.929	2.908	2.895	2.862
0.16	2.962	2.930	2.872	2.838	2.805	2.771	2.746	2.730	2.700
0.18	2.849	2.803	2.733	2.694	2.658	2.620	2.593	2.574	2.548
0.20	2.736	2.678	2.599	2.556	2.516	2.477	2.447	2.426	2.404
0.22	2.623	2.556	2.469	2.423	2.381	2.340	2.308	2.285	2.268
0.24	2.512	2.435	2.342	2.295	2.251	2.209	2.176	2.152	2.139
0.26	2.401	2.318	2.220	2.171	2.126	2.083	2.049	2.026	2.016
0.28	2.292	2.203	2.101	2.051	2.006	1.963	1.928	1.906	1.900
0.30	2.184	2.090	1.986	1.935	1.890	1.848	1.812	1.792	1.788
0.32	2.077	1.979	1.875	1.824	1.779	1.737	1.701	1.683	1.682
0.34	1.972	1.872	1.767	1.716	1.672	1.631	1.595	1.580	1.581
0.36	1.868	1.767	1.662	1.613	1.569	1.529	1.493	1.481	1.485
0.38	1.767	1.665	1.561	1.513	1.470	1.431	1.397	1.387	1.392
0.40	1.667	1.565	1.463	1.416	1.375	1.338	1.305	1.297	1.304
0.42	1.569	1.468	1.369	1.324	1.284	1.248	1.218	1.211	1.220
0.44	1.473	1.374	1.278	1.234	1.197	1.161	1.134	1.130	1.139
0.46	1.380	1.283	1.190	1.149	1.112	1.078	1.054	1.051	1.062
0.48	1.288	1.195	1.106	1.066	1.032	0.999	0.979	0.977	0.988
0.50	1.200	1.109	1.025	0.987	0.955	0.924	0.906	0.906	0.917
0.52	1.113	1.027	0.947	0.911	0.881	0.852	0.837	0.838	0.849
0.54	1.030	0.947	0.872	0.839	0.810	0.784	0.772	0.773	0.785
0.56	0.949	0.871	0.800	0.770	0.742	0.719	0.710	0.711	0.723
0.58	0.871	0.798	0.732	0.703	0.678	0.658	0.650	0.652	0.663
0.60	0.796	0.728	0.667	0.640	0.617	0.600	0.594	0.596	0.607
0.62	0.724	0.661	0.604	0.580	0.559	0.545	0.540	0.543	0.553
0.64	0.655	0.597	0.545	0.523	0.505	0.493	0.489	0.492	0.501
0.66	0.589	0.536	0.489	0.469	0.454	0.443	0.441	0.444	0.452
0.68	0.527	0.479	0.436	0.419	0.406	0.397	0.396	0.398	0.405
0.70	0.467	0.424	0.386	0.371	0.361	0.353	0.352	0.355	0.361
0.72	0.411	0.373	0.340	0.327	0.318	0.312	0.312	0.314	0.318
0.74	0.359	0.324	0.297	0.286	0.278	0.273	0.273	0.275	0.278
0.76	0.309	0.280	0.257	0.248	0.241	0.237	0.237	0.239	0.240
0.78	0.263	0.239	0.220	0.212	0.207	0.204	0.204	0.204	0.204
0.80	0.221	0.201	0.185	0.179	0.175	0.172	0.172	0.172	0.170
0.82	0.183	0.167	0.154	0.149	0.146	0.143	0.142	0.141	0.138
0.84	0.148	0.135	0.125	0.122	0.119	0.117	0.115	0.113	0.109
0.86	0.117	0.107	0.099	0.096	0.094	0.092	0.090	0.087	0.082
0.88	0.089	0.082	0.076	0.074	0.072	0.069	0.067	0.064	0.059
0.90	0.065	0.060	0.055	0.053	0.051	0.049	0.046	0.043	0.038
0.92	0.044	0.041	0.037	0.036	0.034	0.032	0.028	0.026	0.022
0.94	0.027	0.024	0.022	0.020	0.019	0.017	0.014	0.012	0.010
0.96	0.013	0.011	0.009	0.008	0.007	0.006	0.005	0.004	0.002
0.98	0.003	0.002	0.002	0.001	0.001	0.001	0.000	0.000	0.000
1.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless proton depth dose distributions, (ro/To)D(z/ro).
Detector material: bone

z/ro	10000	8000	6000	5000	4000	3000	2000	1500	1000	800	600	500	400	300	200	150	100	80	60	50
0.00	2.234	2.197	2.142	2.103	2.047	1.969	1.850	1.761	1.642	1.583	1.516	1.476	1.434	1.390	1.346	1.325	1.308	1.302	1.300	1.301
0.02	2.174	2.141	2.090	2.055	2.005	1.934	1.828	1.748	1.643	1.590	1.528	1.493	1.455	1.416	1.377	1.359	1.344	1.340	1.339	1.340
0.04	2.120	2.090	2.043	2.011	1.965	1.902	1.805	1.733	1.637	1.589	1.533	1.501	1.467	1.432	1.397	1.381	1.368	1.364	1.364	1.366
0.06	2.069	2.041	1.998	1.969	1.927	1.870	1.782	1.717	1.630	1.586	1.535	1.506	1.475	1.443	1.411	1.397	1.386	1.383	1.384	1.386
0.08	2.019	1.993	1.954	1.927	1.890	1.838	1.758	1.699	1.620	1.581	1.534	1.508	1.480	1.451	1.422	1.410	1.400	1.399	1.400	1.402
0.10	1.969	1.946	1.911	1.887	1.853	1.806	1.734	1.681	1.610	1.574	1.531	1.507	1.482	1.456	1.431	1.419	1.412	1.411	1.412	1.415
0.12	1.921	1.900	1.869	1.847	1.816	1.774	1.710	1.662	1.598	1.565	1.527	1.505	1.482	1.459	1.437	1.427	1.421	1.420	1.423	1.426
0.14	1.874	1.854	1.827	1.807	1.779	1.742	1.685	1.642	1.585	1.556	1.521	1.502	1.481	1.460	1.441	1.432	1.428	1.428	1.431	1.434
0.16	1.827	1.809	1.785	1.767	1.743	1.710	1.660	1.622	1.571	1.545	1.514	1.497	1.479	1.460	1.443	1.436	1.433	1.433	1.437	1.441
0.18	1.780	1.765	1.744	1.728	1.707	1.678	1.634	1.601	1.556	1.533	1.506	1.491	1.475	1.458	1.444	1.438	1.436	1.437	1.441	1.445
0.20	1.735	1.721	1.703	1.689	1.671	1.647	1.609	1.580	1.541	1.521	1.497	1.483	1.469	1.455	1.443	1.439	1.438	1.439	1.444	1.448
0.22	1.689	1.678	1.662	1.651	1.635	1.615	1.583	1.558	1.525	1.507	1.486	1.475	1.463	1.451	1.441	1.438	1.438	1.440	1.445	1.449
0.24	1.644	1.635	1.622	1.612	1.600	1.583	1.556	1.536	1.508	1.493	1.475	1.465	1.455	1.446	1.438	1.436	1.437	1.439	1.444	1.449
0.26	1.600	1.592	1.582	1.574	1.564	1.551	1.530	1.513	1.490	1.478	1.463	1.455	1.447	1.439	1.433	1.432	1.434	1.437	1.443	1.448
0.28	1.556	1.550	1.542	1.536	1.528	1.519	1.503	1.490	1.472	1.462	1.450	1.444	1.437	1.431	1.427	1.427	1.431	1.434	1.440	1.445
0.30	1.512	1.507	1.502	1.498	1.493	1.487	1.475	1.466	1.453	1.445	1.436	1.431	1.427	1.422	1.420	1.421	1.426	1.429	1.435	1.441
0.32	1.468	1.466	1.462	1.461	1.458	1.454	1.448	1.442	1.433	1.428	1.421	1.418	1.415	1.413	1.412	1.414	1.419	1.423	1.430	1.435
0.34	1.425	1.424	1.423	1.423	1.422	1.422	1.420	1.417	1.413	1.410	1.406	1.404	1.403	1.402	1.403	1.406	1.412	1.416	1.423	1.428
0.36	1.382	1.383	1.384	1.385	1.387	1.390	1.392	1.392	1.392	1.391	1.390	1.389	1.389	1.390	1.393	1.397	1.404	1.408	1.415	1.421
0.38	1.339	1.341	1.345	1.348	1.351	1.357	1.364	1.367	1.370	1.371	1.372	1.373	1.375	1.377	1.382	1.386	1.394	1.398	1.406	1.411
0.40	1.297	1.300	1.306	1.311	1.316	1.324	1.335	1.341	1.348	1.351	1.354	1.357	1.359	1.363	1.369	1.374	1.383	1.388	1.396	1.401
0.42	1.255	1.260	1.267	1.273	1.281	1.291	1.306	1.315	1.325	1.330	1.336	1.339	1.343	1.348	1.356	1.362	1.371	1.376	1.384	1.390
0.44	1.213	1.219	1.229	1.236	1.245	1.258	1.276	1.288	1.302	1.308	1.316	1.321	1.326	1.332	1.341	1.348	1.358	1.363	1.372	1.377
0.46	1.171	1.179	1.190	1.199	1.210	1.225	1.247	1.261	1.278	1.286	1.296	1.301	1.308	1.316	1.326	1.333	1.344	1.349	1.358	1.363
0.48	1.130	1.138	1.152	1.162	1.174	1.192	1.217	1.233	1.253	1.263	1.275	1.281	1.289	1.298	1.309	1.317	1.328	1.334	1.343	1.348
0.50	1.089	1.098	1.114	1.125	1.139	1.158	1.186	1.204	1.228	1.239	1.252	1.260	1.269	1.279	1.292	1.300	1.312	1.317	1.326	1.332
0.52	1.047	1.058	1.075	1.087	1.103	1.124	1.155	1.176	1.202	1.214	1.230	1.238	1.248	1.259	1.273	1.282	1.294	1.300	1.309	1.314
0.54	1.007	1.019	1.037	1.050	1.067	1.090	1.124	1.146	1.175	1.189	1.206	1.215	1.226	1.238	1.253	1.262	1.275	1.281	1.290	1.296
0.56	0.966	0.979	0.999	1.013	1.031	1.056	1.092	1.116	1.147	1.163	1.181	1.191	1.203	1.216	1.232	1.241	1.254	1.261	1.270	1.275
0.58	0.925	0.939	0.961	0.976	0.995	1.022	1.060	1.086	1.119	1.136	1.155	1.166	1.179	1.192	1.209	1.219	1.233	1.239	1.248	1.254
0.60	0.885	0.900	0.923	0.938	0.959	0.987	1.027	1.055	1.090	1.108	1.129	1.140	1.153	1.168	1.186	1.196	1.210	1.217	1.225	1.231
0.62	0.845	0.861	0.884	0.901	0.922	0.952	0.994	1.023	1.060	1.079	1.101	1.113	1.127	1.142	1.161	1.172	1.186	1.192	1.201	1.207
0.64	0.805	0.821	0.846	0.863	0.886	0.916	0.960	0.990	1.029	1.049	1.072	1.085	1.099	1.115	1.134	1.146	1.160	1.167	1.176	1.181
0.66	0.765	0.782	0.808	0.826	0.849	0.880	0.926	0.957	0.998	1.018	1.042	1.056	1.070	1.087	1.107	1.118	1.133	1.139	1.148	1.154
0.68	0.725	0.743	0.769	0.788	0.812	0.844	0.891	0.923	0.965	0.986	1.011	1.025	1.040	1.057	1.077	1.089	1.104	1.111	1.119	1.125
0.70	0.685	0.704	0.731	0.750	0.774	0.807	0.855	0.888	0.931	0.953	0.979	0.993	1.009	1.026	1.047	1.059	1.073	1.080	1.089	1.094
0.72	0.646	0.665	0.692	0.711	0.736	0.770	0.819	0.852	0.896	0.919	0.945	0.959	0.975	0.993	1.014	1.026	1.041	1.048	1.056	1.061
0.74	0.606	0.625	0.653	0.673	0.698	0.732	0.781	0.815	0.860	0.883	0.909	0.924	0.941	0.959	0.980	0.992	1.006	1.013	1.022	1.027
0.76	0.567	0.586	0.614	0.634	0.659	0.694	0.743	0.777	0.823	0.846	0.872	0.887	0.904	0.922	0.943	0.956	0.970	0.976	0.985	0.990
0.78	0.527	0.547	0.575	0.595	0.620	0.654	0.704	0.738	0.784	0.807	0.834	0.849	0.865	0.884	0.905	0.917	0.931	0.938	0.946	0.951
0.80	0.487	0.507	0.535	0.555	0.580	0.614	0.663	0.698	0.743	0.766	0.793	0.808	0.825	0.843	0.864	0.876	0.890	0.896	0.904	0.909
0.82	0.447	0.467	0.495	0.514	0.539	0.573	0.622	0.655	0.701	0.723	0.750	0.765	0.781	0.799	0.820	0.832	0.845	0.852	0.859	0.864
0.84	0.407	0.427	0.454	0.473	0.497	0.530	0.578	0.612	0.656	0.678	0.704	0.719	0.735	0.753	0.773	0.785	0.798	0.804	0.811	0.815
0.86	0.367	0.386	0.412	0.431	0.454	0.486	0.533	0.565	0.609	0.630	0.656	0.670	0.686	0.703	0.723	0.734	0.747	0.752	0.759	0.763
0.88	0.326	0.344	0.370	0.387	0.410	0.441	0.485	0.516	0.558	0.579	0.604	0.618	0.633	0.649	0.668	0.679	0.691	0.696	0.702	0.706
0.90	0.285	0.302	0.326	0.343	0.364	0.393	0.435	0.465	0.504	0.524	0.547	0.560	0.575	0.590	0.608	0.618	0.629	0.634	0.640	0.643
0.92	0.242	0.258	0.280	0.296	0.315	0.342	0.381	0.408	0.445	0.463	0.485	0.497	0.510	0.525	0.541	0.550	0.560	0.565	0.570	0.572
0.94	0.198	0.212	0.232	0.245	0.263	0.287	0.322	0.346	0.379	0.395	0.414	0.425	0.437	0.450	0.465	0.473	0.482	0.486	0.489	0.491
0.96	0.150	0.162	0.179	0.190	0.205	0.225	0.254	0.275	0.302	0.316	0.332	0.342	0.351	0.362	0.375	0.381	0.389	0.391	0.393	0.394
0.98	0.096	0.105	0.117	0.125	0.136	0.150	0.171	0.186	0.206	0.216	0.228	0.234	0.242	0.249	0.258	0.263	0.267	0.268	0.268	0.268
1.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless proton depth dose distributions, (ro/To)D(z/ro).
Detector material: bone

z/ro	40	30	20	15	10	8	6	5	4	3	2	1.5	1	0.8	0.6	0.5	0.4	0.3	0.2	0.15
0.00	1.304	1.311	1.326	1.340	1.366	1.382	1.408	1.426	1.450	1.486	1.552	1.614	1.732	1.819	1.959	2.067	2.227	2.489	2.958	3.322
0.02	1.344	1.352	1.367	1.382	1.409	1.426	1.452	1.470	1.495	1.532	1.601	1.665	1.786	1.875	2.017	2.126	2.288	2.548	2.995	3.319
0.04	1.371	1.379	1.395	1.410	1.437	1.454	1.481	1.499	1.524	1.563	1.633	1.696	1.818	1.907	2.048	2.157	2.317	2.572	2.992	3.282
0.06	1.391	1.400	1.416	1.432	1.459	1.477	1.503	1.522	1.548	1.586	1.656	1.719	1.840	1.929	2.069	2.177	2.334	2.581	2.975	3.233
0.08	1.407	1.417	1.433	1.449	1.477	1.495	1.521	1.540	1.566	1.605	1.673	1.736	1.857	1.945	2.083	2.189	2.343	2.582	2.949	3.175
0.10	1.421	1.430	1.447	1.463	1.491	1.509	1.536	1.555	1.581	1.619	1.686	1.749	1.869	1.956	2.092	2.196	2.346	2.576	2.915	3.112
0.12	1.431	1.441	1.459	1.475	1.503	1.521	1.548	1.567	1.592	1.630	1.696	1.758	1.877	1.963	2.096	2.198	2.344	2.563	2.875	3.045
0.14	1.440	1.450	1.468	1.484	1.512	1.530	1.557	1.576	1.601	1.637	1.704	1.765	1.882	1.966	2.097	2.196	2.338	2.546	2.830	2.973
0.16	1.446	1.457	1.475	1.491	1.519	1.537	1.564	1.583	1.607	1.643	1.709	1.769	1.885	1.967	2.094	2.191	2.327	2.524	2.781	2.898
0.18	1.451	1.461	1.480	1.496	1.525	1.543	1.569	1.587	1.611	1.646	1.711	1.770	1.884	1.965	2.089	2.182	2.313	2.499	2.728	2.821
0.20	1.454	1.465	1.483	1.499	1.528	1.546	1.572	1.590	1.613	1.648	1.711	1.770	1.882	1.960	2.080	2.171	2.296	2.469	2.672	2.741
0.22	1.456	1.466	1.485	1.501	1.530	1.548	1.573	1.590	1.613	1.647	1.710	1.767	1.877	1.953	2.070	2.157	2.276	2.437	2.612	2.659
0.24	1.456	1.466	1.485	1.502	1.530	1.547	1.572	1.589	1.611	1.645	1.706	1.763	1.870	1.943	2.056	2.140	2.253	2.401	2.550	2.575
0.26	1.454	1.465	1.484	1.500	1.529	1.546	1.570	1.586	1.608	1.641	1.701	1.757	1.861	1.932	2.041	2.120	2.227	2.362	2.485	2.490
0.28	1.452	1.462	1.481	1.498	1.526	1.543	1.566	1.582	1.603	1.635	1.695	1.749	1.850	1.919	2.023	2.099	2.198	2.320	2.417	2.403
0.30	1.447	1.458	1.477	1.494	1.522	1.538	1.560	1.576	1.596	1.628	1.686	1.739	1.837	1.903	2.003	2.075	2.167	2.276	2.347	2.315
0.32	1.442	1.453	1.472	1.488	1.516	1.532	1.553	1.568	1.589	1.619	1.676	1.728	1.822	1.886	1.981	2.048	2.133	2.228	2.275	2.226
0.34	1.436	1.447	1.465	1.482	1.509	1.524	1.545	1.560	1.579	1.609	1.665	1.715	1.806	1.867	1.957	2.020	2.097	2.179	2.202	2.136
0.36	1.428	1.439	1.458	1.474	1.500	1.515	1.535	1.549	1.569	1.598	1.652	1.700	1.788	1.846	1.930	1.989	2.059	2.126	2.126	2.046
0.38	1.419	1.430	1.449	1.465	1.491	1.504	1.524	1.538	1.557	1.585	1.637	1.684	1.768	1.823	1.902	1.956	2.018	2.072	2.049	1.955
0.40	1.409	1.420	1.438	1.454	1.479	1.493	1.512	1.525	1.543	1.571	1.621	1.667	1.746	1.798	1.872	1.921	1.974	2.014	1.970	1.864
0.42	1.397	1.408	1.427	1.443	1.467	1.479	1.498	1.511	1.529	1.555	1.604	1.647	1.723	1.772	1.840	1.884	1.929	1.955	1.889	1.773
0.44	1.385	1.396	1.414	1.430	1.453	1.465	1.483	1.495	1.513	1.538	1.585	1.627	1.698	1.743	1.806	1.844	1.881	1.893	1.808	1.682
0.46	1.371	1.382	1.400	1.415	1.437	1.449	1.466	1.478	1.495	1.520	1.565	1.604	1.671	1.713	1.769	1.802	1.830	1.829	1.725	1.591
0.48	1.356	1.367	1.385	1.400	1.421	1.432	1.449	1.460	1.476	1.500	1.543	1.580	1.643	1.681	1.731	1.759	1.778	1.763	1.641	1.501
0.50	1.339	1.350	1.368	1.383	1.403	1.413	1.429	1.441	1.456	1.479	1.520	1.555	1.613	1.648	1.691	1.712	1.723	1.695	1.557	1.411
0.52	1.322	1.333	1.350	1.364	1.383	1.393	1.409	1.420	1.434	1.456	1.495	1.528	1.581	1.612	1.648	1.664	1.665	1.625	1.472	1.322
0.54	1.303	1.314	1.331	1.345	1.363	1.372	1.387	1.397	1.411	1.432	1.468	1.499	1.547	1.574	1.604	1.613	1.606	1.552	1.386	1.235
0.56	1.283	1.294	1.311	1.323	1.340	1.349	1.363	1.373	1.386	1.406	1.440	1.468	1.511	1.534	1.557	1.560	1.543	1.478	1.301	1.148
0.58	1.261	1.272	1.289	1.301	1.316	1.325	1.338	1.348	1.360	1.379	1.411	1.436	1.474	1.493	1.507	1.504	1.479	1.402	1.215	1.063
0.60	1.239	1.249	1.265	1.276	1.291	1.299	1.312	1.321	1.332	1.350	1.379	1.402	1.434	1.449	1.456	1.446	1.412	1.324	1.130	0.979
0.62	1.214	1.225	1.240	1.251	1.264	1.272	1.284	1.292	1.303	1.319	1.346	1.366	1.392	1.403	1.401	1.385	1.342	1.244	1.045	0.898
0.64	1.188	1.199	1.213	1.223	1.236	1.243	1.254	1.262	1.272	1.287	1.311	1.328	1.348	1.354	1.345	1.322	1.270	1.163	0.960	0.819
0.66	1.161	1.171	1.185	1.194	1.206	1.213	1.223	1.230	1.239	1.252	1.274	1.288	1.302	1.303	1.285	1.256	1.196	1.081	0.877	0.742
0.68	1.132	1.142	1.155	1.163	1.174	1.180	1.190	1.196	1.204	1.216	1.235	1.246	1.254	1.249	1.222	1.187	1.119	0.998	0.796	0.668
0.70	1.101	1.110	1.123	1.130	1.140	1.146	1.154	1.160	1.168	1.178	1.193	1.201	1.203	1.193	1.157	1.115	1.040	0.914	0.716	0.597
0.72	1.068	1.077	1.089	1.095	1.104	1.109	1.117	1.122	1.129	1.137	1.149	1.154	1.149	1.133	1.088	1.040	0.959	0.829	0.638	0.528
0.74	1.033	1.042	1.052	1.058	1.066	1.071	1.078	1.082	1.088	1.095	1.103	1.104	1.092	1.071	1.016	0.962	0.876	0.745	0.563	0.463
0.76	0.996	1.004	1.013	1.018	1.026	1.030	1.036	1.039	1.044	1.049	1.054	1.052	1.031	1.004	0.941	0.881	0.791	0.661	0.492	0.402
0.78	0.957	0.964	0.972	0.976	0.983	0.986	0.991	0.994	0.997	1.001	1.002	0.996	0.967	0.934	0.862	0.798	0.705	0.578	0.423	0.344
0.80	0.914	0.921	0.928	0.932	0.937	0.940	0.944	0.946	0.948	0.950	0.947	0.936	0.899	0.859	0.779	0.711	0.618	0.497	0.359	0.290
0.82	0.869	0.875	0.881	0.884	0.888	0.890	0.893	0.894	0.895	0.895	0.887	0.873	0.827	0.780	0.692	0.623	0.531	0.419	0.298	0.240
0.84	0.820	0.826	0.830	0.832	0.835	0.837	0.838	0.839	0.839	0.836	0.824	0.805	0.749	0.696	0.602	0.532	0.445	0.345	0.242	0.195
0.86	0.767	0.771	0.775	0.776	0.779	0.779	0.780	0.779	0.777	0.772	0.755	0.731	0.665	0.606	0.509	0.441	0.361	0.275	0.191	0.153
0.88	0.710	0.713	0.715	0.716	0.717	0.716	0.716	0.714	0.711	0.703	0.681	0.651	0.574	0.511	0.413	0.350	0.281	0.211	0.145	0.117
0.90	0.646	0.648	0.649	0.649	0.649	0.648	0.645	0.643	0.638	0.627	0.599	0.563	0.476	0.410	0.318	0.263	0.207	0.153	0.105	0.085
0.92	0.574	0.575	0.575	0.575	0.573	0.571	0.567	0.563	0.556	0.542	0.507	0.464	0.369	0.305	0.225	0.182	0.141	0.104	0.071	0.058
0.94	0.492	0.492	0.491	0.490	0.487	0.484	0.478	0.472	0.463	0.445	0.402	0.351	0.255	0.200	0.140	0.112	0.086	0.063	0.044	0.036
0.96	0.394	0.394	0.392	0.389	0.384	0.380	0.372	0.364	0.352	0.329	0.276	0.222	0.140	0.104	0.070	0.055	0.042	0.031	0.022	0.018
0.98	0.268	0.266	0.263	0.260	0.252	0.245	0.234	0.224	0.207	0.177	0.121	0.082	0.044	0.031	0.021	0.017	0.013	0.010	0.006	0.004
1.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless proton depth dose distributions, (ro/To)D(z/ro).
Detector material: bone

z/ro	0.1	0.08	0.06	0.05	0.04	0.03	0.02	0.015	0.01
0.00	3.780	3.981	4.180	4.276	4.369	4.458	4.554	4.603	4.660
0.02	3.693	3.841	3.975	4.035	4.093	4.147	4.212	4.245	4.269
0.04	3.592	3.703	3.795	3.832	3.869	3.904	3.949	3.973	3.981
0.06	3.486	3.567	3.625	3.646	3.668	3.687	3.718	3.736	3.732
0.08	3.379	3.433	3.464	3.471	3.481	3.488	3.508	3.520	3.510
0.10	3.270	3.301	3.308	3.304	3.304	3.303	3.313	3.321	3.307
0.12	3.160	3.171	3.158	3.146	3.137	3.128	3.131	3.135	3.120
0.14	3.050	3.043	3.013	2.993	2.978	2.963	2.960	2.960	2.945
0.16	2.939	2.917	2.873	2.847	2.826	2.806	2.798	2.794	2.781
0.18	2.829	2.793	2.737	2.706	2.681	2.656	2.645	2.637	2.627
0.20	2.719	2.671	2.605	2.570	2.541	2.513	2.499	2.488	2.481
0.22	2.610	2.552	2.477	2.439	2.407	2.377	2.359	2.346	2.343
0.24	2.501	2.434	2.352	2.312	2.278	2.246	2.226	2.212	2.212
0.26	2.393	2.318	2.232	2.190	2.154	2.120	2.099	2.084	2.087
0.28	2.286	2.205	2.115	2.071	2.034	2.000	1.977	1.963	1.969
0.30	2.180	2.094	2.001	1.957	1.919	1.884	1.860	1.847	1.855
0.32	2.075	1.986	1.891	1.846	1.808	1.773	1.748	1.737	1.747
0.34	1.972	1.880	1.784	1.739	1.701	1.667	1.640	1.632	1.644
0.36	1.870	1.776	1.680	1.636	1.598	1.564	1.538	1.532	1.546
0.38	1.770	1.675	1.580	1.536	1.499	1.466	1.440	1.436	1.451
0.40	1.672	1.576	1.483	1.440	1.404	1.372	1.347	1.345	1.361
0.42	1.575	1.481	1.389	1.347	1.312	1.281	1.258	1.257	1.274
0.44	1.480	1.387	1.298	1.258	1.224	1.193	1.173	1.174	1.191
0.46	1.388	1.297	1.210	1.172	1.139	1.110	1.092	1.094	1.112
0.48	1.298	1.209	1.126	1.089	1.058	1.029	1.015	1.018	1.035
0.50	1.210	1.124	1.045	1.010	0.980	0.953	0.941	0.945	0.962
0.52	1.124	1.042	0.966	0.933	0.905	0.880	0.871	0.875	0.892
0.54	1.041	0.963	0.891	0.860	0.833	0.811	0.803	0.808	0.825
0.56	0.961	0.887	0.819	0.790	0.765	0.745	0.740	0.745	0.761
0.58	0.883	0.813	0.750	0.723	0.700	0.682	0.679	0.684	0.700
0.60	0.808	0.743	0.684	0.659	0.638	0.623	0.621	0.626	0.641
0.62	0.737	0.675	0.621	0.598	0.579	0.567	0.566	0.571	0.585
0.64	0.667	0.611	0.561	0.540	0.524	0.513	0.513	0.518	0.531
0.66	0.601	0.550	0.504	0.485	0.472	0.463	0.463	0.468	0.480
0.68	0.538	0.492	0.451	0.434	0.422	0.415	0.416	0.421	0.431
0.70	0.479	0.437	0.400	0.386	0.376	0.370	0.371	0.376	0.384
0.72	0.422	0.384	0.353	0.341	0.332	0.327	0.329	0.333	0.339
0.74	0.369	0.335	0.308	0.298	0.291	0.287	0.289	0.292	0.296
0.76	0.319	0.290	0.267	0.259	0.253	0.250	0.251	0.254	0.256
0.78	0.272	0.248	0.229	0.222	0.218	0.215	0.216	0.217	0.217
0.80	0.229	0.209	0.194	0.188	0.184	0.182	0.183	0.183	0.181
0.82	0.190	0.174	0.162	0.157	0.154	0.152	0.152	0.150	0.146
0.84	0.154	0.142	0.132	0.128	0.126	0.124	0.122	0.120	0.115
0.86	0.122	0.113	0.105	0.102	0.100	0.098	0.095	0.092	0.086
0.88	0.094	0.087	0.081	0.078	0.076	0.074	0.070	0.067	0.060
0.90	0.069	0.063	0.059	0.057	0.055	0.052	0.048	0.044	0.038
0.92	0.047	0.043	0.040	0.038	0.036	0.033	0.029	0.025	0.020
0.94	0.029	0.026	0.023	0.021	0.019	0.017	0.014	0.011	0.008
0.96	0.013	0.011	0.009	0.008	0.007	0.006	0.004	0.003	0.002
0.98	0.003	0.002	0.001	0.001	0.001	0.000	0.000	0.000	0.000
1.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless proton depth dose distributions, (ro/To)D(z/ro).
Detector material: calcium fluoride

z/ro	10000	8000	6000	5000	4000	3000	2000	1500	1000	800	600	500	400	300	200	150	100	80	60	50
0.00	2.029	1.993	1.939	1.901	1.847	1.773	1.660	1.576	1.464	1.408	1.344	1.309	1.270	1.229	1.187	1.167	1.148	1.141	1.136	1.134
0.02	1.974	1.940	1.891	1.856	1.808	1.741	1.639	1.563	1.463	1.413	1.356	1.323	1.288	1.251	1.214	1.195	1.179	1.173	1.168	1.167
0.04	1.924	1.893	1.848	1.815	1.771	1.710	1.618	1.549	1.458	1.412	1.360	1.330	1.298	1.265	1.231	1.214	1.199	1.193	1.190	1.189
0.06	1.876	1.848	1.806	1.776	1.736	1.680	1.596	1.533	1.450	1.408	1.361	1.334	1.305	1.274	1.243	1.228	1.214	1.209	1.206	1.205
0.08	1.830	1.804	1.765	1.738	1.701	1.651	1.574	1.517	1.441	1.403	1.360	1.335	1.308	1.280	1.252	1.238	1.226	1.222	1.219	1.219
0.10	1.784	1.761	1.725	1.701	1.667	1.622	1.552	1.500	1.431	1.396	1.357	1.334	1.310	1.285	1.259	1.246	1.235	1.232	1.229	1.229
0.12	1.740	1.718	1.686	1.664	1.633	1.592	1.529	1.482	1.420	1.389	1.353	1.332	1.310	1.287	1.264	1.252	1.243	1.239	1.237	1.237
0.14	1.696	1.677	1.648	1.627	1.600	1.563	1.506	1.464	1.408	1.380	1.347	1.329	1.309	1.288	1.267	1.257	1.248	1.245	1.244	1.244
0.16	1.653	1.635	1.609	1.591	1.567	1.534	1.483	1.445	1.395	1.370	1.341	1.324	1.306	1.287	1.268	1.259	1.252	1.249	1.248	1.248
0.18	1.611	1.595	1.571	1.555	1.534	1.505	1.460	1.426	1.382	1.359	1.333	1.318	1.302	1.285	1.269	1.261	1.254	1.252	1.251	1.252
0.20	1.569	1.554	1.534	1.520	1.501	1.476	1.436	1.407	1.368	1.347	1.324	1.311	1.297	1.282	1.267	1.261	1.255	1.253	1.253	1.253
0.22	1.527	1.515	1.497	1.485	1.468	1.446	1.412	1.387	1.353	1.335	1.315	1.303	1.291	1.278	1.265	1.259	1.255	1.253	1.253	1.254
0.24	1.486	1.475	1.460	1.450	1.436	1.417	1.388	1.366	1.337	1.322	1.305	1.295	1.284	1.273	1.262	1.257	1.253	1.252	1.252	1.253
0.26	1.445	1.436	1.423	1.415	1.403	1.388	1.364	1.346	1.321	1.308	1.294	1.285	1.276	1.267	1.257	1.253	1.250	1.249	1.250	1.251
0.28	1.405	1.397	1.387	1.380	1.371	1.359	1.340	1.325	1.305	1.294	1.282	1.275	1.267	1.259	1.252	1.249	1.246	1.246	1.246	1.248
0.30	1.365	1.359	1.351	1.345	1.338	1.329	1.315	1.303	1.287	1.279	1.269	1.264	1.257	1.251	1.245	1.243	1.241	1.241	1.242	1.243
0.32	1.325	1.320	1.315	1.311	1.306	1.300	1.290	1.281	1.270	1.263	1.256	1.252	1.247	1.242	1.238	1.236	1.235	1.235	1.236	1.238
0.34	1.285	1.282	1.279	1.277	1.274	1.271	1.265	1.259	1.251	1.247	1.242	1.239	1.235	1.232	1.229	1.228	1.228	1.229	1.230	1.231
0.36	1.246	1.244	1.243	1.243	1.242	1.241	1.239	1.237	1.233	1.230	1.227	1.225	1.223	1.221	1.220	1.220	1.220	1.221	1.222	1.224
0.38	1.207	1.207	1.208	1.209	1.210	1.212	1.213	1.214	1.213	1.213	1.212	1.211	1.210	1.210	1.210	1.210	1.211	1.212	1.214	1.215
0.40	1.169	1.170	1.172	1.175	1.178	1.182	1.187	1.190	1.193	1.194	1.195	1.196	1.196	1.197	1.198	1.199	1.201	1.202	1.204	1.205
0.42	1.130	1.132	1.137	1.141	1.145	1.152	1.161	1.167	1.173	1.176	1.179	1.180	1.182	1.184	1.186	1.188	1.190	1.191	1.193	1.195
0.44	1.092	1.096	1.102	1.107	1.113	1.122	1.135	1.142	1.152	1.156	1.161	1.164	1.166	1.169	1.173	1.175	1.178	1.180	1.182	1.183
0.46	1.054	1.059	1.067	1.073	1.081	1.092	1.108	1.118	1.130	1.136	1.143	1.146	1.150	1.154	1.159	1.162	1.166	1.167	1.169	1.170
0.48	1.016	1.022	1.032	1.040	1.049	1.062	1.081	1.093	1.108	1.115	1.124	1.128	1.133	1.138	1.144	1.147	1.152	1.153	1.155	1.157
0.50	0.979	0.986	0.997	1.006	1.017	1.032	1.053	1.067	1.085	1.094	1.104	1.109	1.115	1.121	1.128	1.132	1.137	1.138	1.141	1.142
0.52	0.941	0.950	0.963	0.972	0.984	1.001	1.025	1.042	1.062	1.072	1.083	1.089	1.096	1.103	1.111	1.115	1.120	1.122	1.125	1.126
0.54	0.904	0.914	0.928	0.938	0.952	0.970	0.997	1.015	1.038	1.049	1.062	1.069	1.076	1.084	1.093	1.098	1.103	1.105	1.108	1.109
0.56	0.867	0.878	0.893	0.905	0.919	0.940	0.969	0.988	1.014	1.026	1.040	1.048	1.056	1.065	1.074	1.079	1.085	1.087	1.090	1.091
0.58	0.831	0.842	0.859	0.871	0.887	0.909	0.940	0.961	0.988	1.001	1.017	1.025	1.034	1.044	1.054	1.060	1.066	1.068	1.071	1.072
0.60	0.794	0.806	0.824	0.837	0.854	0.877	0.911	0.933	0.962	0.976	0.993	1.002	1.012	1.022	1.033	1.039	1.045	1.048	1.050	1.052
0.62	0.757	0.770	0.790	0.804	0.821	0.846	0.881	0.905	0.936	0.951	0.968	0.978	0.988	0.999	1.011	1.017	1.024	1.026	1.029	1.030
0.64	0.721	0.735	0.755	0.770	0.788	0.814	0.851	0.876	0.908	0.924	0.942	0.953	0.964	0.975	0.988	0.994	1.001	1.003	1.006	1.007
0.66	0.685	0.699	0.721	0.736	0.755	0.781	0.820	0.846	0.880	0.896	0.916	0.927	0.938	0.950	0.963	0.970	0.977	0.979	0.982	0.983
0.68	0.649	0.664	0.686	0.702	0.721	0.749	0.789	0.816	0.851	0.868	0.888	0.899	0.911	0.924	0.937	0.944	0.951	0.954	0.956	0.957
0.70	0.613	0.629	0.651	0.667	0.688	0.716	0.757	0.784	0.821	0.839	0.859	0.871	0.883	0.896	0.910	0.917	0.924	0.927	0.929	0.930
0.72	0.577	0.593	0.617	0.633	0.654	0.683	0.724	0.752	0.790	0.808	0.829	0.841	0.853	0.867	0.881	0.888	0.895	0.898	0.900	0.901
0.74	0.541	0.558	0.582	0.598	0.619	0.649	0.691	0.720	0.757	0.776	0.798	0.810	0.822	0.836	0.850	0.858	0.865	0.868	0.870	0.871
0.76	0.506	0.522	0.547	0.563	0.585	0.614	0.657	0.686	0.724	0.743	0.765	0.777	0.790	0.804	0.818	0.826	0.833	0.835	0.838	0.839
0.78	0.470	0.487	0.511	0.528	0.550	0.579	0.622	0.651	0.689	0.709	0.731	0.743	0.756	0.770	0.784	0.791	0.799	0.801	0.803	0.804
0.80	0.434	0.451	0.475	0.492	0.514	0.543	0.586	0.615	0.653	0.672	0.695	0.707	0.720	0.734	0.748	0.755	0.762	0.765	0.767	0.767
0.82	0.398	0.415	0.439	0.456	0.477	0.506	0.548	0.577	0.616	0.635	0.656	0.669	0.681	0.695	0.710	0.717	0.724	0.726	0.728	0.728
0.84	0.363	0.379	0.403	0.419	0.440	0.469	0.510	0.538	0.576	0.595	0.616	0.628	0.641	0.654	0.668	0.675	0.682	0.684	0.686	0.686
0.86	0.326	0.342	0.366	0.382	0.402	0.430	0.470	0.497	0.534	0.552	0.573	0.585	0.597	0.610	0.624	0.631	0.637	0.639	0.640	0.641
0.88	0.290	0.305	0.327	0.343	0.362	0.389	0.427	0.454	0.489	0.507	0.527	0.538	0.550	0.563	0.576	0.582	0.588	0.590	0.591	0.591
0.90	0.252	0.267	0.288	0.303	0.321	0.346	0.383	0.408	0.441	0.458	0.477	0.488	0.499	0.511	0.523	0.529	0.534	0.536	0.537	0.536
0.92	0.214	0.228	0.248	0.261	0.278	0.301	0.335	0.358	0.389	0.404	0.422	0.432	0.442	0.453	0.464	0.470	0.475	0.476	0.476	0.476
0.94	0.175	0.187	0.204	0.216	0.231	0.252	0.282	0.303	0.331	0.344	0.360	0.369	0.378	0.388	0.398	0.402	0.406	0.407	0.407	0.406
0.96	0.132	0.143	0.157	0.167	0.180	0.197	0.222	0.240	0.263	0.275	0.288	0.295	0.303	0.311	0.319	0.323	0.326	0.326	0.325	0.323
0.98	0.085	0.092	0.102	0.110	0.119	0.131	0.149	0.162	0.178	0.186	0.196	0.201	0.207	0.212	0.218	0.220	0.221	0.221	0.219	0.217
1.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless proton depth dose distributions, (ro/To)D(z/ro).
Detector material: calcium fluoride

z/ro	40	30	20	15	10	8	6	5	4	3	2	1.5	1	0.8	0.6	0.5	0.4	0.3	0.2	0.15
0.00	1.134	1.136	1.142	1.149	1.162	1.170	1.184	1.194	1.207	1.227	1.268	1.306	1.385	1.447	1.539	1.609	1.707	1.861	2.132	2.322
0.02	1.168	1.170	1.176	1.183	1.196	1.205	1.218	1.228	1.241	1.262	1.304	1.343	1.423	1.484	1.575	1.644	1.739	1.890	2.137	2.298
0.04	1.190	1.192	1.198	1.205	1.218	1.227	1.240	1.250	1.263	1.284	1.326	1.364	1.443	1.503	1.591	1.658	1.750	1.895	2.120	2.257
0.06	1.206	1.209	1.215	1.222	1.235	1.244	1.257	1.267	1.280	1.301	1.341	1.379	1.457	1.515	1.601	1.665	1.754	1.892	2.095	2.211
0.08	1.220	1.222	1.229	1.236	1.249	1.257	1.270	1.280	1.293	1.313	1.352	1.389	1.466	1.522	1.605	1.667	1.752	1.883	2.065	2.160
0.10	1.230	1.233	1.239	1.246	1.259	1.268	1.280	1.290	1.303	1.322	1.360	1.396	1.471	1.526	1.606	1.664	1.746	1.869	2.031	2.108
0.12	1.239	1.242	1.248	1.255	1.268	1.276	1.288	1.297	1.310	1.328	1.365	1.401	1.474	1.526	1.603	1.659	1.736	1.851	1.994	2.053
0.14	1.245	1.248	1.254	1.261	1.274	1.282	1.294	1.303	1.314	1.332	1.368	1.403	1.475	1.524	1.598	1.651	1.724	1.831	1.954	1.996
0.16	1.250	1.253	1.259	1.266	1.278	1.286	1.298	1.306	1.317	1.335	1.369	1.403	1.473	1.520	1.590	1.641	1.709	1.807	1.912	1.938
0.18	1.253	1.256	1.262	1.269	1.281	1.289	1.300	1.308	1.318	1.335	1.369	1.402	1.469	1.514	1.580	1.628	1.692	1.781	1.868	1.879
0.20	1.255	1.258	1.264	1.271	1.283	1.290	1.301	1.308	1.318	1.334	1.367	1.399	1.463	1.506	1.569	1.613	1.673	1.753	1.822	1.820
0.22	1.255	1.258	1.265	1.271	1.283	1.289	1.300	1.307	1.316	1.332	1.363	1.394	1.456	1.496	1.555	1.597	1.652	1.723	1.774	1.759
0.24	1.254	1.257	1.264	1.270	1.281	1.288	1.297	1.304	1.313	1.328	1.358	1.388	1.447	1.485	1.540	1.578	1.629	1.691	1.725	1.698
0.26	1.252	1.255	1.262	1.268	1.278	1.285	1.294	1.300	1.308	1.323	1.352	1.380	1.436	1.472	1.523	1.558	1.604	1.657	1.675	1.636
0.28	1.249	1.252	1.258	1.264	1.275	1.280	1.289	1.294	1.302	1.316	1.344	1.372	1.424	1.457	1.505	1.537	1.578	1.621	1.623	1.574
0.30	1.245	1.248	1.254	1.260	1.270	1.275	1.283	1.288	1.295	1.308	1.335	1.361	1.410	1.441	1.485	1.514	1.550	1.584	1.570	1.512
0.32	1.239	1.243	1.248	1.254	1.263	1.268	1.275	1.280	1.287	1.300	1.325	1.350	1.396	1.424	1.463	1.489	1.520	1.545	1.517	1.449
0.34	1.233	1.236	1.242	1.247	1.256	1.260	1.267	1.271	1.278	1.290	1.313	1.337	1.379	1.405	1.440	1.463	1.489	1.504	1.462	1.386
0.36	1.225	1.229	1.234	1.239	1.247	1.251	1.257	1.261	1.268	1.279	1.301	1.323	1.362	1.385	1.416	1.436	1.456	1.463	1.407	1.324
0.38	1.217	1.220	1.225	1.230	1.238	1.241	1.246	1.250	1.256	1.266	1.287	1.308	1.343	1.364	1.391	1.407	1.422	1.419	1.351	1.261
0.40	1.207	1.210	1.215	1.220	1.227	1.230	1.235	1.238	1.244	1.253	1.272	1.291	1.323	1.342	1.364	1.377	1.386	1.375	1.295	1.199
0.42	1.197	1.200	1.205	1.209	1.215	1.217	1.222	1.225	1.230	1.239	1.256	1.274	1.302	1.318	1.336	1.345	1.349	1.329	1.238	1.137
0.44	1.185	1.188	1.193	1.197	1.202	1.204	1.208	1.211	1.215	1.223	1.239	1.255	1.279	1.292	1.306	1.312	1.310	1.282	1.180	1.076
0.46	1.172	1.175	1.180	1.183	1.188	1.190	1.193	1.195	1.199	1.206	1.221	1.235	1.256	1.266	1.275	1.277	1.270	1.234	1.122	1.015
0.48	1.159	1.161	1.166	1.169	1.173	1.174	1.177	1.179	1.182	1.188	1.202	1.214	1.231	1.238	1.243	1.242	1.228	1.184	1.064	0.954
0.50	1.144	1.147	1.151	1.154	1.157	1.157	1.160	1.161	1.164	1.170	1.181	1.192	1.204	1.209	1.209	1.204	1.185	1.134	1.006	0.895
0.52	1.128	1.131	1.134	1.137	1.139	1.140	1.141	1.143	1.145	1.150	1.159	1.168	1.177	1.178	1.174	1.165	1.141	1.082	0.948	0.836
0.54	1.111	1.114	1.117	1.119	1.121	1.121	1.122	1.123	1.125	1.128	1.137	1.143	1.148	1.147	1.138	1.125	1.095	1.030	0.890	0.778
0.56	1.093	1.095	1.099	1.100	1.101	1.101	1.101	1.102	1.103	1.106	1.112	1.117	1.117	1.113	1.100	1.083	1.048	0.976	0.832	0.722
0.58	1.074	1.076	1.079	1.080	1.080	1.079	1.080	1.080	1.081	1.082	1.087	1.089	1.086	1.079	1.061	1.040	1.000	0.922	0.775	0.666
0.60	1.053	1.055	1.058	1.059	1.058	1.057	1.057	1.057	1.057	1.057	1.060	1.060	1.053	1.043	1.020	0.995	0.950	0.867	0.717	0.612
0.62	1.032	1.034	1.036	1.036	1.034	1.033	1.032	1.032	1.032	1.031	1.032	1.030	1.018	1.005	0.977	0.949	0.899	0.812	0.661	0.560
0.64	1.009	1.011	1.012	1.012	1.010	1.008	1.007	1.006	1.005	1.004	1.002	0.998	0.982	0.966	0.933	0.901	0.847	0.756	0.606	0.509
0.66	0.984	0.986	0.987	0.986	0.984	0.982	0.980	0.979	0.977	0.975	0.971	0.964	0.944	0.925	0.887	0.851	0.793	0.699	0.552	0.460
0.68	0.959	0.960	0.961	0.959	0.956	0.954	0.951	0.950	0.947	0.944	0.938	0.929	0.905	0.883	0.840	0.800	0.738	0.642	0.498	0.413
0.70	0.931	0.933	0.932	0.930	0.927	0.924	0.921	0.919	0.916	0.912	0.904	0.892	0.863	0.839	0.790	0.747	0.683	0.585	0.447	0.368
0.72	0.903	0.904	0.903	0.900	0.896	0.893	0.890	0.887	0.884	0.878	0.868	0.854	0.820	0.792	0.739	0.693	0.626	0.529	0.397	0.325
0.74	0.872	0.873	0.871	0.868	0.863	0.860	0.856	0.853	0.849	0.843	0.830	0.813	0.775	0.744	0.686	0.637	0.568	0.472	0.349	0.284
0.76	0.840	0.840	0.838	0.834	0.829	0.825	0.821	0.817	0.813	0.805	0.790	0.770	0.728	0.693	0.630	0.580	0.510	0.417	0.304	0.245
0.78	0.805	0.805	0.802	0.798	0.793	0.789	0.784	0.780	0.774	0.766	0.747	0.725	0.678	0.640	0.573	0.521	0.452	0.363	0.260	0.209
0.80	0.768	0.768	0.764	0.760	0.754	0.749	0.744	0.739	0.733	0.724	0.702	0.678	0.626	0.585	0.514	0.461	0.394	0.311	0.220	0.176
0.82	0.729	0.728	0.723	0.719	0.712	0.708	0.701	0.697	0.690	0.679	0.654	0.627	0.571	0.526	0.453	0.401	0.336	0.261	0.182	0.145
0.84	0.686	0.685	0.680	0.675	0.668	0.663	0.656	0.651	0.643	0.631	0.603	0.574	0.513	0.465	0.391	0.340	0.280	0.213	0.147	0.117
0.86	0.640	0.638	0.633	0.628	0.621	0.615	0.608	0.602	0.594	0.579	0.549	0.517	0.450	0.401	0.327	0.279	0.225	0.169	0.116	0.092
0.88	0.590	0.588	0.582	0.577	0.569	0.563	0.555	0.549	0.539	0.523	0.490	0.455	0.384	0.334	0.263	0.220	0.174	0.129	0.087	0.070
0.90	0.535	0.532	0.526	0.521	0.512	0.507	0.498	0.491	0.480	0.462	0.426	0.388	0.314	0.264	0.200	0.164	0.127	0.093	0.063	0.051
0.92	0.474	0.471	0.464	0.459	0.450	0.444	0.434	0.426	0.415	0.395	0.355	0.315	0.240	0.194	0.140	0.112	0.086	0.062	0.042	0.034
0.94	0.404	0.400	0.394	0.389	0.379	0.372	0.362	0.353	0.340	0.319	0.276	0.234	0.162	0.125	0.086	0.068	0.052	0.037	0.026	0.021
0.96	0.321	0.318	0.311	0.306	0.295	0.288	0.277	0.267	0.253	0.229	0.184	0.143	0.087	0.064	0.042	0.033	0.025	0.018	0.013	0.010
0.98	0.215	0.212	0.205	0.200	0.189	0.181	0.168	0.157	0.142	0.117	0.077	0.051	0.027	0.019	0.012	0.010	0.008	0.006	0.004	0.003
1.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless proton depth dose distributions, (ro/To)D(z/ro).
Detector material: calcium fluoride

z/ro	0.1	0.08	0.06	0.05	0.04	0.03	0.02	0.015	0.01
0.00	2.539	2.626	2.706	2.742	2.775	2.801	2.825	2.837	2.852
0.02	2.461	2.516	2.559	2.574	2.588	2.595	2.605	2.610	2.607
0.04	2.380	2.414	2.433	2.436	2.439	2.436	2.438	2.438	2.426
0.06	2.300	2.316	2.317	2.311	2.306	2.296	2.291	2.289	2.272
0.08	2.220	2.222	2.207	2.195	2.183	2.167	2.158	2.154	2.133
0.10	2.140	2.129	2.102	2.084	2.068	2.048	2.036	2.029	2.007
0.12	2.061	2.039	2.002	1.980	1.959	1.936	1.921	1.913	1.891
0.14	1.983	1.952	1.906	1.880	1.856	1.831	1.814	1.804	1.783
0.16	1.905	1.866	1.813	1.785	1.758	1.731	1.712	1.701	1.682
0.18	1.828	1.782	1.724	1.693	1.665	1.637	1.616	1.604	1.587
0.20	1.752	1.700	1.637	1.605	1.575	1.547	1.525	1.511	1.497
0.22	1.677	1.620	1.553	1.520	1.489	1.460	1.439	1.423	1.412
0.24	1.603	1.542	1.473	1.438	1.407	1.378	1.356	1.340	1.331
0.26	1.529	1.465	1.394	1.360	1.329	1.300	1.277	1.261	1.255
0.28	1.457	1.391	1.319	1.284	1.253	1.224	1.201	1.187	1.182
0.30	1.387	1.318	1.245	1.211	1.180	1.152	1.129	1.115	1.112
0.32	1.317	1.247	1.175	1.140	1.110	1.083	1.059	1.048	1.046
0.34	1.248	1.178	1.106	1.073	1.043	1.016	0.993	0.983	0.983
0.36	1.181	1.111	1.040	1.007	0.979	0.953	0.930	0.921	0.922
0.38	1.115	1.045	0.976	0.945	0.917	0.892	0.869	0.863	0.864
0.40	1.051	0.982	0.915	0.884	0.858	0.833	0.812	0.807	0.809
0.42	0.988	0.920	0.855	0.826	0.800	0.777	0.757	0.753	0.756
0.44	0.927	0.861	0.798	0.770	0.746	0.723	0.705	0.702	0.706
0.46	0.867	0.803	0.743	0.716	0.693	0.671	0.656	0.653	0.658
0.48	0.809	0.747	0.690	0.665	0.643	0.622	0.608	0.606	0.611
0.50	0.752	0.693	0.639	0.615	0.594	0.575	0.563	0.562	0.567
0.52	0.697	0.641	0.590	0.568	0.548	0.530	0.520	0.520	0.525
0.54	0.645	0.592	0.544	0.522	0.504	0.488	0.479	0.479	0.484
0.56	0.594	0.544	0.499	0.479	0.462	0.447	0.440	0.440	0.446
0.58	0.544	0.498	0.456	0.438	0.422	0.409	0.403	0.404	0.409
0.60	0.497	0.454	0.415	0.398	0.384	0.373	0.368	0.369	0.374
0.62	0.452	0.412	0.376	0.361	0.348	0.338	0.334	0.336	0.340
0.64	0.409	0.372	0.339	0.325	0.314	0.306	0.303	0.304	0.308
0.66	0.367	0.334	0.304	0.292	0.282	0.275	0.273	0.274	0.278
0.68	0.328	0.298	0.271	0.260	0.252	0.246	0.244	0.245	0.249
0.70	0.291	0.264	0.240	0.231	0.224	0.219	0.217	0.218	0.221
0.72	0.256	0.232	0.211	0.203	0.197	0.193	0.192	0.193	0.195
0.74	0.223	0.202	0.184	0.177	0.172	0.169	0.168	0.169	0.170
0.76	0.192	0.174	0.159	0.154	0.149	0.146	0.146	0.146	0.147
0.78	0.164	0.148	0.136	0.131	0.128	0.125	0.125	0.125	0.124
0.80	0.137	0.125	0.115	0.111	0.108	0.106	0.105	0.105	0.104
0.82	0.113	0.103	0.095	0.092	0.090	0.088	0.087	0.086	0.085
0.84	0.092	0.084	0.077	0.075	0.073	0.071	0.070	0.069	0.067
0.86	0.072	0.066	0.061	0.059	0.058	0.056	0.055	0.054	0.051
0.88	0.055	0.051	0.047	0.045	0.044	0.042	0.041	0.039	0.037
0.90	0.040	0.037	0.034	0.033	0.031	0.030	0.028	0.027	0.024
0.92	0.027	0.025	0.023	0.022	0.021	0.019	0.018	0.016	0.014
0.94	0.016	0.015	0.013	0.013	0.012	0.011	0.009	0.008	0.007
0.96	0.008	0.007	0.006	0.005	0.005	0.004	0.003	0.003	0.002
0.98	0.002	0.001	0.001	0.001	0.001	0.001	0.000	0.000	0.000
1.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless proton depth dose distributions, (ro/To)D(z/ro).
Detector material: gallium arsenide

z/ro	10000	8000	6000	5000	4000	3000	2000	1500	1000	800	600	500	400	300	200	150	100	80	60	50
0.00	1.758	1.721	1.666	1.627	1.574	1.502	1.392	1.314	1.211	1.161	1.102	1.070	1.035	0.998	0.958	0.937	0.915	0.905	0.895	0.889
0.02	1.707	1.673	1.622	1.586	1.538	1.472	1.373	1.302	1.209	1.163	1.110	1.081	1.049	1.015	0.979	0.959	0.938	0.928	0.918	0.913
0.04	1.662	1.630	1.582	1.549	1.504	1.444	1.353	1.288	1.203	1.161	1.112	1.085	1.056	1.025	0.991	0.972	0.952	0.943	0.933	0.928
0.06	1.619	1.589	1.544	1.514	1.473	1.417	1.333	1.274	1.196	1.157	1.112	1.087	1.061	1.032	1.000	0.982	0.963	0.954	0.944	0.939
0.08	1.577	1.549	1.508	1.479	1.441	1.390	1.314	1.259	1.188	1.152	1.111	1.088	1.063	1.036	1.006	0.990	0.971	0.962	0.953	0.947
0.10	1.537	1.510	1.472	1.446	1.411	1.364	1.294	1.244	1.178	1.145	1.107	1.086	1.063	1.038	1.011	0.995	0.978	0.969	0.959	0.954
0.12	1.497	1.472	1.437	1.413	1.381	1.338	1.274	1.228	1.168	1.138	1.103	1.084	1.063	1.039	1.013	0.999	0.982	0.974	0.964	0.958
0.14	1.458	1.435	1.403	1.381	1.351	1.312	1.254	1.212	1.157	1.130	1.098	1.080	1.061	1.039	1.015	1.001	0.985	0.977	0.967	0.962
0.16	1.420	1.399	1.369	1.349	1.322	1.286	1.233	1.196	1.146	1.121	1.092	1.075	1.058	1.038	1.015	1.002	0.987	0.979	0.969	0.964
0.18	1.382	1.363	1.335	1.317	1.293	1.261	1.213	1.179	1.134	1.111	1.085	1.070	1.054	1.035	1.014	1.002	0.987	0.979	0.970	0.964
0.20	1.345	1.327	1.302	1.286	1.264	1.235	1.192	1.162	1.122	1.101	1.077	1.064	1.049	1.032	1.013	1.001	0.987	0.979	0.970	0.964
0.22	1.308	1.292	1.269	1.254	1.235	1.209	1.172	1.144	1.109	1.090	1.069	1.057	1.043	1.028	1.010	0.999	0.985	0.978	0.969	0.963
0.24	1.271	1.257	1.237	1.224	1.206	1.184	1.151	1.127	1.095	1.079	1.060	1.049	1.037	1.023	1.006	0.996	0.983	0.975	0.966	0.961
0.26	1.235	1.222	1.205	1.193	1.178	1.158	1.130	1.109	1.081	1.067	1.050	1.041	1.030	1.017	1.002	0.992	0.979	0.972	0.963	0.957
0.28	1.200	1.188	1.173	1.163	1.150	1.133	1.109	1.091	1.067	1.054	1.040	1.032	1.022	1.011	0.997	0.988	0.975	0.968	0.959	0.953
0.30	1.164	1.154	1.141	1.132	1.122	1.108	1.087	1.072	1.052	1.042	1.029	1.022	1.013	1.003	0.990	0.982	0.970	0.963	0.955	0.949
0.32	1.129	1.121	1.109	1.102	1.094	1.082	1.066	1.054	1.037	1.028	1.018	1.011	1.004	0.995	0.984	0.976	0.964	0.958	0.949	0.943
0.34	1.095	1.087	1.078	1.073	1.066	1.057	1.044	1.035	1.021	1.014	1.006	1.001	0.994	0.987	0.976	0.969	0.958	0.951	0.942	0.937
0.36	1.060	1.054	1.047	1.043	1.038	1.031	1.022	1.015	1.005	1.000	0.993	0.989	0.984	0.977	0.968	0.961	0.950	0.944	0.935	0.929
0.38	1.026	1.021	1.016	1.013	1.010	1.006	1.000	0.996	0.989	0.985	0.980	0.977	0.973	0.967	0.959	0.952	0.942	0.936	0.927	0.921
0.40	0.992	0.989	0.985	0.984	0.982	0.980	0.978	0.976	0.972	0.970	0.966	0.964	0.961	0.956	0.949	0.943	0.933	0.927	0.918	0.913
0.42	0.959	0.956	0.955	0.955	0.954	0.955	0.956	0.956	0.955	0.954	0.952	0.951	0.948	0.945	0.938	0.933	0.924	0.917	0.909	0.903
0.44	0.925	0.924	0.925	0.925	0.927	0.929	0.933	0.935	0.937	0.937	0.937	0.937	0.935	0.932	0.927	0.922	0.913	0.907	0.899	0.893
0.46	0.892	0.892	0.894	0.896	0.899	0.904	0.910	0.914	0.919	0.920	0.922	0.922	0.921	0.919	0.915	0.910	0.902	0.896	0.887	0.882
0.48	0.859	0.861	0.864	0.867	0.872	0.878	0.887	0.893	0.900	0.903	0.906	0.907	0.907	0.906	0.902	0.898	0.890	0.884	0.876	0.870
0.50	0.827	0.829	0.834	0.839	0.844	0.852	0.864	0.872	0.881	0.885	0.889	0.891	0.892	0.892	0.889	0.885	0.877	0.871	0.863	0.857
0.52	0.794	0.798	0.804	0.810	0.816	0.826	0.841	0.850	0.862	0.867	0.872	0.874	0.876	0.877	0.874	0.871	0.863	0.858	0.850	0.844
0.54	0.762	0.767	0.775	0.781	0.789	0.800	0.817	0.828	0.842	0.848	0.854	0.857	0.859	0.861	0.859	0.856	0.849	0.843	0.835	0.830
0.56	0.730	0.736	0.745	0.752	0.761	0.774	0.793	0.805	0.821	0.828	0.836	0.839	0.842	0.844	0.844	0.841	0.834	0.828	0.820	0.814
0.58	0.698	0.705	0.715	0.723	0.733	0.748	0.769	0.783	0.800	0.808	0.817	0.821	0.824	0.827	0.827	0.824	0.818	0.812	0.804	0.798
0.60	0.667	0.674	0.686	0.694	0.706	0.721	0.744	0.759	0.778	0.787	0.797	0.801	0.806	0.809	0.809	0.807	0.801	0.795	0.788	0.782
0.62	0.635	0.644	0.656	0.666	0.678	0.695	0.719	0.735	0.756	0.766	0.776	0.781	0.786	0.790	0.791	0.789	0.783	0.777	0.770	0.764
0.64	0.604	0.613	0.627	0.637	0.650	0.668	0.694	0.711	0.733	0.744	0.755	0.761	0.766	0.770	0.772	0.770	0.764	0.759	0.751	0.745
0.66	0.573	0.583	0.598	0.608	0.622	0.641	0.668	0.687	0.710	0.721	0.733	0.739	0.744	0.749	0.751	0.750	0.744	0.739	0.731	0.725
0.68	0.542	0.553	0.568	0.579	0.594	0.614	0.642	0.661	0.686	0.697	0.710	0.716	0.722	0.728	0.730	0.729	0.723	0.718	0.711	0.705
0.70	0.512	0.522	0.539	0.550	0.565	0.586	0.616	0.636	0.661	0.673	0.686	0.693	0.699	0.705	0.707	0.706	0.701	0.696	0.689	0.683
0.72	0.481	0.492	0.509	0.521	0.537	0.558	0.589	0.609	0.635	0.648	0.661	0.668	0.675	0.681	0.684	0.683	0.678	0.673	0.666	0.660
0.74	0.450	0.462	0.480	0.492	0.508	0.530	0.561	0.582	0.609	0.622	0.636	0.643	0.650	0.656	0.659	0.658	0.653	0.649	0.641	0.636
0.76	0.420	0.432	0.450	0.463	0.479	0.501	0.533	0.554	0.581	0.594	0.609	0.616	0.623	0.629	0.633	0.632	0.627	0.623	0.616	0.610
0.78	0.390	0.402	0.420	0.433	0.449	0.472	0.503	0.525	0.553	0.566	0.580	0.588	0.595	0.601	0.605	0.605	0.600	0.596	0.588	0.583
0.80	0.359	0.372	0.390	0.403	0.420	0.442	0.474	0.495	0.523	0.536	0.551	0.558	0.566	0.572	0.576	0.576	0.571	0.567	0.559	0.554
0.82	0.329	0.342	0.360	0.373	0.389	0.411	0.443	0.465	0.492	0.505	0.520	0.527	0.534	0.541	0.545	0.544	0.540	0.536	0.529	0.523
0.84	0.299	0.312	0.330	0.342	0.358	0.380	0.411	0.432	0.460	0.473	0.487	0.494	0.501	0.508	0.512	0.511	0.507	0.503	0.496	0.491
0.86	0.268	0.281	0.299	0.311	0.326	0.348	0.378	0.399	0.425	0.438	0.452	0.459	0.466	0.472	0.476	0.476	0.472	0.467	0.461	0.456
0.88	0.238	0.250	0.267	0.279	0.294	0.314	0.343	0.363	0.389	0.401	0.414	0.421	0.428	0.434	0.438	0.437	0.433	0.429	0.423	0.418
0.90	0.207	0.218	0.235	0.246	0.260	0.279	0.307	0.326	0.350	0.361	0.374	0.380	0.387	0.392	0.396	0.395	0.391	0.387	0.381	0.376
0.92	0.175	0.185	0.201	0.211	0.224	0.242	0.268	0.285	0.307	0.318	0.329	0.335	0.341	0.346	0.349	0.349	0.345	0.341	0.335	0.330
0.94	0.142	0.152	0.165	0.174	0.186	0.202	0.225	0.240	0.260	0.269	0.280	0.285	0.290	0.294	0.297	0.296	0.292	0.289	0.283	0.278
0.96	0.107	0.115	0.126	0.134	0.144	0.157	0.176	0.189	0.205	0.213	0.222	0.226	0.230	0.234	0.235	0.234	0.231	0.227	0.222	0.218
0.98	0.068	0.074	0.082	0.087	0.094	0.104	0.117	0.126	0.137	0.143	0.149	0.152	0.154	0.156	0.157	0.156	0.152	0.149	0.145	0.142
1.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless proton depth dose distributions, (ro/To)D(z/ro).
Detector material: gallium arsenide

z/ro	40	30	20	15	10	8	6	5	4	3	2	1.5	1	0.8	0.6	0.5	0.4	0.3	0.2	0.15
0.00	0.883	0.876	0.867	0.861	0.853	0.848	0.842	0.837	0.832	0.826	0.818	0.818	0.838	0.860	0.899	0.928	0.967	1.025	1.149	1.260
0.02	0.906	0.900	0.890	0.883	0.874	0.868	0.861	0.856	0.850	0.843	0.835	0.835	0.856	0.877	0.914	0.942	0.978	1.036	1.154	1.253
0.04	0.921	0.914	0.904	0.897	0.887	0.880	0.872	0.867	0.860	0.852	0.844	0.844	0.864	0.885	0.920	0.946	0.980	1.036	1.147	1.236
0.06	0.932	0.925	0.914	0.906	0.896	0.889	0.880	0.874	0.867	0.859	0.849	0.850	0.869	0.889	0.922	0.947	0.978	1.032	1.136	1.215
0.08	0.941	0.933	0.922	0.914	0.902	0.895	0.885	0.879	0.872	0.863	0.852	0.853	0.871	0.890	0.922	0.944	0.974	1.026	1.122	1.191
0.10	0.947	0.939	0.927	0.919	0.906	0.899	0.889	0.882	0.874	0.865	0.853	0.854	0.872	0.890	0.919	0.940	0.968	1.018	1.106	1.165
0.12	0.952	0.943	0.931	0.922	0.909	0.901	0.891	0.884	0.876	0.865	0.853	0.854	0.871	0.888	0.915	0.934	0.961	1.007	1.088	1.138
0.14	0.955	0.946	0.934	0.925	0.911	0.902	0.892	0.885	0.875	0.864	0.852	0.852	0.868	0.884	0.910	0.928	0.952	0.996	1.069	1.110
0.16	0.957	0.948	0.935	0.926	0.911	0.902	0.891	0.884	0.874	0.862	0.850	0.850	0.865	0.880	0.903	0.919	0.942	0.983	1.048	1.080
0.18	0.958	0.949	0.935	0.925	0.910	0.901	0.890	0.882	0.872	0.859	0.846	0.846	0.860	0.874	0.895	0.910	0.931	0.969	1.026	1.050
0.20	0.957	0.948	0.934	0.924	0.909	0.899	0.887	0.879	0.868	0.855	0.842	0.842	0.855	0.867	0.887	0.900	0.919	0.954	1.003	1.019
0.22	0.956	0.947	0.932	0.922	0.906	0.896	0.883	0.875	0.864	0.851	0.837	0.837	0.848	0.860	0.877	0.889	0.907	0.938	0.979	0.987
0.24	0.954	0.944	0.930	0.919	0.902	0.892	0.879	0.870	0.859	0.845	0.832	0.831	0.841	0.851	0.866	0.877	0.893	0.922	0.954	0.955
0.26	0.950	0.941	0.926	0.915	0.898	0.887	0.874	0.864	0.853	0.839	0.825	0.824	0.833	0.842	0.855	0.864	0.879	0.904	0.928	0.922
0.28	0.946	0.937	0.921	0.910	0.892	0.882	0.868	0.858	0.846	0.832	0.818	0.816	0.824	0.832	0.843	0.851	0.864	0.885	0.901	0.888
0.30	0.941	0.932	0.916	0.904	0.886	0.875	0.861	0.851	0.839	0.824	0.810	0.808	0.815	0.821	0.830	0.836	0.848	0.866	0.874	0.855
0.32	0.936	0.926	0.910	0.898	0.880	0.868	0.853	0.843	0.831	0.816	0.802	0.799	0.804	0.810	0.817	0.822	0.831	0.845	0.846	0.821
0.34	0.929	0.919	0.903	0.891	0.872	0.860	0.845	0.835	0.822	0.807	0.793	0.790	0.793	0.797	0.802	0.806	0.814	0.824	0.818	0.786
0.36	0.922	0.912	0.895	0.883	0.864	0.852	0.836	0.825	0.813	0.798	0.783	0.780	0.782	0.784	0.787	0.790	0.796	0.803	0.788	0.752
0.38	0.914	0.904	0.887	0.874	0.855	0.842	0.826	0.816	0.803	0.787	0.773	0.769	0.769	0.771	0.772	0.774	0.777	0.780	0.759	0.718
0.40	0.905	0.895	0.878	0.865	0.845	0.832	0.816	0.805	0.792	0.777	0.762	0.757	0.756	0.757	0.756	0.756	0.758	0.757	0.728	0.683
0.42	0.895	0.885	0.868	0.855	0.834	0.821	0.805	0.794	0.781	0.765	0.751	0.745	0.743	0.742	0.739	0.738	0.738	0.733	0.698	0.649
0.44	0.885	0.874	0.857	0.844	0.823	0.810	0.793	0.782	0.769	0.753	0.738	0.733	0.728	0.726	0.721	0.720	0.717	0.709	0.667	0.614
0.46	0.874	0.863	0.846	0.832	0.811	0.798	0.781	0.770	0.756	0.740	0.726	0.719	0.713	0.710	0.703	0.700	0.696	0.683	0.635	0.580
0.48	0.862	0.851	0.834	0.820	0.798	0.785	0.768	0.757	0.743	0.727	0.712	0.705	0.698	0.693	0.685	0.680	0.674	0.657	0.603	0.546
0.50	0.849	0.838	0.821	0.807	0.785	0.771	0.754	0.743	0.729	0.714	0.698	0.691	0.681	0.675	0.665	0.660	0.651	0.631	0.571	0.512
0.52	0.836	0.825	0.807	0.793	0.771	0.757	0.739	0.728	0.715	0.699	0.683	0.675	0.664	0.657	0.646	0.639	0.628	0.604	0.539	0.479
0.54	0.822	0.811	0.793	0.778	0.756	0.742	0.724	0.713	0.700	0.684	0.668	0.659	0.646	0.638	0.625	0.617	0.604	0.576	0.507	0.446
0.56	0.807	0.795	0.777	0.763	0.740	0.726	0.709	0.697	0.684	0.668	0.652	0.643	0.628	0.618	0.604	0.594	0.579	0.547	0.475	0.414
0.58	0.791	0.779	0.761	0.747	0.724	0.710	0.692	0.681	0.668	0.652	0.636	0.625	0.609	0.598	0.582	0.571	0.553	0.518	0.442	0.382
0.60	0.774	0.762	0.744	0.730	0.706	0.692	0.675	0.664	0.650	0.635	0.618	0.607	0.589	0.577	0.560	0.547	0.527	0.488	0.410	0.351
0.62	0.756	0.745	0.726	0.712	0.688	0.674	0.657	0.646	0.632	0.617	0.600	0.588	0.568	0.555	0.536	0.522	0.500	0.458	0.379	0.321
0.64	0.737	0.726	0.708	0.693	0.669	0.656	0.638	0.627	0.614	0.599	0.581	0.569	0.547	0.533	0.512	0.497	0.472	0.428	0.347	0.292
0.66	0.718	0.706	0.688	0.673	0.650	0.636	0.618	0.608	0.594	0.580	0.562	0.548	0.525	0.510	0.488	0.470	0.443	0.396	0.316	0.264
0.68	0.697	0.686	0.667	0.652	0.629	0.615	0.598	0.587	0.574	0.560	0.541	0.527	0.502	0.486	0.462	0.443	0.414	0.365	0.286	0.236
0.70	0.675	0.664	0.645	0.630	0.607	0.594	0.577	0.566	0.553	0.539	0.520	0.505	0.478	0.461	0.436	0.415	0.384	0.333	0.256	0.210
0.72	0.652	0.641	0.623	0.607	0.584	0.571	0.554	0.544	0.531	0.517	0.497	0.481	0.453	0.435	0.408	0.386	0.353	0.302	0.228	0.185
0.74	0.628	0.617	0.598	0.583	0.561	0.547	0.531	0.520	0.508	0.494	0.474	0.457	0.428	0.409	0.380	0.356	0.322	0.270	0.200	0.162
0.76	0.602	0.591	0.573	0.558	0.535	0.523	0.506	0.496	0.484	0.470	0.450	0.432	0.401	0.382	0.350	0.325	0.290	0.239	0.174	0.140
0.78	0.575	0.564	0.546	0.531	0.509	0.497	0.481	0.471	0.459	0.445	0.424	0.405	0.373	0.353	0.320	0.294	0.257	0.208	0.149	0.119
0.80	0.547	0.536	0.517	0.503	0.481	0.469	0.454	0.444	0.433	0.419	0.397	0.377	0.345	0.323	0.288	0.261	0.225	0.178	0.125	0.100
0.82	0.516	0.506	0.487	0.473	0.452	0.440	0.425	0.416	0.405	0.391	0.368	0.348	0.314	0.292	0.255	0.228	0.192	0.149	0.103	0.082
0.84	0.484	0.473	0.455	0.441	0.421	0.410	0.395	0.387	0.376	0.362	0.338	0.317	0.283	0.259	0.221	0.194	0.160	0.122	0.083	0.066
0.86	0.449	0.438	0.421	0.407	0.388	0.377	0.363	0.355	0.345	0.331	0.306	0.285	0.249	0.224	0.186	0.160	0.129	0.096	0.065	0.051
0.88	0.411	0.400	0.384	0.371	0.353	0.342	0.329	0.322	0.311	0.297	0.272	0.251	0.214	0.188	0.150	0.126	0.100	0.073	0.049	0.038
0.90	0.370	0.360	0.344	0.332	0.315	0.305	0.293	0.285	0.275	0.261	0.235	0.214	0.176	0.150	0.115	0.094	0.073	0.053	0.035	0.027
0.92	0.324	0.314	0.300	0.289	0.273	0.264	0.253	0.246	0.236	0.221	0.196	0.174	0.135	0.111	0.080	0.064	0.049	0.035	0.023	0.018
0.94	0.272	0.264	0.250	0.241	0.226	0.219	0.208	0.201	0.192	0.177	0.152	0.130	0.093	0.072	0.049	0.039	0.029	0.020	0.013	0.011
0.96	0.212	0.205	0.193	0.185	0.173	0.167	0.157	0.150	0.141	0.126	0.102	0.081	0.050	0.036	0.024	0.018	0.014	0.010	0.006	0.005
0.98	0.138	0.132	0.123	0.117	0.108	0.102	0.093	0.087	0.078	0.066	0.044	0.029	0.015	0.010	0.007	0.005	0.004	0.003	0.002	0.001
1.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless proton depth dose distributions, (ro/To)D(z/ro).
Detector material: gallium arsenide

z/ro	0.1	0.08	0.06	0.05	0.04	0.03	0.02	0.015	0.01
0.00	1.413	1.481	1.545	1.573	1.598	1.616	1.631	1.637	1.641
0.02	1.377	1.425	1.464	1.479	1.491	1.497	1.503	1.504	1.497
0.04	1.337	1.371	1.394	1.401	1.406	1.405	1.405	1.404	1.391
0.06	1.295	1.318	1.329	1.330	1.329	1.324	1.320	1.316	1.300
0.08	1.253	1.266	1.267	1.263	1.258	1.250	1.243	1.237	1.219
0.10	1.211	1.216	1.208	1.200	1.192	1.180	1.171	1.164	1.145
0.12	1.168	1.166	1.151	1.140	1.129	1.116	1.104	1.096	1.076
0.14	1.126	1.117	1.096	1.083	1.070	1.054	1.042	1.032	1.013
0.16	1.084	1.069	1.043	1.028	1.013	0.996	0.982	0.972	0.953
0.18	1.041	1.022	0.992	0.975	0.959	0.941	0.926	0.915	0.897
0.20	0.999	0.975	0.942	0.924	0.907	0.889	0.873	0.861	0.844
0.22	0.958	0.930	0.894	0.875	0.857	0.839	0.822	0.809	0.794
0.24	0.916	0.885	0.848	0.828	0.809	0.791	0.774	0.761	0.747
0.26	0.875	0.842	0.802	0.782	0.764	0.745	0.728	0.715	0.701
0.28	0.835	0.799	0.759	0.738	0.720	0.701	0.683	0.671	0.659
0.30	0.795	0.758	0.716	0.696	0.677	0.659	0.641	0.629	0.618
0.32	0.755	0.717	0.675	0.655	0.637	0.619	0.601	0.589	0.579
0.34	0.716	0.677	0.636	0.616	0.598	0.580	0.562	0.552	0.542
0.36	0.678	0.639	0.598	0.578	0.560	0.543	0.525	0.516	0.507
0.38	0.641	0.601	0.561	0.541	0.524	0.507	0.490	0.481	0.473
0.40	0.604	0.564	0.525	0.506	0.490	0.473	0.456	0.448	0.441
0.42	0.568	0.529	0.491	0.473	0.457	0.441	0.425	0.417	0.410
0.44	0.532	0.494	0.457	0.440	0.425	0.409	0.394	0.387	0.381
0.46	0.498	0.461	0.425	0.409	0.394	0.379	0.365	0.359	0.353
0.48	0.465	0.429	0.395	0.379	0.365	0.350	0.338	0.332	0.326
0.50	0.432	0.398	0.365	0.350	0.337	0.323	0.311	0.306	0.301
0.52	0.400	0.368	0.337	0.323	0.310	0.297	0.286	0.282	0.277
0.54	0.370	0.339	0.310	0.296	0.284	0.272	0.263	0.258	0.254
0.56	0.340	0.311	0.284	0.271	0.260	0.249	0.240	0.236	0.232
0.58	0.312	0.284	0.259	0.247	0.236	0.227	0.219	0.215	0.211
0.60	0.285	0.259	0.235	0.224	0.214	0.206	0.198	0.195	0.192
0.62	0.258	0.234	0.213	0.202	0.193	0.186	0.179	0.176	0.173
0.64	0.233	0.211	0.191	0.182	0.174	0.167	0.161	0.158	0.155
0.66	0.209	0.189	0.171	0.162	0.155	0.149	0.144	0.141	0.139
0.68	0.187	0.168	0.152	0.144	0.138	0.132	0.128	0.126	0.123
0.70	0.165	0.149	0.134	0.127	0.122	0.117	0.113	0.111	0.109
0.72	0.145	0.130	0.117	0.111	0.106	0.102	0.099	0.097	0.095
0.74	0.126	0.113	0.101	0.097	0.092	0.089	0.085	0.084	0.082
0.76	0.108	0.097	0.087	0.083	0.079	0.076	0.073	0.072	0.070
0.78	0.091	0.082	0.074	0.070	0.067	0.064	0.062	0.061	0.060
0.80	0.076	0.068	0.061	0.058	0.056	0.054	0.052	0.051	0.049
0.82	0.062	0.056	0.050	0.048	0.046	0.044	0.042	0.041	0.040
0.84	0.050	0.045	0.040	0.038	0.037	0.035	0.034	0.033	0.032
0.86	0.039	0.035	0.031	0.030	0.029	0.027	0.026	0.025	0.025
0.88	0.029	0.026	0.023	0.022	0.021	0.020	0.019	0.019	0.018
0.90	0.021	0.019	0.017	0.016	0.015	0.014	0.014	0.013	0.012
0.92	0.014	0.012	0.011	0.010	0.010	0.009	0.009	0.008	0.008
0.94	0.008	0.007	0.006	0.006	0.006	0.005	0.005	0.005	0.004
0.96	0.004	0.003	0.003	0.003	0.003	0.002	0.002	0.002	0.002
0.98	0.001	0.001	0.001	0.001	0.001	0.001	0.000	0.000	0.000
1.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless proton depth dose distributions, (ro/To)D(z/ro).
Detector material: lithium fluoride

z/ro	10000	8000	6000	5000	4000	3000	2000	1500	1000	800	600	500	400	300	200	150	100	80	60	50
0.00	1.987	1.957	1.913	1.880	1.833	1.766	1.661	1.582	1.475	1.422	1.361	1.327	1.291	1.252	1.213	1.195	1.181	1.176	1.175	1.177
0.02	1.935	1.908	1.868	1.838	1.795	1.736	1.641	1.571	1.475	1.427	1.373	1.343	1.310	1.276	1.241	1.225	1.213	1.210	1.210	1.212
0.04	1.888	1.864	1.827	1.800	1.761	1.707	1.621	1.557	1.471	1.427	1.378	1.351	1.321	1.290	1.259	1.245	1.235	1.233	1.233	1.236
0.06	1.843	1.821	1.787	1.762	1.727	1.678	1.601	1.543	1.464	1.425	1.380	1.355	1.328	1.300	1.272	1.260	1.252	1.250	1.252	1.254
0.08	1.799	1.779	1.748	1.726	1.694	1.650	1.580	1.527	1.456	1.420	1.379	1.357	1.333	1.307	1.282	1.272	1.265	1.264	1.266	1.269
0.10	1.756	1.738	1.710	1.690	1.661	1.621	1.558	1.510	1.446	1.414	1.377	1.357	1.335	1.312	1.290	1.281	1.275	1.275	1.278	1.281
0.12	1.713	1.697	1.672	1.654	1.629	1.593	1.536	1.493	1.435	1.406	1.373	1.355	1.335	1.315	1.296	1.288	1.284	1.284	1.287	1.291
0.14	1.671	1.657	1.635	1.619	1.596	1.564	1.514	1.475	1.424	1.398	1.369	1.352	1.334	1.316	1.299	1.293	1.290	1.291	1.295	1.299
0.16	1.630	1.618	1.598	1.584	1.564	1.536	1.491	1.457	1.412	1.388	1.362	1.348	1.332	1.316	1.302	1.296	1.295	1.296	1.301	1.304
0.18	1.590	1.578	1.562	1.549	1.532	1.507	1.469	1.438	1.398	1.378	1.355	1.342	1.329	1.315	1.302	1.298	1.298	1.300	1.305	1.309
0.20	1.549	1.540	1.525	1.515	1.500	1.479	1.446	1.419	1.385	1.367	1.347	1.336	1.324	1.312	1.302	1.299	1.300	1.302	1.307	1.312
0.22	1.509	1.501	1.489	1.480	1.468	1.450	1.422	1.400	1.370	1.355	1.338	1.329	1.318	1.308	1.300	1.298	1.300	1.302	1.308	1.313
0.24	1.469	1.463	1.453	1.446	1.436	1.422	1.398	1.380	1.355	1.342	1.328	1.320	1.312	1.303	1.297	1.296	1.299	1.302	1.308	1.313
0.26	1.430	1.425	1.417	1.412	1.404	1.393	1.375	1.359	1.339	1.329	1.317	1.311	1.304	1.298	1.293	1.293	1.297	1.300	1.307	1.312
0.28	1.391	1.387	1.382	1.378	1.372	1.364	1.350	1.339	1.323	1.315	1.306	1.301	1.295	1.291	1.288	1.289	1.294	1.297	1.304	1.309
0.30	1.352	1.350	1.347	1.345	1.341	1.335	1.326	1.317	1.306	1.300	1.293	1.290	1.286	1.283	1.282	1.284	1.289	1.293	1.301	1.306
0.32	1.314	1.313	1.312	1.311	1.309	1.307	1.301	1.296	1.288	1.284	1.280	1.278	1.276	1.274	1.275	1.278	1.284	1.288	1.296	1.301
0.34	1.275	1.276	1.277	1.277	1.277	1.278	1.276	1.274	1.270	1.268	1.266	1.265	1.264	1.264	1.267	1.270	1.277	1.282	1.290	1.295
0.36	1.237	1.239	1.242	1.244	1.246	1.249	1.251	1.251	1.252	1.252	1.252	1.252	1.252	1.254	1.258	1.262	1.270	1.275	1.283	1.288
0.38	1.199	1.202	1.207	1.210	1.214	1.219	1.225	1.229	1.232	1.234	1.237	1.238	1.239	1.242	1.248	1.253	1.261	1.266	1.275	1.280
0.40	1.161	1.166	1.172	1.177	1.182	1.190	1.200	1.205	1.213	1.216	1.220	1.223	1.226	1.230	1.237	1.242	1.252	1.257	1.265	1.271
0.42	1.124	1.129	1.138	1.143	1.150	1.160	1.174	1.182	1.192	1.198	1.204	1.207	1.211	1.217	1.225	1.231	1.241	1.247	1.255	1.261
0.44	1.087	1.093	1.103	1.110	1.119	1.131	1.147	1.158	1.172	1.178	1.186	1.191	1.196	1.202	1.212	1.219	1.229	1.235	1.244	1.250
0.46	1.050	1.057	1.069	1.077	1.087	1.101	1.121	1.133	1.150	1.158	1.168	1.173	1.180	1.187	1.198	1.205	1.216	1.222	1.231	1.237
0.48	1.013	1.021	1.034	1.043	1.055	1.071	1.094	1.108	1.128	1.138	1.149	1.155	1.163	1.171	1.183	1.191	1.203	1.209	1.218	1.224
0.50	0.976	0.985	1.000	1.010	1.023	1.041	1.066	1.083	1.105	1.116	1.129	1.136	1.145	1.154	1.167	1.176	1.188	1.194	1.203	1.209
0.52	0.939	0.950	0.966	0.977	0.991	1.011	1.039	1.057	1.082	1.094	1.108	1.117	1.126	1.136	1.150	1.159	1.172	1.178	1.188	1.194
0.54	0.903	0.914	0.931	0.943	0.959	0.980	1.010	1.031	1.058	1.071	1.087	1.096	1.106	1.118	1.132	1.142	1.155	1.161	1.171	1.177
0.56	0.866	0.879	0.897	0.910	0.927	0.949	0.982	1.004	1.033	1.048	1.065	1.074	1.085	1.098	1.113	1.123	1.137	1.143	1.153	1.159
0.58	0.830	0.844	0.863	0.877	0.894	0.918	0.953	0.977	1.008	1.023	1.042	1.052	1.064	1.077	1.093	1.103	1.117	1.124	1.133	1.139
0.60	0.794	0.808	0.829	0.843	0.862	0.887	0.924	0.949	0.982	0.998	1.018	1.029	1.041	1.055	1.072	1.083	1.097	1.103	1.113	1.119
0.62	0.758	0.773	0.794	0.810	0.829	0.856	0.894	0.920	0.955	0.973	0.993	1.004	1.017	1.032	1.050	1.060	1.075	1.082	1.091	1.097
0.64	0.723	0.738	0.760	0.776	0.796	0.824	0.864	0.891	0.928	0.946	0.967	0.979	0.992	1.008	1.026	1.037	1.052	1.058	1.068	1.074
0.66	0.687	0.703	0.726	0.742	0.763	0.791	0.833	0.861	0.899	0.918	0.940	0.953	0.966	0.982	1.001	1.012	1.027	1.034	1.043	1.049
0.68	0.651	0.668	0.692	0.708	0.729	0.759	0.802	0.831	0.870	0.889	0.912	0.925	0.939	0.956	0.975	0.986	1.001	1.008	1.017	1.023
0.70	0.615	0.632	0.657	0.674	0.696	0.726	0.770	0.800	0.840	0.859	0.883	0.896	0.911	0.928	0.947	0.959	0.974	0.980	0.989	0.995
0.72	0.580	0.597	0.622	0.640	0.662	0.692	0.737	0.767	0.808	0.828	0.853	0.866	0.881	0.898	0.918	0.930	0.944	0.951	0.960	0.965
0.74	0.544	0.562	0.587	0.605	0.627	0.659	0.703	0.734	0.776	0.796	0.821	0.835	0.850	0.867	0.887	0.899	0.913	0.920	0.929	0.934
0.76	0.509	0.527	0.552	0.570	0.593	0.624	0.669	0.700	0.742	0.763	0.788	0.802	0.817	0.834	0.854	0.866	0.880	0.887	0.896	0.900
0.78	0.474	0.491	0.517	0.535	0.557	0.589	0.634	0.665	0.707	0.728	0.753	0.767	0.782	0.799	0.819	0.831	0.845	0.852	0.860	0.865
0.80	0.438	0.456	0.481	0.499	0.521	0.553	0.598	0.629	0.670	0.691	0.716	0.730	0.745	0.763	0.783	0.794	0.808	0.814	0.822	0.827
0.82	0.402	0.420	0.445	0.463	0.485	0.516	0.560	0.591	0.632	0.653	0.677	0.691	0.706	0.723	0.743	0.754	0.768	0.774	0.782	0.786
0.84	0.366	0.384	0.408	0.426	0.447	0.477	0.521	0.551	0.592	0.612	0.636	0.650	0.665	0.682	0.701	0.712	0.725	0.731	0.738	0.742
0.86	0.330	0.347	0.371	0.388	0.409	0.438	0.480	0.510	0.549	0.569	0.593	0.606	0.620	0.637	0.655	0.666	0.678	0.684	0.691	0.694
0.88	0.293	0.310	0.333	0.349	0.369	0.397	0.438	0.466	0.504	0.523	0.546	0.558	0.572	0.588	0.606	0.616	0.628	0.633	0.639	0.642
0.90	0.256	0.271	0.293	0.308	0.328	0.354	0.392	0.419	0.455	0.473	0.495	0.507	0.520	0.535	0.552	0.561	0.572	0.577	0.582	0.585
0.92	0.218	0.232	0.252	0.266	0.284	0.308	0.344	0.368	0.402	0.419	0.438	0.450	0.462	0.476	0.491	0.500	0.510	0.514	0.518	0.520
0.94	0.178	0.191	0.209	0.221	0.237	0.259	0.290	0.312	0.342	0.357	0.375	0.385	0.396	0.408	0.422	0.430	0.438	0.442	0.445	0.446
0.96	0.135	0.146	0.161	0.171	0.185	0.203	0.229	0.248	0.273	0.286	0.301	0.310	0.319	0.329	0.340	0.347	0.354	0.356	0.357	0.358
0.98	0.087	0.094	0.105	0.113	0.122	0.135	0.155	0.168	0.186	0.196	0.206	0.213	0.219	0.227	0.235	0.239	0.243	0.243	0.243	0.243
1.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless proton depth dose distributions, (ro/To)D(z/ro).
Detector material: Lithium fluoride

z/ro	40	30	20	15	10	8	6	5	4	3	2	1.5	1	0.8	0.6	0.5	0.4	0.3	0.2	0.15
0.00	1.179	1.187	1.203	1.218	1.244	1.260	1.285	1.303	1.326	1.361	1.425	1.482	1.589	1.662	1.776	1.859	1.983	2.181	2.494	2.680
0.02	1.216	1.225	1.241	1.256	1.283	1.300	1.325	1.343	1.367	1.403	1.469	1.527	1.633	1.707	1.819	1.900	2.023	2.213	2.490	2.639
0.04	1.240	1.250	1.266	1.282	1.309	1.326	1.352	1.370	1.395	1.431	1.496	1.553	1.658	1.730	1.839	1.919	2.038	2.218	2.463	2.582
0.06	1.259	1.269	1.286	1.302	1.330	1.347	1.373	1.391	1.416	1.452	1.516	1.572	1.674	1.745	1.850	1.928	2.043	2.211	2.427	2.521
0.08	1.274	1.285	1.302	1.318	1.346	1.363	1.389	1.408	1.432	1.468	1.530	1.585	1.685	1.754	1.856	1.931	2.041	2.198	2.386	2.457
0.10	1.287	1.297	1.315	1.331	1.359	1.377	1.403	1.421	1.445	1.480	1.541	1.595	1.692	1.759	1.857	1.930	2.034	2.180	2.341	2.390
0.12	1.297	1.307	1.326	1.342	1.370	1.388	1.413	1.431	1.454	1.489	1.548	1.601	1.696	1.760	1.854	1.924	2.023	2.157	2.292	2.322
0.14	1.305	1.316	1.334	1.350	1.379	1.396	1.422	1.439	1.462	1.495	1.554	1.605	1.697	1.758	1.848	1.915	2.009	2.130	2.241	2.253
0.16	1.311	1.322	1.341	1.357	1.385	1.402	1.428	1.444	1.467	1.499	1.556	1.607	1.695	1.754	1.840	1.904	1.991	2.100	2.187	2.183
0.18	1.315	1.327	1.345	1.362	1.390	1.407	1.432	1.448	1.470	1.501	1.557	1.606	1.691	1.747	1.829	1.890	1.970	2.068	2.132	2.112
0.20	1.319	1.330	1.349	1.365	1.393	1.410	1.434	1.450	1.471	1.502	1.556	1.603	1.685	1.739	1.816	1.873	1.947	2.032	2.075	2.040
0.22	1.320	1.331	1.351	1.367	1.395	1.411	1.434	1.450	1.470	1.500	1.553	1.599	1.677	1.728	1.800	1.854	1.921	1.994	2.016	1.968
0.24	1.320	1.332	1.351	1.367	1.395	1.411	1.433	1.448	1.468	1.498	1.548	1.592	1.667	1.715	1.783	1.833	1.894	1.954	1.956	1.896
0.26	1.319	1.331	1.350	1.366	1.393	1.409	1.431	1.445	1.464	1.493	1.542	1.584	1.655	1.700	1.764	1.810	1.864	1.912	1.895	1.824
0.28	1.317	1.329	1.348	1.364	1.391	1.406	1.427	1.441	1.459	1.487	1.534	1.575	1.642	1.684	1.743	1.784	1.831	1.868	1.833	1.751
0.30	1.314	1.325	1.344	1.361	1.387	1.401	1.421	1.435	1.453	1.480	1.525	1.564	1.627	1.665	1.720	1.757	1.797	1.822	1.770	1.679
0.32	1.309	1.321	1.340	1.356	1.381	1.395	1.415	1.428	1.445	1.471	1.515	1.551	1.610	1.646	1.696	1.728	1.761	1.774	1.706	1.607
0.34	1.303	1.315	1.334	1.350	1.375	1.388	1.407	1.420	1.436	1.461	1.503	1.537	1.591	1.624	1.669	1.698	1.723	1.725	1.641	1.535
0.36	1.296	1.308	1.327	1.343	1.367	1.379	1.398	1.410	1.426	1.449	1.489	1.521	1.572	1.601	1.641	1.665	1.683	1.674	1.576	1.463
0.38	1.288	1.300	1.319	1.334	1.357	1.370	1.387	1.399	1.414	1.437	1.474	1.504	1.550	1.577	1.612	1.631	1.642	1.621	1.511	1.392
0.40	1.279	1.291	1.309	1.325	1.347	1.359	1.375	1.387	1.402	1.423	1.458	1.486	1.527	1.551	1.580	1.595	1.598	1.567	1.445	1.322
0.42	1.269	1.281	1.299	1.314	1.335	1.346	1.362	1.373	1.387	1.408	1.441	1.466	1.503	1.523	1.547	1.557	1.553	1.512	1.378	1.252
0.44	1.258	1.269	1.288	1.302	1.322	1.333	1.348	1.359	1.372	1.391	1.422	1.445	1.477	1.494	1.513	1.517	1.507	1.455	1.312	1.183
0.46	1.245	1.257	1.275	1.289	1.308	1.318	1.333	1.343	1.355	1.373	1.401	1.422	1.450	1.464	1.476	1.476	1.458	1.398	1.245	1.114
0.48	1.232	1.243	1.261	1.274	1.293	1.302	1.316	1.326	1.337	1.354	1.380	1.398	1.421	1.432	1.438	1.433	1.408	1.339	1.179	1.047
0.50	1.217	1.229	1.246	1.259	1.276	1.285	1.298	1.307	1.318	1.333	1.357	1.372	1.391	1.398	1.399	1.388	1.356	1.279	1.112	0.981
0.52	1.202	1.213	1.230	1.242	1.258	1.267	1.279	1.287	1.298	1.312	1.332	1.345	1.359	1.363	1.357	1.342	1.303	1.218	1.046	0.915
0.54	1.185	1.196	1.212	1.224	1.239	1.247	1.259	1.266	1.276	1.288	1.306	1.317	1.326	1.326	1.314	1.294	1.248	1.156	0.981	0.851
0.56	1.166	1.177	1.193	1.204	1.219	1.226	1.237	1.244	1.253	1.264	1.279	1.287	1.291	1.287	1.269	1.244	1.192	1.094	0.915	0.789
0.58	1.147	1.158	1.173	1.183	1.197	1.204	1.214	1.220	1.228	1.238	1.250	1.256	1.254	1.247	1.223	1.192	1.134	1.030	0.851	0.728
0.60	1.126	1.137	1.152	1.161	1.174	1.180	1.189	1.195	1.202	1.210	1.220	1.222	1.216	1.205	1.174	1.139	1.075	0.967	0.787	0.669
0.62	1.104	1.115	1.129	1.137	1.149	1.155	1.163	1.168	1.174	1.181	1.188	1.188	1.176	1.161	1.123	1.083	1.015	0.902	0.725	0.611
0.64	1.081	1.091	1.104	1.112	1.123	1.128	1.136	1.140	1.145	1.150	1.154	1.151	1.134	1.116	1.071	1.026	0.953	0.838	0.663	0.556
0.66	1.056	1.066	1.078	1.086	1.095	1.100	1.106	1.110	1.114	1.118	1.118	1.112	1.090	1.068	1.016	0.967	0.890	0.774	0.603	0.502
0.68	1.030	1.039	1.051	1.057	1.066	1.070	1.076	1.079	1.081	1.083	1.081	1.072	1.045	1.018	0.960	0.907	0.826	0.709	0.545	0.451
0.70	1.002	1.011	1.021	1.027	1.035	1.038	1.043	1.045	1.047	1.047	1.042	1.030	0.997	0.965	0.901	0.844	0.762	0.645	0.488	0.401
0.72	0.972	0.980	0.990	0.995	1.002	1.005	1.008	1.010	1.011	1.009	1.000	0.985	0.947	0.911	0.840	0.780	0.696	0.581	0.434	0.355
0.74	0.940	0.948	0.957	0.961	0.967	0.969	0.972	0.972	0.972	0.969	0.956	0.938	0.894	0.854	0.777	0.715	0.630	0.518	0.381	0.310
0.76	0.907	0.914	0.921	0.925	0.930	0.931	0.933	0.933	0.931	0.926	0.910	0.889	0.839	0.794	0.712	0.648	0.564	0.457	0.331	0.269
0.78	0.871	0.877	0.883	0.887	0.890	0.891	0.891	0.891	0.888	0.881	0.861	0.837	0.780	0.731	0.645	0.581	0.498	0.397	0.284	0.230
0.80	0.832	0.838	0.843	0.846	0.848	0.848	0.847	0.846	0.842	0.833	0.810	0.782	0.719	0.665	0.576	0.512	0.433	0.340	0.240	0.193
0.82	0.791	0.796	0.800	0.802	0.803	0.802	0.800	0.798	0.792	0.781	0.754	0.724	0.654	0.597	0.505	0.443	0.368	0.285	0.199	0.160
0.84	0.746	0.751	0.753	0.755	0.755	0.753	0.750	0.746	0.740	0.726	0.696	0.661	0.585	0.525	0.434	0.374	0.306	0.233	0.161	0.129
0.86	0.698	0.701	0.703	0.704	0.702	0.700	0.695	0.691	0.683	0.667	0.633	0.595	0.512	0.450	0.361	0.306	0.246	0.185	0.127	0.102
0.88	0.645	0.647	0.649	0.648	0.645	0.642	0.636	0.631	0.621	0.603	0.565	0.523	0.434	0.372	0.289	0.241	0.190	0.141	0.097	0.078
0.90	0.587	0.588	0.588	0.587	0.583	0.579	0.571	0.564	0.553	0.533	0.490	0.444	0.352	0.293	0.219	0.179	0.139	0.102	0.070	0.057
0.92	0.521	0.522	0.521	0.519	0.513	0.508	0.499	0.491	0.478	0.455	0.408	0.358	0.266	0.213	0.153	0.123	0.094	0.069	0.047	0.039
0.94	0.447	0.446	0.444	0.441	0.434	0.427	0.416	0.407	0.392	0.367	0.315	0.262	0.179	0.137	0.094	0.075	0.057	0.042	0.029	0.024
0.96	0.357	0.356	0.353	0.349	0.339	0.332	0.319	0.308	0.291	0.263	0.207	0.158	0.095	0.070	0.047	0.037	0.028	0.021	0.015	0.012
0.98	0.242	0.240	0.235	0.229	0.218	0.208	0.193	0.181	0.162	0.132	0.084	0.056	0.029	0.021	0.014	0.011	0.009	0.006	0.004	0.003
1.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless proton depth dose distributions, (ro/To)D(z/ro).
Detector material: lithium fluoride

z/ro	0.1	0.08	0.06	0.05	0.04	0.03	0.02	0.015	0.01
0.00	2.863	2.926	2.981	3.007	3.031	3.050	3.073	3.084	3.105
0.02	2.761	2.792	2.812	2.818	2.823	2.825	2.833	2.839	2.840
0.04	2.662	2.673	2.670	2.664	2.660	2.651	2.652	2.654	2.646
0.06	2.565	2.559	2.539	2.525	2.513	2.498	2.493	2.493	2.480
0.08	2.470	2.450	2.417	2.396	2.378	2.359	2.349	2.347	2.332
0.10	2.376	2.345	2.300	2.275	2.253	2.229	2.216	2.213	2.196
0.12	2.284	2.243	2.189	2.160	2.134	2.108	2.093	2.088	2.071
0.14	2.194	2.144	2.082	2.050	2.022	1.994	1.977	1.970	1.954
0.16	2.105	2.048	1.980	1.945	1.915	1.886	1.867	1.859	1.845
0.18	2.017	1.954	1.881	1.845	1.813	1.783	1.763	1.753	1.743
0.20	1.930	1.862	1.786	1.749	1.716	1.685	1.665	1.653	1.646
0.22	1.845	1.773	1.694	1.656	1.622	1.592	1.571	1.559	1.554
0.24	1.762	1.687	1.606	1.567	1.533	1.503	1.482	1.469	1.467
0.26	1.680	1.602	1.520	1.481	1.448	1.417	1.397	1.384	1.385
0.28	1.599	1.520	1.438	1.399	1.366	1.336	1.315	1.303	1.306
0.30	1.520	1.439	1.358	1.319	1.287	1.258	1.236	1.226	1.231
0.32	1.442	1.361	1.280	1.243	1.211	1.183	1.161	1.153	1.160
0.34	1.366	1.286	1.206	1.169	1.138	1.111	1.090	1.083	1.091
0.36	1.292	1.212	1.134	1.099	1.068	1.042	1.021	1.017	1.026
0.38	1.219	1.140	1.064	1.030	1.001	0.976	0.956	0.953	0.963
0.40	1.148	1.071	0.997	0.965	0.937	0.913	0.894	0.892	0.904
0.42	1.079	1.004	0.933	0.901	0.875	0.852	0.835	0.834	0.846
0.44	1.012	0.939	0.871	0.841	0.816	0.793	0.779	0.779	0.791
0.46	0.946	0.876	0.811	0.783	0.759	0.737	0.725	0.726	0.739
0.48	0.882	0.815	0.753	0.727	0.704	0.684	0.674	0.676	0.688
0.50	0.821	0.757	0.698	0.673	0.652	0.633	0.625	0.627	0.640
0.52	0.761	0.700	0.645	0.622	0.602	0.585	0.578	0.581	0.594
0.54	0.703	0.646	0.595	0.573	0.554	0.538	0.534	0.537	0.550
0.56	0.648	0.594	0.546	0.526	0.508	0.495	0.491	0.495	0.507
0.58	0.594	0.544	0.500	0.481	0.465	0.453	0.451	0.455	0.467
0.60	0.543	0.496	0.455	0.438	0.424	0.414	0.412	0.417	0.428
0.62	0.494	0.451	0.413	0.397	0.385	0.376	0.376	0.380	0.390
0.64	0.447	0.407	0.373	0.359	0.348	0.341	0.341	0.345	0.355
0.66	0.402	0.366	0.335	0.322	0.313	0.307	0.308	0.312	0.321
0.68	0.359	0.327	0.299	0.288	0.280	0.276	0.277	0.281	0.288
0.70	0.319	0.290	0.266	0.256	0.250	0.246	0.248	0.251	0.257
0.72	0.281	0.255	0.234	0.226	0.221	0.218	0.220	0.222	0.227
0.74	0.245	0.223	0.205	0.198	0.194	0.191	0.193	0.195	0.198
0.76	0.212	0.193	0.177	0.172	0.168	0.167	0.168	0.170	0.171
0.78	0.181	0.165	0.152	0.148	0.145	0.144	0.144	0.145	0.145
0.80	0.152	0.139	0.129	0.125	0.123	0.122	0.122	0.122	0.121
0.82	0.126	0.116	0.108	0.105	0.103	0.102	0.101	0.101	0.098
0.84	0.102	0.094	0.088	0.086	0.084	0.083	0.082	0.080	0.076
0.86	0.081	0.075	0.070	0.068	0.067	0.065	0.064	0.062	0.057
0.88	0.062	0.058	0.054	0.052	0.051	0.049	0.047	0.044	0.040
0.90	0.046	0.042	0.039	0.038	0.037	0.035	0.032	0.029	0.025
0.92	0.031	0.029	0.026	0.025	0.024	0.022	0.019	0.017	0.013
0.94	0.019	0.017	0.015	0.014	0.013	0.011	0.009	0.007	0.005
0.96	0.009	0.008	0.006	0.005	0.005	0.004	0.002	0.002	0.001
0.98	0.002	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000
1.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless proton depth dose distributions, (ro/To)D(z/ro).
Detector material: silicon dioxide

z/ro	10000	8000	6000	5000	4000	3000	2000	1500	1000	800	600	500	400	300	200	150	100	80	60	50
0.00	2.120	2.084	2.028	1.988	1.933	1.855	1.736	1.648	1.533	1.475	1.408	1.371	1.331	1.289	1.247	1.226	1.208	1.201	1.198	1.197
0.02	2.063	2.029	1.978	1.942	1.891	1.821	1.714	1.636	1.532	1.480	1.420	1.386	1.350	1.313	1.275	1.257	1.241	1.235	1.233	1.232
0.04	2.011	1.980	1.933	1.899	1.853	1.789	1.692	1.621	1.527	1.479	1.424	1.394	1.361	1.327	1.293	1.276	1.262	1.258	1.256	1.255
0.06	1.961	1.932	1.889	1.859	1.816	1.758	1.670	1.605	1.519	1.476	1.425	1.398	1.368	1.337	1.306	1.291	1.279	1.275	1.273	1.273
0.08	1.913	1.886	1.847	1.819	1.780	1.727	1.647	1.588	1.510	1.470	1.424	1.399	1.372	1.344	1.316	1.302	1.292	1.288	1.287	1.288
0.10	1.866	1.841	1.805	1.780	1.744	1.696	1.624	1.570	1.499	1.463	1.422	1.398	1.374	1.349	1.323	1.311	1.302	1.299	1.298	1.299
0.12	1.820	1.797	1.764	1.741	1.709	1.666	1.600	1.552	1.487	1.455	1.417	1.396	1.374	1.351	1.328	1.318	1.310	1.307	1.307	1.309
0.14	1.774	1.753	1.724	1.703	1.674	1.635	1.576	1.533	1.475	1.446	1.412	1.393	1.373	1.352	1.332	1.322	1.316	1.314	1.314	1.316
0.16	1.729	1.710	1.684	1.665	1.639	1.605	1.552	1.513	1.462	1.435	1.405	1.388	1.370	1.352	1.334	1.326	1.320	1.318	1.319	1.321
0.18	1.685	1.668	1.644	1.627	1.605	1.574	1.528	1.493	1.448	1.424	1.397	1.382	1.366	1.350	1.334	1.327	1.323	1.322	1.323	1.325
0.20	1.641	1.626	1.605	1.590	1.570	1.544	1.503	1.473	1.433	1.412	1.388	1.375	1.361	1.347	1.333	1.327	1.324	1.323	1.325	1.327
0.22	1.597	1.584	1.566	1.553	1.536	1.513	1.478	1.452	1.418	1.399	1.379	1.367	1.355	1.343	1.331	1.326	1.324	1.323	1.325	1.328
0.24	1.554	1.543	1.527	1.517	1.502	1.483	1.453	1.431	1.401	1.386	1.368	1.358	1.348	1.337	1.328	1.324	1.322	1.322	1.325	1.327
0.26	1.512	1.502	1.489	1.480	1.468	1.452	1.428	1.410	1.385	1.371	1.357	1.348	1.340	1.331	1.323	1.320	1.320	1.320	1.323	1.325
0.28	1.469	1.462	1.451	1.444	1.434	1.422	1.403	1.388	1.367	1.356	1.344	1.338	1.331	1.324	1.317	1.316	1.316	1.317	1.319	1.322
0.30	1.428	1.421	1.413	1.408	1.401	1.391	1.377	1.365	1.349	1.341	1.331	1.326	1.321	1.315	1.311	1.310	1.311	1.312	1.315	1.318
0.32	1.386	1.381	1.375	1.372	1.367	1.361	1.351	1.343	1.331	1.324	1.317	1.314	1.310	1.306	1.303	1.303	1.305	1.306	1.310	1.312
0.34	1.345	1.342	1.338	1.336	1.333	1.330	1.324	1.319	1.312	1.307	1.303	1.300	1.298	1.296	1.295	1.295	1.298	1.299	1.303	1.306
0.36	1.304	1.302	1.301	1.300	1.300	1.299	1.298	1.296	1.292	1.290	1.288	1.286	1.285	1.284	1.285	1.286	1.289	1.291	1.295	1.298
0.38	1.263	1.263	1.264	1.265	1.266	1.268	1.271	1.272	1.272	1.272	1.271	1.272	1.272	1.272	1.274	1.276	1.280	1.282	1.286	1.289
0.40	1.223	1.224	1.227	1.229	1.232	1.237	1.244	1.247	1.251	1.253	1.255	1.256	1.257	1.259	1.263	1.265	1.270	1.272	1.277	1.279
0.42	1.182	1.185	1.190	1.194	1.199	1.206	1.216	1.223	1.230	1.233	1.237	1.240	1.242	1.245	1.250	1.253	1.259	1.261	1.266	1.268
0.44	1.143	1.146	1.153	1.159	1.165	1.175	1.189	1.197	1.208	1.213	1.219	1.222	1.226	1.230	1.236	1.240	1.246	1.249	1.253	1.256
0.46	1.103	1.108	1.117	1.123	1.132	1.144	1.161	1.172	1.185	1.192	1.200	1.204	1.209	1.215	1.222	1.226	1.233	1.236	1.240	1.243
0.48	1.063	1.070	1.080	1.088	1.098	1.112	1.132	1.146	1.162	1.170	1.180	1.185	1.191	1.198	1.206	1.211	1.218	1.221	1.226	1.229
0.50	1.024	1.032	1.044	1.053	1.064	1.080	1.104	1.119	1.138	1.148	1.159	1.166	1.172	1.180	1.190	1.195	1.203	1.206	1.211	1.214
0.52	0.985	0.994	1.008	1.018	1.030	1.049	1.075	1.092	1.114	1.125	1.138	1.145	1.153	1.162	1.172	1.178	1.186	1.189	1.194	1.197
0.54	0.946	0.956	0.971	0.982	0.997	1.016	1.045	1.064	1.089	1.101	1.116	1.124	1.132	1.142	1.153	1.160	1.168	1.172	1.177	1.180
0.56	0.908	0.918	0.935	0.947	0.963	0.984	1.015	1.036	1.063	1.077	1.093	1.101	1.111	1.121	1.133	1.140	1.149	1.153	1.158	1.161
0.58	0.869	0.881	0.899	0.912	0.928	0.952	0.985	1.008	1.037	1.051	1.069	1.078	1.088	1.100	1.113	1.120	1.129	1.133	1.138	1.141
0.60	0.831	0.844	0.863	0.877	0.894	0.919	0.955	0.979	1.010	1.025	1.044	1.054	1.065	1.077	1.091	1.098	1.107	1.111	1.116	1.119
0.62	0.793	0.806	0.827	0.841	0.860	0.886	0.924	0.949	0.982	0.998	1.018	1.029	1.040	1.053	1.067	1.075	1.085	1.089	1.094	1.097
0.64	0.755	0.769	0.791	0.806	0.826	0.853	0.892	0.919	0.953	0.971	0.991	1.002	1.014	1.028	1.043	1.051	1.061	1.065	1.070	1.073
0.66	0.717	0.732	0.755	0.770	0.791	0.819	0.860	0.887	0.924	0.942	0.963	0.975	0.988	1.002	1.017	1.026	1.035	1.040	1.044	1.047
0.68	0.679	0.695	0.718	0.735	0.756	0.785	0.827	0.856	0.893	0.912	0.934	0.946	0.959	0.974	0.990	0.999	1.009	1.013	1.018	1.020
0.70	0.642	0.658	0.682	0.699	0.721	0.751	0.794	0.823	0.862	0.881	0.904	0.916	0.930	0.945	0.961	0.970	0.980	0.984	0.989	0.992
0.72	0.604	0.621	0.646	0.663	0.685	0.716	0.760	0.790	0.830	0.849	0.872	0.885	0.899	0.914	0.931	0.940	0.950	0.954	0.959	0.961
0.74	0.567	0.584	0.609	0.627	0.649	0.680	0.725	0.755	0.796	0.816	0.840	0.853	0.867	0.882	0.899	0.908	0.918	0.922	0.927	0.929
0.76	0.530	0.547	0.572	0.590	0.613	0.644	0.689	0.720	0.761	0.781	0.805	0.818	0.833	0.848	0.865	0.875	0.885	0.888	0.893	0.895
0.78	0.492	0.510	0.535	0.553	0.576	0.607	0.652	0.683	0.725	0.745	0.769	0.783	0.797	0.813	0.830	0.839	0.849	0.852	0.857	0.859
0.80	0.455	0.472	0.498	0.516	0.539	0.570	0.615	0.646	0.687	0.707	0.731	0.745	0.759	0.775	0.792	0.801	0.810	0.814	0.818	0.820
0.82	0.417	0.435	0.461	0.478	0.501	0.531	0.576	0.607	0.647	0.668	0.692	0.705	0.719	0.734	0.751	0.760	0.769	0.773	0.777	0.779
0.84	0.380	0.397	0.422	0.440	0.462	0.492	0.535	0.566	0.606	0.626	0.649	0.662	0.676	0.691	0.708	0.716	0.725	0.729	0.733	0.734
0.86	0.342	0.359	0.383	0.400	0.422	0.451	0.493	0.523	0.562	0.581	0.604	0.617	0.631	0.645	0.661	0.669	0.678	0.681	0.684	0.686
0.88	0.304	0.320	0.343	0.360	0.380	0.408	0.449	0.477	0.515	0.534	0.556	0.568	0.581	0.595	0.610	0.618	0.627	0.629	0.632	0.633
0.90	0.265	0.280	0.302	0.318	0.337	0.364	0.402	0.429	0.465	0.483	0.503	0.515	0.527	0.541	0.555	0.562	0.570	0.572	0.575	0.575
0.92	0.225	0.239	0.260	0.274	0.292	0.316	0.352	0.377	0.410	0.426	0.445	0.456	0.468	0.480	0.493	0.500	0.507	0.509	0.510	0.511
0.94	0.183	0.196	0.214	0.227	0.243	0.265	0.297	0.319	0.349	0.363	0.380	0.390	0.400	0.411	0.423	0.429	0.435	0.436	0.437	0.437
0.96	0.139	0.150	0.165	0.176	0.189	0.208	0.234	0.253	0.278	0.290	0.305	0.313	0.321	0.330	0.340	0.345	0.349	0.350	0.349	0.348
0.98	0.089	0.097	0.108	0.115	0.125	0.138	0.157	0.171	0.189	0.198	0.208	0.214	0.220	0.226	0.233	0.236	0.238	0.237	0.236	0.235
1.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless proton depth dose distributions, (ro/To)D(z/ro).
Detector material: silicon dioxide

z/ro	40	30	20	15	10	8	6	5	4	3	2	1.5	1	0.8	0.6	0.5	0.4	0.3	0.2	0.15
0.00	1.198	1.202	1.212	1.222	1.240	1.251	1.269	1.281	1.298	1.323	1.370	1.414	1.497	1.559	1.660	1.738	1.872	2.085	2.362	2.561
0.02	1.234	1.239	1.249	1.259	1.277	1.289	1.306	1.319	1.336	1.362	1.410	1.454	1.538	1.600	1.702	1.782	1.918	2.113	2.365	2.536
0.04	1.258	1.263	1.273	1.283	1.301	1.313	1.331	1.343	1.360	1.386	1.434	1.478	1.560	1.622	1.723	1.803	1.936	2.116	2.346	2.493
0.06	1.276	1.281	1.292	1.302	1.320	1.332	1.349	1.362	1.379	1.405	1.451	1.494	1.575	1.636	1.735	1.816	1.945	2.110	2.318	2.443
0.08	1.290	1.296	1.307	1.317	1.335	1.347	1.364	1.376	1.393	1.418	1.464	1.505	1.585	1.645	1.743	1.822	1.946	2.098	2.284	2.390
0.10	1.302	1.308	1.318	1.329	1.347	1.358	1.376	1.388	1.404	1.428	1.473	1.513	1.592	1.651	1.746	1.824	1.942	2.081	2.247	2.333
0.12	1.311	1.317	1.328	1.338	1.356	1.368	1.385	1.396	1.412	1.436	1.479	1.518	1.595	1.653	1.746	1.823	1.934	2.060	2.206	2.274
0.14	1.319	1.325	1.335	1.346	1.363	1.375	1.391	1.403	1.418	1.440	1.483	1.521	1.596	1.652	1.742	1.817	1.921	2.035	2.162	2.214
0.16	1.324	1.330	1.341	1.351	1.369	1.380	1.396	1.407	1.422	1.443	1.484	1.522	1.595	1.649	1.737	1.809	1.906	2.008	2.116	2.151
0.18	1.328	1.334	1.345	1.355	1.372	1.383	1.399	1.409	1.423	1.444	1.484	1.520	1.591	1.644	1.729	1.798	1.888	1.979	2.068	2.088
0.20	1.330	1.336	1.347	1.357	1.374	1.385	1.400	1.410	1.423	1.443	1.482	1.517	1.586	1.637	1.719	1.785	1.866	1.947	2.018	2.023
0.22	1.331	1.337	1.348	1.358	1.375	1.385	1.399	1.409	1.422	1.441	1.478	1.512	1.579	1.628	1.706	1.769	1.843	1.913	1.966	1.958
0.24	1.331	1.337	1.347	1.357	1.374	1.383	1.397	1.406	1.418	1.437	1.473	1.506	1.570	1.617	1.692	1.751	1.817	1.876	1.913	1.891
0.26	1.329	1.335	1.345	1.355	1.371	1.380	1.394	1.402	1.414	1.432	1.466	1.498	1.559	1.604	1.676	1.731	1.788	1.838	1.858	1.824
0.28	1.326	1.332	1.342	1.352	1.367	1.376	1.389	1.397	1.408	1.425	1.458	1.488	1.547	1.590	1.658	1.709	1.758	1.798	1.802	1.757
0.30	1.322	1.328	1.338	1.348	1.362	1.371	1.382	1.390	1.401	1.417	1.449	1.477	1.534	1.574	1.639	1.685	1.726	1.757	1.745	1.689
0.32	1.316	1.322	1.333	1.342	1.356	1.364	1.375	1.382	1.392	1.408	1.438	1.465	1.519	1.557	1.618	1.658	1.692	1.714	1.686	1.621
0.34	1.310	1.316	1.326	1.335	1.349	1.356	1.366	1.373	1.383	1.397	1.426	1.452	1.502	1.538	1.595	1.630	1.657	1.669	1.627	1.553
0.36	1.302	1.308	1.318	1.327	1.340	1.347	1.356	1.363	1.372	1.386	1.412	1.437	1.484	1.518	1.570	1.600	1.620	1.623	1.567	1.484
0.38	1.293	1.299	1.309	1.318	1.330	1.336	1.345	1.351	1.360	1.373	1.398	1.421	1.465	1.496	1.543	1.568	1.581	1.575	1.506	1.416
0.40	1.283	1.289	1.299	1.307	1.319	1.324	1.333	1.338	1.346	1.359	1.382	1.403	1.444	1.473	1.515	1.534	1.541	1.526	1.445	1.348
0.42	1.272	1.278	1.288	1.296	1.307	1.312	1.319	1.325	1.332	1.343	1.365	1.385	1.423	1.448	1.485	1.499	1.499	1.475	1.382	1.280
0.44	1.260	1.266	1.276	1.283	1.293	1.297	1.305	1.309	1.316	1.327	1.347	1.365	1.399	1.422	1.453	1.462	1.456	1.424	1.320	1.212
0.46	1.247	1.253	1.262	1.269	1.278	1.282	1.289	1.293	1.299	1.309	1.327	1.344	1.374	1.395	1.420	1.423	1.411	1.371	1.256	1.145
0.48	1.233	1.239	1.247	1.254	1.262	1.266	1.272	1.276	1.281	1.290	1.306	1.321	1.348	1.366	1.385	1.382	1.364	1.317	1.193	1.078
0.50	1.218	1.223	1.232	1.238	1.245	1.248	1.254	1.257	1.262	1.270	1.284	1.297	1.321	1.336	1.348	1.340	1.317	1.261	1.129	1.012
0.52	1.201	1.207	1.215	1.220	1.227	1.229	1.234	1.237	1.241	1.248	1.261	1.272	1.292	1.304	1.309	1.296	1.268	1.205	1.065	0.947
0.54	1.183	1.189	1.196	1.201	1.207	1.209	1.213	1.216	1.220	1.226	1.236	1.246	1.262	1.270	1.268	1.251	1.217	1.147	1.001	0.883
0.56	1.164	1.170	1.177	1.181	1.186	1.188	1.192	1.194	1.197	1.202	1.210	1.218	1.230	1.235	1.226	1.205	1.165	1.089	0.938	0.820
0.58	1.144	1.150	1.156	1.160	1.164	1.165	1.168	1.170	1.172	1.176	1.183	1.189	1.196	1.198	1.181	1.156	1.111	1.029	0.874	0.758
0.60	1.123	1.128	1.134	1.138	1.141	1.142	1.144	1.145	1.147	1.149	1.154	1.158	1.161	1.160	1.135	1.106	1.057	0.969	0.811	0.698
0.62	1.100	1.105	1.111	1.113	1.116	1.116	1.118	1.119	1.120	1.121	1.124	1.126	1.125	1.119	1.088	1.055	1.000	0.908	0.749	0.639
0.64	1.076	1.081	1.086	1.088	1.089	1.090	1.090	1.091	1.091	1.092	1.092	1.092	1.086	1.076	1.038	1.002	0.943	0.847	0.687	0.581
0.66	1.051	1.055	1.059	1.061	1.062	1.061	1.061	1.061	1.061	1.060	1.059	1.056	1.046	1.031	0.987	0.947	0.884	0.784	0.627	0.526
0.68	1.024	1.028	1.031	1.032	1.032	1.031	1.031	1.030	1.029	1.027	1.024	1.019	1.004	0.984	0.934	0.890	0.824	0.722	0.567	0.473
0.70	0.995	0.999	1.001	1.002	1.001	1.000	0.999	0.998	0.996	0.993	0.987	0.980	0.960	0.934	0.879	0.832	0.763	0.659	0.510	0.422
0.72	0.965	0.968	0.970	0.970	0.968	0.967	0.965	0.963	0.961	0.956	0.948	0.938	0.913	0.882	0.822	0.772	0.700	0.597	0.454	0.373
0.74	0.932	0.935	0.936	0.936	0.933	0.931	0.929	0.927	0.924	0.918	0.908	0.895	0.864	0.828	0.763	0.711	0.637	0.535	0.400	0.326
0.76	0.898	0.900	0.901	0.900	0.897	0.894	0.891	0.888	0.884	0.877	0.864	0.850	0.811	0.772	0.702	0.648	0.573	0.473	0.348	0.283
0.78	0.861	0.863	0.863	0.861	0.858	0.855	0.851	0.847	0.843	0.835	0.819	0.802	0.756	0.712	0.639	0.583	0.509	0.413	0.299	0.242
0.80	0.822	0.824	0.822	0.820	0.816	0.813	0.808	0.804	0.798	0.789	0.771	0.751	0.697	0.651	0.574	0.517	0.444	0.354	0.252	0.203
0.82	0.780	0.781	0.779	0.777	0.771	0.768	0.762	0.758	0.751	0.741	0.720	0.696	0.636	0.586	0.507	0.451	0.380	0.298	0.209	0.168
0.84	0.735	0.736	0.733	0.730	0.724	0.720	0.714	0.709	0.701	0.689	0.665	0.638	0.571	0.518	0.438	0.383	0.317	0.244	0.170	0.136
0.86	0.687	0.686	0.683	0.679	0.673	0.668	0.661	0.655	0.647	0.634	0.607	0.576	0.501	0.447	0.368	0.316	0.257	0.194	0.134	0.106
0.88	0.634	0.633	0.628	0.624	0.617	0.612	0.604	0.598	0.589	0.574	0.543	0.507	0.428	0.374	0.297	0.250	0.199	0.148	0.101	0.081
0.90	0.575	0.573	0.569	0.564	0.556	0.551	0.542	0.535	0.525	0.508	0.474	0.433	0.351	0.297	0.227	0.187	0.146	0.108	0.073	0.059
0.92	0.510	0.507	0.502	0.498	0.489	0.483	0.473	0.466	0.455	0.436	0.396	0.351	0.269	0.219	0.160	0.129	0.099	0.072	0.049	0.040
0.94	0.435	0.432	0.427	0.422	0.412	0.405	0.395	0.387	0.375	0.354	0.307	0.260	0.183	0.142	0.099	0.078	0.060	0.043	0.030	0.024
0.96	0.347	0.344	0.338	0.332	0.322	0.315	0.303	0.294	0.280	0.256	0.205	0.161	0.099	0.073	0.049	0.038	0.029	0.022	0.015	0.012
0.98	0.233	0.230	0.223	0.218	0.207	0.199	0.186	0.176	0.158	0.131	0.087	0.058	0.031	0.022	0.015	0.012	0.009	0.007	0.004	0.003
1.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless proton depth dose distributions, (ro/To)D(z/ro).
Detector material: silicon dioxide

z/ro	0.1	0.08	0.06	0.05	0.04	0.03	0.02	0.015	0.01
0.00	2.810	2.919	3.030	3.085	3.139	3.186	3.233	3.255	3.282
0.02	2.729	2.805	2.873	2.904	2.934	2.958	2.985	2.997	3.001
0.04	2.644	2.696	2.738	2.754	2.770	2.780	2.795	2.802	2.795
0.06	2.559	2.591	2.611	2.616	2.622	2.622	2.629	2.632	2.617
0.08	2.473	2.489	2.491	2.488	2.485	2.478	2.478	2.478	2.459
0.10	2.388	2.389	2.376	2.366	2.356	2.344	2.338	2.336	2.315
0.12	2.302	2.292	2.266	2.250	2.235	2.217	2.208	2.203	2.181
0.14	2.218	2.196	2.160	2.139	2.119	2.098	2.086	2.078	2.057
0.16	2.134	2.102	2.057	2.032	2.009	1.985	1.970	1.960	1.941
0.18	2.050	2.010	1.957	1.929	1.903	1.878	1.860	1.849	1.832
0.20	1.967	1.920	1.861	1.830	1.802	1.775	1.756	1.742	1.729
0.22	1.885	1.832	1.768	1.735	1.706	1.677	1.657	1.642	1.631
0.24	1.804	1.745	1.677	1.643	1.613	1.584	1.562	1.546	1.539
0.26	1.724	1.661	1.590	1.555	1.523	1.494	1.472	1.456	1.451
0.28	1.645	1.578	1.505	1.469	1.437	1.408	1.385	1.370	1.367
0.30	1.566	1.497	1.422	1.386	1.355	1.326	1.302	1.288	1.288
0.32	1.489	1.418	1.343	1.307	1.275	1.247	1.222	1.211	1.212
0.34	1.414	1.341	1.265	1.230	1.199	1.171	1.146	1.136	1.139
0.36	1.339	1.266	1.191	1.156	1.126	1.098	1.074	1.066	1.070
0.38	1.266	1.192	1.118	1.084	1.055	1.028	1.005	0.998	1.003
0.40	1.194	1.121	1.049	1.016	0.987	0.961	0.939	0.934	0.940
0.42	1.124	1.052	0.981	0.949	0.922	0.896	0.876	0.872	0.879
0.44	1.055	0.984	0.916	0.886	0.859	0.835	0.816	0.813	0.821
0.46	0.988	0.919	0.854	0.824	0.799	0.775	0.759	0.757	0.766
0.48	0.923	0.856	0.793	0.765	0.741	0.718	0.705	0.704	0.712
0.50	0.859	0.795	0.735	0.709	0.686	0.664	0.653	0.653	0.661
0.52	0.798	0.736	0.679	0.655	0.633	0.613	0.603	0.604	0.613
0.54	0.738	0.679	0.626	0.603	0.582	0.564	0.556	0.557	0.566
0.56	0.680	0.625	0.575	0.553	0.534	0.518	0.511	0.513	0.521
0.58	0.624	0.572	0.526	0.505	0.488	0.474	0.469	0.471	0.479
0.60	0.571	0.522	0.479	0.460	0.444	0.432	0.428	0.430	0.438
0.62	0.519	0.474	0.435	0.417	0.403	0.392	0.389	0.392	0.399
0.64	0.470	0.429	0.392	0.376	0.364	0.355	0.353	0.355	0.362
0.66	0.423	0.385	0.352	0.338	0.327	0.320	0.318	0.321	0.327
0.68	0.378	0.344	0.314	0.301	0.292	0.286	0.285	0.288	0.293
0.70	0.336	0.305	0.278	0.268	0.260	0.255	0.254	0.257	0.261
0.72	0.295	0.268	0.245	0.236	0.229	0.225	0.225	0.227	0.230
0.74	0.258	0.234	0.214	0.206	0.201	0.197	0.198	0.199	0.201
0.76	0.222	0.201	0.185	0.179	0.174	0.171	0.171	0.172	0.174
0.78	0.189	0.172	0.158	0.153	0.149	0.147	0.147	0.148	0.148
0.80	0.159	0.145	0.134	0.129	0.126	0.125	0.124	0.124	0.123
0.82	0.132	0.120	0.111	0.108	0.105	0.104	0.103	0.102	0.101
0.84	0.107	0.098	0.090	0.088	0.086	0.084	0.083	0.082	0.079
0.86	0.084	0.077	0.072	0.070	0.068	0.067	0.065	0.063	0.060
0.88	0.065	0.059	0.055	0.053	0.052	0.050	0.048	0.047	0.043
0.90	0.047	0.043	0.040	0.039	0.037	0.036	0.034	0.032	0.028
0.92	0.032	0.029	0.027	0.026	0.025	0.023	0.021	0.019	0.016
0.94	0.019	0.018	0.016	0.015	0.014	0.012	0.011	0.009	0.007
0.96	0.009	0.008	0.007	0.006	0.005	0.005	0.004	0.003	0.002
0.98	0.002	0.002	0.001	0.001	0.001	0.001	0.000	0.000	0.000
1.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless proton depth dose distributions, (ro/To)D(z/ro).
Detector material: tissue

z/ro	10000	8000	6000	5000	4000	3000	2000	1500	1000	800	600	500	400	300	200	150	100	80	60	50
0.00	2.423	2.387	2.334	2.293	2.237	2.157	2.031	1.936	1.807	1.739	1.661	1.619	1.575	1.529	1.483	1.462	1.446	1.442	1.443	1.445
0.02	2.360	2.328	2.279	2.242	2.192	2.121	2.008	1.923	1.806	1.745	1.676	1.639	1.599	1.558	1.518	1.500	1.487	1.484	1.486	1.489
0.04	2.303	2.273	2.229	2.196	2.150	2.086	1.984	1.907	1.800	1.745	1.682	1.648	1.612	1.575	1.540	1.524	1.514	1.512	1.516	1.519
0.06	2.248	2.221	2.180	2.151	2.110	2.051	1.959	1.888	1.792	1.741	1.684	1.654	1.621	1.588	1.556	1.543	1.535	1.534	1.538	1.542
0.08	2.194	2.170	2.133	2.106	2.069	2.017	1.933	1.869	1.781	1.735	1.684	1.656	1.627	1.597	1.569	1.557	1.551	1.551	1.556	1.561
0.10	2.142	2.120	2.087	2.063	2.029	1.982	1.906	1.849	1.769	1.727	1.681	1.656	1.630	1.603	1.578	1.569	1.564	1.565	1.571	1.576
0.12	2.090	2.071	2.041	2.020	1.990	1.947	1.880	1.828	1.756	1.718	1.677	1.654	1.631	1.607	1.586	1.577	1.575	1.577	1.583	1.589
0.14	2.039	2.022	1.996	1.977	1.950	1.913	1.853	1.806	1.741	1.708	1.671	1.651	1.630	1.609	1.591	1.584	1.583	1.586	1.593	1.599
0.16	1.989	1.974	1.951	1.934	1.911	1.878	1.825	1.784	1.726	1.696	1.663	1.646	1.627	1.609	1.594	1.589	1.589	1.592	1.600	1.607
0.18	1.939	1.926	1.906	1.892	1.872	1.843	1.797	1.761	1.710	1.683	1.655	1.639	1.623	1.608	1.595	1.591	1.593	1.597	1.605	1.612
0.20	1.890	1.879	1.862	1.850	1.833	1.809	1.769	1.737	1.692	1.669	1.645	1.631	1.618	1.605	1.594	1.592	1.596	1.600	1.609	1.616
0.22	1.841	1.832	1.818	1.809	1.794	1.774	1.740	1.713	1.675	1.655	1.634	1.622	1.611	1.600	1.593	1.592	1.597	1.601	1.611	1.618
0.24	1.793	1.786	1.775	1.767	1.755	1.739	1.711	1.689	1.656	1.639	1.622	1.612	1.603	1.595	1.589	1.590	1.596	1.601	1.611	1.619
0.26	1.745	1.739	1.731	1.726	1.717	1.704	1.682	1.664	1.636	1.623	1.609	1.601	1.594	1.588	1.585	1.586	1.594	1.600	1.610	1.618
0.28	1.697	1.694	1.688	1.684	1.678	1.669	1.653	1.638	1.616	1.606	1.595	1.589	1.584	1.579	1.579	1.581	1.590	1.596	1.607	1.615
0.30	1.650	1.648	1.645	1.643	1.639	1.634	1.623	1.612	1.596	1.588	1.580	1.576	1.572	1.570	1.571	1.575	1.585	1.592	1.603	1.611
0.32	1.603	1.603	1.602	1.602	1.601	1.598	1.592	1.585	1.574	1.569	1.564	1.562	1.560	1.559	1.563	1.568	1.579	1.586	1.597	1.606
0.34	1.556	1.558	1.560	1.561	1.562	1.563	1.562	1.558	1.552	1.549	1.547	1.546	1.546	1.548	1.553	1.559	1.571	1.578	1.590	1.599
0.36	1.510	1.513	1.517	1.520	1.523	1.527	1.531	1.531	1.529	1.529	1.529	1.530	1.532	1.535	1.542	1.549	1.562	1.570	1.582	1.591
0.38	1.464	1.468	1.475	1.480	1.485	1.492	1.500	1.503	1.506	1.507	1.511	1.513	1.516	1.521	1.530	1.538	1.552	1.560	1.573	1.582
0.40	1.418	1.424	1.433	1.439	1.446	1.456	1.468	1.474	1.481	1.486	1.491	1.495	1.500	1.506	1.517	1.526	1.540	1.549	1.562	1.571
0.42	1.372	1.380	1.390	1.398	1.407	1.420	1.436	1.445	1.457	1.463	1.471	1.476	1.482	1.490	1.502	1.512	1.527	1.536	1.549	1.559
0.44	1.327	1.335	1.348	1.357	1.368	1.384	1.404	1.416	1.431	1.439	1.450	1.456	1.463	1.473	1.487	1.497	1.513	1.522	1.536	1.545
0.46	1.282	1.292	1.306	1.317	1.330	1.347	1.371	1.386	1.405	1.415	1.428	1.435	1.444	1.455	1.470	1.481	1.498	1.507	1.521	1.530
0.48	1.237	1.248	1.265	1.276	1.291	1.311	1.338	1.355	1.378	1.390	1.405	1.413	1.423	1.435	1.452	1.464	1.481	1.491	1.505	1.514
0.50	1.192	1.204	1.223	1.236	1.252	1.274	1.304	1.324	1.350	1.364	1.380	1.390	1.401	1.415	1.433	1.445	1.463	1.473	1.487	1.497
0.52	1.147	1.161	1.181	1.195	1.212	1.237	1.270	1.292	1.322	1.337	1.355	1.366	1.378	1.393	1.412	1.425	1.444	1.454	1.468	1.478
0.54	1.103	1.118	1.139	1.154	1.173	1.199	1.236	1.260	1.293	1.309	1.329	1.341	1.354	1.370	1.391	1.404	1.423	1.433	1.448	1.457
0.56	1.059	1.074	1.097	1.113	1.134	1.162	1.201	1.227	1.263	1.281	1.302	1.315	1.329	1.346	1.367	1.381	1.401	1.411	1.426	1.435
0.58	1.015	1.031	1.056	1.073	1.094	1.124	1.165	1.194	1.232	1.251	1.274	1.288	1.303	1.321	1.343	1.357	1.377	1.388	1.402	1.412
0.60	0.971	0.988	1.014	1.032	1.054	1.085	1.130	1.159	1.200	1.221	1.245	1.260	1.275	1.294	1.317	1.332	1.352	1.363	1.377	1.387
0.62	0.927	0.945	0.972	0.990	1.014	1.047	1.093	1.125	1.167	1.189	1.215	1.230	1.247	1.266	1.290	1.305	1.326	1.336	1.351	1.360
0.64	0.883	0.902	0.930	0.949	0.974	1.008	1.056	1.089	1.134	1.156	1.184	1.199	1.216	1.237	1.261	1.277	1.298	1.308	1.323	1.332
0.66	0.840	0.859	0.888	0.908	0.933	0.968	1.018	1.053	1.099	1.123	1.151	1.167	1.185	1.206	1.231	1.247	1.268	1.278	1.293	1.302
0.68	0.796	0.816	0.846	0.866	0.893	0.928	0.980	1.015	1.063	1.088	1.117	1.133	1.152	1.173	1.199	1.215	1.236	1.247	1.261	1.270
0.70	0.753	0.774	0.804	0.825	0.851	0.888	0.941	0.977	1.027	1.051	1.081	1.098	1.117	1.139	1.165	1.181	1.202	1.213	1.227	1.236
0.72	0.709	0.730	0.761	0.783	0.810	0.847	0.900	0.938	0.988	1.014	1.044	1.062	1.081	1.103	1.129	1.146	1.167	1.177	1.191	1.200
0.74	0.666	0.688	0.719	0.740	0.768	0.805	0.860	0.898	0.949	0.975	1.006	1.023	1.043	1.065	1.092	1.108	1.129	1.139	1.153	1.162
0.76	0.623	0.644	0.676	0.697	0.725	0.763	0.818	0.856	0.908	0.934	0.965	0.983	1.003	1.025	1.052	1.068	1.089	1.099	1.112	1.121
0.78	0.579	0.601	0.632	0.654	0.682	0.720	0.775	0.813	0.865	0.891	0.923	0.940	0.960	0.983	1.009	1.026	1.046	1.056	1.069	1.077
0.80	0.536	0.557	0.589	0.610	0.638	0.675	0.730	0.769	0.821	0.847	0.878	0.896	0.915	0.938	0.964	0.980	1.000	1.010	1.023	1.031
0.82	0.492	0.513	0.544	0.566	0.593	0.630	0.684	0.723	0.774	0.800	0.831	0.848	0.868	0.890	0.916	0.932	0.951	0.961	0.973	0.980
0.84	0.448	0.469	0.500	0.520	0.547	0.584	0.637	0.674	0.725	0.750	0.781	0.798	0.817	0.839	0.864	0.880	0.899	0.908	0.919	0.927
0.86	0.404	0.424	0.454	0.474	0.500	0.535	0.587	0.624	0.673	0.698	0.727	0.744	0.763	0.784	0.809	0.823	0.842	0.850	0.861	0.868
0.88	0.359	0.379	0.407	0.426	0.451	0.485	0.535	0.570	0.618	0.642	0.670	0.686	0.704	0.724	0.748	0.762	0.780	0.788	0.798	0.804
0.90	0.313	0.332	0.359	0.377	0.401	0.433	0.480	0.513	0.558	0.581	0.608	0.623	0.640	0.659	0.682	0.695	0.711	0.719	0.728	0.734
0.92	0.266	0.283	0.308	0.325	0.347	0.377	0.421	0.451	0.493	0.514	0.539	0.553	0.569	0.587	0.608	0.620	0.635	0.641	0.650	0.654
0.94	0.217	0.233	0.255	0.270	0.290	0.317	0.356	0.383	0.420	0.439	0.462	0.474	0.489	0.504	0.523	0.534	0.547	0.553	0.560	0.563
0.96	0.165	0.178	0.197	0.210	0.226	0.249	0.281	0.305	0.336	0.352	0.371	0.382	0.394	0.407	0.423	0.432	0.442	0.447	0.451	0.453
0.98	0.106	0.116	0.129	0.138	0.150	0.166	0.190	0.207	0.230	0.241	0.255	0.263	0.272	0.282	0.293	0.299	0.306	0.308	0.310	0.311
1.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless proton depth dose distributions, (ro/To)D(z/ro).
Detector material: tissue

z/ro	40	30	20	15	10	8	6	5	4	3	2	1.5	1	0.8	0.6	0.5	0.4	0.3	0.2	0.15
0.00	1.451	1.463	1.485	1.506	1.544	1.567	1.603	1.628	1.661	1.711	1.802	1.884	2.039	2.150	2.327	2.462	2.647	2.920	3.415	3.863
0.02	1.496	1.509	1.533	1.555	1.594	1.618	1.655	1.680	1.715	1.767	1.861	1.946	2.105	2.218	2.396	2.530	2.711	2.980	3.464	3.868
0.04	1.527	1.540	1.565	1.588	1.627	1.652	1.690	1.716	1.751	1.804	1.900	1.985	2.143	2.256	2.432	2.563	2.740	3.001	3.467	3.831
0.06	1.551	1.565	1.590	1.613	1.654	1.679	1.717	1.744	1.780	1.834	1.929	2.013	2.171	2.282	2.456	2.584	2.755	3.008	3.452	3.778
0.08	1.570	1.585	1.611	1.634	1.675	1.701	1.739	1.766	1.803	1.856	1.950	2.035	2.191	2.302	2.472	2.596	2.761	3.006	3.425	3.715
0.10	1.586	1.601	1.628	1.652	1.693	1.719	1.757	1.785	1.822	1.874	1.967	2.051	2.206	2.315	2.482	2.601	2.761	2.995	3.390	3.645
0.12	1.598	1.614	1.641	1.666	1.707	1.733	1.772	1.800	1.836	1.888	1.980	2.064	2.217	2.324	2.486	2.601	2.754	2.979	3.347	3.569
0.14	1.609	1.625	1.653	1.677	1.719	1.745	1.784	1.812	1.847	1.899	1.990	2.073	2.223	2.328	2.485	2.596	2.743	2.958	3.298	3.487
0.16	1.617	1.633	1.661	1.686	1.728	1.755	1.794	1.821	1.856	1.906	1.997	2.078	2.227	2.329	2.481	2.587	2.728	2.932	3.244	3.402
0.18	1.623	1.639	1.668	1.693	1.735	1.762	1.801	1.827	1.861	1.911	2.001	2.081	2.227	2.326	2.473	2.575	2.708	2.902	3.185	3.313
0.20	1.627	1.644	1.673	1.698	1.740	1.767	1.805	1.831	1.865	1.914	2.003	2.082	2.224	2.320	2.461	2.558	2.686	2.867	3.122	3.221
0.22	1.629	1.647	1.676	1.701	1.743	1.770	1.808	1.833	1.866	1.915	2.002	2.079	2.218	2.312	2.447	2.539	2.659	2.830	3.055	3.126
0.24	1.630	1.648	1.677	1.703	1.745	1.771	1.808	1.833	1.865	1.913	1.999	2.075	2.210	2.300	2.429	2.517	2.630	2.789	2.984	3.029
0.26	1.629	1.647	1.677	1.702	1.744	1.770	1.806	1.830	1.862	1.910	1.994	2.068	2.199	2.286	2.409	2.492	2.598	2.745	2.910	2.929
0.28	1.627	1.645	1.675	1.700	1.742	1.768	1.803	1.826	1.858	1.905	1.987	2.060	2.187	2.270	2.386	2.464	2.563	2.697	2.833	2.828
0.30	1.623	1.641	1.671	1.696	1.738	1.763	1.798	1.821	1.851	1.898	1.978	2.049	2.171	2.251	2.361	2.433	2.525	2.647	2.753	2.726
0.32	1.618	1.636	1.666	1.691	1.733	1.757	1.791	1.813	1.843	1.889	1.968	2.036	2.154	2.230	2.333	2.400	2.485	2.593	2.670	2.622
0.34	1.611	1.630	1.659	1.685	1.726	1.750	1.782	1.804	1.834	1.878	1.955	2.021	2.135	2.206	2.303	2.365	2.442	2.537	2.585	2.517
0.36	1.603	1.622	1.651	1.677	1.717	1.740	1.772	1.794	1.823	1.866	1.941	2.005	2.113	2.181	2.270	2.327	2.396	2.478	2.497	2.411
0.38	1.594	1.612	1.642	1.667	1.707	1.729	1.760	1.781	1.810	1.852	1.924	1.986	2.089	2.153	2.235	2.286	2.348	2.416	2.408	2.304
0.40	1.583	1.602	1.631	1.656	1.695	1.717	1.747	1.767	1.795	1.836	1.906	1.966	2.064	2.123	2.198	2.244	2.297	2.352	2.316	2.197
0.42	1.571	1.590	1.619	1.644	1.682	1.702	1.732	1.752	1.779	1.819	1.887	1.943	2.036	2.091	2.158	2.199	2.244	2.284	2.223	2.089
0.44	1.558	1.576	1.605	1.630	1.667	1.687	1.715	1.735	1.761	1.800	1.865	1.919	2.006	2.056	2.116	2.151	2.189	2.214	2.127	1.982
0.46	1.543	1.561	1.590	1.614	1.650	1.669	1.697	1.716	1.742	1.779	1.842	1.893	1.974	2.019	2.072	2.102	2.131	2.140	2.031	1.875
0.48	1.527	1.545	1.574	1.598	1.632	1.651	1.678	1.696	1.721	1.757	1.817	1.865	1.940	1.980	2.025	2.049	2.071	2.065	1.933	1.768
0.50	1.509	1.527	1.556	1.579	1.612	1.630	1.656	1.674	1.698	1.733	1.790	1.835	1.904	1.939	1.977	1.995	2.008	1.986	1.834	1.662
0.52	1.490	1.508	1.536	1.559	1.591	1.608	1.634	1.651	1.674	1.707	1.761	1.803	1.865	1.896	1.926	1.938	1.942	1.905	1.734	1.557
0.54	1.470	1.488	1.516	1.537	1.568	1.585	1.609	1.626	1.648	1.679	1.730	1.769	1.824	1.850	1.872	1.879	1.874	1.821	1.633	1.453
0.56	1.448	1.466	1.493	1.514	1.543	1.559	1.583	1.599	1.620	1.650	1.698	1.733	1.782	1.802	1.816	1.817	1.803	1.735	1.532	1.351
0.58	1.424	1.442	1.469	1.489	1.517	1.532	1.555	1.570	1.590	1.618	1.663	1.695	1.736	1.751	1.758	1.753	1.729	1.647	1.431	1.250
0.60	1.399	1.416	1.443	1.462	1.489	1.504	1.525	1.540	1.559	1.585	1.626	1.655	1.689	1.698	1.697	1.686	1.652	1.556	1.330	1.151
0.62	1.373	1.389	1.415	1.434	1.459	1.473	1.493	1.507	1.525	1.550	1.587	1.612	1.638	1.643	1.633	1.616	1.572	1.464	1.230	1.055
0.64	1.344	1.361	1.386	1.403	1.427	1.440	1.460	1.473	1.490	1.512	1.546	1.567	1.585	1.584	1.567	1.543	1.489	1.369	1.131	0.961
0.66	1.314	1.330	1.354	1.371	1.393	1.406	1.424	1.437	1.452	1.473	1.502	1.520	1.530	1.523	1.498	1.467	1.403	1.273	1.032	0.871
0.68	1.282	1.298	1.321	1.336	1.357	1.369	1.386	1.398	1.412	1.431	1.456	1.470	1.471	1.459	1.425	1.388	1.314	1.175	0.936	0.783
0.70	1.248	1.263	1.285	1.299	1.319	1.330	1.346	1.357	1.370	1.386	1.408	1.416	1.410	1.392	1.350	1.305	1.222	1.076	0.841	0.699
0.72	1.211	1.226	1.247	1.260	1.279	1.289	1.304	1.313	1.325	1.339	1.356	1.360	1.345	1.322	1.271	1.219	1.128	0.977	0.750	0.619
0.74	1.172	1.187	1.206	1.218	1.236	1.245	1.259	1.267	1.277	1.289	1.301	1.301	1.277	1.248	1.188	1.129	1.031	0.877	0.661	0.542
0.76	1.131	1.145	1.163	1.174	1.190	1.199	1.211	1.218	1.227	1.236	1.243	1.238	1.205	1.171	1.101	1.035	0.931	0.778	0.576	0.470
0.78	1.087	1.101	1.117	1.127	1.141	1.149	1.160	1.166	1.173	1.180	1.182	1.171	1.129	1.089	1.010	0.938	0.830	0.680	0.496	0.403
0.80	1.040	1.053	1.067	1.076	1.089	1.096	1.105	1.110	1.115	1.120	1.116	1.100	1.049	1.003	0.914	0.837	0.728	0.585	0.420	0.340
0.82	0.990	1.001	1.014	1.022	1.033	1.039	1.046	1.050	1.054	1.055	1.046	1.024	0.964	0.912	0.813	0.733	0.625	0.492	0.349	0.281
0.84	0.935	0.945	0.956	0.963	0.973	0.978	0.984	0.986	0.988	0.986	0.970	0.943	0.874	0.815	0.708	0.626	0.523	0.404	0.283	0.228
0.86	0.876	0.885	0.894	0.900	0.908	0.912	0.915	0.917	0.916	0.911	0.888	0.855	0.777	0.711	0.599	0.519	0.424	0.322	0.224	0.180
0.88	0.811	0.818	0.826	0.831	0.837	0.839	0.841	0.841	0.838	0.829	0.799	0.760	0.672	0.600	0.486	0.412	0.330	0.247	0.170	0.138
0.90	0.739	0.745	0.751	0.755	0.759	0.760	0.759	0.757	0.752	0.739	0.701	0.657	0.558	0.482	0.374	0.309	0.243	0.179	0.124	0.101
0.92	0.659	0.663	0.667	0.670	0.672	0.671	0.668	0.664	0.656	0.638	0.592	0.542	0.434	0.359	0.264	0.214	0.165	0.121	0.084	0.069
0.94	0.566	0.569	0.572	0.572	0.572	0.569	0.563	0.557	0.545	0.522	0.469	0.412	0.300	0.235	0.164	0.131	0.100	0.074	0.052	0.043
0.96	0.455	0.457	0.457	0.456	0.452	0.448	0.438	0.429	0.413	0.384	0.323	0.261	0.164	0.121	0.082	0.065	0.050	0.037	0.027	0.022
0.98	0.311	0.311	0.309	0.306	0.297	0.289	0.275	0.262	0.242	0.207	0.142	0.096	0.051	0.037	0.025	0.020	0.016	0.012	0.007	0.005
1.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless proton depth dose distributions, (ro/To)D(z/ro).
Detector material: tissue

z/ro	0.1	0.08	0.06	0.05	0.04	0.03	0.02	0.015	0.01
0.00	4.441	4.693	4.936	5.049	5.156	5.248	5.334	5.375	5.428
0.02	4.344	4.530	4.693	4.762	4.825	4.875	4.927	4.953	4.969
0.04	4.228	4.368	4.479	4.521	4.559	4.584	4.617	4.635	4.633
0.06	4.106	4.208	4.278	4.299	4.318	4.326	4.344	4.356	4.343
0.08	3.981	4.050	4.086	4.091	4.094	4.090	4.097	4.104	4.085
0.10	3.854	3.895	3.901	3.893	3.884	3.870	3.868	3.871	3.850
0.12	3.725	3.741	3.723	3.704	3.686	3.663	3.655	3.654	3.633
0.14	3.595	3.590	3.551	3.523	3.497	3.468	3.454	3.449	3.430
0.16	3.466	3.441	3.384	3.349	3.316	3.282	3.265	3.256	3.241
0.18	3.336	3.294	3.222	3.181	3.143	3.106	3.085	3.073	3.063
0.20	3.206	3.149	3.066	3.020	2.978	2.938	2.914	2.899	2.894
0.22	3.077	3.007	2.913	2.864	2.819	2.777	2.752	2.735	2.735
0.24	2.948	2.868	2.766	2.714	2.667	2.624	2.596	2.579	2.584
0.26	2.821	2.731	2.623	2.568	2.520	2.476	2.448	2.431	2.440
0.28	2.694	2.596	2.484	2.428	2.379	2.335	2.306	2.290	2.303
0.30	2.569	2.465	2.349	2.293	2.244	2.200	2.169	2.156	2.173
0.32	2.445	2.336	2.218	2.162	2.113	2.070	2.039	2.029	2.049
0.34	2.323	2.210	2.092	2.036	1.988	1.946	1.914	1.907	1.930
0.36	2.202	2.088	1.969	1.914	1.867	1.826	1.795	1.791	1.816
0.38	2.084	1.968	1.851	1.797	1.751	1.711	1.682	1.681	1.707
0.40	1.967	1.851	1.736	1.684	1.640	1.601	1.574	1.575	1.603
0.42	1.853	1.738	1.625	1.575	1.532	1.495	1.471	1.474	1.503
0.44	1.741	1.628	1.519	1.470	1.429	1.394	1.373	1.377	1.407
0.46	1.631	1.521	1.416	1.369	1.330	1.296	1.279	1.285	1.315
0.48	1.524	1.417	1.316	1.272	1.236	1.203	1.189	1.197	1.227
0.50	1.420	1.317	1.221	1.179	1.145	1.114	1.104	1.113	1.143
0.52	1.319	1.220	1.129	1.090	1.057	1.030	1.023	1.032	1.062
0.54	1.221	1.127	1.041	1.005	0.974	0.949	0.945	0.955	0.984
0.56	1.126	1.037	0.957	0.923	0.894	0.873	0.871	0.882	0.910
0.58	1.035	0.951	0.877	0.845	0.818	0.800	0.801	0.812	0.839
0.60	0.947	0.868	0.800	0.770	0.747	0.732	0.734	0.745	0.770
0.62	0.862	0.789	0.726	0.699	0.679	0.666	0.670	0.681	0.704
0.64	0.781	0.714	0.656	0.632	0.614	0.604	0.609	0.619	0.641
0.66	0.703	0.643	0.590	0.569	0.554	0.546	0.551	0.561	0.581
0.68	0.629	0.575	0.527	0.509	0.497	0.491	0.496	0.506	0.522
0.70	0.559	0.510	0.469	0.453	0.443	0.438	0.444	0.453	0.467
0.72	0.493	0.450	0.414	0.401	0.392	0.389	0.395	0.402	0.413
0.74	0.431	0.393	0.362	0.352	0.345	0.343	0.348	0.354	0.362
0.76	0.373	0.340	0.315	0.306	0.301	0.299	0.304	0.308	0.312
0.78	0.319	0.291	0.271	0.263	0.259	0.258	0.262	0.265	0.265
0.80	0.269	0.246	0.230	0.224	0.221	0.220	0.222	0.223	0.220
0.82	0.223	0.205	0.192	0.188	0.185	0.184	0.185	0.184	0.177
0.84	0.182	0.168	0.157	0.154	0.152	0.150	0.149	0.146	0.137
0.86	0.145	0.134	0.126	0.123	0.121	0.119	0.116	0.111	0.101
0.88	0.112	0.104	0.097	0.095	0.093	0.090	0.085	0.079	0.068
0.90	0.082	0.077	0.072	0.069	0.067	0.063	0.057	0.051	0.041
0.92	0.057	0.053	0.048	0.046	0.043	0.039	0.033	0.028	0.020
0.94	0.035	0.031	0.028	0.025	0.023	0.019	0.014	0.011	0.007
0.96	0.016	0.014	0.011	0.009	0.007	0.005	0.003	0.002	0.001
0.98	0.003	0.002	0.001	0.001	0.000	0.000	0.000	0.000	0.000
1.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless proton depth dose distributions, (ro/To)D(z/ro).
Detector material: water

z/ro	10000	8000	6000	5000	4000	3000	2000	1500	1000	800	600	500	400	300	200	150	100	80	60	50
0.00	2.447	2.412	2.358	2.317	2.261	2.180	2.053	1.955	1.823	1.754	1.676	1.633	1.588	1.542	1.496	1.475	1.459	1.454	1.455	1.458
0.02	2.383	2.351	2.302	2.266	2.215	2.143	2.029	1.941	1.823	1.760	1.691	1.653	1.613	1.571	1.531	1.513	1.500	1.497	1.499	1.503
0.04	2.326	2.297	2.252	2.219	2.173	2.108	2.004	1.925	1.816	1.760	1.697	1.663	1.626	1.589	1.553	1.537	1.527	1.525	1.528	1.533
0.06	2.270	2.244	2.203	2.173	2.132	2.073	1.978	1.906	1.807	1.756	1.699	1.668	1.635	1.602	1.570	1.556	1.548	1.547	1.551	1.556
0.08	2.216	2.192	2.155	2.129	2.091	2.038	1.952	1.887	1.797	1.750	1.698	1.670	1.641	1.611	1.582	1.571	1.564	1.565	1.569	1.575
0.10	2.163	2.142	2.109	2.084	2.051	2.003	1.925	1.866	1.784	1.742	1.696	1.670	1.644	1.617	1.592	1.582	1.578	1.579	1.584	1.590
0.12	2.111	2.092	2.062	2.041	2.011	1.968	1.898	1.845	1.771	1.733	1.691	1.669	1.645	1.621	1.599	1.591	1.588	1.590	1.596	1.603
0.14	2.060	2.043	2.016	1.998	1.971	1.933	1.871	1.823	1.756	1.722	1.685	1.665	1.644	1.623	1.604	1.598	1.597	1.599	1.606	1.613
0.16	2.009	1.994	1.971	1.955	1.931	1.897	1.843	1.800	1.741	1.711	1.678	1.660	1.641	1.623	1.607	1.602	1.603	1.606	1.614	1.621
0.18	1.959	1.946	1.926	1.912	1.891	1.862	1.814	1.777	1.724	1.698	1.669	1.653	1.637	1.622	1.609	1.605	1.607	1.611	1.619	1.626
0.20	1.909	1.898	1.882	1.870	1.852	1.827	1.786	1.753	1.707	1.684	1.659	1.646	1.632	1.619	1.608	1.606	1.610	1.614	1.623	1.630
0.22	1.860	1.851	1.837	1.827	1.813	1.792	1.757	1.729	1.689	1.669	1.648	1.637	1.625	1.614	1.606	1.605	1.610	1.615	1.625	1.632
0.24	1.811	1.804	1.793	1.785	1.773	1.757	1.728	1.704	1.670	1.654	1.636	1.626	1.617	1.608	1.603	1.603	1.610	1.615	1.625	1.633
0.26	1.763	1.757	1.749	1.743	1.734	1.721	1.698	1.679	1.651	1.637	1.623	1.615	1.608	1.601	1.598	1.600	1.607	1.613	1.624	1.632
0.28	1.715	1.711	1.706	1.702	1.695	1.686	1.668	1.653	1.630	1.620	1.609	1.603	1.597	1.593	1.592	1.595	1.604	1.610	1.621	1.629
0.30	1.667	1.665	1.662	1.660	1.656	1.650	1.638	1.626	1.610	1.601	1.593	1.590	1.586	1.584	1.585	1.589	1.599	1.605	1.617	1.625
0.32	1.620	1.619	1.619	1.619	1.617	1.614	1.607	1.599	1.588	1.582	1.577	1.575	1.573	1.573	1.576	1.581	1.592	1.599	1.611	1.620
0.34	1.573	1.574	1.576	1.577	1.578	1.578	1.576	1.572	1.565	1.563	1.561	1.560	1.560	1.561	1.567	1.573	1.584	1.592	1.604	1.613
0.36	1.526	1.528	1.533	1.536	1.539	1.542	1.545	1.544	1.542	1.542	1.543	1.544	1.545	1.548	1.556	1.563	1.575	1.583	1.596	1.605
0.38	1.479	1.483	1.490	1.495	1.500	1.506	1.513	1.516	1.519	1.521	1.524	1.526	1.529	1.534	1.543	1.551	1.565	1.573	1.586	1.595
0.40	1.433	1.438	1.447	1.453	1.460	1.470	1.481	1.487	1.494	1.498	1.504	1.508	1.513	1.519	1.530	1.539	1.553	1.562	1.575	1.584
0.42	1.386	1.394	1.405	1.412	1.421	1.433	1.449	1.458	1.469	1.475	1.484	1.489	1.495	1.503	1.515	1.525	1.540	1.549	1.563	1.572
0.44	1.341	1.349	1.362	1.371	1.382	1.397	1.416	1.428	1.444	1.452	1.462	1.469	1.476	1.486	1.500	1.510	1.526	1.535	1.549	1.558
0.46	1.295	1.305	1.320	1.330	1.343	1.360	1.383	1.398	1.417	1.427	1.440	1.448	1.456	1.467	1.483	1.494	1.511	1.520	1.534	1.543
0.48	1.249	1.261	1.277	1.289	1.303	1.323	1.350	1.367	1.390	1.402	1.417	1.425	1.435	1.448	1.464	1.476	1.494	1.503	1.517	1.527
0.50	1.204	1.217	1.235	1.248	1.264	1.286	1.316	1.335	1.362	1.376	1.392	1.402	1.413	1.427	1.445	1.457	1.476	1.485	1.500	1.509
0.52	1.159	1.173	1.193	1.207	1.224	1.248	1.282	1.304	1.333	1.349	1.367	1.378	1.390	1.405	1.424	1.437	1.456	1.466	1.481	1.490
0.54	1.114	1.129	1.150	1.165	1.184	1.210	1.247	1.271	1.304	1.321	1.341	1.353	1.366	1.382	1.402	1.416	1.435	1.445	1.460	1.470
0.56	1.069	1.085	1.108	1.124	1.144	1.172	1.211	1.238	1.274	1.292	1.314	1.327	1.341	1.358	1.379	1.393	1.413	1.423	1.438	1.448
0.58	1.025	1.042	1.066	1.083	1.104	1.134	1.176	1.204	1.242	1.262	1.285	1.299	1.314	1.332	1.355	1.369	1.389	1.400	1.414	1.424
0.60	0.980	0.998	1.024	1.041	1.064	1.095	1.139	1.170	1.210	1.231	1.256	1.270	1.286	1.305	1.329	1.344	1.364	1.375	1.389	1.399
0.62	0.936	0.955	0.981	1.000	1.024	1.056	1.103	1.134	1.177	1.199	1.226	1.241	1.257	1.277	1.301	1.316	1.337	1.348	1.362	1.372
0.64	0.892	0.911	0.939	0.958	0.983	1.017	1.065	1.098	1.144	1.166	1.194	1.210	1.227	1.247	1.272	1.288	1.309	1.319	1.334	1.343
0.66	0.848	0.868	0.896	0.916	0.942	0.977	1.027	1.062	1.109	1.132	1.161	1.177	1.195	1.216	1.241	1.257	1.279	1.289	1.304	1.313
0.68	0.804	0.824	0.854	0.874	0.901	0.937	0.988	1.024	1.073	1.097	1.126	1.143	1.162	1.183	1.209	1.225	1.247	1.257	1.272	1.281
0.70	0.760	0.781	0.811	0.832	0.859	0.896	0.949	0.986	1.035	1.061	1.091	1.108	1.127	1.149	1.175	1.191	1.213	1.223	1.238	1.247
0.72	0.716	0.738	0.768	0.790	0.817	0.854	0.908	0.946	0.997	1.023	1.053	1.071	1.090	1.112	1.139	1.156	1.177	1.187	1.201	1.210
0.74	0.673	0.694	0.725	0.747	0.774	0.812	0.867	0.905	0.957	0.983	1.014	1.032	1.052	1.074	1.101	1.118	1.139	1.149	1.163	1.171
0.76	0.629	0.650	0.682	0.703	0.731	0.769	0.825	0.864	0.916	0.942	0.973	0.991	1.011	1.034	1.061	1.077	1.098	1.108	1.122	1.130
0.78	0.585	0.607	0.638	0.660	0.688	0.726	0.781	0.820	0.873	0.899	0.930	0.948	0.968	0.991	1.018	1.034	1.055	1.065	1.078	1.086
0.80	0.541	0.563	0.594	0.616	0.643	0.681	0.737	0.775	0.828	0.854	0.886	0.903	0.923	0.946	0.973	0.989	1.009	1.019	1.031	1.039
0.82	0.497	0.518	0.549	0.571	0.598	0.636	0.690	0.729	0.781	0.807	0.838	0.856	0.875	0.897	0.924	0.940	0.959	0.969	0.981	0.988
0.84	0.452	0.473	0.504	0.525	0.552	0.589	0.642	0.680	0.731	0.757	0.787	0.805	0.824	0.846	0.872	0.887	0.906	0.915	0.927	0.934
0.86	0.407	0.428	0.458	0.478	0.504	0.540	0.592	0.629	0.679	0.704	0.734	0.751	0.769	0.791	0.816	0.831	0.849	0.858	0.868	0.875
0.88	0.362	0.382	0.410	0.430	0.455	0.490	0.540	0.575	0.623	0.647	0.676	0.692	0.710	0.730	0.754	0.769	0.786	0.794	0.804	0.810
0.90	0.316	0.335	0.362	0.380	0.404	0.437	0.484	0.518	0.563	0.586	0.613	0.628	0.646	0.665	0.688	0.701	0.717	0.725	0.734	0.739
0.92	0.268	0.286	0.311	0.328	0.350	0.380	0.424	0.455	0.497	0.518	0.544	0.558	0.574	0.592	0.613	0.625	0.640	0.647	0.655	0.659
0.94	0.219	0.235	0.257	0.273	0.292	0.319	0.359	0.386	0.424	0.443	0.465	0.479	0.493	0.509	0.528	0.539	0.552	0.557	0.564	0.567
0.96	0.167	0.180	0.199	0.212	0.228	0.251	0.284	0.307	0.339	0.355	0.374	0.385	0.397	0.411	0.426	0.435	0.446	0.450	0.454	0.456
0.98	0.107	0.116	0.130	0.139	0.151	0.168	0.192	0.209	0.232	0.243	0.257	0.265	0.274	0.284	0.295	0.301	0.308	0.310	0.312	0.313
1.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless proton depth dose distributions, (ro/To)D(z/ro).
Detector material: water

z/ro	40	30	20	15	10	8	6	5	4	3	2	1.5	1	0.8	0.6	0.5	0.4	0.3	0.2	0.15
0.00	1.464	1.475	1.498	1.519	1.557	1.580	1.616	1.641	1.675	1.726	1.817	1.901	2.057	2.169	2.348	2.483	2.668	2.935	3.370	3.741
0.02	1.509	1.522	1.546	1.568	1.607	1.631	1.668	1.694	1.729	1.782	1.876	1.963	2.123	2.237	2.416	2.549	2.728	2.985	3.399	3.743
0.04	1.540	1.554	1.578	1.601	1.641	1.666	1.703	1.730	1.765	1.819	1.915	2.002	2.161	2.274	2.450	2.580	2.753	2.999	3.390	3.706
0.06	1.564	1.578	1.604	1.627	1.667	1.693	1.731	1.758	1.794	1.848	1.943	2.029	2.188	2.300	2.473	2.599	2.765	2.999	3.366	3.654
0.08	1.583	1.598	1.624	1.648	1.689	1.715	1.753	1.780	1.817	1.871	1.965	2.050	2.208	2.318	2.487	2.608	2.767	2.990	3.333	3.592
0.10	1.599	1.614	1.641	1.665	1.707	1.733	1.772	1.799	1.835	1.889	1.982	2.067	2.222	2.330	2.494	2.611	2.763	2.974	3.293	3.523
0.12	1.612	1.628	1.655	1.680	1.721	1.748	1.786	1.814	1.850	1.902	1.995	2.079	2.232	2.338	2.497	2.609	2.753	2.952	3.247	3.449
0.14	1.622	1.639	1.666	1.691	1.733	1.759	1.798	1.825	1.861	1.913	2.004	2.087	2.238	2.341	2.495	2.601	2.738	2.925	3.196	3.369
0.16	1.631	1.647	1.675	1.700	1.743	1.769	1.808	1.834	1.870	1.920	2.011	2.092	2.240	2.340	2.488	2.590	2.719	2.894	3.141	3.285
0.18	1.637	1.654	1.682	1.707	1.750	1.776	1.815	1.841	1.875	1.925	2.015	2.095	2.239	2.337	2.479	2.575	2.697	2.858	3.081	3.198
0.20	1.641	1.658	1.687	1.712	1.755	1.781	1.819	1.845	1.878	1.928	2.016	2.095	2.235	2.330	2.465	2.556	2.670	2.820	3.018	3.108
0.22	1.643	1.661	1.690	1.715	1.758	1.784	1.821	1.846	1.879	1.928	2.015	2.092	2.229	2.320	2.449	2.534	2.641	2.778	2.952	3.015
0.24	1.644	1.662	1.691	1.717	1.759	1.785	1.822	1.846	1.878	1.927	2.012	2.087	2.220	2.307	2.430	2.510	2.608	2.733	2.882	2.920
0.26	1.643	1.661	1.691	1.716	1.758	1.784	1.820	1.844	1.876	1.923	2.007	2.080	2.208	2.292	2.407	2.482	2.572	2.685	2.810	2.823
0.28	1.641	1.659	1.689	1.714	1.756	1.781	1.816	1.839	1.871	1.917	1.999	2.071	2.195	2.274	2.383	2.452	2.534	2.634	2.735	2.724
0.30	1.637	1.655	1.685	1.710	1.752	1.777	1.811	1.834	1.864	1.910	1.990	2.059	2.178	2.254	2.355	2.419	2.493	2.581	2.657	2.624
0.32	1.632	1.650	1.680	1.705	1.746	1.771	1.804	1.826	1.856	1.901	1.979	2.046	2.160	2.232	2.325	2.383	2.450	2.525	2.576	2.523
0.34	1.625	1.643	1.673	1.698	1.739	1.763	1.795	1.817	1.846	1.890	1.966	2.031	2.140	2.207	2.293	2.345	2.404	2.466	2.493	2.420
0.36	1.617	1.635	1.665	1.690	1.730	1.753	1.784	1.806	1.835	1.877	1.951	2.013	2.117	2.180	2.259	2.305	2.355	2.406	2.408	2.317
0.38	1.608	1.626	1.656	1.680	1.720	1.742	1.772	1.793	1.821	1.863	1.934	1.994	2.092	2.151	2.222	2.262	2.305	2.343	2.320	2.213
0.40	1.597	1.615	1.645	1.669	1.708	1.729	1.759	1.779	1.807	1.847	1.916	1.973	2.065	2.119	2.182	2.217	2.252	2.277	2.231	2.109
0.42	1.585	1.603	1.632	1.657	1.694	1.715	1.744	1.764	1.790	1.829	1.895	1.950	2.036	2.085	2.141	2.170	2.196	2.209	2.140	2.005
0.44	1.571	1.589	1.619	1.642	1.679	1.699	1.727	1.746	1.772	1.810	1.873	1.925	2.005	2.049	2.097	2.120	2.138	2.139	2.047	1.901
0.46	1.556	1.574	1.603	1.627	1.662	1.681	1.709	1.728	1.752	1.789	1.849	1.898	1.972	2.011	2.051	2.068	2.079	2.067	1.953	1.797
0.48	1.540	1.558	1.587	1.610	1.644	1.662	1.689	1.707	1.731	1.766	1.824	1.869	1.937	1.971	2.003	2.014	2.016	1.993	1.858	1.694
0.50	1.522	1.540	1.568	1.591	1.624	1.641	1.667	1.685	1.708	1.741	1.796	1.839	1.900	1.928	1.952	1.958	1.952	1.916	1.762	1.591
0.52	1.503	1.521	1.549	1.571	1.602	1.619	1.644	1.661	1.683	1.715	1.767	1.806	1.860	1.883	1.899	1.899	1.885	1.837	1.665	1.489
0.54	1.482	1.500	1.527	1.549	1.579	1.595	1.619	1.636	1.657	1.687	1.735	1.771	1.818	1.836	1.844	1.838	1.816	1.756	1.567	1.389
0.56	1.460	1.478	1.505	1.526	1.554	1.570	1.593	1.608	1.629	1.657	1.702	1.735	1.774	1.786	1.786	1.774	1.745	1.672	1.470	1.290
0.58	1.436	1.454	1.480	1.500	1.527	1.542	1.565	1.579	1.599	1.625	1.667	1.696	1.727	1.734	1.726	1.708	1.671	1.586	1.372	1.193
0.60	1.411	1.428	1.454	1.473	1.499	1.513	1.534	1.548	1.567	1.592	1.629	1.654	1.678	1.680	1.663	1.640	1.595	1.498	1.274	1.099
0.62	1.384	1.401	1.426	1.444	1.469	1.482	1.502	1.516	1.533	1.556	1.590	1.611	1.627	1.623	1.598	1.569	1.517	1.408	1.177	1.006
0.64	1.355	1.372	1.396	1.413	1.437	1.450	1.469	1.481	1.497	1.518	1.548	1.565	1.573	1.563	1.530	1.496	1.436	1.316	1.081	0.916
0.66	1.325	1.341	1.365	1.381	1.402	1.415	1.432	1.444	1.459	1.478	1.504	1.516	1.516	1.501	1.460	1.420	1.352	1.223	0.986	0.829
0.68	1.292	1.308	1.331	1.346	1.366	1.378	1.394	1.405	1.418	1.435	1.457	1.465	1.456	1.435	1.386	1.341	1.266	1.128	0.893	0.745
0.70	1.258	1.273	1.295	1.308	1.328	1.338	1.354	1.364	1.375	1.390	1.407	1.411	1.393	1.367	1.310	1.260	1.177	1.032	0.803	0.665
0.72	1.221	1.236	1.256	1.269	1.287	1.297	1.311	1.320	1.330	1.342	1.355	1.354	1.327	1.295	1.231	1.175	1.085	0.936	0.715	0.588
0.74	1.182	1.196	1.215	1.227	1.244	1.253	1.265	1.273	1.282	1.292	1.299	1.294	1.258	1.220	1.149	1.087	0.991	0.840	0.630	0.516
0.76	1.140	1.154	1.171	1.182	1.197	1.205	1.217	1.223	1.231	1.238	1.240	1.230	1.185	1.142	1.063	0.997	0.895	0.744	0.549	0.447
0.78	1.096	1.109	1.124	1.134	1.148	1.155	1.165	1.171	1.176	1.181	1.178	1.162	1.108	1.059	0.973	0.902	0.796	0.650	0.472	0.383
0.80	1.048	1.061	1.074	1.083	1.095	1.102	1.110	1.114	1.118	1.120	1.111	1.089	1.026	0.973	0.880	0.804	0.697	0.558	0.399	0.323
0.82	0.997	1.009	1.020	1.028	1.039	1.044	1.051	1.054	1.056	1.055	1.040	1.012	0.941	0.882	0.783	0.703	0.598	0.469	0.331	0.268
0.84	0.942	0.952	0.962	0.969	0.978	0.983	0.987	0.989	0.989	0.984	0.963	0.930	0.849	0.786	0.680	0.600	0.500	0.385	0.269	0.217
0.86	0.883	0.891	0.900	0.905	0.913	0.916	0.918	0.919	0.917	0.909	0.880	0.841	0.752	0.685	0.575	0.497	0.405	0.306	0.213	0.171
0.88	0.817	0.824	0.831	0.836	0.841	0.843	0.843	0.842	0.838	0.826	0.790	0.745	0.649	0.577	0.466	0.394	0.314	0.235	0.162	0.131
0.90	0.745	0.750	0.756	0.759	0.762	0.762	0.761	0.758	0.751	0.734	0.691	0.640	0.538	0.463	0.357	0.295	0.231	0.171	0.118	0.097
0.92	0.663	0.667	0.671	0.673	0.674	0.673	0.668	0.663	0.653	0.632	0.581	0.525	0.417	0.344	0.252	0.204	0.157	0.116	0.081	0.067
0.94	0.570	0.572	0.575	0.575	0.573	0.570	0.563	0.555	0.542	0.515	0.456	0.397	0.287	0.224	0.156	0.124	0.095	0.070	0.050	0.042
0.96	0.458	0.459	0.459	0.458	0.453	0.447	0.436	0.426	0.408	0.376	0.312	0.250	0.157	0.116	0.078	0.062	0.047	0.036	0.026	0.021
0.98	0.313	0.313	0.310	0.306	0.296	0.287	0.271	0.257	0.235	0.200	0.136	0.092	0.049	0.035	0.024	0.019	0.015	0.011	0.007	0.005
1.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless proton depth dose distributions, (ro/To)D(z/ro).
Detector material: water

z/ro	0.1	0.08	0.06	0.05	0.04	0.03	0.02	0.015	0.01
0.00	4.294	4.529	4.748	4.846	4.935	5.006	5.071	5.101	5.144
0.02	4.197	4.367	4.508	4.564	4.613	4.645	4.681	4.699	4.710
0.04	4.082	4.207	4.298	4.329	4.354	4.365	4.384	4.396	4.392
0.06	3.962	4.050	4.102	4.113	4.121	4.118	4.124	4.131	4.119
0.08	3.838	3.895	3.915	3.911	3.905	3.891	3.888	3.892	3.875
0.10	3.713	3.743	3.735	3.719	3.703	3.680	3.671	3.671	3.652
0.12	3.587	3.593	3.562	3.537	3.512	3.482	3.468	3.465	3.447
0.14	3.460	3.445	3.395	3.362	3.330	3.296	3.277	3.272	3.256
0.16	3.333	3.300	3.234	3.194	3.156	3.119	3.097	3.089	3.077
0.18	3.206	3.157	3.078	3.033	2.991	2.950	2.927	2.916	2.909
0.20	3.080	3.017	2.927	2.878	2.833	2.790	2.765	2.752	2.750
0.22	2.954	2.879	2.780	2.728	2.681	2.637	2.611	2.596	2.600
0.24	2.829	2.744	2.638	2.584	2.535	2.491	2.464	2.448	2.457
0.26	2.705	2.611	2.500	2.444	2.395	2.351	2.323	2.308	2.321
0.28	2.582	2.482	2.367	2.310	2.261	2.217	2.189	2.176	2.192
0.30	2.461	2.355	2.237	2.181	2.132	2.088	2.060	2.049	2.069
0.32	2.341	2.230	2.112	2.056	2.007	1.965	1.936	1.929	1.951
0.34	2.222	2.109	1.991	1.935	1.888	1.847	1.818	1.814	1.839
0.36	2.106	1.991	1.873	1.819	1.773	1.733	1.706	1.704	1.732
0.38	1.991	1.876	1.760	1.707	1.663	1.625	1.599	1.600	1.629
0.40	1.879	1.764	1.651	1.600	1.557	1.520	1.497	1.500	1.530
0.42	1.769	1.655	1.545	1.496	1.455	1.420	1.399	1.404	1.436
0.44	1.661	1.550	1.443	1.396	1.357	1.324	1.306	1.313	1.345
0.46	1.555	1.447	1.345	1.300	1.263	1.232	1.217	1.226	1.259
0.48	1.453	1.348	1.251	1.208	1.174	1.143	1.133	1.142	1.176
0.50	1.353	1.252	1.160	1.120	1.087	1.059	1.052	1.063	1.096
0.52	1.256	1.160	1.073	1.036	1.005	0.979	0.975	0.987	1.019
0.54	1.162	1.071	0.989	0.955	0.926	0.903	0.902	0.914	0.946
0.56	1.072	0.986	0.909	0.877	0.850	0.831	0.832	0.844	0.875
0.58	0.984	0.904	0.833	0.803	0.778	0.763	0.765	0.778	0.807
0.60	0.900	0.825	0.760	0.732	0.711	0.697	0.702	0.714	0.742
0.62	0.819	0.750	0.690	0.665	0.646	0.636	0.641	0.654	0.680
0.64	0.742	0.679	0.624	0.601	0.585	0.577	0.584	0.596	0.620
0.66	0.668	0.611	0.561	0.541	0.528	0.522	0.529	0.540	0.562
0.68	0.598	0.546	0.502	0.485	0.474	0.469	0.477	0.488	0.506
0.70	0.532	0.485	0.446	0.432	0.423	0.420	0.428	0.437	0.453
0.72	0.469	0.428	0.394	0.382	0.375	0.373	0.381	0.389	0.402
0.74	0.410	0.374	0.346	0.336	0.330	0.329	0.336	0.343	0.352
0.76	0.355	0.324	0.301	0.293	0.288	0.288	0.294	0.299	0.305
0.78	0.303	0.278	0.259	0.252	0.249	0.249	0.254	0.258	0.259
0.80	0.256	0.235	0.220	0.215	0.213	0.213	0.216	0.218	0.215
0.82	0.213	0.196	0.184	0.180	0.178	0.178	0.180	0.179	0.174
0.84	0.174	0.161	0.152	0.148	0.147	0.146	0.146	0.143	0.135
0.86	0.139	0.129	0.122	0.119	0.117	0.116	0.113	0.109	0.100
0.88	0.107	0.100	0.094	0.092	0.090	0.088	0.083	0.078	0.068
0.90	0.079	0.074	0.070	0.067	0.065	0.062	0.056	0.051	0.041
0.92	0.055	0.051	0.047	0.045	0.042	0.039	0.033	0.028	0.020
0.94	0.034	0.031	0.027	0.025	0.022	0.019	0.014	0.011	0.007
0.96	0.016	0.013	0.011	0.009	0.007	0.005	0.003	0.002	0.001
0.98	0.003	0.002	0.001	0.001	0.000	0.000	0.000	0.000	0.000
1.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless electron depth dose distributions, (ro/To)D(z/ro).
Semi-infinite slab case (z = depth), detector material: aluminum

z/ro	50.000	20.000	10.000	5.000	2.000	1.000	0.500	0.200	0.100	0.050	0.020	0.010	0.005	0.002
0.000	1.357	1.740	1.951	2.096	2.097	2.005	1.885	1.800	1.718	1.706	1.653	1.683	1.758	1.979
0.025	1.339	1.706	1.900	2.028	2.044	1.964	1.860	1.771	1.720	1.706	1.674	1.705	1.757	1.939
0.050	1.313	1.665	1.846	1.962	1.989	1.919	1.829	1.742	1.713	1.699	1.684	1.715	1.754	1.904
0.075	1.281	1.617	1.791	1.898	1.932	1.871	1.793	1.713	1.697	1.685	1.684	1.714	1.747	1.871
0.100	1.244	1.566	1.735	1.836	1.873	1.819	1.753	1.683	1.674	1.663	1.674	1.702	1.735	1.838
0.125	1.203	1.513	1.677	1.774	1.813	1.765	1.710	1.650	1.645	1.636	1.654	1.680	1.715	1.803
0.150	1.160	1.459	1.619	1.713	1.751	1.710	1.664	1.615	1.612	1.603	1.627	1.650	1.686	1.764
0.175	1.117	1.407	1.560	1.652	1.688	1.653	1.616	1.577	1.575	1.566	1.592	1.612	1.647	1.720
0.200	1.073	1.355	1.502	1.591	1.623	1.595	1.565	1.534	1.534	1.524	1.550	1.568	1.598	1.669
0.225	1.029	1.305	1.443	1.529	1.556	1.534	1.511	1.488	1.488	1.477	1.501	1.517	1.539	1.610
0.250	0.985	1.256	1.385	1.467	1.489	1.472	1.455	1.437	1.436	1.425	1.447	1.460	1.472	1.543
0.275	0.943	1.206	1.327	1.405	1.421	1.407	1.395	1.381	1.379	1.369	1.388	1.396	1.399	1.467
0.300	0.901	1.157	1.271	1.342	1.351	1.340	1.332	1.321	1.316	1.309	1.323	1.326	1.321	1.382
0.325	0.860	1.108	1.215	1.278	1.281	1.270	1.265	1.256	1.248	1.244	1.255	1.252	1.239	1.289
0.350	0.821	1.058	1.160	1.214	1.208	1.197	1.194	1.185	1.176	1.175	1.182	1.172	1.155	1.189
0.375	0.782	1.008	1.105	1.148	1.133	1.121	1.119	1.110	1.099	1.100	1.104	1.089	1.069	1.085
0.400	0.744	0.958	1.049	1.082	1.056	1.041	1.039	1.031	1.019	1.021	1.021	1.002	0.981	0.980
0.425	0.706	0.908	0.992	1.015	0.977	0.960	0.957	0.948	0.938	0.937	0.934	0.913	0.892	0.876
0.450	0.669	0.858	0.934	0.947	0.896	0.876	0.872	0.862	0.854	0.849	0.844	0.823	0.803	0.775
0.475	0.632	0.809	0.876	0.877	0.815	0.792	0.784	0.776	0.770	0.759	0.753	0.734	0.716	0.678
0.500	0.595	0.760	0.816	0.805	0.734	0.708	0.697	0.689	0.685	0.670	0.664	0.646	0.630	0.588
0.525	0.559	0.711	0.756	0.731	0.653	0.625	0.610	0.604	0.600	0.584	0.578	0.562	0.549	0.505
0.550	0.523	0.663	0.696	0.657	0.575	0.544	0.527	0.523	0.518	0.503	0.498	0.483	0.472	0.429
0.575	0.488	0.615	0.636	0.583	0.499	0.467	0.448	0.445	0.440	0.428	0.423	0.410	0.401	0.361
0.600	0.454	0.568	0.576	0.510	0.426	0.393	0.374	0.372	0.366	0.359	0.356	0.343	0.338	0.302
0.625	0.421	0.521	0.517	0.440	0.357	0.324	0.308	0.304	0.299	0.297	0.295	0.284	0.280	0.249
0.650	0.388	0.474	0.459	0.373	0.293	0.260	0.249	0.244	0.239	0.242	0.241	0.232	0.230	0.204
0.675	0.357	0.429	0.401	0.312	0.234	0.204	0.197	0.191	0.187	0.193	0.193	0.187	0.187	0.166
0.700	0.326	0.384	0.345	0.256	0.183	0.155	0.152	0.146	0.143	0.150	0.152	0.148	0.150	0.133
0.725	0.297	0.341	0.291	0.205	0.138	0.115	0.113	0.108	0.106	0.114	0.116	0.116	0.118	0.106
0.750	0.270	0.299	0.240	0.161	0.101	0.083	0.080	0.078	0.078	0.083	0.087	0.088	0.092	0.084
0.775	0.243	0.258	0.194	0.122	0.071	0.058	0.054	0.054	0.055	0.059	0.064	0.066	0.071	0.065
0.800	0.218	0.220	0.152	0.090	0.049	0.040	0.034	0.037	0.038	0.041	0.047	0.049	0.054	0.050
0.825	0.195	0.185	0.116	0.064	0.032	0.026	0.021	0.024	0.026	0.028	0.034	0.035	0.041	0.038
0.850	0.173	0.152	0.086	0.043	0.020	0.016	0.013	0.015	0.017	0.019	0.025	0.026	0.030	0.029
0.875	0.152	0.122	0.062	0.027	0.012	0.009	0.007	0.009	0.011	0.013	0.018	0.018	0.022	0.021
0.900	0.133	0.096	0.042	0.016	0.006	0.004	0.004	0.005	0.006	0.009	0.013	0.014	0.017	0.016
0.925	0.115	0.073	0.028	0.009	0.003	0.002	0.002	0.003	0.004	0.006	0.008	0.010	0.012	0.011
0.950	0.099	0.054	0.018	0.005	0.001	0.001	0.002	0.001	0.002	0.003	0.005	0.007	0.009	0.008
0.975	0.084	0.039	0.010	0.002	0.001	0.000	0.001	0.001	0.001	0.002	0.003	0.005	0.006	0.006
1.000	0.071	0.026	0.006	0.001	0.000	0.000	0.002	0.000	0.000	0.001	0.002	0.004	0.005	0.004
1.025	0.058	0.016	0.003	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.001	0.002	0.003	0.003
1.050	0.048	0.010	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.002
1.075	0.038	0.005	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001
1.100	0.030	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
1.125	0.023	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
1.150	0.017	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.175	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.200	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.225	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.250	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless electron depth dose distributions, (ro/To)D(z/ro).
Finite slab case (z = thickness), detector material: aluminum

z/ro	50.000	20.000	10.000	5.000	2.000	1.000	0.500	0.200	0.100	0.050	0.020	0.010	0.005	0.002
0.000	1.118	1.357	1.454	1.489	1.428	1.326	1.221	1.143	1.089	1.078	1.065	1.080	1.137	1.238
0.025	1.102	1.329	1.414	1.440	1.389	1.295	1.200	1.124	1.086	1.078	1.073	1.095	1.141	1.227
0.050	1.080	1.296	1.374	1.392	1.349	1.263	1.177	1.105	1.079	1.073	1.077	1.103	1.142	1.220
0.075	1.052	1.259	1.332	1.346	1.308	1.230	1.153	1.087	1.069	1.064	1.075	1.104	1.141	1.215
0.100	1.022	1.219	1.289	1.300	1.267	1.196	1.128	1.068	1.055	1.051	1.069	1.099	1.135	1.211
0.125	0.988	1.178	1.245	1.255	1.224	1.161	1.101	1.047	1.039	1.035	1.057	1.087	1.124	1.207
0.150	0.953	1.136	1.201	1.210	1.181	1.124	1.072	1.025	1.019	1.015	1.041	1.070	1.107	1.200
0.175	0.917	1.095	1.157	1.165	1.136	1.085	1.042	1.001	0.996	0.993	1.020	1.047	1.083	1.189
0.200	0.881	1.054	1.112	1.120	1.091	1.045	1.009	0.975	0.970	0.967	0.995	1.020	1.054	1.173
0.225	0.845	1.015	1.068	1.075	1.045	1.004	0.973	0.946	0.941	0.939	0.966	0.988	1.018	1.151
0.250	0.809	0.975	1.024	1.029	0.998	0.962	0.936	0.914	0.908	0.907	0.933	0.952	0.977	1.121
0.275	0.774	0.936	0.980	0.983	0.951	0.918	0.897	0.878	0.872	0.872	0.895	0.911	0.931	1.083
0.300	0.739	0.896	0.936	0.937	0.902	0.873	0.855	0.840	0.833	0.834	0.855	0.867	0.882	1.036
0.325	0.705	0.857	0.894	0.891	0.853	0.827	0.811	0.798	0.790	0.793	0.812	0.818	0.830	0.980
0.350	0.672	0.817	0.851	0.844	0.803	0.779	0.764	0.753	0.745	0.749	0.765	0.767	0.776	0.916
0.375	0.640	0.777	0.809	0.796	0.752	0.728	0.715	0.705	0.697	0.701	0.715	0.713	0.720	0.847
0.400	0.608	0.738	0.766	0.748	0.699	0.676	0.663	0.654	0.647	0.651	0.661	0.657	0.663	0.773
0.425	0.577	0.698	0.722	0.699	0.645	0.622	0.610	0.601	0.596	0.597	0.605	0.600	0.604	0.698
0.450	0.546	0.658	0.678	0.649	0.590	0.567	0.555	0.547	0.543	0.542	0.548	0.542	0.546	0.624
0.475	0.515	0.619	0.633	0.599	0.535	0.512	0.500	0.491	0.490	0.485	0.489	0.484	0.488	0.551
0.500	0.484	0.580	0.588	0.548	0.481	0.456	0.444	0.436	0.436	0.428	0.432	0.427	0.431	0.481
0.525	0.454	0.541	0.543	0.496	0.427	0.402	0.390	0.382	0.382	0.374	0.377	0.372	0.376	0.416
0.550	0.425	0.503	0.498	0.444	0.375	0.350	0.338	0.330	0.330	0.322	0.324	0.321	0.325	0.356
0.575	0.396	0.465	0.453	0.393	0.325	0.299	0.288	0.281	0.279	0.274	0.276	0.273	0.277	0.301
0.600	0.367	0.428	0.408	0.343	0.277	0.252	0.241	0.235	0.232	0.230	0.232	0.229	0.234	0.252
0.625	0.340	0.391	0.365	0.295	0.231	0.207	0.198	0.192	0.190	0.191	0.193	0.189	0.196	0.209
0.650	0.313	0.355	0.322	0.250	0.190	0.166	0.159	0.154	0.151	0.156	0.157	0.154	0.162	0.172
0.675	0.287	0.320	0.280	0.208	0.151	0.130	0.124	0.120	0.118	0.124	0.126	0.124	0.132	0.140
0.700	0.262	0.285	0.240	0.170	0.118	0.099	0.095	0.092	0.091	0.096	0.099	0.098	0.106	0.112
0.725	0.238	0.252	0.201	0.136	0.089	0.074	0.070	0.068	0.068	0.073	0.076	0.077	0.084	0.089
0.750	0.216	0.219	0.166	0.106	0.065	0.053	0.051	0.049	0.049	0.053	0.057	0.059	0.066	0.071
0.775	0.194	0.189	0.133	0.081	0.046	0.037	0.035	0.034	0.035	0.038	0.042	0.045	0.051	0.055
0.800	0.174	0.160	0.104	0.059	0.031	0.026	0.024	0.023	0.024	0.026	0.031	0.034	0.039	0.042
0.825	0.155	0.134	0.079	0.042	0.020	0.017	0.015	0.015	0.017	0.018	0.022	0.025	0.029	0.032
0.850	0.137	0.110	0.058	0.028	0.013	0.010	0.009	0.009	0.011	0.012	0.016	0.018	0.022	0.024
0.875	0.120	0.088	0.042	0.018	0.007	0.005	0.006	0.005	0.007	0.009	0.012	0.013	0.016	0.018
0.900	0.105	0.069	0.029	0.011	0.004	0.003	0.003	0.003	0.004	0.006	0.008	0.010	0.012	0.013
0.925	0.090	0.052	0.019	0.006	0.002	0.001	0.002	0.002	0.002	0.004	0.005	0.007	0.009	0.010
0.950	0.077	0.038	0.012	0.003	0.001	0.001	0.001	0.001	0.001	0.002	0.003	0.005	0.007	0.007
0.975	0.065	0.027	0.007	0.001	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.004	0.005	0.005
1.000	0.054	0.018	0.004	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.003	0.003	0.004
1.025	0.045	0.011	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.002	0.002
1.050	0.036	0.007	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.002
1.075	0.029	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001
1.100	0.023	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
1.125	0.017	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.150	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.175	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.200	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.225	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.250	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless electron depth dose distributions, (ro/To)D(z/ro).
Semi-infinite slab case (z = depth), detector material: graphite

z/ro	50.000	20.000	10.000	5.000	2.000	1.000	0.500	0.200	0.100	0.050	0.020	0.010	0.005	0.002
0.000	1.476	1.920	2.176	2.369	2.409	2.341	2.231	2.157	2.071	2.074	2.037	2.103	2.240	2.556
0.025	1.458	1.885	2.121	2.298	2.354	2.300	2.206	2.125	2.078	2.078	2.065	2.129	2.230	2.473
0.050	1.432	1.840	2.064	2.229	2.296	2.253	2.173	2.093	2.072	2.072	2.079	2.141	2.219	2.399
0.075	1.398	1.789	2.004	2.160	2.235	2.199	2.133	2.060	2.055	2.056	2.080	2.139	2.206	2.331
0.100	1.358	1.734	1.942	2.092	2.171	2.142	2.088	2.025	2.029	2.032	2.069	2.125	2.187	2.266
0.125	1.315	1.675	1.879	2.024	2.105	2.080	2.038	1.987	1.996	2.000	2.046	2.098	2.159	2.202
0.150	1.268	1.616	1.815	1.957	2.037	2.017	1.984	1.946	1.957	1.961	2.013	2.061	2.121	2.135
0.175	1.221	1.558	1.750	1.889	1.965	1.952	1.928	1.901	1.913	1.916	1.971	2.015	2.069	2.064
0.200	1.173	1.502	1.685	1.821	1.892	1.885	1.869	1.851	1.864	1.866	1.920	1.960	2.005	1.988
0.225	1.126	1.447	1.620	1.752	1.817	1.815	1.806	1.796	1.809	1.810	1.862	1.897	1.929	1.904
0.250	1.079	1.392	1.556	1.683	1.740	1.743	1.740	1.735	1.747	1.748	1.795	1.825	1.843	1.812
0.275	1.032	1.338	1.492	1.613	1.662	1.668	1.669	1.669	1.678	1.680	1.722	1.745	1.749	1.712
0.300	0.987	1.284	1.429	1.543	1.583	1.590	1.595	1.597	1.603	1.607	1.643	1.658	1.648	1.603
0.325	0.942	1.229	1.367	1.471	1.502	1.508	1.516	1.519	1.521	1.529	1.559	1.565	1.544	1.486
0.350	0.899	1.175	1.306	1.399	1.418	1.423	1.432	1.434	1.433	1.444	1.469	1.466	1.436	1.363
0.375	0.857	1.119	1.244	1.325	1.332	1.333	1.342	1.344	1.341	1.353	1.372	1.361	1.327	1.238
0.400	0.815	1.064	1.182	1.250	1.243	1.240	1.248	1.248	1.244	1.256	1.269	1.253	1.215	1.112
0.425	0.774	1.009	1.119	1.174	1.151	1.143	1.149	1.149	1.145	1.153	1.162	1.142	1.103	0.989
0.450	0.734	0.954	1.055	1.096	1.057	1.045	1.047	1.046	1.044	1.046	1.050	1.029	0.991	0.871
0.475	0.693	0.900	0.990	1.017	0.962	0.945	0.943	0.941	0.941	0.936	0.938	0.916	0.881	0.760
0.500	0.653	0.845	0.924	0.934	0.867	0.845	0.839	0.837	0.838	0.827	0.827	0.806	0.774	0.656
0.525	0.614	0.792	0.857	0.850	0.773	0.747	0.735	0.734	0.735	0.721	0.720	0.701	0.672	0.561
0.550	0.575	0.738	0.789	0.765	0.681	0.651	0.635	0.635	0.635	0.621	0.620	0.602	0.577	0.476
0.575	0.536	0.685	0.722	0.679	0.592	0.559	0.539	0.541	0.539	0.528	0.528	0.510	0.490	0.400
0.600	0.499	0.633	0.655	0.595	0.506	0.471	0.451	0.452	0.449	0.444	0.444	0.427	0.411	0.333
0.625	0.462	0.581	0.588	0.514	0.425	0.388	0.372	0.371	0.367	0.368	0.368	0.354	0.340	0.275
0.650	0.427	0.529	0.523	0.437	0.349	0.312	0.301	0.298	0.294	0.299	0.301	0.289	0.279	0.225
0.675	0.392	0.479	0.458	0.366	0.279	0.245	0.239	0.233	0.230	0.239	0.241	0.233	0.226	0.183
0.700	0.359	0.429	0.394	0.301	0.218	0.186	0.184	0.178	0.176	0.186	0.189	0.184	0.180	0.147
0.725	0.327	0.381	0.333	0.242	0.165	0.138	0.137	0.132	0.131	0.141	0.145	0.143	0.142	0.117
0.750	0.297	0.334	0.275	0.189	0.121	0.100	0.097	0.095	0.095	0.103	0.109	0.109	0.111	0.092
0.775	0.268	0.289	0.222	0.144	0.085	0.070	0.065	0.067	0.068	0.074	0.080	0.082	0.085	0.072
0.800	0.240	0.247	0.175	0.106	0.058	0.048	0.042	0.045	0.047	0.051	0.058	0.060	0.065	0.055
0.825	0.215	0.207	0.134	0.075	0.038	0.031	0.026	0.029	0.032	0.035	0.042	0.044	0.049	0.042
0.850	0.190	0.171	0.099	0.051	0.024	0.019	0.015	0.018	0.021	0.024	0.031	0.032	0.036	0.031
0.875	0.168	0.138	0.071	0.033	0.014	0.010	0.009	0.011	0.013	0.016	0.022	0.023	0.027	0.023
0.900	0.147	0.108	0.049	0.019	0.008	0.005	0.005	0.006	0.008	0.011	0.016	0.017	0.020	0.017
0.925	0.127	0.083	0.033	0.011	0.004	0.002	0.003	0.003	0.004	0.007	0.010	0.012	0.014	0.012
0.950	0.109	0.062	0.020	0.005	0.002	0.001	0.002	0.002	0.002	0.004	0.006	0.009	0.010	0.009
0.975	0.093	0.044	0.012	0.002	0.001	0.000	0.002	0.001	0.001	0.002	0.003	0.007	0.007	0.006
1.000	0.078	0.030	0.007	0.001	0.000	0.000	0.002	0.000	0.001	0.001	0.002	0.005	0.005	0.004
1.025	0.064	0.019	0.003	0.000	0.000	0.000	0.003	0.000	0.000	0.001	0.002	0.003	0.004	0.003
1.050	0.053	0.011	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.002	0.002
1.075	0.042	0.006	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.001
1.100	0.033	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
1.125	0.025	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
1.150	0.019	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.175	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.200	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.225	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.250	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless electron depth dose distributions, (ro/To)D(z/ro).
Finite slab case (z = thickness), detector material: graphite

z/ro	50.000	20.000	10.000	5.000	2.000	1.000	0.500	0.200	0.100	0.050	0.020	0.010	0.005	0.002
0.000	1.208	1.487	1.607	1.661	1.623	1.537	1.437	1.366	1.312	1.307	1.311	1.351	1.456	1.658
0.025	1.192	1.458	1.565	1.611	1.583	1.506	1.417	1.345	1.310	1.309	1.322	1.368	1.454	1.618
0.050	1.170	1.422	1.521	1.561	1.542	1.473	1.394	1.325	1.303	1.306	1.328	1.377	1.452	1.586
0.075	1.142	1.383	1.475	1.512	1.499	1.437	1.367	1.304	1.292	1.297	1.327	1.378	1.447	1.559
0.100	1.109	1.340	1.429	1.463	1.454	1.399	1.338	1.282	1.277	1.282	1.320	1.372	1.437	1.535
0.125	1.073	1.295	1.381	1.413	1.408	1.359	1.307	1.259	1.257	1.264	1.307	1.359	1.422	1.511
0.150	1.036	1.249	1.333	1.364	1.361	1.317	1.273	1.233	1.234	1.241	1.288	1.338	1.401	1.485
0.175	0.997	1.204	1.284	1.315	1.312	1.274	1.237	1.205	1.207	1.214	1.263	1.311	1.370	1.457
0.200	0.958	1.160	1.236	1.266	1.261	1.229	1.199	1.174	1.177	1.184	1.233	1.278	1.332	1.423
0.225	0.919	1.117	1.187	1.216	1.209	1.182	1.158	1.139	1.142	1.149	1.197	1.238	1.285	1.383
0.250	0.881	1.073	1.138	1.166	1.157	1.133	1.114	1.101	1.103	1.111	1.157	1.193	1.232	1.335
0.275	0.842	1.030	1.090	1.115	1.103	1.083	1.068	1.059	1.060	1.069	1.111	1.142	1.173	1.279
0.300	0.805	0.987	1.042	1.065	1.049	1.031	1.020	1.013	1.013	1.023	1.062	1.086	1.110	1.214
0.325	0.768	0.944	0.996	1.013	0.993	0.977	0.968	0.963	0.961	0.973	1.008	1.026	1.043	1.140
0.350	0.733	0.900	0.949	0.961	0.936	0.920	0.914	0.910	0.907	0.920	0.951	0.962	0.974	1.059
0.375	0.698	0.857	0.902	0.908	0.877	0.862	0.856	0.852	0.849	0.862	0.889	0.895	0.902	0.972
0.400	0.663	0.813	0.855	0.854	0.817	0.801	0.795	0.791	0.789	0.800	0.823	0.825	0.829	0.883
0.425	0.629	0.769	0.807	0.800	0.755	0.738	0.732	0.727	0.726	0.735	0.754	0.753	0.754	0.793
0.450	0.595	0.726	0.758	0.744	0.692	0.673	0.667	0.662	0.663	0.667	0.683	0.680	0.680	0.705
0.475	0.562	0.683	0.709	0.687	0.628	0.608	0.600	0.595	0.598	0.597	0.610	0.607	0.606	0.619
0.500	0.529	0.640	0.659	0.630	0.565	0.543	0.534	0.529	0.532	0.528	0.539	0.536	0.535	0.539
0.525	0.496	0.598	0.609	0.571	0.503	0.479	0.468	0.464	0.467	0.461	0.470	0.467	0.466	0.464
0.550	0.464	0.556	0.559	0.512	0.442	0.417	0.404	0.401	0.403	0.397	0.405	0.402	0.401	0.396
0.575	0.432	0.515	0.509	0.454	0.383	0.357	0.344	0.341	0.342	0.338	0.345	0.341	0.342	0.334
0.600	0.401	0.473	0.460	0.397	0.327	0.300	0.288	0.285	0.285	0.285	0.290	0.286	0.288	0.279
0.625	0.371	0.433	0.412	0.342	0.274	0.247	0.236	0.234	0.232	0.236	0.241	0.237	0.240	0.231
0.650	0.342	0.393	0.364	0.290	0.224	0.199	0.191	0.187	0.186	0.192	0.197	0.193	0.197	0.190
0.675	0.314	0.354	0.317	0.243	0.180	0.156	0.151	0.147	0.145	0.153	0.157	0.155	0.161	0.154
0.700	0.287	0.316	0.272	0.199	0.140	0.119	0.116	0.112	0.111	0.119	0.124	0.123	0.129	0.124
0.725	0.261	0.279	0.229	0.159	0.106	0.088	0.086	0.083	0.083	0.090	0.095	0.096	0.102	0.099
0.750	0.236	0.244	0.188	0.124	0.078	0.064	0.061	0.060	0.061	0.066	0.071	0.074	0.080	0.078
0.775	0.212	0.210	0.152	0.094	0.055	0.045	0.041	0.042	0.043	0.047	0.053	0.056	0.062	0.061
0.800	0.190	0.178	0.119	0.069	0.037	0.031	0.026	0.028	0.030	0.032	0.038	0.042	0.047	0.047
0.825	0.169	0.149	0.091	0.049	0.024	0.020	0.016	0.018	0.020	0.022	0.028	0.031	0.035	0.036
0.850	0.150	0.122	0.067	0.033	0.015	0.012	0.009	0.011	0.013	0.015	0.020	0.023	0.026	0.027
0.875	0.132	0.098	0.048	0.021	0.009	0.006	0.005	0.007	0.008	0.011	0.015	0.017	0.019	0.020
0.900	0.115	0.077	0.033	0.012	0.005	0.003	0.003	0.004	0.005	0.007	0.010	0.012	0.014	0.015
0.925	0.099	0.058	0.022	0.007	0.002	0.002	0.002	0.002	0.003	0.005	0.007	0.009	0.010	0.011
0.950	0.085	0.043	0.014	0.004	0.001	0.001	0.001	0.001	0.002	0.002	0.004	0.006	0.008	0.008
0.975	0.072	0.031	0.008	0.002	0.000	0.000	0.001	0.000	0.001	0.001	0.002	0.005	0.006	0.005
1.000	0.060	0.021	0.004	0.001	0.000	0.000	0.001	0.000	0.000	0.001	0.001	0.003	0.004	0.004
1.025	0.049	0.013	0.002	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.001	0.002	0.003	0.002
1.050	0.040	0.008	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.002
1.075	0.032	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001
1.100	0.025	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
1.125	0.019	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.150	0.014	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.175	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.200	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.225	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.250	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless electron depth dose distributions, (ro/To)D(z/ro).
Semi-infinite slab case (z = depth), detector material: silicon

z/ro	50.000	20.000	10.000	5.000	2.000	1.000	0.500	0.200	0.100	0.050	0.020	0.010	0.005	0.002
0.000	1.406	1.799	2.014	2.156	2.146	2.051	1.928	1.841	1.757	1.743	1.688	1.717	1.792	2.008
0.025	1.386	1.764	1.960	2.084	2.091	2.010	1.903	1.811	1.758	1.743	1.709	1.739	1.789	1.966
0.050	1.359	1.720	1.904	2.015	2.035	1.964	1.871	1.781	1.750	1.736	1.719	1.749	1.785	1.928
0.075	1.325	1.671	1.847	1.949	1.977	1.914	1.834	1.751	1.734	1.720	1.718	1.747	1.777	1.893
0.100	1.286	1.617	1.788	1.884	1.917	1.861	1.793	1.720	1.710	1.698	1.707	1.734	1.764	1.858
0.125	1.244	1.562	1.728	1.821	1.855	1.806	1.749	1.687	1.681	1.670	1.687	1.711	1.743	1.821
0.150	1.200	1.507	1.667	1.758	1.792	1.749	1.702	1.651	1.647	1.637	1.659	1.680	1.714	1.781
0.175	1.155	1.452	1.607	1.695	1.727	1.691	1.652	1.611	1.609	1.598	1.623	1.642	1.674	1.735
0.200	1.109	1.399	1.546	1.631	1.660	1.631	1.600	1.568	1.567	1.555	1.580	1.597	1.623	1.683
0.225	1.064	1.347	1.485	1.568	1.592	1.569	1.545	1.520	1.520	1.508	1.531	1.545	1.563	1.623
0.250	1.019	1.296	1.425	1.504	1.523	1.505	1.487	1.468	1.467	1.455	1.475	1.486	1.495	1.555
0.275	0.975	1.245	1.365	1.440	1.453	1.439	1.426	1.411	1.408	1.398	1.415	1.421	1.420	1.478
0.300	0.931	1.194	1.307	1.375	1.383	1.371	1.362	1.350	1.344	1.336	1.349	1.350	1.340	1.391
0.325	0.889	1.143	1.249	1.309	1.310	1.300	1.293	1.283	1.275	1.270	1.279	1.273	1.257	1.297
0.350	0.848	1.091	1.192	1.243	1.236	1.225	1.221	1.211	1.200	1.199	1.204	1.193	1.171	1.196
0.375	0.808	1.039	1.135	1.176	1.159	1.147	1.144	1.134	1.122	1.123	1.125	1.108	1.084	1.092
0.400	0.768	0.988	1.077	1.108	1.080	1.066	1.063	1.053	1.041	1.042	1.040	1.019	0.994	0.985
0.425	0.729	0.936	1.019	1.039	0.999	0.982	0.978	0.968	0.957	0.956	0.951	0.929	0.904	0.880
0.450	0.691	0.884	0.959	0.969	0.917	0.896	0.891	0.881	0.872	0.866	0.859	0.837	0.814	0.779
0.475	0.652	0.833	0.899	0.897	0.834	0.810	0.802	0.793	0.786	0.775	0.767	0.746	0.725	0.682
0.500	0.615	0.783	0.838	0.823	0.751	0.724	0.712	0.704	0.699	0.684	0.676	0.656	0.638	0.591
0.525	0.577	0.733	0.776	0.748	0.668	0.639	0.624	0.618	0.613	0.596	0.589	0.571	0.555	0.507
0.550	0.540	0.683	0.714	0.672	0.588	0.557	0.538	0.534	0.529	0.513	0.506	0.490	0.478	0.431
0.575	0.504	0.633	0.652	0.596	0.511	0.477	0.457	0.454	0.449	0.436	0.431	0.416	0.406	0.363
0.600	0.469	0.584	0.591	0.521	0.436	0.402	0.382	0.380	0.374	0.366	0.362	0.349	0.341	0.303
0.625	0.434	0.536	0.530	0.450	0.365	0.331	0.315	0.311	0.305	0.303	0.301	0.289	0.283	0.250
0.650	0.401	0.488	0.470	0.382	0.299	0.266	0.255	0.249	0.244	0.247	0.245	0.236	0.233	0.205
0.675	0.368	0.441	0.411	0.319	0.240	0.208	0.202	0.195	0.191	0.197	0.197	0.190	0.189	0.167
0.700	0.337	0.395	0.353	0.262	0.187	0.159	0.155	0.149	0.146	0.153	0.154	0.150	0.151	0.134
0.725	0.307	0.350	0.298	0.210	0.141	0.117	0.115	0.111	0.109	0.116	0.118	0.117	0.119	0.106
0.750	0.278	0.307	0.246	0.164	0.103	0.085	0.082	0.080	0.079	0.085	0.089	0.090	0.093	0.084
0.775	0.251	0.265	0.199	0.125	0.073	0.059	0.055	0.056	0.056	0.061	0.065	0.067	0.072	0.065
0.800	0.225	0.226	0.156	0.092	0.050	0.040	0.035	0.038	0.039	0.042	0.047	0.049	0.055	0.050
0.825	0.201	0.190	0.119	0.065	0.032	0.026	0.022	0.024	0.026	0.029	0.034	0.036	0.041	0.038
0.850	0.178	0.156	0.088	0.044	0.020	0.016	0.013	0.015	0.017	0.020	0.025	0.026	0.031	0.029
0.875	0.157	0.126	0.063	0.028	0.012	0.009	0.007	0.009	0.011	0.013	0.018	0.019	0.023	0.021
0.900	0.137	0.099	0.044	0.017	0.006	0.004	0.004	0.005	0.006	0.009	0.013	0.014	0.017	0.016
0.925	0.119	0.075	0.029	0.009	0.003	0.002	0.003	0.003	0.004	0.006	0.008	0.010	0.012	0.011
0.950	0.102	0.056	0.018	0.005	0.001	0.001	0.002	0.001	0.002	0.004	0.005	0.008	0.009	0.008
0.975	0.087	0.040	0.011	0.002	0.001	0.000	0.001	0.001	0.001	0.002	0.003	0.006	0.006	0.006
1.000	0.073	0.027	0.006	0.001	0.000	0.000	0.002	0.000	0.000	0.001	0.002	0.004	0.005	0.004
1.025	0.060	0.017	0.003	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.001	0.003	0.003	0.003
1.050	0.049	0.010	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.002
1.075	0.039	0.006	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001
1.100	0.031	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
1.125	0.023	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
1.150	0.018	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.175	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.200	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.225	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.250	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless electron depth dose distributions, (ro/To)D(z/ro).
Finite slab case (z = thickness), detector material: silicon

z/ro	50.000	20.000	10.000	5.000	2.000	1.000	0.500	0.200	0.100	0.050	0.020	0.010	0.005	0.002
0.000	1.159	1.406	1.504	1.534	1.463	1.357	1.250	1.170	1.115	1.103	1.089	1.103	1.161	1.259
0.025	1.142	1.377	1.463	1.482	1.423	1.326	1.228	1.150	1.111	1.102	1.097	1.118	1.163	1.247
0.050	1.119	1.342	1.420	1.433	1.382	1.294	1.205	1.131	1.103	1.097	1.099	1.125	1.164	1.238
0.075	1.091	1.303	1.376	1.384	1.340	1.260	1.181	1.112	1.093	1.087	1.098	1.126	1.162	1.232
0.100	1.059	1.262	1.332	1.337	1.297	1.225	1.155	1.092	1.079	1.074	1.091	1.120	1.155	1.227
0.125	1.024	1.219	1.286	1.290	1.254	1.188	1.127	1.072	1.062	1.058	1.079	1.108	1.144	1.221
0.150	0.987	1.176	1.240	1.243	1.209	1.150	1.098	1.049	1.042	1.038	1.063	1.090	1.126	1.213
0.175	0.950	1.133	1.194	1.196	1.164	1.111	1.066	1.024	1.018	1.015	1.042	1.067	1.102	1.201
0.200	0.912	1.091	1.148	1.150	1.117	1.070	1.032	0.997	0.992	0.988	1.016	1.040	1.072	1.184
0.225	0.875	1.049	1.101	1.103	1.070	1.028	0.996	0.967	0.962	0.959	0.986	1.007	1.035	1.161
0.250	0.838	1.008	1.055	1.056	1.022	0.985	0.958	0.934	0.928	0.926	0.951	0.970	0.993	1.130
0.275	0.801	0.968	1.010	1.009	0.973	0.940	0.918	0.898	0.891	0.891	0.913	0.928	0.946	1.091
0.300	0.766	0.927	0.965	0.961	0.924	0.894	0.875	0.859	0.851	0.852	0.872	0.882	0.896	1.043
0.325	0.730	0.886	0.921	0.913	0.874	0.846	0.830	0.816	0.807	0.810	0.828	0.833	0.843	0.987
0.350	0.696	0.845	0.877	0.865	0.822	0.797	0.782	0.770	0.761	0.765	0.780	0.781	0.788	0.922
0.375	0.663	0.803	0.832	0.816	0.770	0.745	0.731	0.721	0.712	0.716	0.729	0.726	0.731	0.852
0.400	0.630	0.762	0.788	0.766	0.715	0.692	0.678	0.669	0.661	0.665	0.674	0.669	0.672	0.778
0.425	0.597	0.720	0.743	0.716	0.660	0.637	0.624	0.615	0.609	0.610	0.617	0.610	0.613	0.702
0.450	0.565	0.679	0.697	0.665	0.604	0.581	0.568	0.559	0.555	0.553	0.558	0.551	0.553	0.627
0.475	0.533	0.639	0.651	0.613	0.548	0.524	0.511	0.502	0.500	0.495	0.499	0.492	0.494	0.554
0.500	0.501	0.599	0.605	0.561	0.492	0.467	0.455	0.446	0.445	0.437	0.440	0.434	0.437	0.484
0.525	0.470	0.559	0.558	0.508	0.437	0.412	0.399	0.391	0.390	0.381	0.384	0.379	0.381	0.418
0.550	0.439	0.519	0.511	0.455	0.384	0.358	0.346	0.338	0.337	0.329	0.331	0.326	0.329	0.357
0.575	0.409	0.480	0.465	0.402	0.333	0.306	0.295	0.287	0.285	0.280	0.282	0.277	0.281	0.302
0.600	0.380	0.441	0.419	0.351	0.283	0.257	0.247	0.240	0.237	0.235	0.237	0.232	0.237	0.253
0.625	0.351	0.403	0.375	0.302	0.237	0.212	0.202	0.196	0.194	0.195	0.196	0.192	0.198	0.210
0.650	0.323	0.366	0.331	0.256	0.194	0.170	0.162	0.157	0.155	0.159	0.160	0.157	0.163	0.172
0.675	0.297	0.329	0.288	0.213	0.155	0.133	0.127	0.123	0.121	0.127	0.128	0.126	0.133	0.140
0.700	0.271	0.294	0.246	0.175	0.121	0.102	0.097	0.094	0.093	0.098	0.101	0.100	0.107	0.113
0.725	0.246	0.259	0.207	0.140	0.091	0.075	0.072	0.070	0.069	0.074	0.077	0.078	0.085	0.090
0.750	0.223	0.226	0.170	0.109	0.067	0.054	0.052	0.050	0.050	0.054	0.058	0.060	0.067	0.071
0.775	0.201	0.194	0.136	0.082	0.047	0.038	0.036	0.035	0.036	0.038	0.043	0.045	0.052	0.055
0.800	0.179	0.165	0.107	0.060	0.032	0.026	0.024	0.024	0.025	0.027	0.031	0.034	0.039	0.043
0.825	0.160	0.138	0.081	0.043	0.021	0.017	0.016	0.015	0.017	0.018	0.023	0.025	0.029	0.032
0.850	0.141	0.113	0.060	0.029	0.013	0.010	0.010	0.009	0.011	0.013	0.016	0.018	0.022	0.025
0.875	0.124	0.090	0.043	0.018	0.008	0.005	0.006	0.006	0.007	0.009	0.012	0.014	0.016	0.018
0.900	0.108	0.070	0.029	0.011	0.004	0.003	0.003	0.003	0.004	0.006	0.008	0.010	0.012	0.014
0.925	0.093	0.054	0.019	0.006	0.002	0.001	0.002	0.002	0.002	0.004	0.006	0.007	0.009	0.010
0.950	0.080	0.039	0.012	0.003	0.001	0.001	0.001	0.001	0.001	0.002	0.003	0.005	0.007	0.007
0.975	0.067	0.028	0.007	0.001	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.004	0.005	0.005
1.000	0.056	0.019	0.004	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.003	0.003	0.004
1.025	0.046	0.012	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.002	0.002
1.050	0.037	0.007	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.002
1.075	0.030	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001
1.100	0.023	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
1.125	0.018	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.150	0.013	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.175	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.200	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.225	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.250	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless electron depth dose distributions, (ro/To)D(z/ro).
Semi-infinite slab case (z = depth), detector material: air

z/ro	50.000	20.000	10.000	5.000	2.000	1.000	0.500	0.200	0.100	0.050	0.020	0.010	0.005	0.002
0.000	1.828	2.258	2.455	2.579	2.511	2.381	2.228	2.129	2.038	2.036	1.996	2.058	2.186	2.490
0.025	1.790	2.199	2.379	2.485	2.444	2.332	2.200	2.096	2.044	2.039	2.023	2.083	2.177	2.412
0.050	1.743	2.132	2.302	2.397	2.376	2.278	2.165	2.064	2.037	2.033	2.036	2.094	2.168	2.343
0.075	1.690	2.061	2.225	2.313	2.307	2.220	2.123	2.031	2.020	2.017	2.037	2.092	2.155	2.279
0.100	1.633	1.987	2.147	2.233	2.235	2.158	2.076	1.996	1.994	1.993	2.026	2.078	2.136	2.218
0.125	1.573	1.913	2.069	2.154	2.162	2.094	2.024	1.958	1.960	1.961	2.003	2.052	2.109	2.156
0.150	1.511	1.839	1.991	2.077	2.087	2.028	1.970	1.917	1.922	1.923	1.971	2.016	2.072	2.093
0.175	1.450	1.767	1.914	2.000	2.010	1.960	1.913	1.872	1.879	1.879	1.930	1.970	2.022	2.025
0.200	1.388	1.697	1.837	1.923	1.932	1.890	1.853	1.822	1.830	1.830	1.880	1.917	1.959	1.952
0.225	1.328	1.630	1.762	1.847	1.852	1.818	1.790	1.768	1.776	1.775	1.822	1.855	1.885	1.871
0.250	1.268	1.564	1.687	1.770	1.771	1.744	1.723	1.708	1.715	1.714	1.757	1.784	1.801	1.781
0.275	1.210	1.498	1.614	1.692	1.689	1.668	1.653	1.642	1.648	1.647	1.686	1.706	1.710	1.684
0.300	1.153	1.433	1.542	1.614	1.606	1.588	1.578	1.571	1.573	1.575	1.609	1.621	1.612	1.578
0.325	1.098	1.368	1.472	1.536	1.522	1.505	1.499	1.494	1.493	1.498	1.526	1.530	1.510	1.463
0.350	1.045	1.304	1.402	1.457	1.435	1.419	1.415	1.410	1.407	1.415	1.437	1.433	1.405	1.343
0.375	0.993	1.239	1.333	1.377	1.346	1.328	1.326	1.321	1.316	1.326	1.343	1.331	1.298	1.220
0.400	0.942	1.175	1.263	1.296	1.254	1.234	1.233	1.227	1.221	1.231	1.242	1.225	1.189	1.097
0.425	0.891	1.111	1.193	1.215	1.160	1.137	1.135	1.129	1.123	1.130	1.137	1.116	1.079	0.976
0.450	0.842	1.047	1.122	1.132	1.064	1.038	1.034	1.028	1.024	1.025	1.027	1.006	0.970	0.860
0.475	0.793	0.985	1.050	1.047	0.967	0.938	0.931	0.925	0.923	0.917	0.917	0.896	0.862	0.750
0.500	0.745	0.923	0.977	0.961	0.871	0.839	0.827	0.822	0.822	0.810	0.809	0.788	0.758	0.648
0.525	0.698	0.862	0.904	0.873	0.775	0.740	0.725	0.721	0.721	0.706	0.704	0.685	0.658	0.555
0.550	0.652	0.802	0.830	0.783	0.682	0.645	0.626	0.624	0.623	0.608	0.607	0.588	0.565	0.471
0.575	0.607	0.742	0.757	0.694	0.592	0.553	0.532	0.531	0.528	0.517	0.516	0.499	0.480	0.396
0.600	0.563	0.683	0.685	0.607	0.505	0.466	0.445	0.444	0.440	0.434	0.434	0.418	0.403	0.329
0.625	0.520	0.626	0.614	0.523	0.423	0.384	0.366	0.364	0.360	0.360	0.360	0.346	0.334	0.272
0.650	0.479	0.569	0.544	0.444	0.347	0.309	0.296	0.292	0.288	0.293	0.294	0.282	0.273	0.223
0.675	0.439	0.513	0.475	0.371	0.278	0.242	0.235	0.229	0.225	0.234	0.236	0.227	0.221	0.181
0.700	0.401	0.459	0.408	0.304	0.216	0.184	0.181	0.175	0.172	0.182	0.185	0.180	0.177	0.145
0.725	0.365	0.406	0.344	0.244	0.164	0.136	0.134	0.130	0.128	0.138	0.142	0.140	0.140	0.116
0.750	0.330	0.355	0.284	0.191	0.120	0.098	0.095	0.094	0.093	0.101	0.106	0.107	0.109	0.091
0.775	0.297	0.307	0.228	0.145	0.085	0.069	0.064	0.065	0.066	0.072	0.078	0.080	0.084	0.071
0.800	0.266	0.261	0.179	0.107	0.058	0.047	0.041	0.044	0.046	0.050	0.057	0.059	0.064	0.055
0.825	0.237	0.219	0.137	0.075	0.038	0.031	0.025	0.029	0.031	0.034	0.041	0.043	0.048	0.041
0.850	0.210	0.179	0.101	0.051	0.023	0.019	0.015	0.018	0.020	0.023	0.030	0.031	0.036	0.031
0.875	0.184	0.144	0.072	0.033	0.014	0.010	0.009	0.011	0.013	0.016	0.022	0.022	0.026	0.023
0.900	0.161	0.113	0.050	0.019	0.007	0.005	0.005	0.006	0.008	0.011	0.015	0.016	0.019	0.017
0.925	0.139	0.086	0.033	0.011	0.004	0.002	0.003	0.003	0.004	0.007	0.010	0.012	0.014	0.012
0.950	0.119	0.064	0.021	0.005	0.002	0.001	0.002	0.002	0.002	0.004	0.006	0.009	0.010	0.009
0.975	0.101	0.045	0.012	0.002	0.001	0.000	0.002	0.001	0.001	0.002	0.003	0.007	0.007	0.006
1.000	0.084	0.031	0.007	0.001	0.000	0.000	0.002	0.000	0.001	0.001	0.002	0.005	0.005	0.004
1.025	0.070	0.019	0.003	0.000	0.000	0.000	0.003	0.000	0.000	0.001	0.002	0.003	0.004	0.003
1.050	0.057	0.011	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.002	0.002
1.075	0.045	0.006	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.001
1.100	0.035	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
1.125	0.027	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
1.150	0.020	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.175	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.200	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.225	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.250	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless electron depth dose distributions, (ro/To)D(z/ro).
Finite slab case (z = thickness), detector material: air

z/ro	50.000	20.000	10.000	5.000	2.000	1.000	0.500	0.200	0.100	0.050	0.020	0.010	0.005	0.002
0.000	1.541	1.798	1.858	1.845	1.712	1.575	1.443	1.349	1.290	1.285	1.285	1.321	1.421	1.610
0.025	1.508	1.748	1.798	1.778	1.664	1.538	1.418	1.329	1.289	1.286	1.296	1.338	1.419	1.574
0.050	1.467	1.694	1.738	1.714	1.615	1.500	1.392	1.308	1.282	1.282	1.301	1.347	1.417	1.544
0.075	1.422	1.637	1.677	1.652	1.565	1.460	1.364	1.287	1.271	1.272	1.300	1.348	1.412	1.520
0.100	1.373	1.577	1.617	1.592	1.514	1.419	1.335	1.265	1.255	1.258	1.293	1.342	1.404	1.498
0.125	1.322	1.517	1.556	1.533	1.462	1.376	1.303	1.242	1.236	1.240	1.280	1.329	1.389	1.476
0.150	1.270	1.458	1.496	1.475	1.409	1.332	1.269	1.216	1.213	1.217	1.261	1.308	1.368	1.453
0.175	1.217	1.400	1.436	1.418	1.355	1.286	1.232	1.188	1.186	1.191	1.237	1.282	1.339	1.426
0.200	1.165	1.343	1.377	1.360	1.300	1.239	1.193	1.157	1.156	1.161	1.207	1.249	1.301	1.395
0.225	1.114	1.288	1.319	1.303	1.245	1.190	1.152	1.123	1.122	1.127	1.172	1.210	1.255	1.356
0.250	1.064	1.234	1.261	1.246	1.188	1.139	1.108	1.085	1.083	1.089	1.133	1.166	1.204	1.311
0.275	1.014	1.181	1.204	1.189	1.131	1.087	1.061	1.043	1.041	1.048	1.088	1.116	1.146	1.257
0.300	0.966	1.128	1.148	1.132	1.073	1.034	1.012	0.998	0.994	1.003	1.039	1.062	1.084	1.194
0.325	0.919	1.075	1.093	1.074	1.014	0.979	0.960	0.948	0.944	0.954	0.987	1.003	1.019	1.122
0.350	0.873	1.022	1.039	1.016	0.954	0.922	0.905	0.895	0.890	0.901	0.930	0.941	0.951	1.043
0.375	0.829	0.970	0.985	0.957	0.893	0.862	0.846	0.838	0.833	0.845	0.870	0.875	0.881	0.958
0.400	0.785	0.917	0.930	0.898	0.830	0.800	0.785	0.778	0.774	0.784	0.805	0.806	0.810	0.870
0.425	0.742	0.865	0.876	0.838	0.765	0.736	0.722	0.715	0.713	0.720	0.738	0.736	0.738	0.782
0.450	0.700	0.814	0.820	0.778	0.700	0.671	0.657	0.651	0.650	0.653	0.668	0.664	0.665	0.695
0.475	0.658	0.763	0.765	0.717	0.635	0.606	0.592	0.585	0.587	0.585	0.597	0.593	0.593	0.612
0.500	0.618	0.713	0.709	0.655	0.570	0.540	0.527	0.520	0.522	0.517	0.527	0.524	0.523	0.532
0.525	0.577	0.664	0.653	0.593	0.506	0.476	0.463	0.456	0.458	0.451	0.460	0.456	0.456	0.459
0.550	0.538	0.616	0.597	0.530	0.444	0.414	0.401	0.394	0.396	0.389	0.396	0.393	0.393	0.391
0.575	0.500	0.568	0.542	0.469	0.385	0.355	0.342	0.335	0.335	0.331	0.338	0.334	0.335	0.330
0.600	0.463	0.521	0.488	0.409	0.328	0.298	0.286	0.280	0.279	0.279	0.284	0.280	0.282	0.276
0.625	0.427	0.475	0.435	0.351	0.274	0.245	0.235	0.229	0.228	0.231	0.235	0.231	0.235	0.229
0.650	0.392	0.430	0.384	0.298	0.224	0.197	0.188	0.184	0.182	0.188	0.192	0.189	0.193	0.188
0.675	0.359	0.386	0.333	0.248	0.179	0.154	0.147	0.144	0.142	0.150	0.154	0.152	0.157	0.153
0.700	0.327	0.343	0.285	0.203	0.140	0.118	0.113	0.110	0.109	0.117	0.121	0.120	0.126	0.123
0.725	0.297	0.302	0.239	0.162	0.105	0.087	0.084	0.081	0.082	0.088	0.093	0.094	0.100	0.098
0.750	0.268	0.263	0.196	0.126	0.077	0.063	0.060	0.059	0.060	0.064	0.070	0.072	0.079	0.077
0.775	0.241	0.226	0.157	0.096	0.055	0.044	0.042	0.041	0.042	0.046	0.051	0.055	0.061	0.060
0.800	0.215	0.191	0.123	0.070	0.037	0.030	0.028	0.028	0.030	0.032	0.038	0.041	0.046	0.046
0.825	0.191	0.159	0.093	0.049	0.024	0.020	0.018	0.018	0.020	0.022	0.027	0.030	0.035	0.035
0.850	0.168	0.130	0.069	0.033	0.015	0.012	0.011	0.011	0.013	0.015	0.020	0.022	0.026	0.026
0.875	0.147	0.104	0.049	0.021	0.009	0.006	0.007	0.007	0.008	0.010	0.014	0.016	0.019	0.020
0.900	0.128	0.081	0.034	0.013	0.005	0.003	0.004	0.004	0.005	0.007	0.010	0.012	0.014	0.014
0.925	0.110	0.062	0.022	0.007	0.002	0.002	0.002	0.002	0.003	0.005	0.007	0.009	0.010	0.010
0.950	0.094	0.045	0.014	0.003	0.001	0.001	0.001	0.001	0.002	0.002	0.004	0.006	0.008	0.008
0.975	0.079	0.032	0.008	0.002	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.004	0.005	0.005
1.000	0.066	0.021	0.004	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.003	0.004	0.004
1.025	0.054	0.013	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.003	0.002
1.050	0.044	0.008	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.002
1.075	0.035	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001
1.100	0.027	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
1.125	0.021	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.150	0.015	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.175	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.200	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.225	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.250	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless electron depth dose distributions, (ro/To)D(z/ro).
Semi-infinite slab case (z = depth), detector material: bone

z/ro	50.000	20.000	10.000	5.000	2.000	1.000	0.500	0.200	0.100	0.050	0.020	0.010	0.005	0.002
0.000	1.487	1.920	2.161	2.338	2.370	2.296	2.176	2.081	1.989	1.981	1.935	1.986	2.098	2.370
0.025	1.467	1.883	2.106	2.265	2.314	2.252	2.149	2.049	1.993	1.984	1.959	2.009	2.089	2.300
0.050	1.440	1.838	2.048	2.195	2.255	2.203	2.114	2.016	1.985	1.976	1.972	2.020	2.080	2.238
0.075	1.405	1.786	1.988	2.126	2.194	2.149	2.073	1.983	1.968	1.960	1.972	2.017	2.068	2.181
0.100	1.364	1.730	1.926	2.059	2.130	2.091	2.028	1.948	1.942	1.936	1.960	2.003	2.050	2.126
0.125	1.320	1.671	1.863	1.992	2.064	2.031	1.978	1.911	1.909	1.905	1.938	1.977	2.024	2.071
0.150	1.274	1.612	1.799	1.925	1.996	1.968	1.925	1.871	1.871	1.868	1.906	1.942	1.988	2.013
0.175	1.226	1.554	1.735	1.858	1.925	1.904	1.870	1.826	1.829	1.824	1.865	1.898	1.940	1.951
0.200	1.178	1.498	1.670	1.791	1.853	1.837	1.811	1.778	1.781	1.776	1.817	1.845	1.880	1.882
0.225	1.130	1.443	1.605	1.723	1.779	1.768	1.749	1.724	1.728	1.722	1.760	1.785	1.809	1.806
0.250	1.083	1.388	1.541	1.654	1.703	1.697	1.684	1.665	1.669	1.663	1.697	1.717	1.728	1.722
0.275	1.036	1.334	1.478	1.585	1.626	1.623	1.615	1.601	1.603	1.598	1.628	1.642	1.640	1.630
0.300	0.990	1.280	1.415	1.516	1.548	1.546	1.542	1.531	1.530	1.528	1.553	1.560	1.546	1.529
0.325	0.945	1.225	1.354	1.445	1.468	1.466	1.465	1.456	1.451	1.453	1.473	1.472	1.449	1.420
0.350	0.902	1.170	1.293	1.373	1.385	1.383	1.383	1.374	1.367	1.372	1.387	1.378	1.348	1.305
0.375	0.859	1.115	1.232	1.301	1.300	1.295	1.296	1.287	1.279	1.285	1.296	1.280	1.246	1.186
0.400	0.817	1.060	1.170	1.227	1.213	1.204	1.204	1.196	1.186	1.192	1.198	1.178	1.141	1.067
0.425	0.776	1.005	1.107	1.152	1.123	1.110	1.108	1.100	1.092	1.094	1.096	1.073	1.036	0.951
0.450	0.735	0.950	1.044	1.075	1.031	1.013	1.009	1.001	0.995	0.992	0.991	0.967	0.932	0.838
0.475	0.695	0.896	0.979	0.996	0.938	0.916	0.909	0.900	0.896	0.888	0.884	0.861	0.828	0.732
0.500	0.655	0.842	0.913	0.915	0.845	0.819	0.807	0.800	0.798	0.784	0.779	0.757	0.728	0.633
0.525	0.615	0.788	0.847	0.833	0.753	0.723	0.707	0.702	0.700	0.683	0.679	0.658	0.633	0.542
0.550	0.576	0.735	0.780	0.749	0.663	0.630	0.610	0.607	0.604	0.588	0.584	0.565	0.544	0.460
0.575	0.537	0.682	0.713	0.665	0.576	0.540	0.519	0.517	0.513	0.500	0.497	0.479	0.462	0.387
0.600	0.500	0.629	0.647	0.582	0.492	0.455	0.434	0.432	0.427	0.420	0.418	0.402	0.387	0.322
0.625	0.463	0.578	0.581	0.503	0.412	0.375	0.357	0.354	0.349	0.348	0.347	0.332	0.321	0.266
0.650	0.427	0.527	0.516	0.427	0.338	0.301	0.289	0.284	0.279	0.283	0.283	0.271	0.263	0.218
0.675	0.393	0.476	0.452	0.357	0.271	0.236	0.229	0.222	0.218	0.226	0.227	0.219	0.213	0.177
0.700	0.359	0.427	0.389	0.293	0.211	0.180	0.176	0.170	0.167	0.176	0.178	0.173	0.170	0.142
0.725	0.328	0.379	0.328	0.236	0.160	0.133	0.131	0.126	0.124	0.133	0.136	0.135	0.135	0.113
0.750	0.297	0.332	0.271	0.185	0.117	0.096	0.093	0.091	0.091	0.098	0.102	0.103	0.105	0.089
0.775	0.268	0.287	0.219	0.140	0.083	0.067	0.063	0.063	0.064	0.070	0.075	0.077	0.081	0.069
0.800	0.241	0.245	0.172	0.103	0.056	0.046	0.040	0.043	0.045	0.049	0.055	0.056	0.061	0.053
0.825	0.215	0.206	0.132	0.073	0.037	0.030	0.025	0.028	0.030	0.033	0.040	0.041	0.046	0.041
0.850	0.190	0.170	0.098	0.050	0.023	0.018	0.015	0.017	0.020	0.023	0.029	0.030	0.034	0.031
0.875	0.168	0.137	0.070	0.032	0.013	0.010	0.008	0.010	0.012	0.015	0.021	0.021	0.025	0.023
0.900	0.147	0.107	0.048	0.019	0.007	0.005	0.005	0.006	0.007	0.010	0.015	0.016	0.019	0.017
0.925	0.127	0.082	0.032	0.010	0.004	0.002	0.003	0.003	0.004	0.007	0.010	0.012	0.014	0.012
0.950	0.109	0.061	0.020	0.005	0.002	0.001	0.002	0.001	0.002	0.004	0.006	0.009	0.010	0.009
0.975	0.093	0.044	0.012	0.002	0.001	0.000	0.002	0.001	0.001	0.002	0.003	0.006	0.007	0.006
1.000	0.078	0.029	0.006	0.001	0.000	0.000	0.002	0.000	0.001	0.001	0.002	0.004	0.005	0.004
1.025	0.064	0.019	0.003	0.000	0.000	0.000	0.003	0.000	0.000	0.001	0.001	0.003	0.003	0.003
1.050	0.053	0.011	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.002	0.002
1.075	0.042	0.006	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.001
1.100	0.033	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
1.125	0.025	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
1.150	0.019	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.175	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.200	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.225	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.250	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless electron depth dose distributions, (ro/To)D(z/ro).
Finite slab case (z = thickness), detector material: bone

z/ro	50.000	20.000	10.000	5.000	2.000	1.000	0.500	0.200	0.100	0.050	0.020	0.010	0.005	0.002
0.000	1.221	1.492	1.603	1.649	1.605	1.514	1.410	1.321	1.261	1.252	1.247	1.276	1.362	1.523
0.025	1.205	1.462	1.561	1.598	1.564	1.481	1.386	1.300	1.258	1.252	1.257	1.292	1.362	1.492
0.050	1.181	1.426	1.516	1.547	1.522	1.447	1.360	1.279	1.251	1.248	1.261	1.300	1.360	1.468
0.075	1.152	1.386	1.471	1.497	1.479	1.411	1.333	1.258	1.240	1.238	1.259	1.301	1.355	1.447
0.100	1.119	1.342	1.424	1.448	1.434	1.373	1.305	1.236	1.224	1.224	1.252	1.295	1.347	1.429
0.125	1.082	1.297	1.376	1.399	1.388	1.333	1.274	1.213	1.205	1.206	1.239	1.281	1.332	1.411
0.150	1.044	1.251	1.328	1.350	1.340	1.291	1.241	1.188	1.182	1.183	1.221	1.261	1.312	1.392
0.175	1.005	1.206	1.279	1.301	1.291	1.248	1.205	1.160	1.156	1.157	1.197	1.235	1.283	1.369
0.200	0.965	1.161	1.231	1.252	1.241	1.203	1.167	1.130	1.127	1.128	1.168	1.203	1.247	1.340
0.225	0.926	1.118	1.182	1.202	1.190	1.156	1.127	1.096	1.093	1.095	1.134	1.166	1.203	1.306
0.250	0.887	1.074	1.133	1.153	1.137	1.108	1.084	1.059	1.055	1.058	1.095	1.123	1.154	1.264
0.275	0.848	1.031	1.085	1.102	1.084	1.058	1.038	1.018	1.014	1.017	1.051	1.075	1.099	1.214
0.300	0.811	0.988	1.038	1.052	1.030	1.007	0.990	0.974	0.968	0.973	1.004	1.022	1.039	1.155
0.325	0.774	0.944	0.991	1.001	0.975	0.954	0.939	0.925	0.919	0.926	0.953	0.965	0.977	1.087
0.350	0.737	0.901	0.944	0.949	0.919	0.898	0.885	0.873	0.866	0.875	0.899	0.905	0.912	1.011
0.375	0.702	0.857	0.897	0.896	0.861	0.841	0.828	0.818	0.811	0.820	0.840	0.841	0.845	0.930
0.400	0.667	0.813	0.850	0.843	0.801	0.781	0.768	0.759	0.753	0.761	0.778	0.775	0.777	0.846
0.425	0.633	0.769	0.802	0.789	0.740	0.719	0.706	0.698	0.693	0.698	0.712	0.707	0.707	0.761
0.450	0.599	0.726	0.754	0.734	0.678	0.656	0.643	0.634	0.632	0.633	0.644	0.639	0.638	0.677
0.475	0.565	0.683	0.705	0.677	0.615	0.592	0.579	0.570	0.570	0.567	0.576	0.570	0.569	0.596
0.500	0.532	0.640	0.655	0.620	0.553	0.528	0.515	0.507	0.508	0.501	0.508	0.503	0.502	0.520
0.525	0.499	0.598	0.605	0.562	0.491	0.465	0.452	0.444	0.445	0.437	0.443	0.438	0.438	0.448
0.550	0.466	0.556	0.555	0.504	0.432	0.405	0.392	0.384	0.384	0.377	0.382	0.377	0.377	0.382
0.575	0.434	0.514	0.505	0.447	0.374	0.347	0.334	0.326	0.326	0.321	0.325	0.321	0.321	0.323
0.600	0.403	0.473	0.456	0.390	0.319	0.291	0.279	0.273	0.271	0.270	0.274	0.269	0.271	0.270
0.625	0.373	0.432	0.408	0.336	0.267	0.240	0.229	0.223	0.221	0.224	0.227	0.222	0.226	0.224
0.650	0.343	0.393	0.361	0.285	0.219	0.193	0.184	0.179	0.177	0.182	0.185	0.181	0.186	0.184
0.675	0.315	0.354	0.314	0.238	0.175	0.151	0.144	0.140	0.138	0.145	0.148	0.146	0.151	0.149
0.700	0.288	0.315	0.269	0.195	0.136	0.115	0.110	0.107	0.106	0.113	0.116	0.115	0.122	0.120
0.725	0.262	0.279	0.227	0.156	0.103	0.085	0.082	0.079	0.079	0.085	0.089	0.090	0.097	0.096
0.750	0.237	0.243	0.186	0.122	0.075	0.062	0.059	0.057	0.058	0.062	0.067	0.069	0.076	0.075
0.775	0.213	0.209	0.150	0.092	0.053	0.043	0.041	0.040	0.041	0.044	0.049	0.053	0.058	0.059
0.800	0.191	0.178	0.117	0.068	0.036	0.030	0.028	0.027	0.029	0.031	0.036	0.039	0.044	0.045
0.825	0.170	0.149	0.089	0.048	0.024	0.019	0.018	0.017	0.019	0.021	0.026	0.029	0.033	0.034
0.850	0.150	0.122	0.066	0.032	0.015	0.011	0.011	0.011	0.013	0.014	0.019	0.021	0.025	0.026
0.875	0.132	0.098	0.047	0.020	0.009	0.006	0.006	0.006	0.008	0.010	0.014	0.016	0.018	0.019
0.900	0.115	0.076	0.033	0.012	0.005	0.003	0.004	0.004	0.005	0.007	0.010	0.011	0.014	0.014
0.925	0.099	0.058	0.022	0.007	0.002	0.002	0.002	0.002	0.003	0.004	0.006	0.008	0.010	0.010
0.950	0.085	0.043	0.013	0.003	0.001	0.001	0.001	0.001	0.002	0.002	0.004	0.006	0.007	0.007
0.975	0.072	0.030	0.008	0.002	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.004	0.005	0.005
1.000	0.060	0.020	0.004	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.003	0.004	0.004
1.025	0.049	0.013	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.003	0.002
1.050	0.040	0.008	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.002
1.075	0.032	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001
1.100	0.025	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
1.125	0.019	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.150	0.014	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.175	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.200	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.225	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.250	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless electron depth dose distributions, (ro/To)D(z/ro).
Semi-infinite slab case (z = depth), detector material: calcium fluoride

z/ro	50.000	20.000	10.000	5.000	2.000	1.000	0.500	0.200	0.100	0.050	0.020	0.010	0.005	0.002
0.000	1.359	1.743	1.946	2.085	2.103	2.029	1.913	1.821	1.736	1.723	1.669	1.699	1.776	1.996
0.025	1.341	1.708	1.895	2.018	2.052	1.988	1.887	1.792	1.738	1.723	1.690	1.721	1.773	1.955
0.050	1.315	1.666	1.842	1.954	1.998	1.943	1.856	1.763	1.730	1.716	1.700	1.731	1.770	1.918
0.075	1.283	1.618	1.788	1.892	1.943	1.894	1.819	1.733	1.714	1.701	1.699	1.729	1.762	1.884
0.100	1.245	1.567	1.731	1.831	1.885	1.843	1.778	1.702	1.691	1.679	1.689	1.717	1.750	1.850
0.125	1.205	1.514	1.674	1.771	1.826	1.788	1.734	1.669	1.661	1.652	1.670	1.695	1.730	1.814
0.150	1.162	1.460	1.616	1.711	1.765	1.732	1.687	1.633	1.628	1.618	1.642	1.665	1.701	1.775
0.175	1.118	1.407	1.557	1.651	1.702	1.675	1.638	1.594	1.591	1.581	1.606	1.627	1.661	1.730
0.200	1.074	1.356	1.499	1.590	1.637	1.616	1.586	1.551	1.549	1.538	1.564	1.582	1.611	1.678
0.225	1.030	1.305	1.440	1.529	1.571	1.555	1.532	1.503	1.502	1.491	1.515	1.531	1.552	1.619
0.250	0.987	1.256	1.382	1.468	1.503	1.491	1.474	1.452	1.450	1.439	1.460	1.472	1.484	1.551
0.275	0.944	1.206	1.325	1.406	1.435	1.426	1.413	1.396	1.393	1.382	1.400	1.408	1.410	1.474
0.300	0.902	1.157	1.269	1.344	1.366	1.358	1.349	1.335	1.329	1.321	1.335	1.338	1.331	1.388
0.325	0.861	1.107	1.213	1.281	1.294	1.287	1.281	1.268	1.260	1.256	1.266	1.262	1.249	1.294
0.350	0.821	1.058	1.158	1.217	1.221	1.213	1.209	1.197	1.187	1.186	1.193	1.182	1.164	1.194
0.375	0.783	1.008	1.103	1.152	1.146	1.136	1.133	1.121	1.110	1.111	1.114	1.098	1.077	1.089
0.400	0.744	0.957	1.047	1.086	1.068	1.056	1.052	1.041	1.029	1.030	1.030	1.011	0.988	0.984
0.425	0.707	0.908	0.991	1.019	0.989	0.973	0.969	0.957	0.947	0.946	0.942	0.921	0.899	0.879
0.450	0.669	0.858	0.934	0.951	0.908	0.888	0.882	0.871	0.863	0.857	0.851	0.830	0.809	0.777
0.475	0.632	0.808	0.876	0.881	0.825	0.803	0.794	0.784	0.777	0.766	0.760	0.740	0.721	0.680
0.500	0.596	0.759	0.817	0.809	0.743	0.717	0.705	0.696	0.691	0.677	0.669	0.651	0.635	0.590
0.525	0.559	0.711	0.757	0.736	0.662	0.633	0.618	0.610	0.606	0.590	0.583	0.566	0.553	0.506
0.550	0.524	0.663	0.697	0.662	0.582	0.552	0.533	0.528	0.523	0.507	0.502	0.486	0.475	0.430
0.575	0.489	0.615	0.637	0.587	0.506	0.473	0.453	0.449	0.444	0.431	0.427	0.413	0.404	0.363
0.600	0.454	0.567	0.577	0.514	0.432	0.398	0.379	0.375	0.370	0.362	0.359	0.346	0.340	0.302
0.625	0.421	0.521	0.519	0.444	0.362	0.328	0.311	0.308	0.302	0.300	0.298	0.287	0.282	0.250
0.650	0.388	0.474	0.460	0.377	0.297	0.264	0.252	0.247	0.241	0.244	0.243	0.234	0.232	0.205
0.675	0.357	0.429	0.403	0.315	0.237	0.206	0.200	0.193	0.189	0.195	0.195	0.189	0.188	0.166
0.700	0.327	0.384	0.347	0.259	0.185	0.157	0.154	0.147	0.144	0.152	0.153	0.149	0.150	0.134
0.725	0.298	0.341	0.293	0.208	0.140	0.116	0.114	0.109	0.108	0.115	0.117	0.116	0.119	0.106
0.750	0.270	0.299	0.242	0.162	0.102	0.084	0.081	0.079	0.078	0.084	0.088	0.089	0.093	0.084
0.775	0.243	0.259	0.195	0.123	0.072	0.059	0.054	0.055	0.056	0.060	0.065	0.067	0.072	0.065
0.800	0.218	0.221	0.153	0.091	0.049	0.040	0.035	0.037	0.039	0.042	0.047	0.049	0.055	0.050
0.825	0.195	0.185	0.117	0.064	0.032	0.026	0.021	0.024	0.026	0.029	0.034	0.036	0.041	0.038
0.850	0.173	0.152	0.087	0.044	0.020	0.016	0.013	0.015	0.017	0.019	0.025	0.026	0.031	0.029
0.875	0.152	0.123	0.062	0.028	0.012	0.009	0.007	0.009	0.011	0.013	0.018	0.019	0.023	0.021
0.900	0.133	0.096	0.043	0.017	0.006	0.004	0.004	0.005	0.006	0.009	0.013	0.014	0.017	0.016
0.925	0.115	0.074	0.028	0.009	0.003	0.002	0.002	0.003	0.004	0.006	0.008	0.010	0.012	0.011
0.950	0.099	0.055	0.018	0.005	0.001	0.001	0.002	0.001	0.002	0.004	0.005	0.008	0.009	0.008
0.975	0.084	0.039	0.010	0.002	0.001	0.000	0.001	0.001	0.001	0.002	0.003	0.005	0.006	0.006
1.000	0.071	0.026	0.006	0.001	0.000	0.000	0.002	0.000	0.000	0.001	0.002	0.004	0.005	0.004
1.025	0.058	0.017	0.003	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.001	0.003	0.003	0.003
1.050	0.048	0.010	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.002
1.075	0.038	0.006	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001
1.100	0.030	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
1.125	0.023	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
1.150	0.017	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.175	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.200	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.225	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.250	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless electron depth dose distributions, (ro/To)D(z/ro).
Finite slab case (z = thickness), detector material: calcium fluoride

z/ro	50.000	20.000	10.000	5.000	2.000	1.000	0.500	0.200	0.100	0.050	0.020	0.010	0.005	0.002
0.000	1.118	1.358	1.449	1.476	1.428	1.341	1.240	1.158	1.102	1.088	1.076	1.091	1.149	1.250
0.025	1.102	1.329	1.409	1.429	1.391	1.311	1.218	1.138	1.098	1.088	1.084	1.106	1.152	1.238
0.050	1.080	1.296	1.368	1.383	1.353	1.279	1.195	1.119	1.090	1.084	1.087	1.113	1.153	1.230
0.075	1.053	1.258	1.327	1.337	1.313	1.246	1.171	1.100	1.080	1.075	1.085	1.114	1.151	1.225
0.100	1.022	1.218	1.284	1.293	1.273	1.212	1.145	1.081	1.066	1.062	1.079	1.109	1.145	1.220
0.125	0.988	1.177	1.240	1.248	1.231	1.176	1.118	1.060	1.049	1.045	1.067	1.097	1.134	1.215
0.150	0.953	1.135	1.196	1.204	1.188	1.139	1.088	1.038	1.029	1.025	1.051	1.079	1.117	1.208
0.175	0.917	1.094	1.152	1.160	1.144	1.100	1.057	1.013	1.006	1.002	1.030	1.057	1.093	1.197
0.200	0.881	1.053	1.107	1.116	1.099	1.060	1.023	0.986	0.980	0.976	1.005	1.029	1.063	1.180
0.225	0.845	1.013	1.063	1.071	1.053	1.018	0.988	0.956	0.950	0.947	0.975	0.997	1.027	1.157
0.250	0.809	0.974	1.019	1.026	1.007	0.975	0.950	0.924	0.917	0.915	0.941	0.961	0.985	1.127
0.275	0.774	0.934	0.975	0.981	0.959	0.931	0.909	0.888	0.881	0.880	0.904	0.919	0.939	1.088
0.300	0.739	0.895	0.932	0.936	0.911	0.886	0.867	0.849	0.841	0.842	0.863	0.874	0.889	1.041
0.325	0.705	0.855	0.890	0.890	0.862	0.839	0.822	0.807	0.798	0.801	0.819	0.826	0.837	0.984
0.350	0.672	0.816	0.848	0.844	0.812	0.790	0.774	0.761	0.752	0.756	0.772	0.774	0.782	0.920
0.375	0.640	0.776	0.805	0.796	0.760	0.739	0.724	0.713	0.704	0.708	0.721	0.720	0.726	0.850
0.400	0.608	0.736	0.763	0.749	0.707	0.686	0.672	0.661	0.653	0.657	0.667	0.663	0.668	0.776
0.425	0.577	0.696	0.720	0.700	0.653	0.631	0.618	0.608	0.601	0.603	0.611	0.605	0.609	0.701
0.450	0.545	0.656	0.676	0.651	0.598	0.575	0.562	0.552	0.549	0.547	0.553	0.546	0.550	0.626
0.475	0.515	0.617	0.632	0.601	0.542	0.519	0.506	0.497	0.495	0.489	0.494	0.488	0.491	0.553
0.500	0.484	0.578	0.587	0.550	0.487	0.463	0.450	0.441	0.440	0.432	0.436	0.431	0.434	0.483
0.525	0.454	0.540	0.542	0.498	0.433	0.408	0.395	0.386	0.386	0.377	0.380	0.376	0.379	0.417
0.550	0.424	0.502	0.497	0.447	0.380	0.355	0.342	0.334	0.333	0.325	0.327	0.323	0.327	0.357
0.575	0.395	0.464	0.452	0.396	0.329	0.304	0.292	0.284	0.282	0.276	0.279	0.275	0.279	0.302
0.600	0.367	0.427	0.408	0.345	0.281	0.255	0.244	0.237	0.235	0.233	0.234	0.231	0.236	0.253
0.625	0.339	0.390	0.365	0.298	0.235	0.210	0.200	0.194	0.191	0.193	0.194	0.191	0.197	0.210
0.650	0.313	0.354	0.322	0.252	0.192	0.169	0.160	0.155	0.153	0.157	0.159	0.156	0.162	0.172
0.675	0.287	0.319	0.281	0.210	0.154	0.132	0.126	0.122	0.120	0.125	0.127	0.125	0.133	0.140
0.700	0.262	0.284	0.241	0.172	0.119	0.101	0.096	0.093	0.091	0.097	0.100	0.099	0.107	0.113
0.725	0.238	0.251	0.202	0.138	0.090	0.075	0.071	0.069	0.068	0.073	0.076	0.077	0.085	0.090
0.750	0.215	0.219	0.166	0.108	0.066	0.054	0.051	0.049	0.050	0.054	0.057	0.060	0.067	0.071
0.775	0.194	0.189	0.134	0.081	0.047	0.038	0.036	0.035	0.036	0.038	0.042	0.045	0.051	0.055
0.800	0.174	0.160	0.105	0.060	0.032	0.026	0.024	0.023	0.025	0.026	0.031	0.034	0.039	0.043
0.825	0.154	0.134	0.080	0.042	0.021	0.017	0.016	0.015	0.017	0.018	0.022	0.025	0.029	0.032
0.850	0.137	0.110	0.059	0.028	0.013	0.010	0.010	0.009	0.011	0.012	0.016	0.018	0.022	0.024
0.875	0.120	0.088	0.042	0.018	0.008	0.005	0.006	0.006	0.007	0.009	0.012	0.013	0.016	0.018
0.900	0.104	0.069	0.029	0.011	0.004	0.003	0.003	0.003	0.004	0.006	0.008	0.010	0.012	0.014
0.925	0.090	0.052	0.019	0.006	0.002	0.001	0.002	0.002	0.002	0.004	0.005	0.007	0.009	0.010
0.950	0.077	0.038	0.012	0.003	0.001	0.001	0.001	0.001	0.001	0.002	0.003	0.005	0.007	0.007
0.975	0.065	0.027	0.007	0.001	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.004	0.005	0.005
1.000	0.054	0.018	0.004	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.003	0.003	0.004
1.025	0.045	0.012	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.002	0.002
1.050	0.036	0.007	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.002
1.075	0.029	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001
1.100	0.023	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
1.125	0.017	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.150	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.175	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.200	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.225	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.250	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless electron depth dose distributions, (ro/To)D(z/ro).
Semi-infinite slab case (z = depth), detector material: gallium arsenide

z/ro	50.000	20.000	10.000	5.000	2.000	1.000	0.500	0.200	0.100	0.050	0.020	0.010	0.005	0.002
0.000	1.161	1.453	1.586	1.654	1.633	1.551	1.444	1.363	1.291	1.269	1.203	1.196	1.208	1.335
0.025	1.142	1.421	1.541	1.596	1.589	1.515	1.422	1.339	1.289	1.266	1.217	1.215	1.217	1.344
0.050	1.118	1.383	1.495	1.541	1.544	1.478	1.396	1.315	1.281	1.259	1.224	1.224	1.223	1.352
0.075	1.088	1.341	1.448	1.488	1.498	1.438	1.367	1.291	1.268	1.246	1.222	1.224	1.225	1.358
0.100	1.055	1.297	1.401	1.438	1.451	1.397	1.335	1.267	1.249	1.228	1.214	1.215	1.221	1.361
0.125	1.019	1.251	1.352	1.389	1.403	1.355	1.301	1.241	1.226	1.207	1.199	1.200	1.211	1.360
0.150	0.982	1.206	1.304	1.340	1.354	1.311	1.265	1.214	1.201	1.181	1.178	1.178	1.194	1.353
0.175	0.944	1.161	1.255	1.291	1.304	1.267	1.228	1.184	1.172	1.153	1.151	1.151	1.169	1.338
0.200	0.906	1.117	1.207	1.242	1.253	1.221	1.188	1.152	1.141	1.121	1.120	1.119	1.137	1.316
0.225	0.868	1.075	1.158	1.193	1.201	1.174	1.147	1.116	1.105	1.085	1.084	1.083	1.098	1.286
0.250	0.831	1.033	1.111	1.144	1.148	1.125	1.103	1.077	1.066	1.047	1.044	1.042	1.054	1.246
0.275	0.794	0.992	1.064	1.094	1.095	1.075	1.057	1.035	1.023	1.005	1.001	0.997	1.004	1.197
0.300	0.759	0.950	1.017	1.044	1.041	1.023	1.009	0.989	0.976	0.960	0.954	0.947	0.951	1.138
0.325	0.724	0.909	0.972	0.994	0.985	0.969	0.957	0.939	0.925	0.912	0.904	0.894	0.896	1.071
0.350	0.690	0.867	0.927	0.943	0.929	0.913	0.903	0.886	0.870	0.860	0.851	0.838	0.838	0.997
0.375	0.657	0.826	0.882	0.891	0.871	0.854	0.845	0.830	0.813	0.805	0.794	0.778	0.779	0.917
0.400	0.624	0.784	0.837	0.839	0.811	0.793	0.785	0.770	0.754	0.746	0.734	0.717	0.718	0.834
0.425	0.592	0.742	0.791	0.787	0.750	0.730	0.722	0.707	0.693	0.684	0.671	0.653	0.656	0.751
0.450	0.560	0.701	0.744	0.733	0.687	0.666	0.657	0.643	0.631	0.619	0.606	0.589	0.593	0.668
0.475	0.529	0.660	0.697	0.678	0.624	0.602	0.591	0.578	0.568	0.553	0.541	0.526	0.530	0.589
0.500	0.498	0.620	0.649	0.622	0.562	0.537	0.525	0.513	0.505	0.488	0.476	0.464	0.469	0.513
0.525	0.467	0.580	0.601	0.565	0.500	0.474	0.460	0.450	0.442	0.425	0.415	0.404	0.410	0.443
0.550	0.437	0.540	0.553	0.507	0.439	0.413	0.396	0.389	0.381	0.366	0.357	0.348	0.354	0.378
0.575	0.407	0.500	0.504	0.450	0.381	0.354	0.336	0.330	0.323	0.311	0.303	0.296	0.303	0.319
0.600	0.379	0.461	0.457	0.393	0.325	0.298	0.281	0.276	0.269	0.261	0.255	0.248	0.255	0.267
0.625	0.350	0.423	0.410	0.339	0.272	0.245	0.231	0.226	0.220	0.216	0.212	0.206	0.213	0.221
0.650	0.323	0.385	0.363	0.287	0.223	0.197	0.187	0.181	0.175	0.176	0.173	0.168	0.176	0.182
0.675	0.297	0.347	0.317	0.240	0.178	0.154	0.148	0.141	0.137	0.140	0.139	0.136	0.143	0.147
0.700	0.271	0.311	0.272	0.197	0.139	0.117	0.114	0.108	0.105	0.109	0.109	0.108	0.115	0.119
0.725	0.247	0.276	0.230	0.158	0.105	0.087	0.084	0.080	0.078	0.082	0.083	0.084	0.092	0.094
0.750	0.224	0.241	0.190	0.123	0.077	0.062	0.060	0.058	0.057	0.060	0.062	0.064	0.072	0.074
0.775	0.202	0.209	0.153	0.094	0.054	0.044	0.040	0.040	0.040	0.043	0.046	0.048	0.056	0.058
0.800	0.181	0.178	0.120	0.069	0.037	0.030	0.026	0.027	0.028	0.030	0.034	0.035	0.042	0.045
0.825	0.162	0.149	0.091	0.049	0.024	0.019	0.016	0.018	0.019	0.020	0.024	0.026	0.032	0.034
0.850	0.143	0.122	0.068	0.033	0.015	0.012	0.009	0.011	0.012	0.014	0.018	0.019	0.024	0.026
0.875	0.126	0.098	0.048	0.021	0.009	0.006	0.005	0.006	0.008	0.010	0.013	0.014	0.018	0.019
0.900	0.110	0.077	0.033	0.012	0.005	0.003	0.003	0.004	0.005	0.007	0.009	0.010	0.013	0.014
0.925	0.095	0.059	0.022	0.007	0.002	0.001	0.002	0.002	0.003	0.004	0.006	0.007	0.010	0.011
0.950	0.082	0.044	0.014	0.003	0.001	0.000	0.001	0.001	0.001	0.002	0.003	0.006	0.007	0.008
0.975	0.069	0.031	0.008	0.002	0.000	0.000	0.001	0.000	0.001	0.001	0.002	0.004	0.005	0.005
1.000	0.058	0.021	0.004	0.001	0.000	0.000	0.001	0.000	0.000	0.000	0.001	0.003	0.004	0.004
1.025	0.048	0.013	0.002	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.001	0.002	0.003	0.003
1.050	0.039	0.008	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.002
1.075	0.031	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001
1.100	0.024	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
1.125	0.019	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
1.150	0.014	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.175	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.200	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.225	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.250	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless electron depth dose distributions, (ro/To)D(z/ro).
Finite slab case (z = thickness), detector material: gallium arsenide

z/ro	50.000	20.000	10.000	5.000	2.000	1.000	0.500	0.200	0.100	0.050	0.020	0.010	0.005	0.002
0.000	0.961	1.140	1.192	1.184	1.118	1.030	0.938	0.865	0.821	0.802	0.776	0.765	0.773	0.769
0.025	0.945	1.114	1.157	1.143	1.086	1.004	0.920	0.851	0.816	0.800	0.781	0.779	0.783	0.789
0.050	0.924	1.084	1.121	1.103	1.053	0.978	0.902	0.837	0.809	0.795	0.783	0.786	0.789	0.810
0.075	0.899	1.051	1.085	1.064	1.021	0.951	0.882	0.822	0.800	0.788	0.781	0.787	0.791	0.831
0.100	0.871	1.016	1.048	1.027	0.987	0.924	0.862	0.806	0.789	0.777	0.775	0.783	0.789	0.850
0.125	0.841	0.980	1.011	0.990	0.953	0.895	0.841	0.790	0.775	0.764	0.766	0.774	0.784	0.868
0.150	0.811	0.944	0.974	0.953	0.918	0.866	0.818	0.772	0.760	0.749	0.753	0.761	0.773	0.882
0.175	0.779	0.909	0.937	0.917	0.883	0.836	0.794	0.754	0.743	0.731	0.738	0.744	0.758	0.892
0.200	0.748	0.874	0.900	0.881	0.847	0.804	0.768	0.733	0.723	0.712	0.719	0.724	0.738	0.896
0.225	0.716	0.840	0.863	0.844	0.811	0.772	0.741	0.711	0.700	0.690	0.697	0.701	0.715	0.894
0.250	0.685	0.807	0.826	0.808	0.774	0.739	0.712	0.686	0.675	0.666	0.672	0.675	0.687	0.884
0.275	0.655	0.773	0.790	0.771	0.736	0.705	0.682	0.659	0.648	0.640	0.645	0.646	0.657	0.865
0.300	0.625	0.740	0.754	0.734	0.699	0.670	0.649	0.630	0.618	0.612	0.615	0.615	0.624	0.838
0.325	0.596	0.707	0.719	0.697	0.660	0.633	0.615	0.598	0.586	0.581	0.583	0.580	0.589	0.802
0.350	0.568	0.673	0.684	0.660	0.621	0.596	0.579	0.564	0.552	0.548	0.549	0.544	0.553	0.758
0.375	0.540	0.640	0.649	0.622	0.581	0.557	0.541	0.527	0.516	0.513	0.513	0.505	0.515	0.708
0.400	0.512	0.606	0.614	0.584	0.539	0.517	0.502	0.489	0.479	0.475	0.474	0.466	0.475	0.652
0.425	0.486	0.573	0.579	0.545	0.497	0.475	0.461	0.449	0.440	0.436	0.434	0.425	0.435	0.594
0.450	0.459	0.540	0.543	0.506	0.455	0.433	0.419	0.409	0.401	0.395	0.392	0.384	0.395	0.535
0.475	0.433	0.507	0.507	0.466	0.412	0.390	0.377	0.367	0.361	0.353	0.350	0.343	0.354	0.475
0.500	0.407	0.475	0.470	0.426	0.370	0.348	0.336	0.326	0.321	0.312	0.309	0.303	0.314	0.418
0.525	0.381	0.443	0.433	0.386	0.328	0.306	0.294	0.285	0.282	0.272	0.269	0.265	0.275	0.363
0.550	0.356	0.411	0.397	0.345	0.288	0.266	0.255	0.246	0.243	0.234	0.231	0.228	0.239	0.312
0.575	0.331	0.380	0.361	0.305	0.249	0.228	0.217	0.209	0.205	0.199	0.197	0.194	0.205	0.265
0.600	0.307	0.349	0.325	0.266	0.212	0.191	0.181	0.174	0.171	0.167	0.166	0.163	0.174	0.222
0.625	0.284	0.319	0.290	0.229	0.177	0.157	0.149	0.142	0.139	0.138	0.137	0.135	0.146	0.185
0.650	0.261	0.289	0.256	0.193	0.145	0.126	0.119	0.114	0.111	0.113	0.112	0.110	0.121	0.152
0.675	0.239	0.260	0.222	0.161	0.116	0.099	0.093	0.089	0.087	0.090	0.090	0.089	0.099	0.124
0.700	0.219	0.231	0.190	0.132	0.090	0.075	0.071	0.068	0.066	0.070	0.070	0.070	0.081	0.100
0.725	0.199	0.204	0.160	0.105	0.068	0.056	0.053	0.050	0.050	0.052	0.054	0.055	0.064	0.079
0.750	0.179	0.178	0.131	0.082	0.050	0.040	0.038	0.036	0.036	0.038	0.040	0.042	0.051	0.063
0.775	0.162	0.153	0.105	0.062	0.035	0.028	0.026	0.025	0.026	0.027	0.030	0.032	0.039	0.049
0.800	0.144	0.130	0.082	0.045	0.024	0.019	0.018	0.017	0.018	0.019	0.022	0.024	0.030	0.038
0.825	0.128	0.108	0.062	0.032	0.016	0.012	0.011	0.011	0.012	0.013	0.016	0.018	0.022	0.029
0.850	0.113	0.088	0.046	0.021	0.010	0.007	0.007	0.006	0.008	0.009	0.011	0.013	0.017	0.022
0.875	0.099	0.071	0.033	0.014	0.006	0.004	0.004	0.003	0.005	0.006	0.008	0.010	0.012	0.016
0.900	0.087	0.055	0.023	0.008	0.003	0.002	0.002	0.002	0.003	0.004	0.006	0.007	0.009	0.012
0.925	0.075	0.042	0.015	0.004	0.002	0.001	0.001	0.001	0.002	0.003	0.004	0.005	0.007	0.009
0.950	0.064	0.031	0.009	0.002	0.001	0.001	0.001	0.000	0.001	0.001	0.002	0.004	0.005	0.007
0.975	0.054	0.022	0.005	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.003	0.004	0.005
1.000	0.045	0.015	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.003	0.003
1.025	0.037	0.009	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.002
1.050	0.030	0.005	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.002
1.075	0.024	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001
1.100	0.019	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
1.125	0.014	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
1.150	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.175	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.200	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.225	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.250	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless electron depth dose distributions, (ro/To)D(z/ro).
Semi-infinite slab case (z = depth), detector material: lithium fluoride

z/ro	50.000	20.000	10.000	5.000	2.000	1.000	0.500	0.200	0.100	0.050	0.020	0.010	0.005	0.002
0.000	1.343	1.742	1.975	2.157	2.206	2.141	2.030	1.949	1.865	1.860	1.820	1.873	1.987	2.272
0.025	1.327	1.711	1.927	2.093	2.154	2.102	2.006	1.919	1.869	1.864	1.846	1.899	1.982	2.212
0.050	1.303	1.672	1.876	2.030	2.100	2.056	1.975	1.889	1.863	1.858	1.859	1.911	1.977	2.157
0.075	1.272	1.626	1.822	1.968	2.044	2.006	1.937	1.858	1.847	1.844	1.860	1.910	1.967	2.107
0.100	1.236	1.576	1.767	1.907	1.985	1.952	1.895	1.826	1.823	1.822	1.850	1.898	1.953	2.059
0.125	1.197	1.523	1.710	1.845	1.924	1.896	1.849	1.792	1.793	1.793	1.830	1.875	1.930	2.009
0.150	1.155	1.470	1.653	1.784	1.861	1.838	1.799	1.754	1.758	1.757	1.801	1.842	1.897	1.956
0.175	1.112	1.418	1.594	1.723	1.795	1.778	1.748	1.713	1.718	1.717	1.763	1.801	1.853	1.899
0.200	1.068	1.367	1.536	1.661	1.728	1.716	1.693	1.667	1.674	1.672	1.717	1.752	1.797	1.835
0.225	1.025	1.317	1.477	1.599	1.659	1.652	1.636	1.617	1.624	1.622	1.665	1.696	1.730	1.764
0.250	0.983	1.268	1.419	1.536	1.589	1.586	1.575	1.562	1.568	1.566	1.605	1.632	1.654	1.684
0.275	0.940	1.219	1.361	1.472	1.517	1.517	1.511	1.502	1.507	1.505	1.540	1.561	1.571	1.595
0.300	0.899	1.170	1.304	1.408	1.445	1.446	1.443	1.437	1.439	1.440	1.470	1.484	1.483	1.498
0.325	0.859	1.121	1.248	1.343	1.370	1.371	1.371	1.366	1.365	1.369	1.394	1.401	1.390	1.392
0.350	0.819	1.071	1.192	1.277	1.293	1.293	1.294	1.290	1.286	1.293	1.314	1.312	1.295	1.281
0.375	0.781	1.021	1.136	1.210	1.214	1.211	1.213	1.209	1.203	1.212	1.227	1.219	1.197	1.165
0.400	0.743	0.971	1.080	1.141	1.133	1.126	1.128	1.122	1.116	1.125	1.136	1.122	1.098	1.050
0.425	0.706	0.921	1.023	1.072	1.049	1.038	1.038	1.033	1.027	1.032	1.039	1.023	0.997	0.936
0.450	0.669	0.871	0.964	1.001	0.963	0.947	0.946	0.940	0.936	0.936	0.939	0.922	0.897	0.826
0.475	0.632	0.821	0.905	0.928	0.876	0.857	0.851	0.846	0.844	0.838	0.839	0.822	0.799	0.721
0.500	0.596	0.772	0.844	0.853	0.789	0.766	0.757	0.752	0.751	0.740	0.740	0.723	0.703	0.624
0.525	0.560	0.723	0.783	0.776	0.703	0.676	0.663	0.660	0.659	0.645	0.644	0.629	0.611	0.535
0.550	0.524	0.675	0.722	0.698	0.619	0.590	0.572	0.571	0.569	0.555	0.555	0.540	0.525	0.454
0.575	0.489	0.627	0.660	0.620	0.538	0.506	0.486	0.486	0.483	0.472	0.472	0.459	0.446	0.382
0.600	0.455	0.579	0.599	0.543	0.460	0.426	0.407	0.406	0.402	0.397	0.397	0.384	0.375	0.318
0.625	0.422	0.531	0.538	0.469	0.386	0.351	0.335	0.333	0.329	0.329	0.330	0.318	0.311	0.263
0.650	0.390	0.484	0.478	0.399	0.316	0.282	0.271	0.267	0.263	0.268	0.269	0.260	0.255	0.215
0.675	0.358	0.438	0.419	0.333	0.253	0.221	0.215	0.209	0.206	0.214	0.216	0.209	0.206	0.175
0.700	0.328	0.393	0.361	0.274	0.197	0.168	0.165	0.160	0.157	0.166	0.169	0.166	0.165	0.140
0.725	0.299	0.349	0.305	0.220	0.149	0.125	0.123	0.119	0.117	0.126	0.130	0.129	0.131	0.112
0.750	0.271	0.306	0.252	0.172	0.109	0.090	0.087	0.085	0.085	0.092	0.097	0.099	0.102	0.088
0.775	0.245	0.265	0.204	0.131	0.077	0.063	0.059	0.060	0.061	0.066	0.072	0.074	0.079	0.069
0.800	0.220	0.226	0.160	0.097	0.053	0.043	0.038	0.040	0.042	0.046	0.052	0.054	0.060	0.053
0.825	0.196	0.190	0.123	0.068	0.034	0.028	0.023	0.026	0.028	0.032	0.038	0.039	0.045	0.040
0.850	0.174	0.157	0.091	0.046	0.021	0.017	0.014	0.016	0.019	0.021	0.027	0.028	0.033	0.030
0.875	0.153	0.126	0.065	0.030	0.013	0.009	0.008	0.010	0.012	0.014	0.020	0.021	0.025	0.022
0.900	0.134	0.099	0.045	0.018	0.007	0.005	0.005	0.005	0.007	0.010	0.014	0.015	0.018	0.016
0.925	0.116	0.076	0.030	0.010	0.003	0.002	0.003	0.003	0.004	0.006	0.009	0.011	0.013	0.012
0.950	0.100	0.056	0.019	0.005	0.002	0.001	0.002	0.001	0.002	0.004	0.005	0.008	0.010	0.008
0.975	0.085	0.040	0.011	0.002	0.001	0.000	0.001	0.001	0.001	0.002	0.003	0.006	0.007	0.006
1.000	0.071	0.027	0.006	0.001	0.000	0.000	0.002	0.000	0.000	0.001	0.002	0.004	0.005	0.004
1.025	0.059	0.017	0.003	0.000	0.000	0.000	0.003	0.000	0.000	0.001	0.001	0.003	0.003	0.003
1.050	0.048	0.010	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.002	0.002
1.075	0.039	0.006	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.001
1.100	0.030	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
1.125	0.023	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
1.150	0.017	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.175	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.200	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.225	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.250	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless electron depth dose distributions, (ro/To)D(z/ro).
Finite slab case (z = thickness), detector material: lithium fluoride

z/ro	50.000	20.000	10.000	5.000	2.000	1.000	0.500	0.200	0.100	0.050	0.020	0.010	0.005	0.002
0.000	1.097	1.347	1.456	1.512	1.488	1.409	1.311	1.235	1.179	1.172	1.171	1.200	1.286	1.449
0.025	1.083	1.321	1.419	1.468	1.451	1.379	1.291	1.215	1.178	1.174	1.181	1.218	1.288	1.425
0.050	1.062	1.290	1.381	1.423	1.413	1.347	1.269	1.196	1.172	1.171	1.186	1.227	1.289	1.406
0.075	1.037	1.254	1.340	1.379	1.373	1.314	1.244	1.177	1.161	1.162	1.186	1.229	1.286	1.391
0.100	1.007	1.215	1.299	1.334	1.332	1.278	1.216	1.156	1.147	1.149	1.179	1.224	1.279	1.377
0.125	0.975	1.175	1.256	1.290	1.289	1.241	1.187	1.135	1.129	1.132	1.168	1.212	1.267	1.363
0.150	0.941	1.134	1.213	1.245	1.246	1.203	1.156	1.111	1.108	1.111	1.151	1.193	1.248	1.347
0.175	0.906	1.093	1.169	1.201	1.200	1.162	1.123	1.086	1.084	1.087	1.129	1.169	1.222	1.328
0.200	0.871	1.054	1.125	1.156	1.154	1.121	1.088	1.057	1.056	1.059	1.102	1.139	1.188	1.303
0.225	0.836	1.015	1.081	1.111	1.107	1.077	1.050	1.026	1.025	1.029	1.070	1.104	1.148	1.272
0.250	0.800	0.976	1.038	1.065	1.058	1.033	1.011	0.991	0.990	0.994	1.033	1.064	1.101	1.233
0.275	0.766	0.937	0.994	1.019	1.009	0.986	0.969	0.953	0.951	0.956	0.993	1.019	1.049	1.185
0.300	0.732	0.898	0.951	0.973	0.959	0.939	0.924	0.912	0.908	0.915	0.949	0.970	0.994	1.129
0.325	0.699	0.859	0.908	0.926	0.908	0.889	0.877	0.867	0.862	0.871	0.901	0.916	0.935	1.064
0.350	0.666	0.820	0.866	0.879	0.855	0.838	0.827	0.818	0.813	0.823	0.849	0.859	0.873	0.991
0.375	0.635	0.780	0.824	0.830	0.801	0.784	0.774	0.766	0.761	0.771	0.794	0.799	0.810	0.913
0.400	0.603	0.741	0.781	0.781	0.746	0.728	0.719	0.711	0.707	0.716	0.735	0.737	0.745	0.831
0.425	0.572	0.701	0.737	0.731	0.689	0.670	0.661	0.654	0.651	0.657	0.674	0.673	0.679	0.748
0.450	0.542	0.662	0.693	0.681	0.631	0.612	0.602	0.595	0.594	0.596	0.610	0.608	0.613	0.666
0.475	0.511	0.623	0.648	0.629	0.573	0.552	0.542	0.535	0.536	0.534	0.545	0.543	0.547	0.587
0.500	0.481	0.584	0.603	0.576	0.515	0.493	0.482	0.475	0.477	0.472	0.481	0.479	0.483	0.512
0.525	0.452	0.546	0.557	0.522	0.458	0.434	0.422	0.417	0.419	0.412	0.420	0.418	0.421	0.442
0.550	0.422	0.508	0.512	0.468	0.403	0.378	0.365	0.360	0.361	0.355	0.362	0.360	0.363	0.377
0.575	0.394	0.470	0.466	0.415	0.349	0.324	0.310	0.306	0.306	0.302	0.308	0.306	0.310	0.319
0.600	0.366	0.433	0.421	0.363	0.298	0.272	0.259	0.256	0.255	0.254	0.259	0.257	0.261	0.267
0.625	0.338	0.396	0.377	0.313	0.249	0.224	0.213	0.209	0.208	0.211	0.215	0.212	0.218	0.221
0.650	0.312	0.359	0.333	0.265	0.204	0.180	0.172	0.168	0.166	0.172	0.176	0.173	0.180	0.181
0.675	0.286	0.324	0.291	0.221	0.163	0.141	0.136	0.131	0.130	0.137	0.141	0.139	0.146	0.147
0.700	0.261	0.289	0.249	0.182	0.127	0.108	0.105	0.100	0.100	0.107	0.110	0.110	0.118	0.119
0.725	0.238	0.256	0.210	0.145	0.096	0.080	0.077	0.074	0.074	0.080	0.085	0.086	0.093	0.094
0.750	0.215	0.223	0.173	0.114	0.070	0.058	0.055	0.054	0.054	0.059	0.064	0.066	0.073	0.074
0.775	0.194	0.192	0.139	0.086	0.050	0.041	0.037	0.037	0.039	0.042	0.047	0.050	0.057	0.058
0.800	0.174	0.164	0.109	0.063	0.034	0.028	0.024	0.025	0.027	0.029	0.034	0.038	0.043	0.045
0.825	0.155	0.137	0.083	0.045	0.022	0.018	0.014	0.016	0.018	0.020	0.025	0.028	0.032	0.034
0.850	0.137	0.112	0.061	0.030	0.014	0.011	0.008	0.010	0.012	0.014	0.018	0.020	0.024	0.026
0.875	0.120	0.090	0.044	0.019	0.008	0.006	0.005	0.006	0.008	0.009	0.013	0.015	0.018	0.019
0.900	0.105	0.070	0.030	0.011	0.004	0.003	0.003	0.003	0.005	0.007	0.009	0.011	0.013	0.014
0.925	0.090	0.054	0.020	0.006	0.002	0.002	0.002	0.002	0.003	0.004	0.006	0.008	0.010	0.010
0.950	0.077	0.040	0.013	0.003	0.001	0.001	0.001	0.001	0.001	0.002	0.004	0.006	0.007	0.007
0.975	0.065	0.028	0.007	0.001	0.000	0.000	0.001	0.000	0.001	0.001	0.002	0.004	0.005	0.005
1.000	0.055	0.019	0.004	0.001	0.000	0.000	0.001	0.000	0.000	0.000	0.001	0.003	0.004	0.004
1.025	0.045	0.012	0.002	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.001	0.002	0.002	0.002
1.050	0.037	0.007	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.002
1.075	0.029	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001
1.100	0.023	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
1.125	0.017	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.150	0.013	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.175	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.200	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.225	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.250	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless electron depth dose distributions, (ro/To)D(z/ro).
Semi-infinite slab case (z = depth), detector material: silicon dioxide

z/ro	50.000	20.000	10.000	5.000	2.000	1.000	0.500	0.200	0.100	0.050	0.020	0.010	0.005	0.002
0.000	1.423	1.831	2.054	2.214	2.233	2.153	2.031	1.936	1.847	1.837	1.786	1.825	1.916	2.159
0.025	1.404	1.795	2.001	2.144	2.178	2.110	2.004	1.905	1.850	1.838	1.808	1.847	1.911	2.105
0.050	1.377	1.751	1.946	2.075	2.121	2.062	1.971	1.874	1.842	1.830	1.819	1.858	1.905	2.058
0.075	1.343	1.702	1.889	2.009	2.062	2.011	1.932	1.843	1.825	1.815	1.819	1.856	1.896	2.014
0.100	1.305	1.648	1.829	1.945	2.001	1.956	1.889	1.810	1.801	1.792	1.808	1.842	1.881	1.971
0.125	1.262	1.593	1.769	1.881	1.938	1.898	1.842	1.775	1.770	1.762	1.787	1.819	1.858	1.926
0.150	1.218	1.536	1.708	1.817	1.873	1.839	1.793	1.737	1.735	1.727	1.758	1.786	1.826	1.879
0.175	1.172	1.481	1.647	1.753	1.806	1.778	1.741	1.696	1.695	1.687	1.720	1.746	1.783	1.826
0.200	1.126	1.427	1.585	1.689	1.738	1.716	1.686	1.650	1.651	1.642	1.675	1.698	1.729	1.767
0.225	1.080	1.374	1.523	1.624	1.668	1.651	1.628	1.600	1.601	1.592	1.623	1.642	1.664	1.701
0.250	1.035	1.322	1.462	1.559	1.596	1.584	1.567	1.545	1.546	1.537	1.564	1.580	1.591	1.626
0.275	0.990	1.270	1.402	1.494	1.523	1.515	1.503	1.486	1.485	1.477	1.500	1.510	1.511	1.542
0.300	0.946	1.218	1.342	1.427	1.450	1.443	1.435	1.421	1.417	1.412	1.431	1.435	1.425	1.450
0.325	0.903	1.166	1.284	1.360	1.374	1.368	1.362	1.351	1.344	1.342	1.357	1.354	1.336	1.349
0.350	0.862	1.114	1.226	1.292	1.297	1.289	1.286	1.275	1.266	1.268	1.278	1.268	1.245	1.242
0.375	0.821	1.061	1.167	1.223	1.217	1.207	1.204	1.194	1.184	1.187	1.193	1.178	1.151	1.132
0.400	0.781	1.009	1.109	1.153	1.134	1.122	1.119	1.109	1.098	1.102	1.104	1.084	1.055	1.020
0.425	0.742	0.956	1.049	1.082	1.050	1.034	1.030	1.020	1.010	1.011	1.010	0.988	0.959	0.910
0.450	0.702	0.904	0.988	1.010	0.964	0.944	0.938	0.928	0.920	0.916	0.912	0.890	0.863	0.804
0.475	0.664	0.852	0.927	0.936	0.877	0.853	0.844	0.835	0.829	0.820	0.814	0.793	0.768	0.703
0.500	0.625	0.801	0.864	0.860	0.789	0.762	0.750	0.742	0.738	0.724	0.718	0.698	0.676	0.609
0.525	0.587	0.750	0.801	0.782	0.703	0.673	0.657	0.651	0.647	0.631	0.625	0.607	0.588	0.522
0.550	0.550	0.699	0.738	0.703	0.619	0.586	0.567	0.563	0.559	0.543	0.538	0.521	0.505	0.443
0.575	0.513	0.649	0.674	0.624	0.537	0.503	0.482	0.479	0.474	0.461	0.458	0.442	0.429	0.373
0.600	0.477	0.599	0.611	0.546	0.459	0.423	0.403	0.400	0.395	0.388	0.385	0.370	0.361	0.311
0.625	0.442	0.549	0.549	0.471	0.384	0.349	0.331	0.328	0.322	0.321	0.319	0.307	0.299	0.257
0.650	0.408	0.500	0.487	0.400	0.315	0.280	0.268	0.263	0.258	0.262	0.261	0.250	0.245	0.211
0.675	0.375	0.453	0.426	0.335	0.252	0.220	0.212	0.206	0.202	0.208	0.209	0.202	0.199	0.171
0.700	0.343	0.406	0.367	0.275	0.197	0.167	0.163	0.157	0.154	0.162	0.164	0.160	0.159	0.137
0.725	0.313	0.360	0.310	0.221	0.149	0.124	0.121	0.117	0.115	0.123	0.126	0.124	0.126	0.109
0.750	0.283	0.315	0.256	0.173	0.109	0.089	0.086	0.084	0.084	0.090	0.094	0.095	0.098	0.086
0.775	0.256	0.273	0.206	0.131	0.077	0.063	0.058	0.059	0.059	0.064	0.069	0.071	0.076	0.067
0.800	0.230	0.233	0.162	0.097	0.052	0.043	0.037	0.040	0.041	0.045	0.050	0.052	0.058	0.052
0.825	0.205	0.195	0.124	0.068	0.034	0.028	0.023	0.026	0.028	0.031	0.037	0.038	0.043	0.039
0.850	0.182	0.161	0.092	0.046	0.021	0.017	0.014	0.016	0.018	0.021	0.027	0.027	0.032	0.030
0.875	0.160	0.130	0.066	0.029	0.012	0.009	0.008	0.009	0.011	0.014	0.019	0.020	0.024	0.022
0.900	0.140	0.102	0.045	0.018	0.007	0.005	0.004	0.005	0.007	0.009	0.014	0.015	0.017	0.016
0.925	0.121	0.078	0.030	0.010	0.003	0.002	0.003	0.003	0.004	0.006	0.009	0.011	0.013	0.012
0.950	0.104	0.058	0.019	0.005	0.002	0.001	0.002	0.001	0.002	0.004	0.005	0.008	0.009	0.008
0.975	0.088	0.041	0.011	0.002	0.001	0.000	0.001	0.001	0.001	0.002	0.003	0.006	0.007	0.006
1.000	0.074	0.028	0.006	0.001	0.000	0.000	0.002	0.000	0.000	0.001	0.002	0.004	0.005	0.004
1.025	0.061	0.017	0.003	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.001	0.003	0.003	0.003
1.050	0.050	0.010	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.002	0.002
1.075	0.040	0.006	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001
1.100	0.031	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
1.125	0.024	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
1.150	0.018	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.175	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.200	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.225	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.250	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless electron depth dose distributions, (ro/To)D(z/ro).
Finite slab case (z = thickness), detector material: silicon dioxide

z/ro	50.000	20.000	10.000	5.000	2.000	1.000	0.500	0.200	0.100	0.050	0.020	0.010	0.005	0.002
0.000	1.170	1.426	1.529	1.567	1.516	1.423	1.317	1.230	1.171	1.160	1.151	1.173	1.242	1.370
0.025	1.154	1.396	1.488	1.517	1.477	1.391	1.294	1.209	1.168	1.160	1.159	1.187	1.244	1.349
0.050	1.131	1.361	1.445	1.468	1.436	1.357	1.270	1.190	1.161	1.155	1.163	1.195	1.244	1.334
0.075	1.103	1.322	1.401	1.420	1.394	1.322	1.244	1.170	1.150	1.146	1.161	1.196	1.241	1.322
0.100	1.071	1.281	1.356	1.373	1.351	1.286	1.217	1.149	1.136	1.133	1.155	1.190	1.233	1.312
0.125	1.036	1.238	1.310	1.326	1.307	1.248	1.188	1.127	1.118	1.115	1.143	1.178	1.221	1.301
0.150	0.999	1.194	1.264	1.279	1.261	1.209	1.156	1.104	1.096	1.095	1.125	1.159	1.202	1.288
0.175	0.961	1.151	1.218	1.232	1.215	1.168	1.123	1.078	1.072	1.070	1.103	1.135	1.176	1.272
0.200	0.924	1.108	1.171	1.185	1.167	1.125	1.087	1.049	1.044	1.043	1.076	1.106	1.144	1.250
0.225	0.886	1.067	1.124	1.138	1.118	1.081	1.049	1.018	1.013	1.012	1.045	1.071	1.104	1.222
0.250	0.849	1.025	1.078	1.090	1.069	1.036	1.009	0.983	0.978	0.978	1.009	1.032	1.059	1.187
0.275	0.812	0.984	1.032	1.042	1.018	0.989	0.966	0.945	0.939	0.940	0.969	0.988	1.009	1.143
0.300	0.775	0.942	0.987	0.994	0.967	0.941	0.921	0.904	0.897	0.900	0.925	0.939	0.955	1.090
0.325	0.740	0.901	0.942	0.945	0.915	0.891	0.874	0.859	0.851	0.855	0.878	0.887	0.898	1.029
0.350	0.705	0.859	0.897	0.896	0.862	0.839	0.823	0.811	0.802	0.808	0.827	0.831	0.839	0.960
0.375	0.672	0.817	0.853	0.846	0.807	0.785	0.770	0.759	0.751	0.757	0.773	0.773	0.778	0.885
0.400	0.638	0.775	0.808	0.795	0.750	0.728	0.714	0.704	0.697	0.702	0.716	0.712	0.715	0.807
0.425	0.605	0.734	0.762	0.743	0.693	0.670	0.657	0.647	0.642	0.645	0.655	0.650	0.652	0.727
0.450	0.573	0.692	0.716	0.691	0.635	0.611	0.598	0.589	0.585	0.585	0.593	0.587	0.588	0.648
0.475	0.540	0.651	0.669	0.638	0.576	0.552	0.538	0.529	0.528	0.523	0.530	0.524	0.525	0.572
0.500	0.508	0.610	0.622	0.584	0.517	0.492	0.479	0.470	0.470	0.462	0.468	0.462	0.464	0.499
0.525	0.477	0.570	0.574	0.529	0.460	0.434	0.420	0.412	0.412	0.403	0.408	0.403	0.405	0.431
0.550	0.446	0.530	0.526	0.474	0.404	0.377	0.364	0.356	0.355	0.348	0.351	0.347	0.349	0.368
0.575	0.415	0.490	0.479	0.420	0.350	0.323	0.310	0.303	0.301	0.296	0.299	0.295	0.298	0.311
0.600	0.385	0.451	0.432	0.367	0.298	0.271	0.259	0.253	0.250	0.249	0.252	0.247	0.251	0.260
0.625	0.356	0.412	0.387	0.316	0.249	0.223	0.213	0.207	0.204	0.206	0.209	0.205	0.209	0.216
0.650	0.328	0.374	0.342	0.268	0.204	0.179	0.171	0.166	0.163	0.168	0.170	0.167	0.173	0.177
0.675	0.301	0.337	0.297	0.223	0.163	0.140	0.134	0.130	0.128	0.134	0.136	0.134	0.141	0.144
0.700	0.275	0.300	0.255	0.183	0.127	0.107	0.102	0.099	0.098	0.104	0.107	0.106	0.113	0.116
0.725	0.250	0.265	0.214	0.146	0.096	0.079	0.076	0.073	0.073	0.079	0.082	0.083	0.090	0.092
0.750	0.226	0.231	0.176	0.114	0.070	0.057	0.055	0.053	0.053	0.057	0.062	0.064	0.071	0.073
0.775	0.204	0.199	0.141	0.087	0.050	0.040	0.038	0.037	0.038	0.041	0.045	0.048	0.054	0.057
0.800	0.183	0.169	0.111	0.063	0.034	0.028	0.026	0.025	0.026	0.028	0.033	0.036	0.041	0.044
0.825	0.162	0.141	0.084	0.045	0.022	0.018	0.017	0.016	0.018	0.019	0.024	0.027	0.031	0.033
0.850	0.144	0.116	0.062	0.030	0.014	0.010	0.010	0.010	0.012	0.013	0.017	0.020	0.023	0.025
0.875	0.126	0.093	0.045	0.019	0.008	0.006	0.006	0.006	0.007	0.009	0.013	0.014	0.017	0.019
0.900	0.110	0.072	0.031	0.011	0.004	0.003	0.003	0.003	0.004	0.006	0.009	0.010	0.013	0.014
0.925	0.095	0.055	0.020	0.006	0.002	0.002	0.002	0.002	0.003	0.004	0.006	0.008	0.009	0.010
0.950	0.081	0.041	0.013	0.003	0.001	0.001	0.001	0.001	0.001	0.002	0.004	0.006	0.007	0.007
0.975	0.069	0.029	0.007	0.001	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.004	0.005	0.005
1.000	0.057	0.019	0.004	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.003	0.004	0.004
1.025	0.047	0.012	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.002	0.002
1.050	0.038	0.007	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.002
1.075	0.030	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001
1.100	0.024	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
1.125	0.018	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.150	0.013	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.175	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.200	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.225	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.250	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless electron depth dose distributions, (ro/To)D(z/ro).
Semi-infinite slab case (z = depth), detector material: tissue

z/ro	50.000	20.000	10.000	5.000	2.000	1.000	0.500	0.200	0.100	0.050	0.020	0.010	0.005	0.002
0.000	1.649	2.140	2.428	2.658	2.716	2.640	2.502	2.392	2.292	2.292	2.253	2.329	2.461	2.815
0.025	1.628	2.101	2.368	2.578	2.652	2.590	2.471	2.356	2.299	2.296	2.282	2.354	2.463	2.711
0.050	1.598	2.052	2.306	2.500	2.586	2.534	2.431	2.320	2.291	2.289	2.296	2.364	2.457	2.618
0.075	1.560	1.996	2.240	2.423	2.516	2.472	2.384	2.283	2.272	2.271	2.297	2.361	2.440	2.534
0.100	1.516	1.934	2.172	2.347	2.444	2.405	2.331	2.244	2.243	2.244	2.284	2.344	2.413	2.454
0.125	1.467	1.869	2.102	2.272	2.369	2.336	2.274	2.201	2.206	2.208	2.258	2.314	2.375	2.376
0.150	1.416	1.804	2.031	2.197	2.291	2.264	2.213	2.155	2.162	2.166	2.222	2.272	2.326	2.296
0.175	1.363	1.739	1.959	2.121	2.211	2.190	2.149	2.105	2.114	2.116	2.175	2.221	2.265	2.213
0.200	1.310	1.677	1.886	2.045	2.128	2.113	2.082	2.049	2.060	2.061	2.119	2.160	2.193	2.125
0.225	1.257	1.615	1.814	1.968	2.043	2.034	2.011	1.988	1.999	1.998	2.053	2.089	2.111	2.030
0.250	1.204	1.555	1.742	1.891	1.957	1.953	1.936	1.920	1.931	1.930	1.980	2.009	2.019	1.927
0.275	1.152	1.495	1.671	1.813	1.869	1.868	1.857	1.847	1.855	1.855	1.899	1.921	1.918	1.816
0.300	1.102	1.434	1.601	1.734	1.779	1.780	1.774	1.767	1.771	1.774	1.812	1.824	1.809	1.696
0.325	1.052	1.374	1.532	1.654	1.687	1.687	1.685	1.680	1.680	1.687	1.719	1.721	1.693	1.569
0.350	1.004	1.313	1.463	1.572	1.593	1.591	1.591	1.587	1.583	1.594	1.619	1.611	1.572	1.437
0.375	0.957	1.251	1.395	1.489	1.495	1.490	1.491	1.487	1.481	1.494	1.513	1.496	1.449	1.302
0.400	0.910	1.190	1.325	1.405	1.395	1.385	1.385	1.381	1.374	1.386	1.399	1.377	1.323	1.167
0.425	0.864	1.128	1.255	1.319	1.291	1.277	1.276	1.270	1.265	1.273	1.280	1.254	1.197	1.036
0.450	0.819	1.067	1.183	1.232	1.186	1.166	1.162	1.156	1.153	1.154	1.157	1.130	1.073	0.911
0.475	0.774	1.006	1.110	1.142	1.079	1.054	1.046	1.041	1.039	1.033	1.033	1.006	0.953	0.793
0.500	0.729	0.946	1.036	1.050	0.972	0.942	0.930	0.925	0.925	0.912	0.910	0.884	0.837	0.684
0.525	0.685	0.886	0.961	0.956	0.866	0.832	0.815	0.812	0.812	0.795	0.793	0.768	0.727	0.585
0.550	0.642	0.826	0.886	0.859	0.763	0.725	0.703	0.702	0.701	0.685	0.683	0.659	0.625	0.495
0.575	0.599	0.767	0.810	0.763	0.663	0.622	0.598	0.598	0.595	0.582	0.581	0.559	0.531	0.416
0.600	0.557	0.709	0.735	0.669	0.566	0.524	0.500	0.500	0.496	0.489	0.489	0.468	0.445	0.346
0.625	0.516	0.650	0.661	0.577	0.475	0.432	0.412	0.410	0.405	0.405	0.405	0.387	0.369	0.286
0.650	0.477	0.593	0.587	0.491	0.389	0.347	0.333	0.329	0.324	0.330	0.331	0.316	0.302	0.234
0.675	0.438	0.537	0.514	0.411	0.312	0.272	0.264	0.257	0.254	0.263	0.265	0.254	0.244	0.190
0.700	0.401	0.481	0.443	0.337	0.243	0.207	0.203	0.197	0.194	0.205	0.208	0.201	0.195	0.152
0.725	0.366	0.427	0.374	0.271	0.184	0.153	0.151	0.146	0.145	0.155	0.159	0.157	0.154	0.121
0.750	0.332	0.375	0.309	0.212	0.135	0.111	0.107	0.105	0.105	0.114	0.119	0.119	0.120	0.095
0.775	0.299	0.325	0.250	0.162	0.095	0.078	0.072	0.074	0.075	0.081	0.088	0.089	0.092	0.074
0.800	0.269	0.277	0.197	0.119	0.065	0.053	0.046	0.050	0.052	0.057	0.064	0.066	0.070	0.057
0.825	0.240	0.233	0.150	0.084	0.042	0.034	0.028	0.032	0.035	0.039	0.046	0.048	0.053	0.043
0.850	0.213	0.192	0.111	0.057	0.026	0.021	0.017	0.020	0.023	0.026	0.034	0.034	0.039	0.033
0.875	0.188	0.154	0.080	0.036	0.015	0.012	0.010	0.012	0.014	0.018	0.025	0.025	0.029	0.024
0.900	0.164	0.122	0.055	0.022	0.008	0.006	0.006	0.007	0.009	0.012	0.017	0.018	0.021	0.018
0.925	0.142	0.093	0.036	0.012	0.004	0.002	0.003	0.004	0.005	0.008	0.011	0.013	0.015	0.013
0.950	0.122	0.069	0.023	0.006	0.002	0.001	0.002	0.002	0.003	0.005	0.007	0.010	0.011	0.009
0.975	0.104	0.049	0.013	0.003	0.001	0.000	0.002	0.001	0.001	0.003	0.004	0.007	0.008	0.006
1.000	0.087	0.033	0.007	0.001	0.000	0.000	0.002	0.000	0.001	0.001	0.002	0.005	0.005	0.004
1.025	0.072	0.021	0.004	0.000	0.000	0.000	0.003	0.000	0.000	0.001	0.002	0.003	0.004	0.003
1.050	0.059	0.012	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.003	0.002
1.075	0.047	0.007	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.001
1.100	0.037	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
1.125	0.028	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
1.150	0.021	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
1.175	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
1.200	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.225	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.250	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless electron depth dose distributions, (ro/To)D(z/ro).
Finite slab case (z = thickness), detector material: tissue

z/ro	50.000	20.000	10.000	5.000	2.000	1.000	0.500	0.200	0.100	0.050	0.020	0.010	0.005	0.002
0.000	1.353	1.661	1.797	1.868	1.836	1.741	1.619	1.519	1.453	1.448	1.452	1.498	1.618	1.848
0.025	1.335	1.629	1.751	1.812	1.791	1.704	1.594	1.495	1.450	1.449	1.463	1.515	1.612	1.794
0.050	1.310	1.590	1.703	1.757	1.743	1.664	1.565	1.472	1.443	1.444	1.468	1.524	1.607	1.750
0.075	1.278	1.545	1.653	1.702	1.694	1.623	1.534	1.448	1.431	1.434	1.467	1.524	1.599	1.712
0.100	1.241	1.497	1.601	1.647	1.644	1.579	1.500	1.423	1.413	1.418	1.459	1.516	1.587	1.677
0.125	1.201	1.447	1.549	1.592	1.591	1.533	1.464	1.397	1.392	1.398	1.444	1.501	1.569	1.644
0.150	1.159	1.397	1.495	1.537	1.537	1.485	1.425	1.368	1.366	1.372	1.423	1.478	1.544	1.610
0.175	1.116	1.347	1.441	1.482	1.482	1.436	1.384	1.337	1.336	1.342	1.396	1.447	1.510	1.573
0.200	1.072	1.297	1.387	1.427	1.425	1.384	1.340	1.302	1.302	1.309	1.362	1.410	1.466	1.531
0.225	1.029	1.249	1.332	1.371	1.366	1.330	1.294	1.263	1.264	1.271	1.323	1.366	1.414	1.483
0.250	0.985	1.201	1.278	1.315	1.306	1.275	1.244	1.221	1.221	1.228	1.278	1.316	1.355	1.427
0.275	0.943	1.153	1.225	1.258	1.246	1.218	1.192	1.174	1.173	1.181	1.228	1.260	1.289	1.363
0.300	0.901	1.105	1.171	1.201	1.184	1.159	1.137	1.123	1.120	1.130	1.173	1.198	1.219	1.290
0.325	0.860	1.057	1.119	1.143	1.121	1.097	1,079	1.068	1.063	1.076	1.114	1.131	1.144	1.208
0.350	0.820	1.009	1.067	1.084	1.056	1.034	1.018	1.008	1.003	1.017	1.050	1.061	1.067	1.119
0.375	0.781	0.960	1.014	1.025	0.989	0.967	0.953	0.944	0.939	0.953	0.982	0.986	0.988	1.025
0.400	0.742	0.911	0.961	0.964	0.921	0.898	0.885	0.876	0.872	0.885	0.909	0.909	0.907	0.929
0.425	0.704	0.862	0.908	0.902	0.850	0.827	0.814	0.806	0.803	0.812	0.833	0.829	0.825	0.833
0.450	0.666	0.814	0.853	0.840	0.779	0.754	0.742	0.733	0.733	0.737	0.754	0.749	0.742	0.738
0.475	0.629	0.766	0.798	0.776	0.707	0.681	0.668	0.659	0.661	0.660	0.674	0.668	0.661	0.648
0.500	0.592	0.718	0.742	0.711	0.636	0.607	0.593	0.586	0.589	0.583	0.595	0.589	0.582	0.563
0.525	0.555	0.671	0.686	0.645	0.565	0.535	0.520	0.513	0.517	0.509	0.519	0.513	0.507	0.484
0.550	0.519	0.624	0.630	0.578	0.497	0.466	0.449	0.444	0.446	0.439	0.447	0.442	0.437	0.412
0.575	0.484	0.578	0.574	0.512	0.431	0.399	0.382	0.377	0.378	0.374	0.381	0.375	0.371	0.348
0.600	0.449	0.532	0.518	0.448	0.367	0.335	0.319	0.315	0.315	0.314	0.320	0.314	0.313	0.291
0.625	0.415	0.486	0.464	0.386	0.307	0.276	0.262	0.258	0.257	0.261	0.266	0.260	0.260	0.241
0.650	0.383	0.442	0.410	0.328	0.252	0.222	0.212	0.207	0.205	0.213	0.217	0.212	0.214	0.197
0.675	0.351	0.398	0.357	0.273	0.201	0.174	0.168	0.162	0.161	0.170	0.174	0.170	0.174	0.160
0.700	0.321	0.355	0.306	0.224	0.157	0.132	0.129	0.124	0.123	0.132	0.136	0.135	0.139	0.129
0.725	0.292	0.314	0.258	0.179	0.118	0.098	0.095	0.092	0.092	0.099	0.105	0.105	0.110	0.103
0.750	0.264	0.274	0.212	0.140	0.087	0.071	0.068	0.066	0.067	0.073	0.078	0.081	0.086	0.081
0.775	0.238	0.236	0.171	0.106	0.061	0.050	0.045	0.046	0.048	0.051	0.058	0.061	0.067	0.063
0.800	0.213	0.201	0.134	0.078	0.042	0.034	0.029	0.031	0.033	0.036	0.042	0.046	0.051	0.048
0.825	0.190	0.168	0.102	0.055	0.027	0.022	0.018	0.020	0.023	0.025	0.031	0.034	0.038	0.037
0.850	0.168	0.138	0.075	0.037	0.017	0.013	0.010	0.013	0.015	0.017	0.022	0.025	0.028	0.028
0.875	0.147	0.110	0.054	0.024	0.010	0.007	0.006	0.007	0.009	0.012	0.016	0.018	0.021	0.021
0.900	0.128	0.086	0.037	0.014	0.005	0.004	0.003	0.004	0.006	0.008	0.011	0.013	0.015	0.015
0.925	0.111	0.066	0.025	0.008	0.003	0.002	0.002	0.002	0.003	0.005	0.007	0.010	0.011	0.011
0.950	0.095	0.049	0.015	0.004	0.001	0.001	0.001	0.001	0.002	0.003	0.004	0.007	0.008	0.008
0.975	0.080	0.034	0.009	0.002	0.001	0.000	0.001	0.000	0.001	0.001	0.003	0.005	0.006	0.005
1.000	0.067	0.023	0.005	0.001	0.000	0.000	0.001	0.000	0.000	0.001	0.002	0.003	0.004	0.004
1.025	0.055	0.015	0.003	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.001	0.002	0.003	0.003
1.050	0.045	0.009	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.002
1.075	0.036	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001
1.100	0.028	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
1.125	0.021	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.150	0.016	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.175	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.200	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.225	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.250	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless electron depth dose distributions, (ro/To)D(z/ro).
Semi-infinite slab case (z = depth), detector material: water

z/ro	50.000	20.000	10.000	5.000	2.000	1.000	0.500	0.200	0.100	0.050	0.020	0.010	0.005	0.002
0.000	1.667	2.162	2.452	2.685	2.744	2.666	2.522	2.411	2.310	2.311	2.271	2.347	2.479	2.835
0.025	1.646	2.122	2.392	2.604	2.680	2.616	2.490	2.375	2.317	2.314	2.300	2.372	2.482	2.729
0.050	1.615	2.073	2.328	2.525	2.613	2.559	2.450	2.338	2.309	2.306	2.314	2.382	2.475	2.635
0.075	1.577	2.015	2.262	2.448	2.543	2.496	2.403	2.301	2.290	2.289	2.314	2.378	2.458	2.549
0.100	1.532	1.953	2.193	2.372	2.470	2.429	2.350	2.261	2.260	2.262	2.301	2.361	2.431	2.468
0.125	1.482	1.888	2.123	2.296	2.394	2.358	2.292	2.219	2.223	2.226	2.276	2.331	2.392	2.389
0.150	1.430	1.822	2.051	2.220	2.315	2.285	2.231	2.173	2.179	2.183	2.239	2.290	2.342	2.309
0.175	1.377	1.757	1.978	2.143	2.233	2.210	2.166	2.122	2.131	2.133	2.192	2.238	2.281	2.225
0.200	1.323	1.694	1.905	2.067	2.150	2.133	2.099	2.065	2.076	2.077	2.135	2.176	2.209	2.136
0.225	1.270	1.632	1.832	1.989	2.064	2.053	2.027	2.003	2.014	2.014	2.069	2.105	2.126	2.040
0.250	1.217	1.571	1.760	1.911	1.976	1.970	1.951	1.936	1.946	1.945	1.996	2.024	2.033	1.936
0.275	1.164	1.510	1.688	1.832	1.887	1.884	1.872	1.861	1.869	1.869	1.914	1.935	1.931	1.824
0.300	1.113	1.449	1.617	1.752	1.796	1.795	1.788	1.781	1.785	1.788	1.826	1.838	1.821	1.704
0.325	1.063	1.388	1.548	1.671	1.704	1.702	1.698	1.693	1.693	1.700	1.732	1.733	1.704	1.576
0.350	1.014	1.326	1.479	1.588	1.608	1.604	1.603	1.599	1.596	1.606	1.631	1.623	1.583	1.442
0.375	0.966	1.264	1.409	1.505	1.510	1.502	1.502	1.498	1.492	1.505	1.524	1.507	1.458	1.306
0.400	0.919	1.202	1.339	1.419	1.408	1.397	1.396	1.392	1.385	1.397	1.410	1.386	1.331	1.171
0.425	0.873	1.140	1.268	1.333	1.303	1.287	1.286	1.280	1.275	1.283	1.290	1.263	1.205	1.040
0.450	0.827	1.078	1.196	1.245	1.197	1.175	1.171	1.166	1.162	1.163	1.166	1.138	1.080	0.914
0.475	0.782	1.016	1.122	1.154	1.089	1.062	1.055	1.049	1.047	1.041	1.040	1.013	0.958	0.796
0.500	0.737	0.955	1.047	1.061	0.981	0.950	0.937	0.933	0.932	0.919	0.917	0.891	0.842	0.687
0.525	0.692	0.895	0.971	0.965	0.874	0.839	0.821	0.818	0.818	0.802	0.799	0.774	0.732	0.587
0.550	0.649	0.835	0.895	0.868	0.770	0.731	0.709	0.708	0.706	0.690	0.688	0.664	0.629	0.497
0.575	0.605	0.775	0.818	0.771	0.668	0.627	0.603	0.602	0.600	0.587	0.585	0.563	0.534	0.417
0.600	0.563	0.716	0.743	0.675	0.571	0.528	0.504	0.504	0.500	0.493	0.492	0.471	0.448	0.347
0.625	0.522	0.657	0.668	0.583	0.479	0.435	0.415	0.413	0.408	0.409	0.408	0.390	0.371	0.287
0.650	0.482	0.599	0.593	0.496	0.393	0.350	0.336	0.331	0.327	0.333	0.333	0.318	0.304	0.235
0.675	0.443	0.542	0.519	0.415	0.314	0.274	0.266	0.259	0.255	0.265	0.267	0.256	0.246	0.190
0.700	0.405	0.486	0.447	0.340	0.245	0.209	0.205	0.198	0.195	0.207	0.209	0.203	0.196	0.153
0.725	0.369	0.432	0.378	0.273	0.185	0.155	0.152	0.147	0.146	0.156	0.161	0.158	0.154	0.122
0.750	0.335	0.379	0.313	0.214	0.136	0.111	0.108	0.106	0.106	0.115	0.120	0.120	0.120	0.096
0.775	0.302	0.328	0.252	0.163	0.096	0.078	0.073	0.074	0.075	0.082	0.088	0.090	0.093	0.074
0.800	0.271	0.280	0.199	0.120	0.065	0.053	0.047	0.050	0.052	0.057	0.064	0.066	0.071	0.057
0.825	0.242	0.235	0.152	0.085	0.043	0.035	0.029	0.033	0.035	0.039	0.047	0.048	0.053	0.043
0.850	0.215	0.194	0.112	0.057	0.026	0.021	0.017	0.020	0.023	0.027	0.034	0.035	0.039	0.033
0.875	0.189	0.156	0.081	0.037	0.015	0.012	0.010	0.012	0.015	0.018	0.025	0.025	0.029	0.024
0.900	0.166	0.123	0.056	0.022	0.008	0.006	0.006	0.007	0.009	0.012	0.017	0.018	0.021	0.018
0.925	0.144	0.094	0.037	0.012	0.004	0.002	0.003	0.004	0.005	0.008	0.011	0.014	0.015	0.013
0.950	0.123	0.070	0.023	0.006	0.002	0.001	0.002	0.002	0.003	0.005	0.007	0.010	0.011	0.009
0.975	0.105	0.050	0.014	0.003	0.001	0.000	0.002	0.001	0.001	0.003	0.004	0.007	0.008	0.006
1.000	0.088	0.034	0.007	0.001	0.000	0.000	0.002	0.000	0.001	0.001	0.002	0.005	0.005	0.004
1.025	0.073	0.021	0.004	0.000	0.000	0.000	0.003	0.000	0.000	0.001	0.002	0.003	0.004	0.003
1.050	0.059	0.013	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.003	0.002
1.075	0.048	0.007	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.001
1.100	0.037	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
1.125	0.029	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
1.150	0.021	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
1.175	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
1.200	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.225	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.250	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Scaled, dimensionless electron depth dose distributions, (ro/To)D(z/ro).
Finite slab case (z = thickness), detector material: water

z/ro	50.000	20.000	10.000	5.000	2.000	1.000	0.500	0.200	0.100	0.050	0.020	0.010	0.005	0.002
0.000	1.368	1.678	1.816	1.889	1.858	1.759	1.632	1.531	1.465	1.459	1.464	1.510	1.631	1.862
0.025	1.350	1.646	1.769	1.832	1.811	1.721	1.607	1.507	1.462	1.461	1.475	1.527	1.625	1.808
0.050	1.324	1.606	1.721	1.776	1.763	1.681	1.578	1.483	1.455	1.456	1.480	1.536	1.619	1.763
0.075	1.292	1.561	1.670	1.720	1.713	1.639	1.547	1.459	1.442	1.446	1.479	1.536	1.611	1.724
0.100	1.255	1.513	1.618	1.665	1.662	1.595	1.513	1.435	1.425	1.430	1.471	1.528	1.599	1.688
0.125	1.214	1.462	1.565	1.609	1.609	1.548	1.476	1.408	1.403	1.409	1.456	1.512	1.581	1.655
0.150	1.172	1.411	1.511	1.554	1.554	1.500	1.437	1.379	1.377	1.383	1.435	1.489	1.556	1.620
0.175	1.128	1.361	1.456	1.498	1.498	1.450	1.395	1.347	1.347	1.353	1.407	1.458	1.522	1.582
0.200	1.084	1.311	1.401	1.442	1.440	1.397	1.351	1.312	1.313	1.319	1.373	1.421	1.478	1.540
0.225	1.040	1.262	1.346	1.386	1.380	1.343	1.304	1.273	1.274	1.281	1.334	1.377	1.425	1.491
0.250	0.996	1.214	1.292	1.329	1.320	1.287	1.254	1.230	1.230	1.238	1.288	1.326	1.365	1.434
0.275	0.953	1.165	1.238	1.272	1.258	1.229	1.202	1.183	1.182	1.191	1.237	1.269	1.298	1.370
0.300	0.910	1.117	1.184	1.214	1.196	1.169	1.147	1.132	1.129	1.139	1.182	1.207	1.227	1.296
0.325	0.869	1.068	1.131	1.156	1.132	1.107	1.088	1.076	1.072	1.084	1.122	1.140	1.152	1.214
0.350	0.829	1.019	1.078	1.096	1.067	1.043	1.026	1.016	1.011	1.025	1.058	1.069	1.074	1.124
0.375	0.789	0.970	1.025	1.036	0.999	0.976	0.961	0.951	0.946	0.960	0.989	0.994	0.994	1.029
0.400	0.750	0.921	0.972	0.975	0.930	0.906	0.892	0.883	0.879	0.891	0.916	0.916	0.913	0.933
0.425	0.711	0.872	0.918	0.912	0.859	0.834	0.821	0.812	0.810	0.819	0.839	0.835	0.830	0.836
0.450	0.673	0.823	0.863	0.849	0.787	0.761	0.748	0.739	0.739	0.743	0.760	0.754	0.747	0.741
0.475	0.636	0.774	0.807	0.784	0.714	0.686	0.673	0.664	0.666	0.665	0.679	0.673	0.666	0.650
0.500	0.598	0.726	0.751	0.718	0.642	0.612	0.598	0.590	0.594	0.588	0.600	0.594	0.586	0.565
0.525	0.561	0.678	0.694	0.651	0.571	0.540	0.524	0.517	0.521	0.513	0.523	0.517	0.510	0.486
0.550	0.525	0.631	0.637	0.584	0.501	0.470	0.453	0.447	0.449	0.442	0.451	0.445	0.439	0.414
0.575	0.489	0.584	0.580	0.518	0.435	0.402	0.385	0.380	0.381	0.377	0.384	0.378	0.374	0.349
0.600	0.454	0.537	0.524	0.453	0.370	0.338	0.322	0.318	0.317	0.317	0.323	0.316	0.314	0.291
0.625	0.420	0.491	0.469	0.390	0.310	0.278	0.264	0.260	0.259	0.263	0.268	0.262	0.261	0.241
0.650	0.387	0.446	0.415	0.331	0.254	0.223	0.214	0.209	0.207	0.214	0.218	0.213	0.215	0.198
0.675	0.355	0.402	0.361	0.276	0.203	0.175	0.169	0.163	0.162	0.171	0.175	0.171	0.175	0.161
0.700	0.324	0.359	0.310	0.226	0.158	0.133	0.130	0.125	0.124	0.133	0.137	0.136	0.140	0.129
0.725	0.295	0.317	0.261	0.181	0.119	0.099	0.096	0.093	0.093	0.100	0.105	0.106	0.111	0.103
0.750	0.267	0.277	0.215	0.141	0.087	0.072	0.068	0.067	0.068	0.073	0.079	0.081	0.087	0.081
0.775	0.241	0.239	0.173	0.107	0.062	0.050	0.046	0.047	0.048	0.052	0.058	0.062	0.067	0.063
0.800	0.215	0.203	0.135	0.079	0.042	0.034	0.029	0.031	0.034	0.036	0.043	0.046	0.051	0.049
0.825	0.192	0.170	0.103	0.055	0.028	0.022	0.018	0.020	0.023	0.025	0.031	0.034	0.038	0.037
0.850	0.170	0.139	0.076	0.037	0.017	0.013	0.011	0.013	0.015	0.017	0.022	0.025	0.028	0.028
0.875	0.149	0.112	0.055	0.024	0.010	0.007	0.006	0.007	0.009	0.012	0.016	0.018	0.021	0.021
0.900	0.130	0.087	0.038	0.014	0.005	0.004	0.003	0.004	0.006	0.008	0.011	0.013	0.015	0.015
0.925	0.112	0.066	0.025	0.008	0.003	0.002	0.002	0.002	0.003	0.005	0.008	0.010	0.011	0.011
0.950	0.096	0.049	0.016	0.004	0.001	0.001	0.001	0.001	0.002	0.003	0.005	0.007	0.008	0.008
0.975	0.081	0.035	0.009	0.002	0.001	0.000	0.001	0.000	0.001	0.001	0.003	0.005	0.006	0.005
1.000	0.068	0.023	0.005	0.001	0.000	0.000	0.001	0.000	0.000	0.001	0.002	0.003	0.004	0.004
1.025	0.056	0.015	0.003	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.001	0.002	0.003	0.003
1.050	0.045	0.009	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.002
1.075	0.036	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001
1.100	0.028	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
1.125	0.022	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.150	0.016	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.175	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.200	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.225	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.250	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Bremsstrahlung depth dose distributions, D(z), MeV cm2/g.
Semi-infinite slab case (z = depth), detector material: aluminum

z(g/cm2)	50.000	20.000	10.000	5.000	2.000	1.000	0.500	0.200	0.100	0.050	0.020	0.010	0.005	0.002
1.00E-06	6.447E-02	3.086E-02	1.802E-02	8.703E-03	6.388E-03	5.340E-03	4.922E-03	7.628E-03	1.315E-02	7.552E-01	1.683E-01	3.274E-03	2.514E-02	7.728E-04
1.00E-05	6.494E-02	3.178E-02	1.627E-02	8.593E-03	5.584E-03	4.476E-03	4.940E-03	5.769E-03	8.027E-03	7.661E-03	7.135E-03	4.887E-03	1.648E-03	7.027E-05
2.00E-05	6.493E-02	3.171E-02	1.631E-02	8.645E-03	5.532E-03	4.606E-03	5.034E-03	5.874E-03	8.255E-03	7.546E-03	7.723E-03	5.455E-03	2.173E-03	6.381E-05
5.00E-05	6.508E-02	3.160E-02	1.662E-02	8.887E-03	5.683E-03	4.986E-03	5.256E-03	6.248E-03	8.672E-03	1.122E-02	1.065E-02	5.762E-03	2.357E-03	5.466E-05
1.00E-04	6.538E-02	3.161E-02	1.698E-02	9.240E-03	5.989E-03	5.417E-03	5.519E-03	6.665E-03	8.909E-03	1.624E-02	1.273E-02	5.403E-03	1.491E-03	4.015E-05
2.00E-04	6.592E-02	3.178E-02	1.740E-02	9.743E-03	6.442E-03	5.952E-03	5.876E-03	7.196E-03	9.325E-03	2.015E-02	1.196E-02	4.444E-03	7.725E-04	2.428E-05
5.00E-04	6.704E-02	3.236E-02	1.799E-02	1.064E-02	7.234E-03	6.771E-03	6.520E-03	8.099E-03	1.064E-02	1.656E-02	7.168E-03	2.593E-03	4.241E-04	9.271E-06
1.00E-03	6.822E-02	3.307E-02	1.848E-02	1.144E-02	7.913E-03	7.397E-03	7.112E-03	9.057E-03	1.206E-02	1.018E-02	3.643E-03	1.314E-03	3.716E-04	3.483E-06
2.00E-03	6.968E-02	3.394E-02	1.907E-02	1.223E-02	8.561E-03	7.924E-03	7.730E-03	1.048E-02	1.317E-02	5.005E-03	1.488E-03	5.039E-04	2.381E-04	9.750E-07
5.00E-03	7.214E-02	3.528E-02	2.008E-02	1.313E-02	9.216E-03	8.341E-03	8.479E-03	1.262E-02	1.087E-02	1.547E-03	3.432E-04	9.530E-05	2.737E-05	9.989E-08
1.00E-02	7.468E-02	3.651E-02	2.103E-02	1.372E-02	9.561E-03	8.521E-03	8.994E-03	1.124E-02	4.410E-03	5.761E-04	9.792E-05	2.097E-05	1.052E-06	7.682E-09
2.00E-02	7.812E-02	3.802E-02	2.213E-02	1.430E-02	9.822E-03	8.707E-03	9.465E-03	6.198E-03	9.175E-04	2.092E-04	2.679E-05	3.856E-06	1.297E-08	1.301E-10
5.00E-02	8.559E-02	4.108E-02	2.396E-02	1.522E-02	9.948E-03	9.234E-03	7.875E-03	1.174E-03	1.310E-04	5.540E-05	5.147E-06	2.381E-07	1.158E-11	1.577E-14
1.00E-01	9.588E-02	4.514E-02	2.597E-02	1.608E-02	1.001E-02	8.848E-03	3.794E-03	2.569E-04	7.397E-05	2.114E-05	1.688E-06	1.075E-08	0.000E+00	0.000E+00
1.50E-01	1.051E-01	4.860E-02	2.755E-02	1.655E-02	1.037E-02	7.087E-03	1.710E-03	1.411E-04	5.295E-05	1.237E-05	8.632E-07	9.544E-10	0.000E+00	0.000E+00
2.00E-01	1.136E-01	5.166E-02	2.886E-02	1.688E-02	1.049E-02	5.361E-03	8.832E-04	1.079E-04	3.921E-05	8.600E-06	4.933E-07	1.220E-10	0.000E+00	0.000E+00
3.00E-01	1.293E-01	5.702E-02	3.093E-02	1.741E-02	9.628E-03	3.046E-03	3.867E-04	8.070E-05	2.515E-05	5.291E-06	1.825E-07	3.866E-12	0.000E+00	0.000E+00
4.00E-01	1.437E-01	6.167E-02	3.251E-02	1.789E-02	8.020E-03	1.819E-03	2.661E-04	6.449E-05	1.881E-05	3.831E-06	7.358E-08	0.000E+00	0.000E+00	0.000E+00
5.00E-01	1.571E-01	6.578E-02	3.379E-02	1.819E-02	6.516E-03	1.190E-03	2.233E-04	5.304E-05	1.513E-05	3.012E-06	3.145E-08	0.000E+00	0.000E+00	0.000E+00
6.00E-01	1.694E-01	6.942E-02	3.487E-02	1.826E-02	5.332E-03	8.573E-04	2.019E-04	4.484E-05	1.257E-05	2.474E-06	1.408E-08	0.000E+00	0.000E+00	0.000E+00
8.00E-01	1.913E-01	7.562E-02	3.663E-02	1.784E-02	3.755E-03	5.611E-04	1.759E-04	3.422E-05	9.236E-06	1.782E-06	3.159E-09	0.000E+00	0.000E+00	0.000E+00
1.00E+00	2.102E-01	8.070E-02	3.803E-02	1.693E-02	2.832E-03	4.587E-04	1.536E-04	2.786E-05	7.223E-06	1.344E-06	8.006E-10	0.000E+00	0.000E+00	0.000E+00
1.50E+00	2.484E-01	9.004E-02	3.992E-02	1.420E-02	1.760E-03	3.986E-04	1.108E-04	1.930E-05	4.525E-06	7.264E-07	3.835E-11	0.000E+00	0.000E+00	0.000E+00
2.00E+00	2.779E-01	9.616E-02	3.977E-02	1.187E-02	1.358E-03	3.729E-04	8.651E-05	1.474E-05	3.149E-06	4.204E-07	2.752E-12	0.000E+00	0.000E+00	0.000E+00
3.00E+00	3.209E-01	1.028E-01	3.618E-02	8.708E-03	1.126E-03	2.849E-04	6.417E-05	9.733E-06	1.793E-06	1.579E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.00E+00	3.494E-01	1.044E-01	3.186E-02	7.093E-03	1.025E-03	2.192E-04	5.248E-05	7.039E-06	1.151E-06	6.578E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5.00E+00	3.675E-01	1.027E-01	2.826E-02	6.313E-03	8.967E-04	1.875E-04	4.354E-05	5.390E-06	7.916E-07	2.954E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
6.00E+00	3.781E-01	9.889E-02	2.545E-02	5.801E-03	7.830E-04	1.667E-04	3.661E-05	4.274E-06	5.682E-07	1.408E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
7.00E+00	3.833E-01	9.385E-02	2.325E-02	5.358E-03	6.965E-04	1.484E-04	3.123E-05	3.470E-06	4.201E-07	7.041E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
8.00E+00	3.843E-01	8.836E-02	2.149E-02	4.948E-03	6.301E-04	1.318E-04	2.698E-05	2.861E-06	3.174E-07	3.668E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
9.00E+00	3.820E-01	8.300E-02	2.002E-02	4.575E-03	5.751E-04	1.172E-04	2.351E-05	2.384E-06	2.437E-07	1.978E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.00E+01	3.771E-01	7.802E-02	1.873E-02	4.240E-03	5.269E-04	1.047E-04	2.062E-05	2.000E-06	1.895E-07	1.100E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.25E+01	3.571E-01	6.757E-02	1.609E-02	3.546E-03	4.254E-04	8.086E-05	1.519E-05	1.315E-06	1.053E-07	2.828E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.50E+01	3.316E-01	5.932E-02	1.397E-02	3.000E-03	3.452E-04	6.375E-05	1.141E-05	8.831E-07	6.059E-08	8.256E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.75E+01	3.044E-01	5.257E-02	1.220E-02	2.557E-03	2.820E-04	5.070E-05	8.678E-06	6.027E-07	3.548E-08	2.663E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.00E+01	2.778E-01	4.693E-02	1.070E-02	2.191E-03	2.320E-04	4.047E-05	6.658E-06	4.170E-07	2.099E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.25E+01	2.530E-01	4.210E-02	9.417E-03	1.886E-03	1.920E-04	3.235E-05	5.126E-06	2.921E-07	1.246E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.50E+01	2.305E-01	3.791E-02	8.324E-03	1.632E-03	1.597E-04	2.587E-05	3.948E-06	2.069E-07	7.391E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.75E+01	2.104E-01	3.424E-02	7.386E-03	1.419E-03	1.334E-04	2.072E-05	3.038E-06	1.481E-07	4.374E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.00E+01	1.925E-01	3.100E-02	6.577E-03	1.238E-03	1.117E-04	1.664E-05	2.334E-06	1.069E-07	2.582E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.25E+01	1.765E-01	2.810E-02	5.872E-03	1.084E-03	9.379E-05	1.341E-05	1.791E-06	7.770E-08	1.520E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.50E+01	1.620E-01	2.548E-02	5.243E-03	9.475E-04	7.850E-05	1.082E-05	1.371E-06	5.639E-08	8.920E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.75E+01	1.487E-01	2.308E-02	4.673E-03	8.252E-04	6.532E-05	8.747E-06	1.047E-06	4.068E-08	5.219E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.00E+01	1.363E-01	2.087E-02	4.153E-03	7.148E-04	5.395E-05	7.063E-06	7.982E-07	2.908E-08	3.044E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.25E+01	1.247E-01	1.883E-02	3.679E-03	6.153E-04	4.418E-05	5.608E-06	6.074E-07	2.056E-08	1.772E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.50E+01	1.140E-01	1.695E-02	3.247E-03	5.262E-04	3.587E-05	4.311E-06	4.614E-07	1.438E-08	1.029E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.75E+01	1.040E-01	1.523E-02	2.854E-03	4.468E-04	2.886E-05	3.176E-06	3.500E-07	9.931E-09	5.963E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5.00E+01	9.466E-02	1.365E-02	2.500E-03	3.769E-04	2.302E-05	2.228E-06	2.652E-07	6.780E-09	3.453E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

Bremsstrahlung depth dose distributions, D(z), MeV cm2/g.
Finite slab case (z = thickness), detector material: aluminum

z(g/cm2)	50.000	20.000	10.000	5.000	2.000	1.000	0.500	0.200	0.100	0.050	0.020	0.010	0.005	0.002
1.00E-06	3.854E-10	1.596E-06	6.294E-04	9.912E-06	2.293E-02	2.727E-06	2.810E-05	2.717E-06	5.574E-05	5.386E-05	7.824E-04	5.947E-04	9.947E-05	2.605E-05
1.00E-05	6.412E-05	5.555E-05	1.190E-04	3.893E-05	1.054E-04	5.558E-05	5.832E-05	1.368E-04	1.464E-04	1.800E-04	2.416E-04	1.157E-03	6.235E-04	6.150E-05
2.00E-05	1.795E-04	1.087E-04	1.490E-04	9.859E-05	1.075E-04	1.288E-04	1.075E-04	2.494E-04	2.413E-04	3.451E-04	5.437E-04	1.849E-03	1.405E-03	6.493E-05
5.00E-05	3.627E-04	2.377E-04	2.728E-04	3.355E-04	1.960E-04	3.514E-04	2.599E-04	4.762E-04	4.936E-04	8.014E-04	1.884E-03	3.167E-03	2.166E-03	5.539E-05
1.00E-04	5.497E-04	4.182E-04	4.906E-04	7.429E-04	3.784E-04	6.732E-04	4.977E-04	7.543E-04	8.538E-04	1.454E-03	4.098E-03	3.962E-03	1.508E-03	3.997E-05
2.00E-04	8.448E-04	7.236E-04	8.914E-04	1.388E-03	7.476E-04	1.148E-03	8.992E-04	1.190E-03	1.457E-03	2.655E-03	6.127E-03	3.931E-03	7.901E-04	2.398E-05
5.00E-04	1.709E-03	1.454E-03	1.719E-03	2.296E-03	1.547E-03	1.886E-03	1.698E-03	2.200E-03	2.808E-03	5.764E-03	5.527E-03	2.601E-03	4.226E-04	9.154E-06
1.00E-03	3.045E-03	2.342E-03	2.472E-03	2.769E-03	2.258E-03	2.408E-03	2.428E-03	3.423E-03	4.268E-03	7.600E-03	3.372E-03	1.358E-03	3.686E-04	3.454E-06
2.00E-03	4.928E-03	3.461E-03	3.228E-03	3.128E-03	2.939E-03	2.883E-03	3.144E-03	4.952E-03	5.811E-03	5.690E-03	1.521E-03	5.193E-04	2.375E-04	9.719E-07
5.00E-03	7.131E-03	4.921E-03	4.115E-03	3.755E-03	3.673E-03	3.522E-03	3.882E-03	6.485E-03	6.049E-03	1.693E-03	3.650E-04	9.567E-05	2.737E-05	9.993E-08
1.00E-02	8.853E-03	6.056E-03	4.812E-03	4.395E-03	4.103E-03	3.983E-03	4.276E-03	5.829E-03	3.075E-03	4.967E-04	1.027E-04	2.068E-05	1.045E-06	7.679E-09
2.00E-02	1.227E-02	7.625E-03	5.791E-03	5.144E-03	4.492E-03	4.361E-03	4.616E-03	3.496E-03	8.012E-04	1.451E-04	2.720E-05	3.802E-06	1.282E-08	1.299E-10
5.00E-02	2.258E-02	1.132E-02	7.981E-03	6.345E-03	4.972E-03	4.798E-03	4.184E-03	8.788E-04	1.310E-04	3.837E-05	5.002E-06	2.402E-07	1.156E-11	1.581E-14
1.00E-01	3.545E-02	1.618E-02	1.057E-02	7.557E-03	5.351E-03	4.771E-03	2.378E-03	2.397E-04	7.109E-05	2.049E-05	1.621E-06	1.082E-08	0.000E+00	0.000E+00
1.50E-01	4.606E-02	2.031E-02	1.256E-02	8.394E-03	5.735E-03	4.080E-03	1.240E-03	1.367E-04	4.983E-05	1.420E-05	8.321E-07	9.377E-10	0.000E+00	0.000E+00
2.00E-01	5.559E-02	2.399E-02	1.422E-02	9.049E-03	5.964E-03	3.307E-03	7.127E-04	1.028E-04	3.671E-05	1.008E-05	4.784E-07	1.162E-10	0.000E+00	0.000E+00
3.00E-01	7.275E-02	3.036E-02	1.691E-02	1.008E-02	5.786E-03	2.109E-03	3.466E-04	7.347E-05	2.343E-05	5.794E-06	1.787E-07	3.438E-12	0.000E+00	0.000E+00
4.00E-01	8.835E-02	3.579E-02	1.908E-02	1.088E-02	5.114E-03	1.373E-03	2.418E-04	5.732E-05	1.737E-05	3.917E-06	7.259E-08	0.000E+00	0.000E+00	0.000E+00
5.00E-01	1.027E-01	4.051E-02	2.090E-02	1.148E-02	4.386E-03	9.549E-04	1.990E-04	4.661E-05	1.383E-05	2.942E-06	3.118E-08	0.000E+00	0.000E+00	0.000E+00
6.00E-01	1.160E-01	4.471E-02	2.246E-02	1.187E-02	3.756E-03	7.157E-04	1.752E-04	3.912E-05	1.138E-05	2.325E-06	1.400E-08	0.000E+00	0.000E+00	0.000E+00
8.00E-01	1.396E-01	5.188E-02	2.503E-02	1.219E-02	2.828E-03	4.853E-04	1.461E-04	2.953E-05	8.223E-06	1.548E-06	3.148E-09	0.000E+00	0.000E+00	0.000E+00
1.00E+00	1.599E-01	5.784E-02	2.705E-02	1.205E-02	2.223E-03	3.953E-04	1.246E-04	2.375E-05	6.334E-06	1.066E-06	7.972E-10	0.000E+00	0.000E+00	0.000E+00
1.50E+00	2.006E-01	6.909E-02	3.020E-02	1.090E-02	1.446E-03	3.246E-04	8.858E-05	1.596E-05	3.866E-06	4.649E-07	3.784E-11	0.000E+00	0.000E+00	0.000E+00
2.00E+00	2.321E-01	7.680E-02	3.125E-02	9.554E-03	1.126E-03	2.907E-04	6.883E-05	1.192E-05	2.662E-06	2.414E-07	2.679E-12	0.000E+00	0.000E+00	0.000E+00
3.00E+00	2.790E-01	8.589E-02	2.990E-02	7.318E-03	9.138E-04	2.196E-04	4.985E-05	7.656E-06	1.503E-06	9.637E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.00E+00	3.105E-01	8.943E-02	2.717E-02	6.025E-03	8.158E-04	1.707E-04	3.977E-05	5.451E-06	9.509E-07	4.918E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5.00E+00	3.305E-01	8.935E-02	2.455E-02	5.353E-03	7.118E-04	1.450E-04	3.255E-05	4.126E-06	6.392E-07	2.700E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
6.00E+00	3.425E-01	8.702E-02	2.231E-02	4.900E-03	6.226E-04	1.276E-04	2.719E-05	3.243E-06	4.512E-07	1.520E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
7.00E+00	3.491E-01	8.334E-02	2.045E-02	4.515E-03	5.540E-04	1.130E-04	2.315E-05	2.616E-06	3.316E-07	8.634E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
8.00E+00	3.515E-01	7.906E-02	1.889E-02	4.165E-03	5.006E-04	1.002E-04	2.000E-05	2.147E-06	2.509E-07	4.863E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
9.00E+00	3.506E-01	7.471E-02	1.757E-02	3.852E-03	4.560E-04	8.914E-05	1.745E-05	1.781E-06	1.934E-07	2.683E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.00E+01	3.472E-01	7.054E-02	1.642E-02	3.572E-03	4.172E-04	7.969E-05	1.533E-05	1.490E-06	1.509E-07	1.445E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.25E+01	3.308E-01	6.141E-02	1.410E-02	2.992E-03	3.365E-04	6.151E-05	1.130E-05	9.735E-07	8.385E-08	2.787E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.50E+01	3.086E-01	5.400E-02	1.228E-02	2.537E-03	2.734E-04	4.836E-05	8.472E-06	6.506E-07	4.761E-08	4.809E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.75E+01	2.843E-01	4.790E-02	1.076E-02	2.167E-03	2.238E-04	3.836E-05	6.403E-06	4.424E-07	2.722E-08	7.692E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.00E+01	2.601E-01	4.281E-02	9.465E-03	1.861E-03	1.846E-04	3.055E-05	4.867E-06	3.053E-07	1.561E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.25E+01	2.373E-01	3.846E-02	8.351E-03	1.605E-03	1.530E-04	2.440E-05	3.714E-06	2.134E-07	9.005E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.50E+01	2.165E-01	3.469E-02	7.392E-03	1.390E-03	1.273E-04	1.951E-05	2.843E-06	1.509E-07	5.231E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.75E+01	1.978E-01	3.136E-02	6.566E-03	1.208E-03	1.062E-04	1.564E-05	2.183E-06	1.079E-07	3.065E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.00E+01	1.810E-01	2.842E-02	5.850E-03	1.054E-03	8.884E-05	1.258E-05	1.682E-06	7.794E-08	1.813E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.25E+01	1.661E-01	2.579E-02	5.227E-03	9.219E-04	7.444E-05	1.014E-05	1.299E-06	5.672E-08	1.082E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.50E+01	1.527E-01	2.343E-02	4.678E-03	8.076E-04	6.241E-05	8.199E-06	1.006E-06	4.142E-08	6.524E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.75E+01	1.406E-01	2.131E-02	4.192E-03	7.076E-04	5.233E-05	6.640E-06	7.811E-07	3.026E-08	3.973E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.00E+01	1.295E-01	1.940E-02	3.758E-03	6.197E-04	4.385E-05	5.380E-06	6.082E-07	2.207E-08	2.443E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.25E+01	1.194E-01	1.767E-02	3.371E-03	5.423E-04	3.671E-05	4.337E-06	4.749E-07	1.605E-08	1.516E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.50E+01	1.101E-01	1.611E-02	3.024E-03	4.741E-04	3.072E-05	3.457E-06	3.717E-07	1.164E-08	9.503E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.75E+01	1.015E-01	1.470E-02	2.713E-03	4.139E-04	2.568E-05	2.715E-06	2.917E-07	8.403E-09	6.009E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5.00E+01	9.350E-02	1.342E-02	2.434E-03	3.610E-04	2.144E-05	2.096E-06	2.296E-07	6.045E-09	3.833E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

Bremsstrahlung depth dose distributions, D(z), MeV cm2/g.
Semi-infinite slab case (z = depth), detector material: graphite

z(g/cm2)	50.000	20.000	10.000	5.000	2.000	1.000	0.500	0.200	0.100	0.050	0.020	0.010	0.005	0.002
1.00E-06	5.505E-02	2.836E-02	1.719E-02	7.573E-03	6.091E-03	5.198E-03	4.547E-03	1.092E-02	1.540E-02	3.737E-03	1.746E-01	5.732E-04	3.340E-02	5.349E-04
1.00E-05	5.644E-02	2.940E-02	1.487E-02	7.315E-03	4.827E-03	3.815E-03	4.700E-03	5.709E-03	8.745E-03	1.299E-02	7.849E-03	5.721E-03	1.555E-03	7.716E-05
2.00E-05	5.640E-02	2.929E-02	1.491E-02	7.348E-03	4.741E-03	3.965E-03	4.800E-03	5.844E-03	8.999E-03	1.248E-02	8.640E-03	6.175E-03	2.239E-03	7.237E-05
5.00E-05	5.646E-02	2.911E-02	1.525E-02	7.605E-03	4.895E-03	4.425E-03	5.034E-03	6.404E-03	9.502E-03	1.139E-02	1.230E-02	5.780E-03	2.648E-03	6.466E-05
1.00E-04	5.675E-02	2.907E-02	1.565E-02	8.002E-03	5.234E-03	4.948E-03	5.315E-03	6.954E-03	9.775E-03	1.145E-02	1.523E-02	5.448E-03	1.669E-03	5.025E-05
2.00E-04	5.731E-02	2.919E-02	1.610E-02	8.573E-03	5.743E-03	5.591E-03	5.698E-03	7.538E-03	1.017E-02	1.330E-02	1.498E-02	5.076E-03	8.492E-04	3.270E-05
5.00E-04	5.857E-02	2.974E-02	1.669E-02	9.588E-03	6.623E-03	6.533E-03	6.380E-03	8.266E-03	1.130E-02	1.964E-02	9.173E-03	3.569E-03	4.945E-04	1.390E-05
1.00E-03	5.983E-02	3.042E-02	1.713E-02	1.047E-02	7.353E-03	7.200E-03	6.995E-03	9.103E-03	1.271E-02	2.008E-02	4.323E-03	1.855E-03	4.909E-04	5.620E-06
2.00E-03	6.120E-02	3.124E-02	1.764E-02	1.129E-02	7.995E-03	7.688E-03	7.618E-03	1.088E-02	1.442E-02	1.053E-02	1.434E-03	5.979E-04	3.400E-04	1.644E-06
5.00E-03	6.306E-02	3.243E-02	1.850E-02	1.205E-02	8.488E-03	7.900E-03	8.337E-03	1.481E-02	1.300E-02	1.497E-03	1.908E-04	6.680E-05	3.251E-05	1.648E-07
1.00E-02	6.489E-02	3.342E-02	1.926E-02	1.240E-02	8.608E-03	7.852E-03	8.843E-03	1.314E-02	4.358E-03	1.992E-04	3.073E-05	8.271E-06	7.966E-07	1.176E-08
2.00E-02	6.757E-02	3.455E-02	2.005E-02	1.266E-02	8.588E-03	7.792E-03	9.373E-03	5.620E-03	3.456E-04	2.326E-05	4.674E-06	7.665E-07	4.932E-09	1.847E-10
5.00E-02	7.328E-02	3.681E-02	2.128E-02	1.303E-02	8.288E-03	8.115E-03	7.204E-03	4.088E-04	1.043E-05	2.658E-06	4.860E-07	2.073E-08	1.310E-12	2.206E-14
1.00E-01	8.077E-02	4.000E-02	2.271E-02	1.342E-02	8.029E-03	7.607E-03	2.588E-03	3.450E-05	6.219E-06	1.475E-06	1.299E-07	7.907E-10	0.000E+00	0.000E+00
1.50E-01	8.780E-02	4.282E-02	2.390E-02	1.364E-02	8.204E-03	5.667E-03	8.512E-04	1.540E-05	5.082E-06	1.202E-06	6.576E-08	8.819E-11	0.000E+00	0.000E+00
2.00E-01	9.451E-02	4.538E-02	2.493E-02	1.380E-02	8.226E-03	3.926E-03	3.411E-04	1.229E-05	3.933E-06	9.274E-07	3.846E-08	1.604E-11	0.000E+00	0.000E+00
3.00E-01	1.070E-01	4.993E-02	2.661E-02	1.409E-02	7.329E-03	1.882E-03	1.115E-04	1.099E-05	2.577E-06	5.527E-07	1.496E-08	1.152E-12	0.000E+00	0.000E+00
4.00E-01	1.186E-01	5.393E-02	2.794E-02	1.438E-02	5.859E-03	9.706E-04	6.965E-05	9.900E-06	1.943E-06	3.597E-07	6.242E-09	0.000E+00	0.000E+00	0.000E+00
5.00E-01	1.293E-01	5.749E-02	2.904E-02	1.455E-02	4.579E-03	5.699E-04	5.799E-05	8.770E-06	1.594E-06	2.538E-07	2.714E-09	0.000E+00	0.000E+00	0.000E+00
6.00E-01	1.391E-01	6.068E-02	2.998E-02	1.456E-02	3.634E-03	3.825E-04	5.402E-05	7.816E-06	1.373E-06	1.895E-07	1.220E-09	0.000E+00	0.000E+00	0.000E+00
8.00E-01	1.567E-01	6.614E-02	3.151E-02	1.417E-02	2.468E-03	2.382E-04	5.187E-05	6.448E-06	1.099E-06	1.182E-07	2.687E-10	0.000E+00	0.000E+00	0.000E+00
1.00E+00	1.720E-01	7.067E-02	3.273E-02	1.344E-02	1.842E-03	2.017E-04	5.033E-05	5.585E-06	9.273E-07	8.134E-08	6.529E-11	0.000E+00	0.000E+00	0.000E+00
1.50E+00	2.030E-01	7.911E-02	3.444E-02	1.136E-02	1.172E-03	2.100E-04	4.488E-05	4.361E-06	6.521E-07	4.055E-08	2.678E-12	0.000E+00	0.000E+00	0.000E+00
2.00E+00	2.272E-01	8.476E-02	3.449E-02	9.646E-03	9.391E-04	2.239E-04	3.968E-05	3.624E-06	4.729E-07	2.421E-08	1.596E-13	0.000E+00	0.000E+00	0.000E+00
3.00E+00	2.635E-01	9.107E-02	3.189E-02	7.382E-03	8.311E-04	1.801E-04	3.176E-05	2.664E-06	2.764E-07	1.115E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.00E+00	2.880E-01	9.293E-02	2.854E-02	6.201E-03	7.849E-04	1.370E-04	2.623E-05	2.070E-06	1.820E-07	5.836E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5.00E+00	3.039E-01	9.181E-02	2.564E-02	5.593E-03	6.970E-04	1.203E-04	2.217E-05	1.674E-06	1.301E-07	3.140E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
6.00E+00	3.136E-01	8.878E-02	2.330E-02	5.168E-03	6.127E-04	1.104E-04	1.906E-05	1.382E-06	9.771E-08	1.698E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
7.00E+00	3.187E-01	8.460E-02	2.143E-02	4.790E-03	5.476E-04	1.002E-04	1.661E-05	1.153E-06	7.571E-08	9.185E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
8.00E+00	3.202E-01	7.995E-02	1.989E-02	4.434E-03	4.977E-04	8.958E-05	1.462E-05	9.686E-07	5.983E-08	4.959E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
9.00E+00	3.190E-01	7.535E-02	1.857E-02	4.108E-03	4.561E-04	7.986E-05	1.293E-05	8.180E-07	4.781E-08	2.670E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.00E+01	3.156E-01	7.102E-02	1.741E-02	3.813E-03	4.193E-04	7.143E-05	1.148E-05	6.941E-07	3.846E-08	1.434E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.25E+01	3.006E-01	6.174E-02	1.499E-02	3.198E-03	3.406E-04	5.558E-05	8.617E-06	4.682E-07	2.265E-08	3.026E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.50E+01	2.805E-01	5.428E-02	1.302E-02	2.712E-03	2.775E-04	4.426E-05	6.520E-06	3.224E-07	1.342E-08	6.439E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.75E+01	2.583E-01	4.814E-02	1.138E-02	2.317E-03	2.275E-04	3.542E-05	4.963E-06	2.258E-07	7.940E-09	1.397E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.00E+01	2.360E-01	4.297E-02	9.994E-03	1.989E-03	1.879E-04	2.832E-05	3.796E-06	1.604E-07	4.690E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.25E+01	2.149E-01	3.856E-02	8.811E-03	1.717E-03	1.561E-04	2.264E-05	2.914E-06	1.150E-07	2.766E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.50E+01	1.958E-01	3.472E-02	7.798E-03	1.488E-03	1.302E-04	1.814E-05	2.242E-06	8.285E-08	1.631E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.75E+01	1.786E-01	3.136E-02	6.928E-03	1.296E-03	1.090E-04	1.458E-05	1.729E-06	5.990E-08	9.622E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.00E+01	1.633E-01	2.839E-02	6.175E-03	1.134E-03	9.148E-05	1.176E-05	1.336E-06	4.341E-08	5.685E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.25E+01	1.497E-01	2.575E-02	5.519E-03	9.946E-04	7.692E-05	9.527E-06	1.034E-06	3.151E-08	3.366E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.50E+01	1.374E-01	2.336E-02	4.935E-03	8.723E-04	6.459E-05	7.728E-06	8.021E-07	2.290E-08	1.999E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.75E+01	1.262E-01	2.118E-02	4.409E-03	7.632E-04	5.408E-05	6.271E-06	6.235E-07	1.665E-08	1.191E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.00E+01	1.160E-01	1.919E-02	3.933E-03	6.654E-04	4.509E-05	5.079E-06	4.857E-07	1.211E-08	7.126E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.25E+01	1.064E-01	1.736E-02	3.501E-03	5.776E-04	3.742E-05	4.066E-06	3.791E-07	8.817E-09	4.279E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.50E+01	9.742E-02	1.568E-02	3.109E-03	4.990E-04	3.091E-05	3.189E-06	2.966E-07	6.419E-09	2.580E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.75E+01	8.881E-02	1.414E-02	2.754E-03	4.291E-04	2.540E-05	2.434E-06	2.326E-07	4.675E-09	1.563E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5.00E+01	8.061E-02	1.273E-02	2.434E-03	3.671E-04	2.077E-05	1.802E-06	1.828E-07	3.407E-09	9.505E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

Bremsstrahlung depth dose distributions, D(z), MeV cm2/g.
Finite slab case (z = thickness), detector material: graphite

z(g/cm2)	50.000	20.000	10.000	5.000	2.000	1.000	0.500	0.200	0.100	0.050	0.020	0.010	0.005	0.002
1.00E-06	2.466E-10	4.396E-07	8.493E-04	1.451E-05	2.979E-01	2.584E-06	8.778E-05	5.013E-06	5.355E-05	1.025E-04	9.410E-05	1.163E-04	1.960E-05	7.911E-06
1.00E-05	8.003E-05	3.075E-05	1.308E-04	2.509E-05	8.874E-05	4.080E-05	4.865E-05	1.347E-04	1.405E-04	1.538E-04	2.253E-04	1.468E-03	5.658E-04	6.516E-05
2.00E-05	2.057E-04	7.508E-05	1.565E-04	7.131E-05	7.969E-05	1.054E-04	8.835E-05	2.514E-04	2.285E-04	3.102E-04	5.412E-04	2.225E-03	1.501E-03	7.382E-05
5.00E-05	3.665E-04	2.069E-04	2.780E-04	3.019E-04	1.539E-04	3.385E-04	2.335E-04	5.018E-04	4.706E-04	7.785E-04	1.810E-03	3.298E-03	2.482E-03	6.573E-05
1.00E-04	5.279E-04	4.066E-04	5.011E-04	7.744E-04	3.331E-04	7.179E-04	4.893E-04	8.035E-04	8.366E-04	1.465E-03	3.949E-03	4.099E-03	1.691E-03	4.999E-05
2.00E-04	8.037E-04	7.481E-04	9.228E-04	1.599E-03	7.399E-04	1.306E-03	9.564E-04	1.266E-03	1.470E-03	2.800E-03	6.656E-03	4.575E-03	8.624E-04	3.221E-05
5.00E-04	1.700E-03	1.530E-03	1.811E-03	2.698E-03	1.663E-03	2.169E-03	1.893E-03	2.339E-03	2.882E-03	6.678E-03	7.437E-03	3.606E-03	4.883E-04	1.369E-05
1.00E-03	3.163E-03	2.418E-03	2.611E-03	3.089E-03	2.430E-03	2.667E-03	2.682E-03	3.719E-03	4.431E-03	9.132E-03	4.646E-03	1.899E-03	4.842E-04	5.561E-06
2.00E-03	5.158E-03	3.456E-03	3.354E-03	3.261E-03	3.075E-03	3.041E-03	3.364E-03	5.739E-03	6.297E-03	6.413E-03	1.755E-03	5.940E-04	3.387E-04	1.637E-06
5.00E-03	6.854E-03	4.691E-03	4.046E-03	3.664E-03	3.650E-03	3.523E-03	3.927E-03	8.386E-03	7.028E-03	1.302E-03	2.362E-04	6.290E-05	3.262E-05	1.649E-07
1.00E-02	7.745E-03	5.572E-03	4.478E-03	4.116E-03	3.885E-03	3.833E-03	4.173E-03	6.705E-03	2.885E-03	2.005E-04	3.572E-05	7.758E-06	7.913E-07	1.176E-08
2.00E-02	1.002E-02	6.770E-03	5.117E-03	4.589E-03	4.010E-03	3.988E-03	4.421E-03	2.415E-03	2.848E-04	2.338E-05	4.979E-06	7.685E-07	4.790E-09	1.844E-10
5.00E-02	1.793E-02	9.638E-03	6.715E-03	5.243E-03	4.035E-03	4.085E-03	3.652E-03	2.231E-04	1.015E-05	2.468E-06	4.538E-07	2.328E-08	1.214E-12	2.211E-14
1.00E-01	2.810E-02	1.355E-02	8.736E-03	5.970E-03	4.033E-03	3.762E-03	1.495E-03	3.778E-05	5.855E-06	1.369E-06	1.075E-07	7.869E-10	0.000E+00	0.000E+00
1.50E-01	3.644E-02	1.700E-02	1.036E-02	6.540E-03	4.189E-03	2.874E-03	5.285E-04	1.803E-05	4.556E-06	1.132E-06	5.112E-08	6.921E-11	0.000E+00	0.000E+00
2.00E-01	4.386E-02	2.016E-02	1.175E-02	7.020E-03	4.272E-03	2.084E-03	2.229E-04	1.253E-05	3.422E-06	8.775E-07	2.915E-08	9.621E-12	0.000E+00	0.000E+00
3.00E-01	5.728E-02	2.572E-02	1.408E-02	7.801E-03	3.996E-03	1.120E-03	8.041E-05	8.870E-06	2.223E-06	5.209E-07	1.146E-08	3.985E-13	0.000E+00	0.000E+00
4.00E-01	6.964E-02	3.049E-02	1.600E-02	8.420E-03	3.398E-03	6.521E-04	5.553E-05	7.524E-06	1.725E-06	3.365E-07	5.030E-09	0.000E+00	0.000E+00	0.000E+00
5.00E-01	8.114E-02	3.467E-02	1.764E-02	8.883E-03	2.823E-03	4.241E-04	5.021E-05	6.793E-06	1.442E-06	2.358E-07	2.331E-09	0.000E+00	0.000E+00	0.000E+00
6.00E-01	9.183E-02	3.839E-02	1.907E-02	9.202E-03	2.368E-03	3.072E-04	4.948E-05	6.289E-06	1.231E-06	1.750E-07	1.115E-09	0.000E+00	0.000E+00	0.000E+00
8.00E-01	1.110E-01	4.482E-02	2.142E-02	9.492E-03	1.760E-03	2.083E-04	4.966E-05	5.530E-06	9.410E-07	1.081E-07	2.720E-10	0.000E+00	0.000E+00	0.000E+00
1.00E+00	1.275E-01	5.022E-02	2.329E-02	9.456E-03	1.406E-03	1.796E-04	4.710E-05	4.903E-06	7.656E-07	7.394E-08	7.116E-11	0.000E+00	0.000E+00	0.000E+00
1.50E+00	1.610E-01	6.058E-02	2.628E-02	8.771E-03	9.871E-04	1.777E-04	3.686E-05	3.737E-06	5.221E-07	3.655E-08	3.195E-12	0.000E+00	0.000E+00	0.000E+00
2.00E+00	1.871E-01	6.784E-02	2.748E-02	7.904E-03	8.208E-04	1.810E-04	2.993E-05	2.995E-06	3.821E-07	2.178E-08	1.916E-13	0.000E+00	0.000E+00	0.000E+00
3.00E+00	2.266E-01	7.666E-02	2.688E-02	6.411E-03	7.153E-04	1.466E-04	2.411E-05	2.150E-06	2.304E-07	1.006E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.00E+00	2.538E-01	8.041E-02	2.490E-02	5.477E-03	6.579E-04	1.144E-04	2.101E-05	1.668E-06	1.548E-07	5.291E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5.00E+00	2.716E-01	8.084E-02	2.283E-02	4.939E-03	5.840E-04	9.973E-05	1.795E-05	1.343E-06	1.116E-07	2.850E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
6.00E+00	2.829E-01	7.915E-02	2.097E-02	4.546E-03	5.167E-04	9.035E-05	1.536E-05	1.105E-06	8.378E-08	1.537E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
7.00E+00	2.895E-01	7.618E-02	1.936E-02	4.202E-03	4.635E-04	8.169E-05	1.332E-05	9.225E-07	6.452E-08	8.265E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
8.00E+00	2.925E-01	7.258E-02	1.797E-02	3.888E-03	4.212E-04	7.332E-05	1.170E-05	7.780E-07	5.050E-08	4.426E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
9.00E+00	2.928E-01	6.883E-02	1.676E-02	3.604E-03	3.854E-04	6.573E-05	1.036E-05	6.604E-07	3.991E-08	2.358E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.00E+01	2.907E-01	6.518E-02	1.569E-02	3.348E-03	3.538E-04	5.904E-05	9.207E-06	5.630E-07	3.173E-08	1.251E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.25E+01	2.789E-01	5.697E-02	1.349E-02	2.815E-03	2.872E-04	4.591E-05	6.934E-06	3.829E-07	1.817E-08	2.541E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.50E+01	2.614E-01	5.016E-02	1.175E-02	2.392E-03	2.345E-04	3.627E-05	5.260E-06	2.639E-07	1.052E-08	5.173E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.75E+01	2.416E-01	4.450E-02	1.030E-02	2.046E-03	1.927E-04	2.886E-05	4.005E-06	1.838E-07	6.137E-09	1.069E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.00E+01	2.213E-01	3.976E-02	9.073E-03	1.760E-03	1.595E-04	2.304E-05	3.058E-06	1.293E-07	3.599E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.25E+01	2.020E-01	3.571E-02	8.021E-03	1.521E-03	1.326E-04	1.846E-05	2.343E-06	9.163E-08	2.122E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.50E+01	1.844E-01	3.219E-02	7.113E-03	1.319E-03	1.106E-04	1.483E-05	1.801E-06	6.545E-08	1.258E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.75E+01	1.685E-01	2.910E-02	6.324E-03	1.149E-03	9.251E-05	1.196E-05	1.390E-06	4.707E-08	7.506E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.00E+01	1.543E-01	2.636E-02	5.637E-03	1.004E-03	7.755E-05	9.679E-06	1.078E-06	3.408E-08	4.505E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.25E+01	1.416E-01	2.393E-02	5.035E-03	8.798E-04	6.512E-05	7.852E-06	8.387E-07	2.483E-08	2.721E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.50E+01	1.301E-01	2.175E-02	4.506E-03	7.723E-04	5.476E-05	6.372E-06	6.555E-07	1.820E-08	1.654E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.75E+01	1.198E-01	1.979E-02	4.040E-03	6.785E-04	4.609E-05	5.166E-06	5.144E-07	1.341E-08	1.012E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.00E+01	1.104E-01	1.803E-02	3.626E-03	5.962E-04	3.883E-05	4.181E-06	4.054E-07	9.941E-09	6.228E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.25E+01	1.018E-01	1.644E-02	3.260E-03	5.239E-04	3.274E-05	3.375E-06	3.208E-07	7.406E-09	3.859E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.50E+01	9.390E-02	1.500E-02	2.934E-03	4.602E-04	2.762E-05	2.718E-06	2.548E-07	5.545E-09	2.405E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.75E+01	8.662E-02	1.370E-02	2.644E-03	4.041E-04	2.332E-05	2.182E-06	2.032E-07	4.171E-09	1.509E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5.00E+01	7.991E-02	1.252E-02	2.386E-03	3.547E-04	1.970E-05	1.748E-06	1.626E-07	3.153E-09	9.518E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

Bremsstrahlung depth dose distributions, D(z), MeV cm2/g.
Semi-infinite slab case (z = depth), detector material: silicon

z(g/cm2)	50.000	20.000	10.000	5.000	2.000	1.000	0.500	0.200	0.100	0.050	0.020	0.010	0.005	0.002
1.00E-06	6.999E-02	3.301E-02	1.939E-02	9.615E-03	6.975E-03	5.824E-03	5.379E-03	8.016E-03	1.366E-02	6.573E-01	1.695E-01	3.843E-03	2.219E-02	4.838E-04
1.00E-05	6.947E-02	3.402E-02	1.760E-02	9.504E-03	6.217E-03	5.010E-03	5.417E-03	6.236E-03	8.507E-03	8.121E-03	7.431E-03	4.990E-03	1.664E-03	6.288E-05
2.00E-05	6.947E-02	3.395E-02	1.765E-02	9.560E-03	6.166E-03	5.142E-03	5.513E-03	6.343E-03	8.741E-03	8.017E-03	8.027E-03	5.577E-03	2.193E-03	5.837E-05
5.00E-05	6.970E-02	3.384E-02	1.796E-02	9.815E-03	6.325E-03	5.528E-03	5.744E-03	6.723E-03	9.169E-03	1.175E-02	1.101E-02	5.944E-03	2.383E-03	5.151E-05
1.00E-04	7.007E-02	3.386E-02	1.834E-02	1.018E-02	6.643E-03	5.970E-03	6.018E-03	7.152E-03	9.418E-03	1.676E-02	1.311E-02	5.586E-03	1.527E-03	3.951E-05
2.00E-04	7.066E-02	3.405E-02	1.878E-02	1.071E-02	7.118E-03	6.524E-03	6.393E-03	7.708E-03	9.863E-03	2.064E-02	1.230E-02	4.577E-03	8.025E-04	2.533E-05
5.00E-04	7.179E-02	3.468E-02	1.942E-02	1.165E-02	7.954E-03	7.384E-03	7.076E-03	8.672E-03	1.126E-02	1.713E-02	7.408E-03	2.659E-03	4.412E-04	1.055E-05
1.00E-03	7.297E-02	3.544E-02	1.995E-02	1.249E-02	8.680E-03	8.055E-03	7.710E-03	9.695E-03	1.277E-02	1.076E-02	3.813E-03	1.354E-03	3.805E-04	4.209E-06
2.00E-03	7.446E-02	3.638E-02	2.061E-02	1.335E-02	9.388E-03	8.638E-03	8.382E-03	1.119E-02	1.392E-02	5.447E-03	1.593E-03	5.290E-04	2.414E-04	1.222E-06
5.00E-03	7.705E-02	3.785E-02	2.174E-02	1.436E-02	1.014E-02	9.135E-03	9.221E-03	1.338E-02	1.149E-02	1.762E-03	3.858E-04	1.045E-04	2.868E-05	1.228E-07
1.00E-02	7.986E-02	3.922E-02	2.281E-02	1.505E-02	1.057E-02	9.381E-03	9.805E-03	1.197E-02	4.805E-03	6.805E-04	1.153E-04	2.405E-05	1.177E-06	8.863E-09
2.00E-02	8.383E-02	4.090E-02	2.405E-02	1.575E-02	1.091E-02	9.639E-03	1.033E-02	6.789E-03	1.085E-03	2.557E-04	3.304E-05	4.651E-06	1.557E-08	1.405E-10
5.00E-02	9.224E-02	4.430E-02	2.614E-02	1.687E-02	1.114E-02	1.027E-02	8.679E-03	1.403E-03	1.732E-04	7.044E-05	6.654E-06	3.055E-07	1.455E-11	1.668E-14
1.00E-01	1.033E-01	4.875E-02	2.840E-02	1.790E-02	1.129E-02	9.903E-03	4.330E-03	3.325E-04	9.747E-05	2.752E-05	2.217E-06	1.407E-08	0.000E+00	0.000E+00
1.50E-01	1.131E-01	5.251E-02	3.015E-02	1.845E-02	1.173E-02	8.024E-03	2.035E-03	1.863E-04	6.944E-05	1.628E-05	1.134E-06	1.240E-09	0.000E+00	0.000E+00
2.00E-01	1.223E-01	5.582E-02	3.160E-02	1.883E-02	1.189E-02	6.147E-03	1.087E-03	1.425E-04	5.151E-05	1.138E-05	6.472E-07	1.559E-10	0.000E+00	0.000E+00
3.00E-01	1.390E-01	6.158E-02	3.386E-02	1.946E-02	1.097E-02	3.572E-03	4.933E-04	1.057E-04	3.317E-05	7.046E-06	2.385E-07	4.744E-12	0.000E+00	0.000E+00
4.00E-01	1.545E-01	6.658E-02	3.558E-02	2.001E-02	9.189E-03	2.172E-03	3.417E-04	8.408E-05	2.483E-05	5.113E-06	9.594E-08	0.000E+00	0.000E+00	0.000E+00
5.00E-01	1.687E-01	7.097E-02	3.696E-02	2.036E-02	7.505E-03	1.440E-03	2.854E-04	6.903E-05	1.996E-05	4.023E-06	4.096E-08	0.000E+00	0.000E+00	0.000E+00
6.00E-01	1.818E-01	7.487E-02	3.813E-02	2.044E-02	6.165E-03	1.045E-03	2.562E-04	5.830E-05	1.657E-05	3.304E-06	1.833E-08	0.000E+00	0.000E+00	0.000E+00
8.00E-01	2.053E-01	8.149E-02	4.002E-02	1.997E-02	4.358E-03	6.879E-04	2.202E-04	4.444E-05	1.217E-05	2.377E-06	4.120E-09	0.000E+00	0.000E+00	0.000E+00
1.00E+00	2.256E-01	8.693E-02	4.154E-02	1.894E-02	3.286E-03	5.600E-04	1.908E-04	3.611E-05	9.506E-06	1.790E-06	1.048E-09	0.000E+00	0.000E+00	0.000E+00
1.50E+00	2.669E-01	9.687E-02	4.355E-02	1.582E-02	2.028E-03	4.764E-04	1.367E-04	2.489E-05	5.946E-06	9.645E-07	5.079E-11	0.000E+00	0.000E+00	0.000E+00
2.00E+00	2.986E-01	1.033E-01	4.330E-02	1.316E-02	1.553E-03	4.386E-04	1.064E-04	1.893E-05	4.137E-06	5.568E-07	3.698E-12	0.000E+00	0.000E+00	0.000E+00
3.00E+00	3.443E-01	1.101E-01	3.919E-02	9.539E-03	1.273E-03	3.322E-04	7.815E-05	1.242E-05	2.354E-06	2.085E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.00E+00	3.742E-01	1.117E-01	3.434E-02	7.707E-03	1.151E-03	2.555E-04	6.338E-05	8.949E-06	1.509E-06	8.673E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5.00E+00	3.934E-01	1.099E-01	3.034E-02	6.836E-03	1.004E-03	2.177E-04	5.238E-05	6.828E-06	1.036E-06	3.894E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
6.00E+00	4.047E-01	1.058E-01	2.724E-02	6.274E-03	8.747E-04	1.926E-04	4.394E-05	5.400E-06	7.421E-07	1.856E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
7.00E+00	4.101E-01	1.003E-01	2.485E-02	5.791E-03	7.771E-04	1.710E-04	3.741E-05	4.374E-06	5.478E-07	9.292E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
8.00E+00	4.110E-01	9.422E-02	2.294E-02	5.344E-03	7.024E-04	1.516E-04	3.224E-05	3.601E-06	4.133E-07	4.845E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
9.00E+00	4.083E-01	8.831E-02	2.134E-02	4.939E-03	6.405E-04	1.348E-04	2.804E-05	2.995E-06	3.170E-07	2.616E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.00E+01	4.029E-01	8.287E-02	1.996E-02	4.575E-03	5.865E-04	1.203E-04	2.455E-05	2.510E-06	2.463E-07	1.457E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.25E+01	3.815E-01	7.165E-02	1.713E-02	3.823E-03	4.730E-04	9.278E-05	1.802E-05	1.646E-06	1.367E-07	3.761E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.50E+01	3.542E-01	6.295E-02	1.487E-02	3.232E-03	3.833E-04	7.304E-05	1.352E-05	1.103E-06	7.856E-08	1.103E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.75E+01	3.253E-01	5.588E-02	1.298E-02	2.753E-03	3.129E-04	5.803E-05	1.027E-05	7.514E-07	4.599E-08	3.574E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.00E+01	2.968E-01	4.996E-02	1.138E-02	2.358E-03	2.572E-04	4.630E-05	7.883E-06	5.190E-07	2.721E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.25E+01	2.702E-01	4.482E-02	1.001E-02	2.029E-03	2.127E-04	3.700E-05	6.071E-06	3.631E-07	1.615E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.50E+01	2.460E-01	4.027E-02	8.848E-03	1.754E-03	1.768E-04	2.959E-05	4.677E-06	2.569E-07	9.578E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.75E+01	2.242E-01	3.626E-02	7.848E-03	1.524E-03	1.475E-04	2.368E-05	3.598E-06	1.836E-07	5.667E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.00E+01	2.049E-01	3.277E-02	6.987E-03	1.330E-03	1.236E-04	1.900E-05	2.763E-06	1.325E-07	3.343E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.25E+01	1.877E-01	2.970E-02	6.235E-03	1.163E-03	1.037E-04	1.529E-05	2.116E-06	9.624E-08	1.967E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.50E+01	1.722E-01	2.694E-02	5.564E-03	1.016E-03	8.671E-05	1.232E-05	1.617E-06	6.979E-08	1.153E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.75E+01	1.581E-01	2.443E-02	4.955E-03	8.836E-04	7.205E-05	9.956E-06	1.232E-06	5.027E-08	6.739E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.00E+01	1.451E-01	2.213E-02	4.399E-03	7.640E-04	5.936E-05	8.036E-06	9.365E-07	3.585E-08	3.926E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.25E+01	1.331E-01	1.998E-02	3.890E-03	6.560E-04	4.845E-05	6.371E-06	7.101E-07	2.528E-08	2.281E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.50E+01	1.216E-01	1.796E-02	3.426E-03	5.592E-04	3.916E-05	4.877E-06	5.372E-07	1.760E-08	1.322E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.75E+01	1.107E-01	1.606E-02	3.005E-03	4.732E-04	3.134E-05	3.565E-06	4.056E-07	1.210E-08	7.646E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5.00E+01	1.002E-01	1.428E-02	2.624E-03	3.975E-04	2.484E-05	2.471E-06	3.058E-07	8.218E-09	4.416E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

Bremsstrahlung depth dose distributions, D(z), MeV cm2/g.
Finite slab case (z = thickness), detector material: silicon

z(g/cm2)	50.000	20.000	10.000	5.000	2.000	1.000	0.500	0.200	0.100	0.050	0.020	0.010	0.005	0.002
1.00E-06	4.736E-10	1.852E-06	4.179E-04	1.227E-05	2.227E-02	2.236E-06	2.442E-05	2.724E-06	5.605E-05	5.578E-05	8.024E-04	6.895E-04	8.450E-05	1.008E-05
1.00E-05	6.402E-05	6.480E-05	1.191E-04	4.032E-05	1.055E-04	5.880E-05	6.090E-05	1.414E-04	1.517E-04	1.869E-04	2.503E-04	1.169E-03	6.328E-04	5.385E-05
2.00E-05	1.761E-04	1.230E-04	1.540E-04	1.018E-04	1.087E-04	1.364E-04	1.130E-04	2.584E-04	2.510E-04	3.581E-04	5.616E-04	1.878E-03	1.424E-03	5.945E-05
5.00E-05	3.572E-04	2.584E-04	2.849E-04	3.486E-04	2.009E-04	3.666E-04	2.723E-04	4.941E-04	5.151E-04	8.336E-04	1.938E-03	3.259E-03	2.195E-03	5.229E-05
1.00E-04	5.513E-04	4.448E-04	5.110E-04	7.758E-04	3.915E-04	6.952E-04	5.193E-04	7.840E-04	8.931E-04	1.517E-03	4.206E-03	4.095E-03	1.546E-03	3.932E-05
2.00E-04	8.663E-04	7.602E-04	9.247E-04	1.455E-03	7.801E-04	1.179E-03	9.359E-04	1.240E-03	1.528E-03	2.771E-03	6.287E-03	4.051E-03	8.206E-04	2.497E-05
5.00E-04	1.791E-03	1.527E-03	1.790E-03	2.412E-03	1.629E-03	1.953E-03	1.772E-03	2.303E-03	2.957E-03	5.981E-03	5.710E-03	2.668E-03	4.394E-04	1.040E-05
1.00E-03	3.222E-03	2.482E-03	2.603E-03	2.913E-03	2.391E-03	2.527E-03	2.552E-03	3.596E-03	4.508E-03	7.902E-03	3.531E-03	1.400E-03	3.773E-04	4.168E-06
2.00E-03	5.248E-03	3.704E-03	3.441E-03	3.309E-03	3.131E-03	3.069E-03	3.335E-03	5.216E-03	6.146E-03	6.025E-03	1.629E-03	5.456E-04	2.407E-04	1.217E-06
5.00E-03	7.657E-03	5.314E-03	4.450E-03	4.037E-03	3.959E-03	3.798E-03	4.167E-03	6.852E-03	6.439E-03	1.891E-03	4.105E-04	1.051E-04	2.869E-05	1.229E-07
1.00E-02	9.557E-03	6.564E-03	5.247E-03	4.794E-03	4.470E-03	4.331E-03	4.632E-03	6.245E-03	3.385E-03	5.880E-04	1.210E-04	2.374E-05	1.170E-06	8.861E-09
2.00E-02	1.329E-02	8.291E-03	6.357E-03	5.682E-03	4.956E-03	4.791E-03	5.048E-03	3.882E-03	9.548E-04	1.831E-04	3.355E-05	4.584E-06	1.541E-08	1.403E-10
5.00E-02	2.447E-02	1.235E-02	8.812E-03	7.082E-03	5.586E-03	5.359E-03	4.684E-03	1.064E-03	1.732E-04	5.111E-05	6.469E-06	3.073E-07	1.455E-11	1.672E-14
1.00E-01	3.836E-02	1.765E-02	1.169E-02	8.477E-03	6.086E-03	5.411E-03	2.777E-03	3.113E-04	9.365E-05	2.711E-05	2.130E-06	1.416E-08	0.000E+00	0.000E+00
1.50E-01	4.977E-02	2.211E-02	1.387E-02	9.428E-03	6.556E-03	4.703E-03	1.504E-03	1.805E-04	6.541E-05	1.861E-05	1.094E-06	1.224E-09	0.000E+00	0.000E+00
2.00E-01	6.000E-02	2.606E-02	1.568E-02	1.017E-02	6.840E-03	3.868E-03	8.887E-04	1.357E-04	4.829E-05	1.321E-05	6.279E-07	1.500E-10	0.000E+00	0.000E+00
3.00E-01	7.842E-02	3.287E-02	1.859E-02	1.132E-02	6.671E-03	2.520E-03	4.441E-04	9.623E-05	3.094E-05	7.633E-06	2.337E-07	4.308E-12	0.000E+00	0.000E+00
4.00E-01	9.514E-02	3.865E-02	2.092E-02	1.222E-02	5.929E-03	1.662E-03	3.108E-04	7.478E-05	2.293E-05	5.180E-06	9.471E-08	0.000E+00	0.000E+00	0.000E+00
5.00E-01	1.105E-01	4.369E-02	2.287E-02	1.288E-02	5.106E-03	1.164E-03	2.543E-04	6.071E-05	1.824E-05	3.897E-06	4.062E-08	0.000E+00	0.000E+00	0.000E+00
6.00E-01	1.247E-01	4.816E-02	2.454E-02	1.331E-02	4.383E-03	8.756E-04	2.222E-04	5.092E-05	1.500E-05	3.080E-06	1.824E-08	0.000E+00	0.000E+00	0.000E+00
8.00E-01	1.499E-01	5.580E-02	2.727E-02	1.364E-02	3.301E-03	5.933E-04	1.828E-04	3.837E-05	1.084E-05	2.050E-06	4.108E-09	0.000E+00	0.000E+00	0.000E+00
1.00E+00	1.716E-01	6.212E-02	2.943E-02	1.346E-02	2.586E-03	4.800E-04	1.547E-04	3.079E-05	8.348E-06	1.412E-06	1.044E-09	0.000E+00	0.000E+00	0.000E+00
1.50E+00	2.151E-01	7.401E-02	3.277E-02	1.210E-02	1.658E-03	3.856E-04	1.091E-04	2.058E-05	5.089E-06	6.158E-07	5.015E-11	0.000E+00	0.000E+00	0.000E+00
2.00E+00	2.487E-01	8.213E-02	3.382E-02	1.053E-02	1.274E-03	3.399E-04	8.432E-05	1.528E-05	3.499E-06	3.200E-07	3.603E-12	0.000E+00	0.000E+00	0.000E+00
3.00E+00	2.986E-01	9.167E-02	3.217E-02	7.946E-03	1.020E-03	2.539E-04	6.032E-05	9.747E-06	1.971E-06	1.278E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.00E+00	3.320E-01	9.530E-02	2.906E-02	6.479E-03	9.049E-04	1.966E-04	4.765E-05	6.906E-06	1.244E-06	6.525E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5.00E+00	3.532E-01	9.509E-02	2.615E-02	5.735E-03	7.863E-04	1.661E-04	3.877E-05	5.205E-06	8.351E-07	3.583E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
6.00E+00	3.658E-01	9.249E-02	2.369E-02	5.241E-03	6.860E-04	1.454E-04	3.227E-05	4.078E-06	5.887E-07	2.017E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
7.00E+00	3.727E-01	8.847E-02	2.167E-02	4.825E-03	6.093E-04	1.283E-04	2.739E-05	3.280E-06	4.320E-07	1.145E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
8.00E+00	3.751E-01	8.382E-02	2.000E-02	4.448E-03	5.497E-04	1.136E-04	2.360E-05	2.686E-06	3.265E-07	6.449E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
9.00E+00	3.740E-01	7.913E-02	1.858E-02	4.110E-03	5.003E-04	1.010E-04	2.055E-05	2.225E-06	2.513E-07	3.557E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.00E+01	3.702E-01	7.465E-02	1.735E-02	3.809E-03	4.573E-04	9.018E-05	1.802E-05	1.857E-06	1.959E-07	1.916E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.25E+01	3.525E-01	6.490E-02	1.490E-02	3.188E-03	3.683E-04	6.947E-05	1.324E-05	1.210E-06	1.086E-07	3.696E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.50E+01	3.286E-01	5.703E-02	1.297E-02	2.701E-03	2.989E-04	5.454E-05	9.907E-06	8.061E-07	6.155E-08	6.379E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.75E+01	3.026E-01	5.057E-02	1.136E-02	2.306E-03	2.445E-04	4.320E-05	7.479E-06	5.468E-07	3.515E-08	1.021E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.00E+01	2.768E-01	4.520E-02	9.990E-03	1.979E-03	2.014E-04	3.438E-05	5.680E-06	3.764E-07	2.015E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.25E+01	2.525E-01	4.061E-02	8.811E-03	1.706E-03	1.668E-04	2.744E-05	4.332E-06	2.627E-07	1.162E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.50E+01	2.303E-01	3.662E-02	7.796E-03	1.476E-03	1.387E-04	2.193E-05	3.314E-06	1.855E-07	6.746E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.75E+01	2.103E-01	3.311E-02	6.922E-03	1.283E-03	1.157E-04	1.757E-05	2.542E-06	1.325E-07	3.952E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.00E+01	1.925E-01	2.999E-02	6.166E-03	1.118E-03	9.668E-05	1.412E-05	1.956E-06	9.565E-08	2.337E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.25E+01	1.766E-01	2.721E-02	5.507E-03	9.781E-04	8.096E-05	1.138E-05	1.508E-06	6.959E-08	1.394E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.50E+01	1.624E-01	2.472E-02	4.928E-03	8.563E-04	6.783E-05	9.187E-06	1.166E-06	5.079E-08	8.404E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.75E+01	1.494E-01	2.248E-02	4.414E-03	7.497E-04	5.681E-05	7.434E-06	9.040E-07	3.707E-08	5.114E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.00E+01	1.377E-01	2.045E-02	3.955E-03	6.559E-04	4.754E-05	6.021E-06	7.024E-07	2.699E-08	3.142E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.25E+01	1.269E-01	1.863E-02	3.545E-03	5.733E-04	3.973E-05	4.847E-06	5.470E-07	1.959E-08	1.949E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.50E+01	1.169E-01	1.697E-02	3.178E-03	5.004E-04	3.317E-05	3.854E-06	4.271E-07	1.416E-08	1.220E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.75E+01	1.077E-01	1.547E-02	2.848E-03	4.361E-04	2.765E-05	3.014E-06	3.342E-07	1.019E-08	7.703E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5.00E+01	9.924E-02	1.411E-02	2.552E-03	3.796E-04	2.302E-05	2.312E-06	2.622E-07	7.294E-09	4.907E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

Bremsstrahlung depth dose distributions, D(z), MeV cm2/g.
Semi-infinite slab case (z = depth), detector material: air

z(g/cm2)	50.000	20.000	10.000	5.000	2.000	1.000	0.500	0.200	0.100	0.050	0.020	0.010	0.005	0.002
1.00E-06	5.881E-02	3.190E-02	2.171E-02	1.015E-02	9.887E-03	8.789E-03	7.442E-03	1.812E-02	2.634E-02	6.180E-03	3.096E-01	1.123E-03	5.560E-02	9.163E-04
1.00E-05	6.117E-02	3.357E-02	1.775E-02	9.589E-03	7.639E-03	6.376E-03	8.028E-03	9.770E-03	1.492E-02	2.216E-02	1.337E-02	9.656E-03	2.645E-03	1.291E-04
2.00E-05	6.110E-02	3.337E-02	1.781E-02	9.650E-03	7.495E-03	6.631E-03	8.194E-03	9.999E-03	1.535E-02	2.127E-02	1.469E-02	1.047E-02	3.808E-03	1.213E-04
5.00E-05	6.120E-02	3.307E-02	1.839E-02	1.009E-02	7.760E-03	7.416E-03	8.567E-03	1.093E-02	1.620E-02	1.940E-02	2.088E-02	9.912E-03	4.498E-03	1.087E-04
1.00E-04	6.168E-02	3.300E-02	1.906E-02	1.076E-02	8.338E-03	8.307E-03	9.032E-03	1.186E-02	1.665E-02	1.952E-02	2.579E-02	9.351E-03	2.837E-03	8.449E-05
2.00E-04	6.262E-02	3.320E-02	1.982E-02	1.173E-02	9.202E-03	9.402E-03	9.685E-03	1.286E-02	1.732E-02	2.268E-02	2.525E-02	8.636E-03	1.445E-03	5.493E-05
5.00E-04	6.464E-02	3.409E-02	2.082E-02	1.344E-02	1.069E-02	1.101E-02	1.089E-02	1.413E-02	1.932E-02	3.344E-02	1.540E-02	5.985E-03	8.411E-04	2.329E-05
1.00E-03	6.661E-02	3.518E-02	2.156E-02	1.494E-02	1.193E-02	1.214E-02	1.197E-02	1.559E-02	2.176E-02	3.407E-02	7.303E-03	3.103E-03	8.334E-04	9.394E-06
2.00E-03	6.863E-02	3.648E-02	2.240E-02	1.633E-02	1.303E-02	1.298E-02	1.302E-02	1.860E-02	2.460E-02	1.781E-02	2.473E-03	1.014E-03	5.766E-04	2.746E-06
5.00E-03	7.104E-02	3.825E-02	2.378E-02	1.757E-02	1.388E-02	1.335E-02	1.410E-02	2.509E-02	2.190E-02	2.585E-03	3.487E-04	1.184E-04	5.533E-05	2.764E-07
1.00E-02	7.305E-02	3.960E-02	2.490E-02	1.809E-02	1.409E-02	1.326E-02	1.492E-02	2.224E-02	7.426E-03	3.666E-04	5.977E-05	1.548E-05	1.374E-06	1.986E-08
2.00E-02	7.574E-02	4.096E-02	2.593E-02	1.840E-02	1.403E-02	1.313E-02	1.607E-02	9.680E-03	6.480E-04	4.777E-05	9.706E-06	1.543E-06	8.817E-09	3.134E-10
5.00E-02	8.184E-02	4.338E-02	2.724E-02	1.877E-02	1.338E-02	1.368E-02	1.268E-02	7.455E-04	2.306E-05	6.163E-06	1.085E-06	4.586E-08	2.594E-12	3.734E-14
1.00E-01	9.042E-02	4.668E-02	2.865E-02	1.905E-02	1.284E-02	1.292E-02	4.423E-03	6.524E-05	1.354E-05	3.437E-06	2.987E-07	1.774E-09	0.000E+00	0.000E+00
1.50E-01	9.809E-02	4.958E-02	2.982E-02	1.908E-02	1.321E-02	9.631E-03	1.376E-03	2.856E-05	1.072E-05	2.759E-06	1.522E-07	1.910E-10	0.000E+00	0.000E+00
2.00E-01	1.052E-01	5.221E-02	3.083E-02	1.907E-02	1.333E-02	6.587E-03	5.225E-04	2.203E-05	8.111E-06	2.117E-06	8.913E-08	3.302E-11	0.000E+00	0.000E+00
3.00E-01	1.184E-01	5.685E-02	3.243E-02	1.916E-02	1.176E-02	2.962E-03	1.575E-04	1.854E-05	5.156E-06	1.258E-06	3.466E-08	2.111E-12	0.000E+00	0.000E+00
4.00E-01	1.306E-01	6.092E-02	3.364E-02	1.936E-02	9.107E-03	1.394E-03	9.340E-05	1.602E-05	3.809E-06	8.167E-07	1.446E-08	0.000E+00	0.000E+00	0.000E+00
5.00E-01	1.419E-01	6.452E-02	3.462E-02	1.942E-02	6.839E-03	7.503E-04	7.509E-05	1.376E-05	3.070E-06	5.738E-07	6.287E-09	0.000E+00	0.000E+00	0.000E+00
6.00E-01	1.523E-01	6.773E-02	3.544E-02	1.926E-02	5.207E-03	4.692E-04	6.821E-05	1.198E-05	2.597E-06	4.264E-07	2.829E-09	0.000E+00	0.000E+00	0.000E+00
8.00E-01	1.709E-01	7.319E-02	3.678E-02	1.836E-02	3.265E-03	2.670E-04	6.334E-05	9.543E-06	2.012E-06	2.634E-07	6.254E-10	0.000E+00	0.000E+00	0.000E+00
1.00E+00	1.871E-01	7.768E-02	3.784E-02	1.700E-02	2.268E-03	2.181E-04	6.019E-05	8.054E-06	1.655E-06	1.797E-07	1.528E-10	0.000E+00	0.000E+00	0.000E+00
1.50E+00	2.198E-01	8.594E-02	3.908E-02	1.350E-02	1.269E-03	2.272E-04	5.218E-05	6.013E-06	1.115E-06	8.800E-08	6.368E-12	0.000E+00	0.000E+00	0.000E+00
2.00E+00	2.453E-01	9.135E-02	3.848E-02	1.089E-02	9.583E-04	2.460E-04	4.548E-05	4.849E-06	7.844E-07	5.186E-08	3.865E-13	0.000E+00	0.000E+00	0.000E+00
3.00E+00	2.828E-01	9.714E-02	3.441E-02	7.736E-03	8.495E-04	1.951E-04	3.582E-05	3.430E-06	4.395E-07	2.342E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.00E+00	3.079E-01	9.836E-02	2.999E-02	6.287E-03	8.233E-04	1.450E-04	2.930E-05	2.603E-06	2.812E-07	1.210E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5.00E+00	3.240E-01	9.650E-02	2.645E-02	5.655E-03	7.297E-04	1.269E-04	2.460E-05	2.077E-06	1.968E-07	6.443E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
6.00E+00	3.337E-01	9.273E-02	2.378E-02	5.252E-03	6.352E-04	1.167E-04	2.104E-05	1.699E-06	1.455E-07	3.453E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
7.00E+00	3.386E-01	8.786E-02	2.175E-02	4.883E-03	5.644E-04	1.060E-04	1.827E-05	1.408E-06	1.114E-07	1.854E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
8.00E+00	3.398E-01	8.262E-02	2.016E-02	4.520E-03	5.123E-04	9.464E-05	1.602E-05	1.177E-06	8.722E-08	9.950E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
9.00E+00	3.381E-01	7.755E-02	1.882E-02	4.183E-03	4.697E-04	8.420E-05	1.414E-05	9.896E-07	6.917E-08	5.327E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.00E+01	3.340E-01	7.288E-02	1.766E-02	3.878E-03	4.323E-04	7.518E-05	1.253E-05	8.364E-07	5.530E-08	2.847E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.25E+01	3.169E-01	6.313E-02	1.521E-02	3.247E-03	3.515E-04	5.843E-05	9.362E-06	5.594E-07	3.219E-08	5.940E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.50E+01	2.945E-01	5.548E-02	1.322E-02	2.754E-03	2.861E-04	4.657E-05	7.069E-06	3.824E-07	1.891E-08	1.252E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.75E+01	2.706E-01	4.921E-02	1.155E-02	2.353E-03	2.344E-04	3.727E-05	5.375E-06	2.665E-07	1.111E-08	2.694E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.00E+01	2.470E-01	4.394E-02	1.014E-02	2.020E-03	1.934E-04	2.976E-05	4.110E-06	1.886E-07	6.526E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.25E+01	2.249E-01	3.943E-02	8.939E-03	1.743E-03	1.606E-04	2.376E-05	3.155E-06	1.348E-07	3.829E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.50E+01	2.049E-01	3.551E-02	7.910E-03	1.511E-03	1.339E-04	1.903E-05	2.427E-06	9.689E-08	2.246E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.75E+01	1.870E-01	3.208E-02	7.026E-03	1.316E-03	1.120E-04	1.528E-05	1.870E-06	6.987E-08	1.318E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.00E+01	1.712E-01	2.905E-02	6.262E-03	1.151E-03	9.402E-05	1.233E-05	1.444E-06	5.049E-08	7.751E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.25E+01	1.570E-01	2.635E-02	5.596E-03	1.009E-03	7.900E-05	9.973E-06	1.116E-06	3.654E-08	4.568E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.50E+01	1.441E-01	2.391E-02	5.004E-03	8.845E-04	6.630E-05	8.083E-06	8.640E-07	2.645E-08	2.700E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.75E+01	1.323E-01	2.168E-02	4.470E-03	7.735E-04	5.546E-05	6.556E-06	6.701E-07	1.916E-08	1.601E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.00E+01	1.214E-01	1.964E-02	3.986E-03	6.738E-04	4.619E-05	5.309E-06	5.206E-07	1.387E-08	9.526E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.25E+01	1.112E-01	1.776E-02	3.547E-03	5.844E-04	3.828E-05	4.247E-06	4.051E-07	1.004E-08	5.692E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.50E+01	1.017E-01	1.604E-02	3.148E-03	5.044E-04	3.156E-05	3.321E-06	3.159E-07	7.266E-09	3.415E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.75E+01	9.295E-02	1.446E-02	2.787E-03	4.331E-04	2.588E-05	2.521E-06	2.468E-07	5.259E-09	2.058E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5.00E+01	8.479E-02	1.301E-02	2.461E-03	3.701E-04	2.112E-05	1.849E-06	1.931E-07	3.806E-09	1.245E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

Bremsstrahlung depth dose distributions, D(z), MeV cm2/g.
Finite slab case (z = thickness), detector material: air

z(g/cm2)	50.000	20.000	10.000	5.000	2.000	1.000	0.500	0.200	0.100	0.050	0.020	0.010	0.005	0.002
1.00E-06	3.591E-10	7.210E-07	1.443E-03	2.389E-05	5.047E-01	4.379E-06	1.611E-04	8.386E-06	9.139E-05	1.677E-04	1.839E-04	2.333E-04	3.274E-05	1.329E-05
1.00E-05	1.347E-04	5.216E-05	2.222E-04	4.257E-05	1.511E-04	6.989E-05	8.256E-05	2.297E-04	2.396E-04	2.628E-04	3.827E-04	2.474E-03	9.632E-04	1.089E-04
2.00E-05	3.446E-04	1.272E-04	2.654E-04	1.213E-04	1.358E-04	1.802E-04	1.503E-04	4.285E-04	3.896E-04	5.296E-04	9.200E-04	3.763E-03	2.553E-03	1.237E-04
5.00E-05	6.068E-04	3.491E-04	4.708E-04	5.137E-04	2.622E-04	5.776E-04	3.995E-04	8.548E-04	8.021E-04	1.327E-03	3.083E-03	5.646E-03	4.215E-03	1.105E-04
1.00E-04	8.693E-04	6.839E-04	8.482E-04	1.317E-03	5.675E-04	1.223E-03	8.374E-04	1.369E-03	1.425E-03	2.498E-03	6.713E-03	7.025E-03	2.873E-03	8.404E-05
2.00E-04	1.320E-03	1.253E-03	1.561E-03	2.715E-03	1.260E-03	2.223E-03	1.632E-03	2.158E-03	2.504E-03	4.775E-03	1.125E-02	7.770E-03	1.467E-03	5.409E-05
5.00E-04	2.787E-03	2.547E-03	3.060E-03	4.577E-03	2.828E-03	3.691E-03	3.208E-03	3.990E-03	4.924E-03	1.137E-02	1.250E-02	6.042E-03	8.306E-04	2.293E-05
1.00E-03	5.149E-03	3.990E-03	4.398E-03	5.234E-03	4.128E-03	4.542E-03	4.529E-03	6.342E-03	7.585E-03	1.550E-02	7.848E-03	3.183E-03	8.222E-04	9.296E-06
2.00E-03	8.212E-03	5.615E-03	5.612E-03	5.511E-03	5.220E-03	5.183E-03	5.696E-03	9.748E-03	1.074E-02	1.085E-02	3.021E-03	1.014E-03	5.745E-04	2.735E-06
5.00E-03	1.027E-02	7.353E-03	6.644E-03	6.143E-03	6.195E-03	6.005E-03	6.762E-03	1.413E-02	1.184E-02	2.246E-03	4.294E-04	1.128E-04	5.550E-05	2.766E-07
1.00E-02	1.091E-02	8.398E-03	7.166E-03	6.815E-03	6.578E-03	6.521E-03	7.265E-03	1.136E-02	4.923E-03	3.693E-04	6.903E-05	1.466E-05	1.365E-06	1.986E-08
2.00E-02	1.322E-02	9.707E-03	7.867E-03	7.434E-03	6.743E-03	6.761E-03	7.679E-03	4.217E-03	5.367E-04	4.826E-05	1.032E-05	1.544E-06	8.576E-09	3.131E-10
5.00E-02	2.194E-02	1.278E-02	9.595E-03	8.111E-03	6.631E-03	6.915E-03	6.046E-03	4.146E-04	2.263E-05	5.779E-06	1.024E-06	5.057E-08	2.427E-12	3.740E-14
1.00E-01	3.297E-02	1.689E-02	1.171E-02	8.786E-03	6.481E-03	6.382E-03	2.371E-03	7.143E-05	1.286E-05	3.220E-06	2.508E-07	1.775E-09	0.000E+00	0.000E+00
1.50E-01	4.190E-02	2.048E-02	1.337E-02	9.294E-03	6.711E-03	4.840E-03	8.564E-04	3.348E-05	9.730E-06	2.621E-06	1.200E-07	1.570E-10	0.000E+00	0.000E+00
2.00E-01	4.981E-02	2.372E-02	1.476E-02	9.717E-03	6.826E-03	3.441E-03	3.688E-04	2.266E-05	7.172E-06	2.018E-06	6.846E-08	2.171E-11	0.000E+00	0.000E+00
3.00E-01	6.408E-02	2.940E-02	1.707E-02	1.042E-02	6.236E-03	1.726E-03	1.290E-04	1.525E-05	4.524E-06	1.194E-06	2.691E-08	8.779E-13	0.000E+00	0.000E+00
4.00E-01	7.722E-02	3.427E-02	1.896E-02	1.098E-02	5.085E-03	9.192E-04	8.061E-05	1.240E-05	3.422E-06	7.690E-07	1.183E-08	0.000E+00	0.000E+00	0.000E+00
5.00E-01	8.945E-02	3.854E-02	2.057E-02	1.138E-02	4.033E-03	5.505E-04	6.549E-05	1.082E-05	2.798E-06	5.362E-07	5.497E-09	0.000E+00	0.000E+00	0.000E+00
6.00E-01	1.008E-01	4.234E-02	2.195E-02	1.161E-02	3.235E-03	3.733E-04	5.920E-05	9.735E-06	2.346E-06	3.958E-07	2.635E-09	0.000E+00	0.000E+00	0.000E+00
8.00E-01	1.211E-01	4.887E-02	2.422E-02	1.165E-02	2.222E-03	2.327E-04	5.383E-05	8.199E-06	1.734E-06	2.419E-07	6.457E-10	0.000E+00	0.000E+00	0.000E+00
1.00E+00	1.387E-01	5.434E-02	2.601E-02	1.132E-02	1.665E-03	1.938E-04	5.024E-05	7.047E-06	1.363E-06	1.638E-07	1.694E-10	0.000E+00	0.000E+00	0.000E+00
1.50E+00	1.739E-01	6.474E-02	2.878E-02	9.942E-03	1.053E-03	1.913E-04	4.243E-05	5.110E-06	8.718E-07	7.942E-08	7.618E-12	0.000E+00	0.000E+00	0.000E+00
2.00E+00	2.013E-01	7.194E-02	2.966E-02	8.603E-03	8.359E-04	1.971E-04	3.651E-05	3.971E-06	6.244E-07	4.665E-08	4.555E-13	0.000E+00	0.000E+00	0.000E+00
3.00E+00	2.426E-01	8.053E-02	2.831E-02	6.622E-03	7.289E-04	1.572E-04	2.848E-05	2.742E-06	3.745E-07	2.112E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.00E+00	2.708E-01	8.395E-02	2.576E-02	5.536E-03	6.831E-04	1.199E-04	2.325E-05	2.077E-06	2.468E-07	1.096E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5.00E+00	2.890E-01	8.398E-02	2.334E-02	4.981E-03	6.049E-04	1.041E-04	1.952E-05	1.645E-06	1.704E-07	5.838E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
6.00E+00	3.003E-01	8.189E-02	2.129E-02	4.598E-03	5.309E-04	9.441E-05	1.671E-05	1.338E-06	1.228E-07	3.120E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
7.00E+00	3.068E-01	7.852E-02	1.959E-02	4.258E-03	4.740E-04	8.541E-05	1.451E-05	1.107E-06	9.195E-08	1.665E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
8.00E+00	3.096E-01	7.458E-02	1.817E-02	3.939E-03	4.302E-04	7.658E-05	1.273E-05	9.275E-07	7.083E-08	8.856E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
9.00E+00	3.094E-01	7.055E-02	1.694E-02	3.648E-03	3.937E-04	6.855E-05	1.123E-05	7.830E-07	5.551E-08	4.689E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.00E+01	3.069E-01	6.667E-02	1.587E-02	3.386E-03	3.618E-04	6.149E-05	9.948E-06	6.646E-07	4.399E-08	2.474E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.25E+01	2.934E-01	5.815E-02	1.365E-02	2.843E-03	2.938E-04	4.772E-05	7.421E-06	4.482E-07	2.528E-08	4.961E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.50E+01	2.743E-01	5.118E-02	1.188E-02	2.416E-03	2.396E-04	3.768E-05	5.585E-06	3.070E-07	1.472E-08	9.985E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.75E+01	2.532E-01	4.543E-02	1.042E-02	2.068E-03	1.967E-04	2.996E-05	4.230E-06	2.129E-07	8.562E-09	2.042E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.00E+01	2.319E-01	4.060E-02	9.174E-03	1.778E-03	1.626E-04	2.391E-05	3.221E-06	1.491E-07	4.963E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.25E+01	2.117E-01	3.647E-02	8.110E-03	1.536E-03	1.352E-04	1.914E-05	2.464E-06	1.053E-07	2.881E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.50E+01	1.932E-01	3.288E-02	7.191E-03	1.332E-03	1.127E-04	1.537E-05	1.895E-06	7.497E-08	1.681E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.75E+01	1.764E-01	2.973E-02	6.394E-03	1.160E-03	9.428E-05	1.239E-05	1.464E-06	5.376E-08	9.884E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.00E+01	1.615E-01	2.693E-02	5.699E-03	1.013E-03	7.901E-05	1.002E-05	1.136E-06	3.881E-08	5.865E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.25E+01	1.482E-01	2.445E-02	5.091E-03	8.879E-04	6.632E-05	8.131E-06	8.852E-07	2.819E-08	3.514E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.50E+01	1.363E-01	2.222E-02	4.556E-03	7.793E-04	5.574E-05	6.597E-06	6.929E-07	2.060E-08	2.129E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.75E+01	1.254E-01	2.022E-02	4.084E-03	6.845E-04	4.690E-05	5.346E-06	5.446E-07	1.514E-08	1.304E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.00E+01	1.156E-01	1.842E-02	3.666E-03	6.013E-04	3.948E-05	4.322E-06	4.298E-07	1.119E-08	8.073E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.25E+01	1.066E-01	1.680E-02	3.295E-03	5.281E-04	3.327E-05	3.485E-06	3.405E-07	8.312E-09	5.055E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.50E+01	9.834E-02	1.533E-02	2.965E-03	4.637E-04	2.805E-05	2.801E-06	2.707E-07	6.205E-09	3.200E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.75E+01	9.073E-02	1.400E-02	2.671E-03	4.069E-04	2.367E-05	2.244E-06	2.161E-07	4.655E-09	2.047E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5.00E+01	8.371E-02	1.280E-02	2.408E-03	3.568E-04	1.998E-05	1.793E-06	1.730E-07	3.508E-09	1.323E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

Bremsstrahlung depth dose distributions, D(z), MeV cm2/g.
Semi-infinite slab case (z = depth), detector material: bone

z(g/cm2)	50.000	20.000	10.000	5.000	2.000	1.000	0.500	0.200	0.100	0.050	0.020	0.010	0.005	0.002
1.00E-06	6.797E-02	3.751E-02	2.584E-02	1.300E-02	1.226E-02	1.077E-02	9.783E-03	5.202E-03	2.954E-02	3.039E+00	3.810E-01	3.297E-03	5.022E-02	1.004E-03
1.00E-05	7.194E-02	3.941E-02	2.158E-02	1.248E-02	9.949E-03	8.332E-03	9.892E-03	1.279E-02	1.718E-02	1.606E-02	1.508E-02	1.015E-02	2.943E-03	1.383E-04
2.00E-05	7.184E-02	3.920E-02	2.166E-02	1.255E-02	9.794E-03	8.616E-03	1.008E-02	1.292E-02	1.766E-02	1.563E-02	1.633E-02	1.125E-02	4.196E-03	1.302E-04
5.00E-05	7.188E-02	3.888E-02	2.230E-02	1.304E-02	1.010E-02	9.480E-03	1.053E-02	1.256E-02	1.854E-02	2.425E-02	2.277E-02	1.147E-02	4.901E-03	1.170E-04
1.00E-04	7.241E-02	3.882E-02	2.306E-02	1.379E-02	1.075E-02	1.046E-02	1.107E-02	1.259E-02	1.898E-02	3.659E-02	2.759E-02	1.087E-02	3.116E-03	9.099E-05
2.00E-04	7.350E-02	3.907E-02	2.393E-02	1.488E-02	1.172E-02	1.167E-02	1.182E-02	1.330E-02	1.977E-02	4.649E-02	2.634E-02	9.473E-03	1.605E-03	5.910E-05
5.00E-04	7.589E-02	4.012E-02	2.509E-02	1.682E-02	1.342E-02	1.346E-02	1.318E-02	1.614E-02	2.242E-02	3.709E-02	1.592E-02	6.017E-03	9.249E-04	2.500E-05
1.00E-03	7.821E-02	4.141E-02	2.600E-02	1.853E-02	1.484E-02	1.477E-02	1.443E-02	1.985E-02	2.544E-02	2.140E-02	7.928E-03	3.109E-03	8.895E-04	1.007E-05
2.00E-03	8.052E-02	4.295E-02	2.705E-02	2.017E-02	1.615E-02	1.579E-02	1.569E-02	2.419E-02	2.809E-02	9.655E-03	3.059E-03	1.127E-03	6.059E-04	2.941E-06
5.00E-03	8.321E-02	4.516E-02	2.881E-02	2.178E-02	1.730E-02	1.643E-02	1.708E-02	2.686E-02	2.346E-02	2.613E-03	6.062E-04	1.785E-04	6.196E-05	2.972E-07
1.00E-02	8.574E-02	4.692E-02	3.032E-02	2.261E-02	1.775E-02	1.655E-02	1.802E-02	2.061E-02	8.822E-03	8.804E-04	1.480E-04	3.268E-05	1.812E-06	2.147E-08
2.00E-02	8.966E-02	4.879E-02	3.180E-02	2.327E-02	1.795E-02	1.665E-02	1.897E-02	9.486E-03	1.427E-03	2.918E-04	3.462E-05	4.909E-06	1.594E-08	3.403E-10
5.00E-02	9.783E-02	5.210E-02	3.382E-02	2.420E-02	1.764E-02	1.745E-02	1.552E-02	1.693E-03	1.445E-04	7.002E-05	5.707E-06	2.418E-07	9.750E-12	4.040E-14
1.00E-01	1.075E-01	5.636E-02	3.588E-02	2.496E-02	1.732E-02	1.654E-02	6.788E-03	4.201E-04	8.600E-05	2.533E-05	1.808E-06	1.037E-08	0.000E+00	0.000E+00
1.50E-01	1.166E-01	5.996E-02	3.751E-02	2.521E-02	1.789E-02	1.286E-02	2.678E-03	2.101E-04	6.387E-05	1.452E-05	9.367E-07	9.666E-10	0.000E+00	0.000E+00
2.00E-01	1.252E-01	6.315E-02	3.887E-02	2.533E-02	1.807E-02	9.339E-03	1.234E-03	1.395E-04	4.758E-05	9.997E-06	5.450E-07	1.338E-10	0.000E+00	0.000E+00
3.00E-01	1.412E-01	6.871E-02	4.094E-02	2.563E-02	1.625E-02	4.826E-03	4.746E-04	8.800E-05	3.049E-05	6.115E-06	2.076E-07	5.119E-12	0.000E+00	0.000E+00
4.00E-01	1.558E-01	7.354E-02	4.246E-02	2.603E-02	1.302E-02	2.615E-03	3.150E-04	6.871E-05	2.291E-05	4.434E-06	8.535E-08	0.000E+00	0.000E+00	0.000E+00
5.00E-01	1.693E-01	7.777E-02	4.365E-02	2.621E-02	1.013E-02	1.577E-03	2.646E-04	5.854E-05	1.855E-05	3.504E-06	3.689E-08	0.000E+00	0.000E+00	0.000E+00
6.00E-01	1.816E-01	8.151E-02	4.464E-02	2.606E-02	7.946E-03	1.067E-03	2.420E-04	5.184E-05	1.550E-05	2.894E-06	1.661E-08	0.000E+00	0.000E+00	0.000E+00
8.00E-01	2.034E-01	8.784E-02	4.626E-02	2.493E-02	5.190E-03	6.504E-04	2.155E-04	4.265E-05	1.148E-05	2.109E-06	3.724E-09	0.000E+00	0.000E+00	0.000E+00
1.00E+00	2.222E-01	9.300E-02	4.756E-02	2.311E-02	3.678E-03	5.215E-04	1.895E-04	3.595E-05	9.021E-06	1.607E-06	9.343E-10	0.000E+00	0.000E+00	0.000E+00
1.50E+00	2.601E-01	1.024E-01	4.899E-02	1.828E-02	2.065E-03	4.663E-04	1.353E-04	2.501E-05	5.687E-06	8.868E-07	4.275E-11	0.000E+00	0.000E+00	0.000E+00
2.00E+00	2.896E-01	1.084E-01	4.796E-02	1.454E-02	1.525E-03	4.489E-04	1.043E-04	1.876E-05	3.965E-06	5.206E-07	2.894E-12	0.000E+00	0.000E+00	0.000E+00
3.00E+00	3.333E-01	1.146E-01	4.212E-02	9.935E-03	1.271E-03	3.395E-04	7.720E-05	1.220E-05	2.261E-06	1.989E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.00E+00	3.622E-01	1.155E-01	3.603E-02	7.837E-03	1.182E-03	2.549E-04	6.346E-05	8.820E-06	1.453E-06	8.355E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5.00E+00	3.801E-01	1.128E-01	3.133E-02	6.954E-03	1.032E-03	2.177E-04	5.262E-05	6.736E-06	9.995E-07	3.766E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
6.00E+00	3.905E-01	1.079E-01	2.786E-02	6.420E-03	8.934E-04	1.944E-04	4.413E-05	5.324E-06	7.177E-07	1.795E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
7.00E+00	3.955E-01	1.018E-01	2.531E-02	5.947E-03	7.908E-04	1.736E-04	3.755E-05	4.310E-06	5.307E-07	8.966E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
8.00E+00	3.965E-01	9.524E-02	2.334E-02	5.492E-03	7.146E-04	1.540E-04	3.237E-05	3.546E-06	4.010E-07	4.657E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
9.00E+00	3.942E-01	8.901E-02	2.173E-02	5.072E-03	6.525E-04	1.367E-04	2.816E-05	2.950E-06	3.079E-07	2.502E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.00E+01	3.891E-01	8.335E-02	2.034E-02	4.694E-03	5.984E-04	1.219E-04	2.468E-05	2.473E-06	2.394E-07	1.385E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.25E+01	3.682E-01	7.181E-02	1.748E-02	3.918E-03	4.834E-04	9.389E-05	1.813E-05	1.628E-06	1.331E-07	3.514E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.50E+01	3.413E-01	6.294E-02	1.516E-02	3.314E-03	3.918E-04	7.407E-05	1.361E-05	1.095E-06	7.663E-08	1.011E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.75E+01	3.128E-01	5.576E-02	1.323E-02	2.825E-03	3.197E-04	5.905E-05	1.035E-05	7.481E-07	4.490E-08	3.210E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.00E+01	2.851E-01	4.975E-02	1.160E-02	2.419E-03	2.629E-04	4.727E-05	7.938E-06	5.171E-07	2.658E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.25E+01	2.593E-01	4.462E-02	1.021E-02	2.082E-03	2.175E-04	3.771E-05	6.114E-06	3.615E-07	1.578E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.50E+01	2.361E-01	4.016E-02	9.017E-03	1.801E-03	1.808E-04	2.991E-05	4.710E-06	2.556E-07	9.365E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.75E+01	2.153E-01	3.625E-02	7.997E-03	1.564E-03	1.509E-04	2.379E-05	3.624E-06	1.827E-07	5.542E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.00E+01	1.970E-01	3.280E-02	7.119E-03	1.365E-03	1.263E-04	1.913E-05	2.783E-06	1.319E-07	3.271E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.25E+01	1.806E-01	2.972E-02	6.353E-03	1.194E-03	1.060E-04	1.555E-05	2.133E-06	9.584E-08	1.925E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.50E+01	1.657E-01	2.693E-02	5.669E-03	1.043E-03	8.861E-05	1.265E-05	1.630E-06	6.957E-08	1.129E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.75E+01	1.519E-01	2.437E-02	5.048E-03	9.074E-04	7.364E-05	1.024E-05	1.243E-06	5.016E-08	6.603E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.00E+01	1.391E-01	2.200E-02	4.481E-03	7.849E-04	6.071E-05	8.201E-06	9.457E-07	3.582E-08	3.849E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.25E+01	1.272E-01	1.982E-02	3.963E-03	6.743E-04	4.961E-05	6.434E-06	7.177E-07	2.528E-08	2.237E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.50E+01	1.160E-01	1.781E-02	3.491E-03	5.752E-04	4.016E-05	4.907E-06	5.436E-07	1.762E-08	1.298E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.75E+01	1.057E-01	1.597E-02	3.061E-03	4.871E-04	3.221E-05	3.619E-06	4.110E-07	1.212E-08	7.512E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5.00E+01	9.599E-02	1.428E-02	2.674E-03	4.096E-04	2.559E-05	2.574E-06	3.102E-07	8.231E-09	4.343E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

Bremsstrahlung depth dose distributions, D(z), [illegible]m2/g.
Finite slab case (z = thickness), detector material: bone

z(g/cm2)	50.000	20.000	10.000	5.000	2.000	1.000	0.500	0.200	0.100	0.050	0.020	0.010	0.005	0.002
1.00E-06	4.710E-10	6.625E-07	1.478E-03	2.584E-05	4.632E-01	4.652E-06	1.316E-04	3.709E-06	1.031E-04	1.610E-04	9.755E-04	7.314E-04	3.417E-05	1.441E-05
1.00E-05	1.472E-04	6.307E-05	2.466E-04	5.089E-05	1.708E-04	8.512E-05	9.695E-05	2.729E-04	2.726E-04	3.029E-04	4.003E-04	2.571E-03	1.079E-03	1.167E-04
2.00E-05	3.793E-04	1.528E-04	2.978E-04	1.429E-04	1.563E-04	2.152E-04	1.772E-04	5.033E-04	4.446E-04	6.066E-04	9.764E-04	3.997E-03	2.813E-03	1.329E-04
5.00E-05	6.817E-04	4.078E-04	5.317E-04	5.891E-04	3.035E-04	6.658E-04	4.619E-04	9.569E-04	9.136E-04	1.515E-03	3.720E-03	6.483E-03	4.589E-03	1.190E-04
1.00E-04	9.897E-04	7.826E-04	9.581E-04	1.483E-03	6.544E-04	1.379E-03	9.524E-04	1.516E-03	1.615E-03	2.862E-03	8.583E-03	8.123E-03	3.156E-03	9.052E-05
2.00E-04	1.515E-03	1.414E-03	1.762E-03	3.024E-03	1.445E-03	2.473E-03	1.836E-03	2.408E-03	2.838E-03	5.425E-03	1.341E-02	8.476E-03	1.630E-03	5.821E-05
5.00E-04	3.195E-03	2.873E-03	3.462E-03	5.106E-03	3.229E-03	4.109E-03	3.612E-03	4.549E-03	5.667E-03	1.240E-02	1.239E-02	6.059E-03	9.140E-04	2.461E-05
1.00E-03	5.879E-03	4.551E-03	5.010E-03	5.915E-03	4.725E-03	5.123E-03	5.155E-03	7.236E-03	8.805E-03	1.660E-02	7.419E-03	3.210E-03	8.780E-04	9.961E-06
2.00E-03	9.403E-03	6.506E-03	6.473E-03	6.345E-03	6.024E-03	5.955E-03	6.572E-03	1.068E-02	1.224E-02	1.203E-02	3.148E-03	1.155E-03	6.036E-04	2.930E-06
5.00E-03	1.202E-02	8.703E-03	7.865E-03	7.276E-03	7.305E-03	7.087E-03	7.919E-03	1.408E-02	1.282E-02	3.117E-03	6.453E-04	1.776E-04	6.206E-05	2.974E-07
1.00E-02	1.306E-02	1.009E-02	8.686E-03	8.272E-03	7.952E-03	7.881E-03	8.570E-03	1.218E-02	5.998E-03	7.656E-04	1.549E-04	3.202E-05	1.800E-06	2.147E-08
2.00E-02	1.607E-02	1.184E-02	9.766E-03	9.283E-03	8.423E-03	8.412E-03	9.095E-03	6.595E-03	1.220E-03	1.804E-04	3.502E-05	4.857E-06	1.566E-08	3.398E-10
5.00E-02	2.677E-02	1.583E-02	1.222E-02	1.056E-02	8.765E-03	8.867E-03	7.822E-03	1.294E-03	1.442E-04	4.022E-05	5.522E-06	2.479E-07	9.563E-12	4.049E-14
1.00E-01	4.007E-02	2.096E-02	1.507E-02	1.175E-02	8.955E-03	8.475E-03	3.956E-03	2.895E-04	8.251E-05	2.300E-05	1.729E-06	1.043E-08	0.000E+00	0.000E+00
1.50E-01	5.074E-02	2.529E-02	1.721E-02	1.256E-02	9.420E-03	6.921E-03	1.829E-03	1.588E-04	5.981E-05	1.691E-05	8.996E-07	9.228E-10	0.000E+00	0.000E+00
2.00E-01	6.016E-02	2.914E-02	1.897E-02	1.319E-02	9.682E-03	5.346E-03	9.559E-04	1.205E-04	4.423E-05	1.220E-05	5.266E-07	1.199E-10	0.000E+00	0.000E+00
3.00E-01	7.707E-02	3.578E-02	2.180E-02	1.421E-02	9.108E-03	3.115E-03	4.194E-04	8.885E-05	2.820E-05	6.973E-06	2.027E-07	4.013E-12	0.000E+00	0.000E+00
4.00E-01	9.256E-02	4.142E-02	2.406E-02	1.502E-02	7.721E-03	1.872E-03	2.852E-04	7.033E-05	2.108E-05	4.687E-06	8.394E-08	0.000E+00	0.000E+00	0.000E+00
5.00E-01	1.069E-01	4.633E-02	2.594E-02	1.559E-02	6.345E-03	1.222E-03	2.357E-04	5.743E-05	1.694E-05	3.526E-06	3.646E-08	0.000E+00	0.000E+00	0.000E+00
6.00E-01	1.202E-01	5.069E-02	2.755E-02	1.591E-02	5.226E-03	8.744E-04	2.100E-04	4.825E-05	1.401E-05	2.798E-06	1.646E-08	0.000E+00	0.000E+00	0.000E+00
8.00E-01	1.439E-01	5.813E-02	3.018E-02	1.594E-02	3.689E-03	5.627E-04	1.786E-04	3.640E-05	1.017E-05	1.880E-06	3.700E-09	0.000E+00	0.000E+00	0.000E+00
1.00E+00	1.643E-01	6.430E-02	3.225E-02	1.541E-02	2.763E-03	4.520E-04	1.533E-04	2.931E-05	7.855E-06	1.304E-06	9.276E-10	0.000E+00	0.000E+00	0.000E+00
1.50E+00	2.050E-01	7.592E-02	3.536E-02	1.331E-02	1.671E-03	3.788E-04	1.076E-04	1.980E-05	4.824E-06	5.729E-07	4.206E-11	0.000E+00	0.000E+00	0.000E+00
2.00E+00	2.365E-01	8.385E-02	3.610E-02	1.125E-02	1.262E-03	3.460E-04	8.255E-05	1.483E-05	3.336E-06	2.984E-07	2.808E-12	0.000E+00	0.000E+00	0.000E+00
3.00E+00	2.836E-01	9.311E-02	3.371E-02	8.206E-03	1.026E-03	2.586E-04	5.958E-05	9.529E-06	1.892E-06	1.195E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.00E+00	3.156E-01	9.651E-02	3.006E-02	6.610E-03	9.275E-04	1.969E-04	4.771E-05	6.771E-06	1.199E-06	6.112E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5.00E+00	3.360E-01	9.605E-02	2.681E-02	5.857E-03	8.071E-04	1.669E-04	3.898E-05	5.119E-06	8.073E-07	3.363E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
6.00E+00	3.483E-01	9.319E-02	2.417E-02	5.373E-03	7.017E-04	1.473E-04	3.246E-05	4.023E-06	5.701E-07	1.897E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
7.00E+00	3.551E-01	8.893E-02	2.207E-02	4.958E-03	6.220E-04	1.305E-04	2.756E-05	3.245E-06	4.191E-07	1.080E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
8.00E+00	3.577E-01	8.407E-02	2.036E-02	4.573E-03	5.613E-04	1.156E-04	2.376E-05	2.664E-06	3.171E-07	6.092E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
9.00E+00	3.569E-01	7.921E-02	1.892E-02	4.225E-03	5.113E-04	1.026E-04	2.070E-05	2.211E-06	2.444E-07	3.366E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.00E+01	3.535E-01	7.461E-02	1.769E-02	3.913E-03	4.679E-04	9.160E-05	1.816E-05	1.848E-06	1.907E-07	1.815E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.25E+01	3.370E-01	6.474E-02	1.519E-02	3.274E-03	3.773E-04	7.058E-05	1.337E-05	1.206E-06	1.059E-07	3.505E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.50E+01	3.143E-01	5.684E-02	1.322E-02	2.775E-03	3.063E-04	5.552E-05	1.001E-05	8.041E-07	6.015E-08	6.043E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.75E+01	2.894E-01	5.039E-02	1.158E-02	2.369E-03	2.505E-04	4.404E-05	7.556E-06	5.454E-07	3.440E-08	9.648E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.00E+01	2.647E-01	4.502E-02	1.018E-02	2.033E-03	2.064E-04	3.505E-05	5.740E-06	3.756E-07	1.974E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.25E+01	2.414E-01	4.044E-02	8.976E-03	1.753E-03	1.710E-04	2.796E-05	4.378E-06	2.621E-07	1.139E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.50E+01	2.201E-01	3.645E-02	7.942E-03	1.517E-03	1.422E-04	2.234E-05	3.350E-06	1.852E-07	6.618E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.75E+01	2.009E-01	3.295E-02	7.050E-03	1.318E-03	1.186E-04	1.790E-05	2.571E-06	1.323E-07	3.879E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.00E+01	1.839E-01	2.984E-02	6.279E-03	1.150E-03	9.914E-05	1.438E-05	1.978E-06	9.552E-08	2.294E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.25E+01	1.687E-01	2.706E-02	5.608E-03	1.005E-03	8.302E-05	1.159E-05	1.527E-06	6.952E-08	1.369E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.50E+01	1.550E-01	2.458E-02	5.017E-03	8.803E-04	6.955E-05	9.364E-06	1.181E-06	5.077E-08	8.253E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.75E+01	1.426E-01	2.234E-02	4.493E-03	7.709E-04	5.826E-05	7.580E-06	9.160E-07	3.707E-08	5.023E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.00E+01	1.313E-01	2.032E-02	4.026E-03	6.746E-04	4.876E-05	6.142E-06	7.122E-07	2.702E-08	3.086E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.25E+01	1.210E-01	1.850E-02	3.608E-03	5.897E-04	4.078E-05	4.948E-06	5.552E-07	1.962E-08	1.915E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.50E+01	1.115E-01	1.685E-02	3.234E-03	5.149E-04	3.407E-05	3.936E-06	4.339E-07	1.420E-08	1.199E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.75E+01	1.027E-01	1.535E-02	2.899E-03	4.489E-04	2.843E-05	3.078E-06	3.399E-07	1.023E-08	7.570E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5.00E+01	9.459E-02	1.400E-02	2.598E-03	3.908E-04	2.371E-05	2.361E-06	2.669E-07	7.333E-09	4.823E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

Bremsstrahlung depth dose distributions, D(z), MeV cm2/g.
Semi-infinite slab case (z = depth), detector material: calcium fluoride

z(g/cm2)	50.000	20.000	10.000	5.000	2.000	1.000	0.500	0.200	0.100	0.050	0.020	0.010	0.005	0.002
1.00E-06	7.591E-02	4.383E-02	3.303E-02	1.754E-02	1.783E-02	1.585E-02	1.452E-02	2.365E-02	4.233E-02	3.564E+00	5.387E-01	5.407E-03	6.725E-02	1.436E-03
1.00E-05	8.115E-02	4.653E-02	2.685E-02	1.688E-02	1.456E-02	1.242E-02	1.460E-02	1.730E-02	2.479E-02	2.334E-02	2.156E-02	1.429E-02	4.153E-03	1.948E-04
2.00E-05	8.101E-02	4.624E-02	2.696E-02	1.698E-02	1.434E-02	1.282E-02	1.487E-02	1.760E-02	2.548E-02	2.277E-02	2.329E-02	1.588E-02	5.930E-03	1.836E-04
5.00E-05	8.110E-02	4.579E-02	2.787E-02	1.768E-02	1.477E-02	1.406E-02	1.551E-02	1.875E-02	2.673E-02	3.475E-02	3.232E-02	1.636E-02	6.928E-03	1.652E-04
1.00E-04	8.188E-02	4.571E-02	2.894E-02	1.875E-02	1.570E-02	1.546E-02	1.629E-02	2.003E-02	2.735E-02	5.161E-02	3.901E-02	1.553E-02	4.411E-03	1.285E-04
2.00E-04	8.342E-02	4.606E-02	3.018E-02	2.029E-02	1.710E-02	1.718E-02	1.735E-02	2.166E-02	2.849E-02	6.495E-02	3.712E-02	1.343E-02	2.274E-03	8.344E-05
5.00E-04	8.676E-02	4.754E-02	3.187E-02	2.307E-02	1.952E-02	1.973E-02	1.931E-02	2.440E-02	3.234E-02	5.226E-02	2.247E-02	8.438E-03	1.309E-03	3.524E-05
1.00E-03	8.994E-02	4.936E-02	3.320E-02	2.553E-02	2.157E-02	2.161E-02	2.110E-02	2.736E-02	3.669E-02	3.080E-02	1.131E-02	4.370E-03	1.254E-03	1.417E-05
2.00E-03	9.305E-02	5.155E-02	3.474E-02	2.791E-02	2.347E-02	2.311E-02	2.294E-02	3.191E-02	4.038E-02	1.432E-02	4.463E-03	1.615E-03	8.541E-04	4.140E-06
5.00E-03	9.647E-02	5.464E-02	3.729E-02	3.028E-02	2.522E-02	2.411E-02	2.505E-02	3.902E-02	3.354E-02	4.071E-03	9.326E-04	2.686E-04	8.867E-05	4.193E-07
1.00E-02	9.950E-02	5.706E-02	3.942E-02	3.152E-02	2.596E-02	2.439E-02	2.647E-02	3.442E-02	1.292E-02	1.428E-03	2.400E-04	5.173E-05	2.672E-06	3.041E-08
2.00E-02	1.042E-01	5.953E-02	4.148E-02	3.253E-02	2.636E-02	2.464E-02	2.783E-02	1.804E-02	2.297E-03	4.927E-04	5.925E-05	8.233E-06	2.474E-08	4.835E-10
5.00E-02	1.138E-01	6.359E-02	4.413E-02	3.394E-02	2.602E-02	2.589E-02	2.286E-02	2.939E-03	2.688E-04	1.241E-04	1.033E-05	4.348E-07	1.686E-11	5.730E-14
1.00E-01	1.248E-01	6.852E-02	4.666E-02	3.501E-02	2.565E-02	2.464E-02	1.034E-02	5.652E-04	1.596E-04	4.624E-05	3.337E-06	1.901E-08	0.000E+00	0.000E+00
1.50E-01	1.350E-01	7.258E-02	4.860E-02	3.524E-02	2.656E-02	1.935E-02	4.275E-03	3.029E-04	1.176E-04	2.687E-05	1.732E-06	1.751E-09	0.000E+00	0.000E+00
2.00E-01	1.446E-01	7.612E-02	5.017E-02	3.528E-02	2.690E-02	1.421E-02	2.049E-03	2.333E-04	8.766E-05	1.864E-05	1.006E-06	2.372E-10	0.000E+00	0.000E+00
3.00E-01	1.624E-01	8.221E-02	5.245E-02	3.554E-02	2.424E-02	7.471E-03	8.202E-04	1.782E-04	5.635E-05	1.149E-05	3.819E-07	8.603E-12	0.000E+00	0.000E+00
4.00E-01	1.786E-01	8.742E-02	5.400E-02	3.601E-02	1.944E-02	4.092E-03	5.465E-04	1.435E-04	4.238E-05	8.355E-06	1.566E-07	0.000E+00	0.000E+00	0.000E+00
5.00E-01	1.933E-01	9.195E-02	5.516E-02	3.620E-02	1.509E-02	2.480E-03	4.547E-04	1.181E-04	3.429E-05	6.606E-06	6.759E-08	0.000E+00	0.000E+00	0.000E+00
6.00E-01	2.068E-01	9.592E-02	5.611E-02	3.591E-02	1.178E-02	1.681E-03	4.106E-04	9.963E-05	2.861E-05	5.454E-06	3.042E-08	0.000E+00	0.000E+00	0.000E+00
8.00E-01	2.307E-01	1.025E-01	5.767E-02	3.409E-02	7.576E-03	1.017E-03	3.574E-04	7.563E-05	2.111E-05	3.968E-06	6.836E-09	0.000E+00	0.000E+00	0.000E+00
1.00E+00	2.511E-01	1.078E-01	5.896E-02	3.126E-02	5.259E-03	8.039E-04	3.098E-04	6.133E-05	1.655E-05	3.017E-06	1.722E-09	0.000E+00	0.000E+00	0.000E+00
1.50E+00	2.921E-01	1.172E-01	6.002E-02	2.392E-02	2.807E-03	6.903E-04	2.171E-04	4.222E-05	1.039E-05	1.657E-06	7.986E-11	0.000E+00	0.000E+00	0.000E+00
2.00E+00	3.238E-01	1.231E-01	5.792E-02	1.836E-02	2.003E-03	6.458E-04	1.655E-04	3.207E-05	7.236E-06	9.693E-07	5.495E-12	0.000E+00	0.000E+00	0.000E+00
3.00E+00	3.704E-01	1.286E-01	4.908E-02	1.172E-02	1.621E-03	4.770E-04	1.198E-04	2.089E-05	4.115E-06	3.687E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.00E+00	4.009E-01	1.285E-01	4.064E-02	8.876E-03	1.491E-03	3.547E-04	9.681E-05	1.494E-05	2.635E-06	1.545E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5.00E+00	4.193E-01	1.244E-01	3.449E-02	7.783E-03	1.290E-03	2.998E-04	7.957E-05	1.135E-05	1.806E-06	6.960E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
6.00E+00	4.295E-01	1.180E-01	3.018E-02	7.172E-03	1.109E-03	2.653E-04	6.632E-05	8.950E-06	1.292E-06	3.319E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
7.00E+00	4.341E-01	1.103E-01	2.715E-02	6.637E-03	9.764E-04	2.353E-04	5.612E-05	7.236E-06	9.528E-07	1.659E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
8.00E+00	4.343E-01	1.024E-01	2.491E-02	6.118E-03	8.796E-04	2.079E-04	4.811E-05	5.948E-06	7.180E-07	8.626E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
9.00E+00	4.308E-01	9.506E-02	2.312E-02	5.638E-03	8.014E-04	1.840E-04	4.164E-05	4.940E-06	5.501E-07	4.641E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.00E+01	4.245E-01	8.853E-02	2.161E-02	5.208E-03	7.338E-04	1.638E-04	3.632E-05	4.133E-06	4.270E-07	2.573E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.25E+01	4.000E-01	7.568E-02	1.854E-02	4.333E-03	5.908E-04	1.258E-04	2.648E-05	2.700E-06	2.366E-07	6.562E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.50E+01	3.695E-01	6.615E-02	1.607E-02	3.658E-03	4.774E-04	9.895E-05	1.979E-05	1.801E-06	1.360E-07	1.898E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.75E+01	3.377E-01	5.855E-02	1.400E-02	3.111E-03	3.884E-04	7.854E-05	1.503E-05	1.222E-06	7.960E-08	6.061E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.00E+01	3.071E-01	5.221E-02	1.225E-02	2.659E-03	3.184E-04	6.254E-05	1.154E-05	8.410E-07	4.711E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.25E+01	2.788E-01	4.680E-02	1.077E-02	2.284E-03	2.627E-04	4.987E-05	8.892E-06	5.865E-07	2.797E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.50E+01	2.535E-01	4.210E-02	9.496E-03	1.970E-03	2.179E-04	3.981E-05	6.852E-06	4.140E-07	1.659E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.75E+01	2.311E-01	3.799E-02	8.410E-03	1.708E-03	1.815E-04	3.182E-05	5.268E-06	2.954E-07	9.812E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.00E+01	2.113E-01	3.435E-02	7.478E-03	1.488E-03	1.519E-04	2.548E-05	4.038E-06	2.130E-07	5.786E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.25E+01	1.937E-01	3.111E-02	6.665E-03	1.299E-03	1.272E-04	2.044E-05	3.084E-06	1.546E-07	3.401E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.50E+01	1.776E-01	2.815E-02	5.936E-03	1.132E-03	1.061E-04	1.643E-05	2.347E-06	1.120E-07	1.991E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.75E+01	1.627E-01	2.542E-02	5.270E-03	9.799E-04	8.776E-05	1.325E-05	1.778E-06	8.045E-08	1.162E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.00E+01	1.488E-01	2.289E-02	4.658E-03	8.420E-04	7.180E-05	1.069E-05	1.342E-06	5.716E-08	6.753E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.25E+01	1.358E-01	2.054E-02	4.095E-03	7.171E-04	5.805E-05	8.436E-06	1.010E-06	4.008E-08	3.913E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.50E+01	1.235E-01	1.837E-02	3.580E-03	6.051E-04	4.635E-05	6.383E-06	7.567E-07	2.770E-08	2.261E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.75E+01	1.121E-01	1.637E-02	3.111E-03	5.057E-04	3.654E-05	4.563E-06	5.654E-07	1.888E-08	1.304E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5.00E+01	1.015E-01	1.454E-02	2.688E-03	4.187E-04	2.846E-05	3.057E-06	4.214E-07	1.268E-08	7.501E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

Bremsstrahlung depth dose distributions, D(z), MeV cm2/g.
Finite slab case (z = thickness), detector material: calcium fluoride

z(g/cm2)	50.000	20.000	10.000	5.000	2.000	1.000	0.500	0.200	0.100	0.050	0.020	0.010	0.005	0.002
1.00E-06	6.543E-10	7.264E-07	3.248E-03	3.440E-05	6.629E-01	6.510E-06	1.780E-04	5.134E-06	1.463E-04	2.264E-04	1.376E-03	1.207E-03	4.282E-05	2.039E-05
1.00E-05	2.088E-04	8.800E-05	3.424E-04	7.213E-05	2.432E-04	1.232E-04	1.388E-04	3.901E-04	3.887E-04	4.315E-04	5.710E-04	3.622E-03	1.522E-03	1.643E-04
2.00E-05	5.366E-04	2.173E-04	4.163E-04	2.035E-04	2.227E-04	3.106E-04	2.543E-04	7.192E-04	6.342E-04	8.647E-04	1.390E-03	5.646E-03	3.981E-03	1.874E-04
5.00E-05	9.619E-04	5.831E-04	7.605E-04	8.394E-04	4.334E-04	9.553E-04	6.614E-04	1.365E-03	1.304E-03	2.165E-03	5.276E-03	9.255E-03	6.492E-03	1.680E-04
1.00E-04	1.397E-03	1.114E-03	1.378E-03	2.112E-03	9.358E-04	1.971E-03	1.361E-03	2.160E-03	2.306E-03	4.098E-03	1.213E-02	1.161E-02	4.468E-03	1.279E-04
2.00E-04	2.140E-03	2.002E-03	2.533E-03	4.304E-03	2.068E-03	3.527E-03	2.620E-03	3.434E-03	4.055E-03	7.755E-03	1.891E-02	1.201E-02	2.310E-03	8.218E-05
5.00E-04	4.513E-03	4.047E-03	4.987E-03	7.281E-03	4.629E-03	5.866E-03	5.158E-03	6.515E-03	8.121E-03	1.758E-02	1.750E-02	8.496E-03	1.293E-03	3.468E-05
1.00E-03	8.279E-03	6.409E-03	7.244E-03	8.459E-03	6.784E-03	7.337E-03	7.383E-03	1.040E-02	1.264E-02	2.350E-02	1.059E-02	4.514E-03	1.238E-03	1.402E-05
2.00E-03	1.314E-02	9.167E-03	9.379E-03	9.108E-03	8.672E-03	8.569E-03	9.456E-03	1.536E-02	1.756E-02	1.725E-02	4.594E-03	1.657E-03	8.512E-04	4.123E-06
5.00E-03	1.645E-02	1.223E-02	1.135E-02	1.050E-02	1.058E-02	1.028E-02	1.148E-02	2.014E-02	1.839E-02	4.695E-03	9.930E-04	2.680E-04	8.884E-05	4.196E-07
1.00E-02	1.745E-02	1.406E-02	1.241E-02	1.197E-02	1.159E-02	1.151E-02	1.250E-02	1.756E-02	8.852E-03	1.231E-03	2.514E-04	5.080E-05	2.654E-06	3.040E-08
2.00E-02	2.084E-02	1.615E-02	1.376E-02	1.345E-02	1.237E-02	1.239E-02	1.333E-02	9.839E-03	1.978E-03	3.150E-04	5.998E-05	8.138E-06	2.433E-08	4.828E-10
5.00E-02	3.324E-02	2.080E-02	1.680E-02	1.523E-02	1.299E-02	1.318E-02	1.165E-02	2.136E-03	2.684E-04	7.576E-05	1.001E-05	4.432E-07	1.662E-11	5.743E-14
1.00E-01	4.830E-02	2.682E-02	2.026E-02	1.679E-02	1.335E-02	1.273E-02	6.156E-03	5.235E-04	1.531E-04	4.298E-05	3.195E-06	1.913E-08	0.000E+00	0.000E+00
1.50E-01	6.019E-02	3.168E-02	2.280E-02	1.776E-02	1.408E-02	1.056E-02	2.978E-03	2.934E-04	1.103E-04	3.121E-05	1.665E-06	1.689E-09	0.000E+00	0.000E+00
2.00E-01	7.060E-02	3.585E-02	2.485E-02	1.849E-02	1.450E-02	8.271E-03	1.611E-03	2.224E-04	8.172E-05	2.249E-05	9.732E-07	2.173E-10	0.000E+00	0.000E+00
3.00E-01	8.920E-02	4.293E-02	2.805E-02	1.966E-02	1.365E-02	4.907E-03	7.301E-04	1.621E-04	5.228E-05	1.294E-05	3.732E-07	7.059E-12	0.000E+00	0.000E+00
4.00E-01	1.062E-01	4.891E-02	3.051E-02	2.060E-02	1.157E-02	2.970E-03	4.967E-04	1.273E-04	3.905E-05	8.738E-06	1.542E-07	0.000E+00	0.000E+00	0.000E+00
5.00E-01	1.219E-01	5.411E-02	3.249E-02	2.124E-02	9.471E-03	1.939E-03	4.057E-04	1.036E-04	3.131E-05	6.584E-06	6.688E-08	0.000E+00	0.000E+00	0.000E+00
6.00E-01	1.364E-01	5.871E-02	3.414E-02	2.153E-02	7.751E-03	1.382E-03	3.565E-04	8.674E-05	2.587E-05	5.226E-06	3.019E-08	0.000E+00	0.000E+00	0.000E+00
8.00E-01	1.622E-01	6.653E-02	3.675E-02	2.127E-02	5.365E-03	8.770E-04	2.959E-04	6.511E-05	1.874E-05	3.509E-06	6.801E-09	0.000E+00	0.000E+00	0.000E+00
1.00E+00	1.843E-01	7.296E-02	3.873E-02	2.028E-02	3.918E-03	6.912E-04	2.499E-04	5.215E-05	1.445E-05	2.433E-06	1.712E-09	0.000E+00	0.000E+00	0.000E+00
1.50E+00	2.281E-01	8.486E-02	4.134E-02	1.687E-02	2.230E-03	5.530E-04	1.717E-04	3.480E-05	8.844E-06	1.068E-06	7.872E-11	0.000E+00	0.000E+00	0.000E+00
2.00E+00	2.618E-01	9.273E-02	4.136E-02	1.373E-02	1.615E-03	4.891E-04	1.297E-04	2.580E-05	6.094E-06	5.564E-07	5.344E-12	0.000E+00	0.000E+00	0.000E+00
3.00E+00	3.119E-01	1.013E-01	3.743E-02	9.352E-03	1.265E-03	3.542E-04	9.103E-05	1.632E-05	3.434E-06	2.228E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.00E+00	3.455E-01	1.040E-01	3.263E-02	7.228E-03	1.127E-03	2.655E-04	7.136E-05	1.146E-05	2.167E-06	1.139E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5.00E+00	3.665E-01	1.030E-01	2.865E-02	6.318E-03	9.684E-04	2.218E-04	5.755E-05	8.586E-06	1.454E-06	6.268E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
6.00E+00	3.787E-01	9.936E-02	2.555E-02	5.775E-03	8.337E-04	1.934E-04	4.747E-05	6.700E-06	1.024E-06	3.534E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
7.00E+00	3.851E-01	9.417E-02	2.315E-02	5.317E-03	7.342E-04	1.700E-04	3.999E-05	5.374E-06	7.511E-07	2.010E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
8.00E+00	3.870E-01	8.835E-02	2.125E-02	4.891E-03	6.596E-04	1.498E-04	3.425E-05	4.392E-06	5.669E-07	1.134E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
9.00E+00	3.854E-01	8.268E-02	1.967E-02	4.507E-03	5.989E-04	1.325E-04	2.966E-05	3.631E-06	4.358E-07	6.260E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.00E+01	3.810E-01	7.745E-02	1.832E-02	4.165E-03	5.468E-04	1.179E-04	2.590E-05	3.026E-06	3.393E-07	3.374E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.25E+01	3.618E-01	6.671E-02	1.560E-02	3.472E-03	4.388E-04	9.039E-05	1.890E-05	1.960E-06	1.876E-07	6.515E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.50E+01	3.363E-01	5.847E-02	1.350E-02	2.937E-03	3.548E-04	7.081E-05	1.408E-05	1.298E-06	1.061E-07	1.124E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.75E+01	3.090E-01	5.183E-02	1.179E-02	2.503E-03	2.893E-04	5.598E-05	1.060E-05	8.757E-07	6.052E-08	1.795E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.00E+01	2.820E-01	4.632E-02	1.037E-02	2.144E-03	2.377E-04	4.445E-05	8.040E-06	6.000E-07	3.468E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.25E+01	2.568E-01	4.161E-02	9.165E-03	1.844E-03	1.965E-04	3.539E-05	6.123E-06	4.170E-07	1.999E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.50E+01	2.339E-01	3.751E-02	8.121E-03	1.593E-03	1.630E-04	2.823E-05	4.677E-06	2.937E-07	1.161E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.75E+01	2.134E-01	3.389E-02	7.212E-03	1.381E-03	1.357E-04	2.256E-05	3.581E-06	2.094E-07	6.801E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.00E+01	1.952E-01	3.067E-02	6.415E-03	1.203E-03	1.132E-04	1.809E-05	2.747E-06	1.510E-07	4.020E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.25E+01	1.791E-01	2.780E-02	5.714E-03	1.050E-03	9.459E-05	1.454E-05	2.112E-06	1.098E-07	2.398E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.50E+01	1.645E-01	2.522E-02	5.097E-03	9.172E-04	7.903E-05	1.171E-05	1.627E-06	8.008E-08	1.444E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.75E+01	1.514E-01	2.289E-02	4.551E-03	8.008E-04	6.596E-05	9.464E-06	1.255E-06	5.835E-08	8.777E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.00E+01	1.394E-01	2.080E-02	4.068E-03	6.982E-04	5.494E-05	7.655E-06	9.704E-07	4.237E-08	5.385E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.25E+01	1.283E-01	1.890E-02	3.639E-03	6.076E-04	4.567E-05	6.145E-06	7.516E-07	3.062E-08	3.335E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.50E+01	1.181E-01	1.719E-02	3.260E-03	5.275E-04	3.788E-05	4.852E-06	5.831E-07	2.200E-08	2.083E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.75E+01	1.086E-01	1.563E-02	2.922E-03	4.570E-04	3.134E-05	3.745E-06	4.533E-07	1.571E-08	1.312E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5.00E+01	9.980E-02	1.423E-02	2.622E-03	3.949E-04	2.588E-05	2.816E-06	3.530E-07	1.115E-08	8.338E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

Bremsstrahlung depth dose distributions, D(z), MeV cm2/g.
Semi-infinite slab case (z = depth), detector material: gallium arsenide

z(g/cm2)	50.000	20.000	10.000	5.000	2.000	1.000	0.500	0.200	0.100	0.050	0.020	0.010	0.005	0.002
1.00E-06	1.645E-01	1.089E-01	9.392E-02	5.567E-02	5.607E-02	4.911E-02	4.453E-02	6.090E-02	1.186E-01	1.045E+01	2.120E+00	6.147E-03	2.216E-01	6.153E-03
1.00E-05	1.748E-01	1.164E-01	7.633E-02	5.389E-02	4.727E-02	3.902E-02	4.315E-02	4.877E-02	6.844E-02	6.478E-02	5.779E-02	4.097E-02	1.106E-02	3.391E-04
2.00E-05	1.745E-01	1.156E-01	7.669E-02	5.415E-02	4.660E-02	4.016E-02	4.389E-02	4.953E-02	7.035E-02	6.284E-02	6.270E-02	4.476E-02	1.612E-02	3.442E-04
5.00E-05	1.750E-01	1.143E-01	7.928E-02	5.607E-02	4.775E-02	4.367E-02	4.577E-02	5.237E-02	7.374E-02	9.535E-02	9.004E-02	4.329E-02	1.919E-02	3.456E-04
1.00E-04	1.773E-01	1.140E-01	8.226E-02	5.905E-02	5.033E-02	4.762E-02	4.794E-02	5.572E-02	7.532E-02	1.409E-01	1.111E-01	4.095E-02	1.208E-02	2.720E-04
2.00E-04	1.815E-01	1.149E-01	8.570E-02	6.336E-02	5.419E-02	5.242E-02	5.086E-02	6.023E-02	7.839E-02	1.759E-01	1.057E-01	3.729E-02	6.129E-03	1.692E-04
5.00E-04	1.902E-01	1.188E-01	9.028E-02	7.108E-02	6.086E-02	5.943E-02	5.608E-02	6.843E-02	8.920E-02	1.395E-01	6.178E-02	2.530E-02	3.582E-03	6.483E-05
1.00E-03	1.983E-01	1.236E-01	9.381E-02	7.785E-02	6.643E-02	6.449E-02	6.087E-02	7.715E-02	1.013E-01	8.163E-02	2.984E-02	1.312E-02	3.594E-03	2.437E-05
2.00E-03	2.060E-01	1.293E-01	9.785E-02	8.429E-02	7.152E-02	6.848E-02	6.592E-02	8.932E-02	1.110E-01	3.817E-02	1.126E-02	4.411E-03	2.514E-03	7.023E-06
5.00E-03	2.137E-01	1.372E-01	1.045E-01	9.060E-02	7.611E-02	7.115E-02	7.211E-02	1.057E-01	9.063E-02	1.129E-02	2.247E-03	5.617E-04	2.404E-04	8.189E-07
1.00E-02	2.194E-01	1.432E-01	1.101E-01	9.404E-02	7.820E-02	7.205E-02	7.602E-02	9.256E-02	3.505E-02	4.219E-03	5.709E-04	8.132E-05	5.957E-06	7.292E-08
2.00E-02	2.273E-01	1.495E-01	1.157E-01	9.715E-02	7.974E-02	7.315E-02	7.880E-02	5.069E-02	6.935E-03	1.603E-03	1.438E-04	9.251E-06	4.040E-08	1.342E-09
5.00E-02	2.451E-01	1.596E-01	1.235E-01	1.023E-01	8.037E-02	7.697E-02	6.444E-02	1.030E-02	1.084E-03	4.723E-04	2.764E-05	3.264E-07	1.539E-11	1.375E-13
1.00E-01	2.678E-01	1.712E-01	1.311E-01	1.069E-01	8.089E-02	7.381E-02	3.247E-02	2.616E-03	7.691E-04	1.993E-04	1.029E-05	1.307E-08	0.000E+00	0.000E+00
1.50E-01	2.866E-01	1.804E-01	1.368E-01	1.086E-01	8.395E-02	6.013E-02	1.594E-02	1.572E-03	6.042E-04	1.241E-04	5.920E-06	1.336E-09	0.000E+00	0.000E+00
2.00E-01	3.033E-01	1.881E-01	1.414E-01	1.095E-01	8.520E-02	4.646E-02	8.904E-03	1.269E-03	4.639E-04	9.006E-05	3.707E-06	2.131E-10	0.000E+00	0.000E+00
3.00E-01	3.330E-01	2.009E-01	1.479E-01	1.114E-01	7.854E-02	2.747E-02	4.294E-03	1.005E-03	3.090E-04	5.873E-05	1.551E-06	1.132E-11	0.000E+00	0.000E+00
4.00E-01	3.597E-01	2.115E-01	1.521E-01	1.136E-01	6.559E-02	1.696E-02	3.062E-03	8.239E-04	2.392E-04	4.418E-05	6.743E-07	0.000E+00	0.000E+00	0.000E+00
5.00E-01	3.839E-01	2.204E-01	1.550E-01	1.148E-01	5.318E-02	1.136E-02	2.590E-03	6.856E-04	1.977E-04	3.571E-05	3.016E-07	0.000E+00	0.000E+00	0.000E+00
6.00E-01	4.060E-01	2.281E-01	1.573E-01	1.143E-01	4.320E-02	8.290E-03	2.337E-03	5.832E-04	1.671E-04	2.994E-05	1.387E-07	0.000E+00	0.000E+00	0.000E+00
8.00E-01	4.447E-01	2.405E-01	1.607E-01	1.095E-01	2.960E-02	5.446E-03	2.009E-03	4.482E-04	1.251E-04	2.224E-05	3.168E-08	0.000E+00	0.000E+00	0.000E+00
1.00E+00	4.779E-01	2.503E-01	1.632E-01	1.012E-01	2.149E-02	4.376E-03	1.730E-03	3.670E-04	9.900E-05	1.713E-05	7.948E-09	0.000E+00	0.000E+00	0.000E+00
1.50E+00	5.442E-01	2.668E-01	1.641E-01	7.834E-02	1.212E-02	3.560E-03	1.218E-03	2.569E-04	6.345E-05	9.589E-06	3.501E-10	0.000E+00	0.000E+00	0.000E+00
2.00E+00	5.947E-01	2.758E-01	1.573E-01	5.970E-02	8.720E-03	3.161E-03	9.339E-04	1.969E-04	4.486E-05	5.668E-06	2.231E-11	0.000E+00	0.000E+00	0.000E+00
3.00E+00	6.671E-01	2.818E-01	1.326E-01	3.632E-02	6.742E-03	2.301E-03	6.743E-04	1.292E-04	2.596E-05	2.184E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.00E+00	7.137E-01	2.775E-01	1.059E-01	2.632E-02	5.922E-03	1.729E-03	5.366E-04	9.248E-05	1.676E-05	9.234E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5.00E+00	7.420E-01	2.662E-01	8.412E-02	2.256E-02	5.028E-03	1.442E-03	4.327E-04	7.027E-05	1.153E-05	4.189E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00
6.00E+00	7.572E-01	2.491E-01	6.969E-02	2.050E-02	4.293E-03	1.254E-03	3.569E-04	5.539E-05	8.267E-06	2.011E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00
7.00E+00	7.631E-01	2.282E-01	6.102E-02	1.875E-02	3.766E-03	1.102E-03	3.025E-04	4.474E-05	6.102E-06	1.011E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00
8.00E+00	7.615E-01	2.069E-01	5.563E-02	1.710E-02	3.380E-03	9.696E-04	2.614E-04	3.673E-05	4.602E-06	5.290E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
9.00E+00	7.536E-01	1.878E-01	5.172E-02	1.563E-02	3.067E-03	8.571E-04	2.281E-04	3.047E-05	3.528E-06	2.862E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.00E+01	7.405E-01	1.716E-01	4.844E-02	1.434E-02	2.796E-03	7.616E-04	1.999E-04	2.546E-05	2.741E-06	1.596E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.25E+01	6.924E-01	1.426E-01	4.118E-02	1.182E-02	2.226E-03	5.798E-04	1.444E-04	1.658E-05	1.522E-06	4.124E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.50E+01	6.340E-01	1.233E-01	3.508E-02	9.960E-03	1.785E-03	4.524E-04	1.056E-04	1.103E-05	8.762E-07	1.208E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.75E+01	5.744E-01	1.086E-01	3.020E-02	8.478E-03	1.452E-03	3.589E-04	7.884E-05	7.464E-06	5.140E-07	3.906E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.00E+01	5.177E-01	9.664E-02	2.631E-02	7.247E-03	1.197E-03	2.876E-04	6.003E-05	5.125E-06	3.048E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.25E+01	4.664E-01	8.609E-02	2.296E-02	6.168E-03	9.849E-04	2.290E-04	4.621E-05	3.566E-06	1.813E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.50E+01	4.212E-01	7.650E-02	1.997E-02	5.209E-03	8.022E-04	1.800E-04	3.571E-05	2.513E-06	1.077E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.75E+01	3.819E-01	6.808E-02	1.740E-02	4.409E-03	6.538E-04	1.416E-04	2.760E-05	1.792E-06	6.375E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.00E+01	3.478E-01	6.091E-02	1.528E-02	3.776E-03	5.392E-04	1.131E-04	2.130E-05	1.291E-06	3.760E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.25E+01	3.177E-01	5.476E-02	1.351E-02	3.270E-03	4.500E-04	9.189E-05	1.638E-05	9.366E-07	2.210E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.50E+01	2.896E-01	4.917E-02	1.193E-02	2.832E-03	3.756E-04	7.476E-05	1.249E-05	6.776E-07	1.293E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.75E+01	2.627E-01	4.390E-02	1.046E-02	2.430E-03	3.108E-04	6.029E-05	9.431E-06	4.858E-07	7.535E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.00E+01	2.366E-01	3.884E-02	9.062E-03	2.055E-03	2.533E-04	4.779E-05	7.035E-06	3.438E-07	4.373E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.25E+01	2.113E-01	3.389E-02	7.703E-03	1.692E-03	2.007E-04	3.663E-05	5.184E-06	2.396E-07	2.528E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.50E+01	1.871E-01	2.904E-02	6.382E-03	1.346E-03	1.528E-04	2.677E-05	3.773E-06	1.644E-07	1.457E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.75E+01	1.641E-01	2.436E-02	5.134E-03	1.027E-03	1.111E-04	1.849E-05	2.713E-06	1.109E-07	8.376E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5.00E+01	1.427E-01	1.999E-02	4.000E-03	7.497E-04	7.680E-05	1.200E-05	1.929E-06	7.362E-08	4.804E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

Bremsstrahlung depth dose distributions, D(z), MeV cm2/g.
Finite slab case (z = thickness), detector material: gallium arsenide

z(g/cm2)	50.000	20.000	10.000	5.000	2.000	1.000	0.500	0.200	0.100	0.050	0.020	0.010	0.005	0.002
1.00E-06	3.730E-09	4.096E-06	6.164E-03	8.110E-05	2.197E+00	2.038E-05	7.451E-04	3.537E-05	4.178E-04	6.651E-04	4.682E-03	1.367E-03	9.616E-05	4.069E-05
1.00E-05	5.539E-04	2.309E-04	9.875E-04	1.928E-04	6.684E-04	3.166E-04	3.524E-04	1.002E-03	1.047E-03	1.147E-03	1.464E-03	1.061E-02	4.053E-03	2.804E-04
2.00E-05	1.439E-03	5.547E-04	1.179E-03	5.510E-04	6.009E-04	8.083E-04	6.466E-04	1.862E-03	1.701E-03	2.310E-03	3.645E-03	1.619E-02	1.096E-02	3.547E-04
5.00E-05	2.660E-03	1.519E-03	2.082E-03	2.299E-03	1.161E-03	2.565E-03	1.751E-03	3.712E-03	3.498E-03	5.842E-03	1.454E-02	2.475E-02	1.808E-02	3.526E-04
1.00E-04	3.849E-03	2.987E-03	3.740E-03	5.821E-03	2.517E-03	5.413E-03	3.721E-03	5.984E-03	6.212E-03	1.113E-02	3.446E-02	3.083E-02	1.224E-02	2.700E-04
2.00E-04	5.786E-03	5.494E-03	6.872E-03	1.191E-02	5.603E-03	9.828E-03	7.293E-03	9.545E-03	1.099E-02	2.124E-02	5.390E-02	3.355E-02	6.214E-03	1.660E-04
5.00E-04	1.184E-02	1.116E-02	1.351E-02	2.012E-02	1.264E-02	1.634E-02	1.414E-02	1.796E-02	2.220E-02	4.885E-02	4.824E-02	2.553E-02	3.532E-03	6.361E-05
1.00E-03	2.135E-02	1.741E-02	1.954E-02	2.327E-02	1.858E-02	2.023E-02	1.981E-02	2.825E-02	3.468E-02	6.518E-02	2.798E-02	1.350E-02	3.543E-03	2.407E-05
2.00E-03	3.360E-02	2.436E-02	2.515E-02	2.491E-02	2.374E-02	2.340E-02	2.551E-02	4.062E-02	4.798E-02	4.652E-02	1.160E-02	4.456E-03	2.505E-03	6.991E-06
5.00E-03	4.203E-02	3.169E-02	3.022E-02	2.851E-02	2.887E-02	2.807E-02	3.324E-02	5.082E-02	4.948E-02	1.216E-02	2.389E-03	5.452E-04	2.410E-04	8.197E-07
1.00E-02	4.346E-02	3.584E-02	3.299E-02	3.249E-02	3.172E-02	3.174E-02	3.732E-02	4.382E-02	2.393E-02	3.279E-03	5.967E-04	7.816E-05	5.911E-06	7.292E-08
2.00E-02	4.794E-02	4.064E-02	3.668E-02	3.678E-02	3.432E-02	3.469E-02	3.728E-02	2.570E-02	5.947E-03	9.377E-04	1.452E-04	9.215E-06	3.936E-08	1.340E-09
5.00E-02	6.741E-02	5.129E-02	4.512E-02	4.270E-02	3.767E-02	3.779E-02	2.850E-02	7.671E-03	1.074E-03	2.826E-04	2.672E-05	3.492E-07	1.460E-11	1.378E-13
1.00E-01	9.525E-02	6.429E-02	5.442E-02	4.831E-02	4.048E-02	3.792E-02	1.746E-02	2.823E-03	7.330E-04	1.917E-04	9.838E-06	1.313E-08	0.000E+00	0.000E+00
1.50E-01	1.166E-01	7.421E-02	6.099E-02	5.192E-02	4.352E-02	3.346E-02	1.137E-02	1.692E-03	5.645E-04	1.511E-04	5.689E-06	1.174E-09	0.000E+00	0.000E+00
2.00E-01	1.342E-01	8.241E-02	6.606E-02	5.464E-02	4.547E-02	2.804E-02	7.957E-03	1.235E-03	4.317E-04	1.132E-04	3.585E-06	1.606E-10	0.000E+00	0.000E+00
3.00E-01	1.641E-01	9.588E-02	7.357E-02	5.888E-02	4.456E-02	1.887E-02	4.644E-03	8.417E-04	2.864E-04	6.748E-05	1.517E-06	6.215E-12	0.000E+00	0.000E+00
4.00E-01	1.905E-01	1.069E-01	7.898E-02	6.223E-02	3.972E-02	1.273E-02	3.171E-03	6.658E-04	2.196E-04	4.651E-05	6.647E-07	0.000E+00	0.000E+00	0.000E+00
5.00E-01	2.145E-01	1.164E-01	8.323E-02	6.452E-02	3.415E-02	9.036E-03	2.391E-03	5.618E-04	1.796E-04	3.561E-05	2.989E-07	0.000E+00	0.000E+00	0.000E+00
6.00E-01	2.365E-01	1.246E-01	8.680E-02	6.572E-02	2.911E-02	6.835E-03	1.928E-03	4.897E-04	1.505E-04	2.865E-05	1.379E-07	0.000E+00	0.000E+00	0.000E+00
8.00E-01	2.755E-01	1.382E-01	9.272E-02	6.548E-02	2.132E-02	4.609E-03	1.430E-03	3.903E-04	1.110E-04	1.963E-05	3.158E-08	0.000E+00	0.000E+00	0.000E+00
1.00E+00	3.092E-01	1.491E-01	9.765E-02	6.284E-02	1.605E-02	3.658E-03	1.184E-03	3.214E-04	8.670E-05	1.381E-05	7.919E-09	0.000E+00	0.000E+00	0.000E+00
1.50E+00	3.767E-01	1.685E-01	1.044E-01	5.238E-02	9.275E-03	2.763E-03	9.009E-04	2.159E-04	5.418E-05	6.202E-06	3.458E-10	0.000E+00	0.000E+00	0.000E+00
2.00E+00	4.281E-01	1.807E-01	1.032E-01	4.174E-02	6.585E-03	2.318E-03	7.463E-04	1.585E-04	3.783E-05	3.273E-06	2.173E-11	0.000E+00	0.000E+00	0.000E+00
3.00E+00	5.013E-01	1.928E-01	8.823E-02	2.614E-02	4.818E-03	1.638E-03	5.338E-04	1.001E-04	2.165E-05	1.331E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.00E+00	5.486E-01	1.947E-01	7.204E-02	1.876E-02	4.068E-03	1.224E-03	3.966E-04	7.078E-05	1.378E-05	6.871E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5.00E+00	5.787E-01	1.900E-01	5.984E-02	1.571E-02	3.407E-03	9.983E-04	3.082E-04	5.308E-05	9.291E-06	3.806E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00
6.00E+00	5.963E-01	1.803E-01	5.110E-02	1.400E-02	2.892E-03	8.501E-04	2.489E-04	4.130E-05	6.565E-06	2.157E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00
7.00E+00	6.046E-01	1.674E-01	4.483E-02	1.268E-02	2.519E-03	7.371E-04	2.073E-04	3.298E-05	4.822E-06	1.232E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00
8.00E+00	6.057E-01	1.536E-01	4.019E-02	1.153E-02	2.242E-03	6.454E-04	1.766E-04	2.680E-05	3.643E-06	6.977E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
9.00E+00	6.014E-01	1.408E-01	3.659E-02	1.054E-02	2.019E-03	5.694E-04	1.525E-04	2.205E-05	2.803E-06	3.866E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.00E+01	5.927E-01	1.295E-01	3.369E-02	9.676E-03	1.830E-03	5.057E-04	1.330E-04	1.831E-05	2.183E-06	2.090E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.25E+01	5.588E-01	1.080E-01	2.836E-02	7.962E-03	1.449E-03	3.841E-04	9.670E-05	1.181E-05	1.208E-06	4.061E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.50E+01	5.158E-01	9.285E-02	2.445E-02	6.660E-03	1.159E-03	2.977E-04	7.170E-05	7.821E-06	6.839E-07	7.037E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.75E+01	4.704E-01	8.146E-02	2.124E-02	5.616E-03	9.364E-04	2.334E-04	5.376E-05	5.271E-06	3.907E-07	1.129E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.00E+01	4.260E-01	7.241E-02	1.848E-02	4.758E-03	7.631E-04	1.845E-04	4.061E-05	3.602E-06	2.242E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.25E+01	3.851E-01	6.484E-02	1.612E-02	4.049E-03	6.258E-04	1.464E-04	3.080E-05	2.496E-06	1.294E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.50E+01	3.487E-01	5.826E-02	1.411E-02	3.462E-03	5.156E-04	1.164E-04	2.342E-05	1.753E-06	7.527E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.75E+01	3.165E-01	5.243E-02	1.241E-02	2.973E-03	4.264E-04	9.272E-05	1.783E-05	1.247E-06	4.413E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.00E+01	2.884E-01	4.719E-02	1.096E-02	2.565E-03	3.537E-04	7.395E-05	1.360E-05	8.985E-07	2.609E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.25E+01	2.637E-01	4.246E-02	9.704E-03	2.218E-03	2.937E-04	5.910E-05	1.038E-05	6.531E-07	1.556E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.50E+01	2.414E-01	3.815E-02	8.590E-03	1.914E-03	2.434E-04	4.735E-05	7.939E-06	4.759E-07	9.365E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.75E+01	2.210E-01	3.423E-02	7.580E-03	1.644E-03	2.006E-04	3.807E-05	6.078E-06	3.462E-07	5.687E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.00E+01	2.022E-01	3.064E-02	6.659E-03	1.402E-03	1.643E-04	3.065E-05	4.660E-06	2.506E-07	3.484E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.25E+01	1.846E-01	2.738E-02	5.817E-03	1.187E-03	1.336E-04	2.440E-05	3.578E-06	1.802E-07	2.153E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.50E+01	1.679E-01	2.442E-02	5.052E-03	9.959E-04	1.078E-04	1.893E-05	2.752E-06	1.287E-07	1.342E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.75E+01	1.520E-01	2.173E-02	4.361E-03	8.289E-04	8.632E-05	1.418E-05	2.120E-06	9.113E-08	8.432E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5.00E+01	1.370E-01	1.931E-02	3.742E-03	6.842E-04	6.861E-05	1.021E-05	1.636E-06	6.403E-08	5.341E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

Bremsstrahlung depth dose distributions, D(z), MeV cm2/g.
Semi-infinite slab case (z = depth), detector material: lithium fluoride

z(g/cm2)	50.000	20.000	10.000	5.000	2.000	1.000	0.500	0.200	0.100	0.050	0.020	0.010	0.005	0.002
1.00E-06	5.438E-02	3.183E-02	2.333E-02	1.124E-02	1.193E-02	1.076E-02	8.899E-03	2.239E-02	6.302E-03	7.609E-03	3.793E-01	1.365E-03	6.873E-02	1.138E-03
1.00E-05	5.889E-02	3.387E-02	1.846E-02	1.050E-02	9.100E-03	7.751E-03	9.859E-03	1.200E-02	2.042E-02	2.724E-02	1.644E-02	1.187E-02	3.245E-03	1.552E-04
2.00E-05	5.877E-02	3.364E-02	1.854E-02	1.058E-02	8.923E-03	8.065E-03	1.006E-02	1.228E-02	2.027E-02	2.615E-02	1.805E-02	1.286E-02	4.674E-03	1.462E-04
5.00E-05	5.878E-02	3.327E-02	1.924E-02	1.111E-02	9.252E-03	9.031E-03	1.050E-02	1.344E-02	1.879E-02	2.384E-02	2.566E-02	1.217E-02	5.525E-03	1.316E-04
1.00E-04	5.933E-02	3.318E-02	2.006E-02	1.194E-02	9.961E-03	1.013E-02	1.106E-02	1.458E-02	1.831E-02	2.399E-02	3.171E-02	1.148E-02	3.483E-03	1.024E-04
2.00E-04	6.048E-02	3.342E-02	2.101E-02	1.312E-02	1.102E-02	1.147E-02	1.186E-02	1.580E-02	1.957E-02	2.787E-02	3.105E-02	1.061E-02	1.773E-03	6.645E-05
5.00E-04	6.304E-02	3.449E-02	2.223E-02	1.523E-02	1.285E-02	1.344E-02	1.337E-02	1.736E-02	2.651E-02	4.110E-02	1.894E-02	7.362E-03	1.032E-03	2.808E-05
1.00E-03	6.546E-02	3.580E-02	2.314E-02	1.706E-02	1.436E-02	1.484E-02	1.473E-02	1.913E-02	3.393E-02	4.189E-02	8.976E-03	3.818E-03	1.024E-03	1.129E-05
2.00E-03	6.774E-02	3.733E-02	2.415E-02	1.877E-02	1.570E-02	1.587E-02	1.599E-02	2.284E-02	3.462E-02	2.190E-02	3.036E-03	1.246E-03	7.092E-04	3.299E-06
5.00E-03	6.995E-02	3.939E-02	2.578E-02	2.027E-02	1.676E-02	1.632E-02	1.720E-02	3.089E-02	1.809E-02	3.173E-03	4.268E-04	1.451E-04	6.796E-05	3.340E-07
1.00E-02	7.176E-02	4.089E-02	2.707E-02	2.086E-02	1.702E-02	1.621E-02	1.819E-02	2.740E-02	5.850E-03	4.482E-04	7.291E-05	1.890E-05	1.682E-06	2.421E-08
2.00E-02	7.467E-02	4.230E-02	2.820E-02	2.117E-02	1.692E-02	1.601E-02	1.978E-02	1.189E-02	1.009E-03	5.800E-05	1.180E-05	1.876E-06	1.074E-08	3.846E-10
5.00E-02	8.086E-02	4.461E-02	2.946E-02	2.150E-02	1.604E-02	1.666E-02	1.585E-02	8.974E-04	6.054E-05	7.420E-06	1.314E-06	5.544E-08	3.141E-12	4.557E-14
1.00E-01	8.817E-02	4.767E-02	3.073E-02	2.168E-02	1.532E-02	1.580E-02	5.400E-03	7.604E-05	1.212E-05	4.127E-06	3.611E-07	2.144E-09	0.000E+00	0.000E+00
1.50E-01	9.509E-02	5.036E-02	3.178E-02	2.155E-02	1.583E-02	1.180E-02	1.615E-03	3.268E-05	7.902E-06	3.308E-06	1.840E-07	2.314E-10	0.000E+00	0.000E+00
2.00E-01	1.017E-01	5.278E-02	3.268E-02	2.140E-02	1.602E-02	8.023E-03	5.912E-04	2.492E-05	7.081E-06	2.535E-06	1.077E-07	4.012E-11	0.000E+00	0.000E+00
3.00E-01	1.142E-01	5.706E-02	3.408E-02	2.132E-02	1.409E-02	3.486E-03	1.694E-04	2.065E-05	6.352E-06	1.502E-06	4.191E-08	2.584E-12	0.000E+00	0.000E+00
4.00E-01	1.256E-01	6.081E-02	3.511E-02	2.144E-02	1.075E-02	1.560E-03	9.768E-05	1.765E-05	5.309E-06	9.726E-07	1.748E-08	0.000E+00	0.000E+00	0.000E+00
5.00E-01	1.361E-01	6.412E-02	3.591E-02	2.143E-02	7.919E-03	7.995E-04	7.729E-05	1.505E-05	4.297E-06	6.820E-07	7.602E-09	0.000E+00	0.000E+00	0.000E+00
6.00E-01	1.458E-01	6.705E-02	3.659E-02	2.117E-02	5.903E-03	4.806E-04	6.949E-05	1.301E-05	3.496E-06	5.059E-07	3.421E-09	0.000E+00	0.000E+00	0.000E+00
8.00E-01	1.629E-01	7.202E-02	3.767E-02	1.996E-02	3.546E-03	2.602E-04	6.375E-05	1.026E-05	2.433E-06	3.116E-07	7.559E-10	0.000E+00	0.000E+00	0.000E+00
1.00E+00	1.777E-01	7.609E-02	3.854E-02	1.822E-02	2.365E-03	2.085E-04	6.015E-05	8.586E-06	1.817E-06	2.121E-07	1.846E-10	0.000E+00	0.000E+00	0.000E+00
1.50E+00	2.077E-01	8.350E-02	3.935E-02	1.396E-02	1.227E-03	2.179E-04	5.163E-05	6.315E-06	1.069E-06	1.034E-07	7.686E-12	0.000E+00	0.000E+00	0.000E+00
2.00E+00	2.311E-01	8.827E-02	3.832E-02	1.090E-02	8.936E-04	2.384E-04	4.476E-05	5.039E-06	7.349E-07	6.076E-08	4.658E-13	0.000E+00	0.000E+00	0.000E+00
3.00E+00	2.660E-01	9.321E-02	3.350E-02	7.374E-03	7.932E-04	1.878E-04	3.503E-05	3.514E-06	4.349E-07	2.732E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.00E+00	2.892E-01	9.387E-02	2.864E-02	5.859E-03	7.815E-04	1.378E-04	2.853E-05	2.645E-06	2.961E-07	1.407E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5.00E+00	3.038E-01	9.165E-02	2.495E-02	5.260E-03	6.920E-04	1.204E-04	2.387E-05	2.100E-06	2.153E-07	7.471E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
6.00E+00	3.123E-01	8.768E-02	2.225E-02	4.903E-03	5.990E-04	1.109E-04	2.038E-05	1.712E-06	1.625E-07	3.996E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
7.00E+00	3.165E-01	8.275E-02	2.027E-02	4.568E-03	5.305E-04	1.008E-04	1.765E-05	1.416E-06	1.258E-07	2.142E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
8.00E+00	3.175E-01	7.756E-02	1.876E-02	4.230E-03	4.812E-04	8.993E-05	1.546E-05	1.182E-06	9.887E-08	1.147E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
9.00E+00	3.158E-01	7.260E-02	1.752E-02	3.912E-03	4.413E-04	7.993E-05	1.362E-05	9.924E-07	7.835E-08	6.132E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.00E+01	3.119E-01	6.806E-02	1.644E-02	3.623E-03	4.065E-04	7.131E-05	1.206E-05	8.376E-07	6.236E-08	3.273E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.25E+01	2.955E-01	5.870E-02	1.417E-02	3.031E-03	3.307E-04	5.540E-05	8.997E-06	5.583E-07	3.555E-08	6.809E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.50E+01	2.742E-01	5.148E-02	1.231E-02	2.571E-03	2.691E-04	4.418E-05	6.786E-06	3.805E-07	2.038E-08	1.432E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.75E+01	2.516E-01	4.567E-02	1.076E-02	2.197E-03	2.202E-04	3.537E-05	5.158E-06	2.645E-07	1.172E-08	3.073E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.00E+01	2.295E-01	4.085E-02	9.445E-03	1.886E-03	1.817E-04	2.822E-05	3.944E-06	1.869E-07	6.767E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.25E+01	2.089E-01	3.673E-02	8.325E-03	1.628E-03	1.508E-04	2.252E-05	3.027E-06	1.334E-07	3.922E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.50E+01	1.902E-01	3.313E-02	7.367E-03	1.411E-03	1.258E-04	1.802E-05	2.329E-06	9.580E-08	2.282E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.75E+01	1.736E-01	2.993E-02	6.543E-03	1.228E-03	1.052E-04	1.447E-05	1.794E-06	6.901E-08	1.333E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.00E+01	1.588E-01	2.709E-02	5.832E-03	1.074E-03	8.825E-05	1.167E-05	1.384E-06	4.982E-08	7.823E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.25E+01	1.457E-01	2.453E-02	5.211E-03	9.414E-04	7.414E-05	9.436E-06	1.070E-06	3.601E-08	4.614E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.50E+01	1.337E-01	2.221E-02	4.659E-03	8.251E-04	6.219E-05	7.645E-06	8.276E-07	2.603E-08	2.735E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.75E+01	1.228E-01	2.012E-02	4.161E-03	7.214E-04	5.200E-05	6.200E-06	6.412E-07	1.882E-08	1.630E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.00E+01	1.126E-01	1.821E-02	3.710E-03	6.283E-04	4.329E-05	5.022E-06	4.976E-07	1.360E-08	9.768E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.25E+01	1.031E-01	1.647E-02	3.300E-03	5.447E-04	3.586E-05	4.016E-06	3.868E-07	9.825E-09	5.885E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.50E+01	9.436E-02	1.489E-02	2.928E-03	4.699E-04	2.955E-05	3.136E-06	3.012E-07	7.094E-09	3.566E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.75E+01	8.619E-02	1.345E-02	2.592E-03	4.033E-04	2.422E-05	2.373E-06	2.349E-07	5.121E-09	2.172E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5.00E+01	7.861E-02	1.215E-02	2.287E-03	3.444E-04	1.976E-05	1.733E-06	1.835E-07	3.696E-09	1.331E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

Bremsstrahlung depth dose distributions, D(z), MeV cm2/g.
Finite slab case (z = thickness), detector material: lithium fluoride

z(g/cm2)	50.000	20.000	10.000	5.000	2.000	1.000	0.500	0.200	0.100	0.050	0.020	0.010	0.005	0.002
1.00E-06	4.095E-10	9.073E-07	1.783E-03	2.914E-05	6.219E-01	5.380E-06	1.937E-04	1.044E-05	1.126E-04	2.063E-04	2.238E-04	2.833E-04	3.975E-05	1.618E-05
1.00E-05	1.651E-04	6.406E-05	2.731E-04	5.221E-05	1.857E-04	8.578E-05	1.014E-04	2.821E-04	2.943E-04	3.226E-04	4.700E-04	3.043E-03	1.182E-03	1.309E-04
2.00E-05	4.212E-04	1.558E-04	3.258E-04	1.489E-04	1.667E-04	2.213E-04	1.846E-04	5.262E-04	4.785E-04	6.503E-04	1.130E-03	4.628E-03	3.137E-03	1.492E-04
5.00E-05	7.366E-04	4.268E-04	5.775E-04	6.307E-04	3.220E-04	7.094E-04	4.902E-04	1.051E-03	9.852E-04	1.630E-03	3.788E-03	6.936E-03	5.179E-03	1.338E-04
1.00E-04	1.052E-03	8.356E-04	1.040E-03	1.617E-03	6.967E-04	1.502E-03	1.027E-03	1.683E-03	1.750E-03	3.068E-03	8.250E-03	8.628E-03	3.528E-03	1.018E-04
2.00E-04	1.595E-03	1.530E-03	1.914E-03	3.335E-03	1.547E-03	2.731E-03	2.003E-03	2.653E-03	3.076E-03	5.865E-03	1.383E-02	9.548E-03	1.800E-03	6.543E-05
5.00E-04	3.368E-03	3.103E-03	3.749E-03	5.619E-03	3.470E-03	4.534E-03	3.945E-03	4.901E-03	6.048E-03	1.397E-02	1.538E-02	7.431E-03	1.019E-03	2.763E-05
1.00E-03	6.207E-03	4.843E-03	5.381E-03	6.421E-03	5.064E-03	5.580E-03	5.577E-03	7.787E-03	9.317E-03	1.905E-02	9.649E-03	3.915E-03	1.010E-03	1.117E-05
2.00E-03	9.802E-03	6.768E-03	6.847E-03	6.750E-03	6.401E-03	6.366E-03	7.005E-03	1.198E-02	1.320E-02	1.334E-02	3.711E-03	1.245E-03	7.064E-04	3.286E-06
5.00E-03	1.189E-02	8.727E-03	8.044E-03	7.496E-03	7.594E-03	7.371E-03	8.266E-03	1.743E-02	1.457E-02	2.758E-03	5.256E-04	1.382E-04	6.815E-05	3.343E-07
1.00E-02	1.222E-02	9.794E-03	8.582E-03	8.269E-03	8.052E-03	7.995E-03	8.869E-03	1.401E-02	6.050E-03	4.517E-04	8.421E-05	1.790E-05	1.671E-06	2.420E-08
2.00E-02	1.426E-02	1.106E-02	9.263E-03	8.940E-03	8.226E-03	8.268E-03	9.454E-03	5.165E-03	6.538E-04	5.859E-05	1.255E-05	1.877E-06	1.045E-08	3.839E-10
5.00E-02	2.251E-02	1.399E-02	1.093E-02	9.573E-03	7.999E-03	8.441E-03	7.532E-03	4.962E-04	2.705E-05	6.952E-06	1.239E-06	6.122E-08	2.937E-12	4.569E-14
1.00E-01	3.284E-02	1.787E-02	1.294E-02	1.015E-02	7.739E-03	7.800E-03	2.884E-03	8.344E-05	1.523E-05	3.864E-06	3.030E-07	2.145E-09	0.000E+00	0.000E+00
1.50E-01	4.111E-02	2.121E-02	1.448E-02	1.056E-02	8.016E-03	5.896E-03	1.003E-03	3.849E-05	1.146E-05	3.141E-06	1.449E-07	1.897E-10	0.000E+00	0.000E+00
2.00E-01	4.841E-02	2.422E-02	1.576E-02	1.090E-02	8.155E-03	4.150E-03	4.168E-04	2.575E-05	8.410E-06	2.416E-06	8.272E-08	2.625E-11	0.000E+00	0.000E+00
3.00E-01	6.158E-02	2.947E-02	1.786E-02	1.148E-02	7.378E-03	2.005E-03	1.388E-04	1.704E-05	5.261E-06	1.425E-06	3.252E-08	1.063E-12	0.000E+00	0.000E+00
4.00E-01	7.372E-02	3.396E-02	1.958E-02	1.197E-02	5.895E-03	1.016E-03	8.440E-05	1.369E-05	3.953E-06	9.155E-07	1.430E-08	0.000E+00	0.000E+00	0.000E+00
5.00E-01	8.504E-02	3.791E-02	2.102E-02	1.229E-02	4.566E-03	5.814E-04	6.748E-05	1.183E-05	3.215E-06	6.371E-07	6.641E-09	0.000E+00	0.000E+00	0.000E+00
6.00E-01	9.555E-02	4.142E-02	2.227E-02	1.244E-02	3.577E-03	3.801E-04	6.036E-05	1.057E-05	2.682E-06	4.694E-07	3.183E-09	0.000E+00	0.000E+00	0.000E+00
8.00E-01	1.144E-01	4.745E-02	2.430E-02	1.230E-02	2.354E-03	2.262E-04	5.419E-05	8.797E-06	1.967E-06	2.860E-07	7.797E-10	0.000E+00	0.000E+00	0.000E+00
1.00E+00	1.306E-01	5.248E-02	2.590E-02	1.176E-02	1.699E-03	1.850E-04	5.017E-05	7.493E-06	1.535E-06	1.932E-07	2.045E-10	0.000E+00	0.000E+00	0.000E+00
1.50E+00	1.631E-01	6.202E-02	2.829E-02	9.990E-03	1.009E-03	1.830E-04	4.187E-05	5.348E-06	9.700E-07	9.328E-08	9.195E-12	0.000E+00	0.000E+00	0.000E+00
2.00E+00	1.884E-01	6.858E-02	2.887E-02	8.421E-03	7.789E-04	1.902E-04	3.578E-05	4.112E-06	6.882E-07	5.461E-08	5.501E-13	0.000E+00	0.000E+00	0.000E+00
3.00E+00	2.265E-01	7.631E-02	2.710E-02	6.257E-03	6.800E-04	1.506E-04	2.769E-05	2.801E-06	4.072E-07	2.461E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.00E+00	2.526E-01	7.923E-02	2.434E-02	5.152E-03	6.453E-04	1.135E-04	2.249E-05	2.104E-06	2.659E-07	1.272E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5.00E+00	2.694E-01	7.902E-02	2.187E-02	4.629E-03	5.708E-04	9.830E-05	1.882E-05	1.657E-06	1.826E-07	6.761E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
6.00E+00	2.797E-01	7.684E-02	1.985E-02	4.283E-03	4.986E-04	8.926E-05	1.607E-05	1.341E-06	1.310E-07	3.605E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
7.00E+00	2.856E-01	7.350E-02	1.822E-02	3.972E-03	4.438E-04	8.080E-05	1.393E-05	1.107E-06	9.778E-08	1.920E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
8.00E+00	2.880E-01	6.965E-02	1.689E-02	3.675E-03	4.025E-04	7.241E-05	1.220E-05	9.247E-07	7.507E-08	1.020E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
9.00E+00	2.877E-01	6.576E-02	1.575E-02	3.402E-03	3.685E-04	6.476E-05	1.075E-05	7.791E-07	5.866E-08	5.390E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.00E+01	2.852E-01	6.206E-02	1.475E-02	3.155E-03	3.388E-04	5.805E-05	9.517E-06	6.602E-07	4.636E-08	2.839E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.25E+01	2.727E-01	5.403E-02	1.270E-02	2.647E-03	2.752E-04	4.501E-05	7.087E-06	4.438E-07	2.648E-08	5.677E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.50E+01	2.549E-01	4.754E-02	1.105E-02	2.249E-03	2.244E-04	3.554E-05	5.328E-06	3.033E-07	1.534E-08	1.139E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.75E+01	2.351E-01	4.219E-02	9.685E-03	1.925E-03	1.841E-04	2.826E-05	4.032E-06	2.098E-07	8.897E-09	2.325E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.00E+01	2.151E-01	3.771E-02	8.529E-03	1.656E-03	1.522E-04	2.254E-05	3.069E-06	1.467E-07	5.147E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.25E+01	1.962E-01	3.388E-02	7.539E-03	1.430E-03	1.265E-04	1.804E-05	2.347E-06	1.034E-07	2.984E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.50E+01	1.790E-01	3.055E-02	6.685E-03	1.240E-03	1.055E-04	1.448E-05	1.804E-06	7.354E-08	1.740E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.75E+01	1.635E-01	2.762E-02	5.944E-03	1.080E-03	8.819E-05	1.167E-05	1.393E-06	5.266E-08	1.022E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.00E+01	1.497E-01	2.502E-02	5.298E-03	9.431E-04	7.388E-05	9.440E-06	1.081E-06	3.796E-08	6.062E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.25E+01	1.374E-01	2.271E-02	4.733E-03	8.264E-04	6.200E-05	7.657E-06	8.421E-07	2.755E-08	3.630E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.50E+01	1.263E-01	2.064E-02	4.236E-03	7.252E-04	5.210E-05	6.213E-06	6.589E-07	2.011E-08	2.197E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.75E+01	1.163E-01	1.878E-02	3.796E-03	6.370E-04	4.382E-05	5.034E-06	5.176E-07	1.476E-08	1.344E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.00E+01	1.071E-01	1.711E-02	3.407E-03	5.595E-04	3.688E-05	4.068E-06	4.083E-07	1.090E-08	8.317E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.25E+01	9.879E-02	1.560E-02	3.062E-03	4.913E-04	3.107E-05	3.278E-06	3.233E-07	8.087E-09	5.201E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.50E+01	9.112E-02	1.423E-02	2.754E-03	4.312E-04	2.619E-05	2.633E-06	2.569E-07	6.031E-09	3.287E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.75E+01	8.405E-02	1.300E-02	2.481E-03	3.783E-04	2.209E-05	2.107E-06	2.049E-07	4.520E-09	2.099E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5.00E+01	7.754E-02	1.188E-02	2.236E-03	3.316E-04	1.865E-05	1.681E-06	1.640E-07	3.403E-09	1.354E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

Bremsstrahlung depth dose distributions, D(z), MeV cm2/g.
Semi-infinite slab case (z = depth), detector material: silicon dioxide

z(g/cm2)	50.000	20.000	10.000	5.000	2.000	1.000	0.500	0.200	0.100	0.050	0.020	0.010	0.005	0.002
1.00E-06	6.467E-02	3.365E-02	2.228E-02	1.081E-02	9.920E-03	8.729E-03	7.888E-03	1.453E-02	5.193E-03	3.025E+00	3.190E-01	2.687E-03	4.658E-02	8.628E-04
1.00E-05	6.652E-02	3.528E-02	1.873E-02	1.038E-02	8.024E-03	6.695E-03	8.050E-03	9.730E-03	1.579E-02	1.329E-02	1.277E-02	8.792E-03	2.613E-03	1.181E-04
2.00E-05	6.646E-02	3.511E-02	1.880E-02	1.045E-02	7.900E-03	6.934E-03	8.208E-03	9.922E-03	1.570E-02	1.293E-02	1.388E-02	9.716E-03	3.661E-03	1.107E-04
5.00E-05	6.660E-02	3.486E-02	1.934E-02	1.087E-02	8.159E-03	7.659E-03	8.587E-03	1.066E-02	1.471E-02	2.038E-02	1.942E-02	9.829E-03	4.217E-03	9.893E-05
1.00E-04	6.709E-02	3.481E-02	1.998E-02	1.151E-02	8.707E-03	8.482E-03	9.044E-03	1.146E-02	1.448E-02	3.123E-02	2.359E-02	9.289E-03	2.678E-03	7.667E-05
2.00E-04	6.799E-02	3.504E-02	2.071E-02	1.242E-02	9.526E-03	9.497E-03	9.677E-03	1.241E-02	1.550E-02	4.007E-02	2.256E-02	8.091E-03	1.381E-03	4.965E-05
5.00E-04	6.993E-02	3.593E-02	2.170E-02	1.405E-02	1.095E-02	1.101E-02	1.084E-02	1.391E-02	2.050E-02	3.179E-02	1.359E-02	5.134E-03	7.908E-04	2.094E-05
1.00E-03	7.183E-02	3.703E-02	2.246E-02	1.548E-02	1.214E-02	1.210E-02	1.189E-02	1.554E-02	2.553E-02	1.801E-02	6.704E-03	2.638E-03	7.501E-04	8.420E-06
2.00E-03	7.387E-02	3.833E-02	2.334E-02	1.683E-02	1.322E-02	1.295E-02	1.293E-02	1.825E-02	2.569E-02	7.899E-03	2.534E-03	9.434E-04	5.048E-04	2.457E-06
5.00E-03	7.656E-02	4.018E-02	2.478E-02	1.815E-02	1.416E-02	1.345E-02	1.402E-02	2.290E-02	1.416E-02	2.034E-03	4.787E-04	1.448E-04	5.189E-05	2.477E-07
1.00E-02	7.898E-02	4.167E-02	2.601E-02	1.880E-02	1.449E-02	1.350E-02	1.476E-02	2.017E-02	5.439E-03	6.553E-04	1.113E-04	2.564E-05	1.548E-06	1.785E-08
2.00E-02	8.223E-02	4.327E-02	2.723E-02	1.931E-02	1.460E-02	1.353E-02	1.559E-02	9.985E-03	1.346E-03	2.069E-04	2.475E-05	3.693E-06	1.376E-08	2.826E-10
5.00E-02	8.941E-02	4.618E-02	2.892E-02	2.000E-02	1.425E-02	1.416E-02	1.279E-02	1.310E-03	1.547E-04	4.658E-05	3.847E-06	1.718E-07	8.089E-12	3.358E-14
1.00E-01	9.934E-02	5.003E-02	3.070E-02	2.059E-02	1.392E-02	1.339E-02	5.383E-03	2.011E-04	4.290E-05	1.613E-05	1.184E-06	7.209E-09	0.000E+00	0.000E+00
1.50E-01	1.082E-01	5.334E-02	3.213E-02	2.079E-02	1.435E-02	1.029E-02	1.988E-03	1.011E-04	2.858E-05	9.048E-06	6.078E-07	6.748E-10	0.000E+00	0.000E+00
2.00E-01	1.163E-01	5.629E-02	3.332E-02	2.089E-02	1.449E-02	7.366E-03	8.640E-04	7.736E-05	2.431E-05	6.146E-06	3.520E-07	9.464E-11	0.000E+00	0.000E+00
3.00E-01	1.314E-01	6.146E-02	3.519E-02	2.114E-02	1.297E-02	3.689E-03	3.112E-04	6.002E-05	1.969E-05	3.702E-06	1.335E-07	3.751E-12	0.000E+00	0.000E+00
4.00E-01	1.453E-01	6.597E-02	3.659E-02	2.146E-02	1.032E-02	1.941E-03	2.033E-04	4.888E-05	1.561E-05	2.663E-06	5.472E-08	0.000E+00	0.000E+00	0.000E+00
5.00E-01	1.581E-01	6.994E-02	3.770E-02	2.161E-02	7.980E-03	1.144E-03	1.716E-04	4.047E-05	1.235E-05	2.095E-06	2.360E-08	0.000E+00	0.000E+00	0.000E+00
6.00E-01	1.699E-01	7.346E-02	3.864E-02	2.150E-02	6.232E-03	7.626E-04	1.586E-04	3.428E-05	9.966E-06	1.725E-06	1.060E-08	0.000E+00	0.000E+00	0.000E+00
8.00E-01	1.910E-01	7.944E-02	4.015E-02	2.061E-02	4.057E-03	4.595E-04	1.442E-04	2.621E-05	6.969E-06	1.254E-06	2.367E-09	0.000E+00	0.000E+00	0.000E+00
1.00E+00	2.092E-01	8.433E-02	4.136E-02	1.916E-02	2.883E-03	3.708E-04	1.285E-04	2.141E-05	5.286E-06	9.542E-07	5.912E-10	0.000E+00	0.000E+00	0.000E+00
1.50E+00	2.460E-01	9.326E-02	4.278E-02	1.532E-02	1.642E-03	3.442E-04	9.306E-05	1.501E-05	3.236E-06	5.264E-07	2.674E-11	0.000E+00	0.000E+00	0.000E+00
2.00E+00	2.745E-01	9.905E-02	4.210E-02	1.235E-02	1.230E-03	3.410E-04	7.240E-05	1.158E-05	2.270E-06	3.091E-07	1.790E-12	0.000E+00	0.000E+00	0.000E+00
3.00E+00	3.162E-01	1.051E-01	3.748E-02	8.671E-03	1.046E-03	2.620E-04	5.459E-05	7.728E-06	1.331E-06	1.181E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.00E+00	3.438E-01	1.063E-01	3.247E-02	6.958E-03	9.831E-04	1.971E-04	4.552E-05	5.625E-06	8.727E-07	4.960E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5.00E+00	3.613E-01	1.042E-01	2.850E-02	6.210E-03	8.634E-04	1.698E-04	3.803E-05	4.332E-06	6.076E-07	2.233E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
6.00E+00	3.717E-01	9.994E-02	2.551E-02	5.742E-03	7.504E-04	1.529E-04	3.205E-05	3.453E-06	4.397E-07	1.063E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
7.00E+00	3.767E-01	9.454E-02	2.327E-02	5.324E-03	6.658E-04	1.371E-04	2.740E-05	2.816E-06	3.270E-07	5.298E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
8.00E+00	3.777E-01	8.876E-02	2.151E-02	4.922E-03	6.028E-04	1.219E-04	2.372E-05	2.331E-06	2.481E-07	2.746E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
9.00E+00	3.754E-01	8.319E-02	2.005E-02	4.550E-03	5.511E-04	1.083E-04	2.072E-05	1.948E-06	1.907E-07	1.472E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.00E+01	3.705E-01	7.807E-02	1.879E-02	4.215E-03	5.060E-04	9.670E-05	1.822E-05	1.639E-06	1.482E-07	8.128E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.25E+01	3.507E-01	6.750E-02	1.616E-02	3.524E-03	4.098E-04	7.480E-05	1.347E-05	1.083E-06	8.134E-08	2.050E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.50E+01	3.255E-01	5.926E-02	1.403E-02	2.984E-03	3.327E-04	5.922E-05	1.014E-05	7.288E-07	4.615E-08	5.860E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.75E+01	2.987E-01	5.254E-02	1.225E-02	2.546E-03	2.720E-04	4.721E-05	7.719E-06	4.985E-07	2.685E-08	1.849E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.00E+01	2.724E-01	4.691E-02	1.075E-02	2.183E-03	2.240E-04	3.767E-05	5.922E-06	3.456E-07	1.592E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.25E+01	2.480E-01	4.209E-02	9.469E-03	1.881E-03	1.856E-04	3.008E-05	4.558E-06	2.425E-07	9.514E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.50E+01	2.259E-01	3.790E-02	8.373E-03	1.629E-03	1.545E-04	2.406E-05	3.511E-06	1.720E-07	5.688E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.75E+01	2.062E-01	3.423E-02	7.432E-03	1.416E-03	1.290E-04	1.929E-05	2.703E-06	1.233E-07	3.390E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.00E+01	1.887E-01	3.099E-02	6.621E-03	1.237E-03	1.082E-04	1.551E-05	2.080E-06	8.912E-08	2.011E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.25E+01	1.730E-01	2.810E-02	5.913E-03	1.084E-03	9.080E-05	1.251E-05	1.598E-06	6.483E-08	1.188E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.50E+01	1.588E-01	2.548E-02	5.282E-03	9.481E-04	7.605E-05	1.011E-05	1.226E-06	4.713E-08	6.985E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.75E+01	1.458E-01	2.309E-02	4.711E-03	8.269E-04	6.338E-05	8.179E-06	9.398E-07	3.408E-08	4.092E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.00E+01	1.336E-01	2.089E-02	4.192E-03	7.177E-04	5.249E-05	6.610E-06	7.192E-07	2.445E-08	2.390E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.25E+01	1.224E-01	1.886E-02	3.719E-03	6.194E-04	4.315E-05	5.260E-06	5.498E-07	1.737E-08	1.392E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.50E+01	1.118E-01	1.700E-02	3.288E-03	5.313E-04	3.521E-05	4.063E-06	4.199E-07	1.221E-08	8.090E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.75E+01	1.021E-01	1.529E-02	2.898E-03	4.529E-04	2.852E-05	3.018E-06	3.204E-07	8.495E-09	4.696E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5.00E+01	9.296E-02	1.372E-02	2.545E-03	3.837E-04	2.293E-05	2.144E-06	2.443E-07	5.847E-09	2.723E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

Bremsstrahlung depth dose distributions, D(z), MeV cm2/g.
Finite slab case (z = thickness), detector material: silicon dioxide

z(g/cm2)	50.000	20.000	10.000	5.000	2.000	1.000	0.500	0.200	0.100	0.050	0.020	0.010	0.005	0.002
1.00E-06	4.141E-10	1.468E-06	1.162E-03	2.298E-05	2.265E-01	4.181E-06	9.707E-05	3.567E-06	9.013E-05	1.304E-04	9.363E-04	5.678E-04	5.097E-05	1.369E-05
1.00E-05	1.228E-04	6.633E-05	2.097E-04	4.800E-05	1.548E-04	7.551E-05	8.577E-05	2.330E-04	2.367E-04	2.691E-04	3.558E-04	2.195E-03	9.668E-04	9.997E-05
2.00E-05	3.202E-04	1.456E-04	2.557E-04	1.313E-04	1.446E-04	1.883E-04	1.569E-04	4.292E-04	3.871E-04	5.338E-04	8.559E-04	3.418E-03	2.432E-03	1.129E-04
5.00E-05	5.842E-04	3.616E-04	4.585E-04	5.197E-04	2.748E-04	5.720E-04	4.032E-04	8.195E-04	7.950E-04	1.310E-03	3.219E-03	5.524E-03	3.932E-03	1.005E-04
1.00E-04	8.523E-04	6.780E-04	8.249E-04	1.275E-03	5.754E-04	1.172E-03	8.206E-04	1.300E-03	1.399E-03	2.449E-03	7.383E-03	6.914E-03	2.713E-03	7.628E-05
2.00E-04	1.304E-03	1.216E-03	1.511E-03	2.555E-03	1.236E-03	2.087E-03	1.564E-03	2.061E-03	2.441E-03	4.617E-03	1.150E-02	7.225E-03	1.405E-03	4.891E-05
5.00E-04	2.733E-03	2.461E-03	2.949E-03	4.282E-03	2.713E-03	3.460E-03	3.052E-03	3.853E-03	4.819E-03	1.057E-02	1.057E-02	5.166E-03	7.832E-04	2.062E-05
1.00E-03	5.004E-03	3.890E-03	4.247E-03	4.973E-03	3.968E-03	4.317E-03	4.347E-03	6.072E-03	7.437E-03	1.415E-02	6.263E-03	2.722E-03	7.413E-04	8.332E-06
2.00E-03	8.002E-03	5.550E-03	5.463E-03	5.348E-03	5.068E-03	5.014E-03	5.527E-03	8.939E-03	1.031E-02	1.014E-02	2.605E-03	9.654E-04	5.030E-04	2.447E-06
5.00E-03	1.036E-02	7.411E-03	6.609E-03	6.106E-03	6.121E-03	5.924E-03	6.606E-03	1.188E-02	1.082E-02	2.516E-03	5.093E-04	1.437E-04	5.196E-05	2.478E-07
1.00E-02	1.144E-02	8.604E-03	7.285E-03	6.894E-03	6.612E-03	6.532E-03	7.104E-03	1.024E-02	4.931E-03	5.795E-04	1.165E-04	2.507E-05	1.537E-06	1.785E-08
2.00E-02	1.434E-02	1.014E-02	8.193E-03	7.687E-03	6.937E-03	6.909E-03	7.521E-03	5.363E-03	9.090E-04	1.251E-04	2.501E-05	3.657E-06	1.353E-08	2.822E-10
5.00E-02	2.442E-02	1.374E-02	1.030E-02	8.698E-03	7.121E-03	7.226E-03	6.396E-03	9.341E-04	9.125E-05	2.539E-05	3.718E-06	1.771E-07	7.937E-12	3.364E-14
1.00E-01	3.704E-02	1.844E-02	1.279E-02	9.674E-03	7.207E-03	6.839E-03	3.074E-03	1.849E-04	5.113E-05	1.431E-05	1.131E-06	7.258E-09	0.000E+00	0.000E+00
1.50E-01	4.726E-02	2.246E-02	1.469E-02	1.036E-02	7.551E-03	5.480E-03	1.331E-03	9.771E-05	3.687E-05	1.053E-05	5.830E-07	6.385E-10	0.000E+00	0.000E+00
2.00E-01	5.632E-02	2.604E-02	1.627E-02	1.090E-02	7.738E-03	4.147E-03	6.589E-04	7.364E-05	2.706E-05	7.553E-06	3.397E-07	8.320E-11	0.000E+00	0.000E+00
3.00E-01	7.264E-02	3.228E-02	1.884E-02	1.177E-02	7.229E-03	2.335E-03	2.728E-04	5.448E-05	1.707E-05	4.260E-06	1.302E-07	2.824E-12	0.000E+00	0.000E+00
4.00E-01	8.759E-02	3.759E-02	2.092E-02	1.247E-02	6.081E-03	1.369E-03	1.835E-04	4.326E-05	1.270E-05	2.838E-06	5.375E-08	0.000E+00	0.000E+00	0.000E+00
5.00E-01	1.014E-01	4.223E-02	2.267E-02	1.297E-02	4.966E-03	8.787E-04	1.527E-04	3.538E-05	1.019E-05	2.124E-06	2.329E-08	0.000E+00	0.000E+00	0.000E+00
6.00E-01	1.143E-01	4.635E-02	2.416E-02	1.326E-02	4.075E-03	6.228E-04	1.377E-04	2.976E-05	8.414E-06	1.680E-06	1.049E-08	0.000E+00	0.000E+00	0.000E+00
8.00E-01	1.372E-01	5.341E-02	2.661E-02	1.334E-02	2.876E-03	3.995E-04	1.198E-04	2.251E-05	6.089E-06	1.125E-06	2.348E-09	0.000E+00	0.000E+00	0.000E+00
1.00E+00	1.568E-01	5.928E-02	2.854E-02	1.296E-02	2.169E-03	3.243E-04	1.043E-04	1.818E-05	4.696E-06	7.783E-07	5.858E-10	0.000E+00	0.000E+00	0.000E+00
1.50E+00	1.962E-01	7.037E-02	3.148E-02	1.134E-02	1.346E-03	2.829E-04	7.457E-05	1.239E-05	2.882E-06	3.403E-07	2.624E-11	0.000E+00	0.000E+00	0.000E+00
2.00E+00	2.267E-01	7.796E-02	3.232E-02	9.718E-03	1.039E-03	2.666E-04	5.783E-05	9.363E-06	1.995E-06	1.767E-07	1.731E-12	0.000E+00	0.000E+00	0.000E+00
3.00E+00	2.724E-01	8.689E-02	3.057E-02	7.294E-03	8.653E-04	2.041E-04	4.271E-05	6.098E-06	1.136E-06	7.047E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.00E+00	3.032E-01	9.028E-02	2.757E-02	5.983E-03	7.907E-04	1.564E-04	3.483E-05	4.378E-06	7.219E-07	3.599E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5.00E+00	3.228E-01	9.007E-02	2.480E-02	5.337E-03	6.930E-04	1.334E-04	2.877E-05	3.337E-06	4.869E-07	1.978E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
6.00E+00	3.348E-01	8.760E-02	2.249E-02	4.908E-03	6.054E-04	1.185E-04	2.413E-05	2.640E-06	3.445E-07	1.115E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
7.00E+00	3.414E-01	8.381E-02	2.062E-02	4.534E-03	5.387E-04	1.058E-04	2.061E-05	2.142E-06	2.538E-07	6.343E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
8.00E+00	3.440E-01	7.943E-02	1.906E-02	4.188E-03	4.874E-04	9.425E-05	1.786E-05	1.766E-06	1.925E-07	3.577E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
9.00E+00	3.434E-01	7.500E-02	1.775E-02	3.874E-03	4.449E-04	8.410E-05	1.563E-05	1.472E-06	1.487E-07	1.975E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.00E+01	3.402E-01	7.077E-02	1.660E-02	3.592E-03	4.077E-04	7.531E-05	1.376E-05	1.235E-06	1.163E-07	1.065E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.25E+01	3.243E-01	6.159E-02	1.428E-02	3.010E-03	3.293E-04	5.820E-05	1.020E-05	8.115E-07	6.496E-08	2.054E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.50E+01	3.024E-01	5.416E-02	1.243E-02	2.554E-03	2.675E-04	4.574E-05	7.660E-06	5.442E-07	3.701E-08	3.536E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.75E+01	2.786E-01	4.805E-02	1.090E-02	2.183E-03	2.191E-04	3.623E-05	5.798E-06	3.710E-07	2.122E-08	5.637E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.00E+01	2.549E-01	4.295E-02	9.585E-03	1.875E-03	1.809E-04	2.883E-05	4.411E-06	2.566E-07	1.219E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.25E+01	2.326E-01	3.859E-02	8.458E-03	1.618E-03	1.503E-04	2.302E-05	3.368E-06	1.798E-07	7.035E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.50E+01	2.122E-01	3.480E-02	7.489E-03	1.402E-03	1.252E-04	1.846E-05	2.581E-06	1.274E-07	4.090E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.75E+01	1.939E-01	3.146E-02	6.653E-03	1.220E-03	1.047E-04	1.486E-05	1.984E-06	9.119E-08	2.398E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.00E+01	1.776E-01	2.851E-02	5.929E-03	1.064E-03	8.763E-05	1.201E-05	1.531E-06	6.592E-08	1.419E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.25E+01	1.630E-01	2.587E-02	5.298E-03	9.318E-04	7.347E-05	9.727E-06	1.184E-06	4.802E-08	8.473E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.50E+01	1.499E-01	2.351E-02	4.743E-03	8.168E-04	6.163E-05	7.878E-06	9.193E-07	3.510E-08	5.112E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.75E+01	1.379E-01	2.138E-02	4.252E-03	7.163E-04	5.170E-05	6.366E-06	7.158E-07	2.569E-08	3.116E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.00E+01	1.270E-01	1.947E-02	3.814E-03	6.280E-04	4.337E-05	5.127E-06	5.590E-07	1.878E-08	1.918E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.25E+01	1.171E-01	1.774E-02	3.423E-03	5.502E-04	3.636E-05	4.112E-06	4.379E-07	1.371E-08	1.192E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.50E+01	1.079E-01	1.618E-02	3.074E-03	4.817E-04	3.048E-05	3.284E-06	3.441E-07	9.978E-09	7.484E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.75E+01	9.949E-02	1.476E-02	2.760E-03	4.213E-04	2.554E-05	2.611E-06	2.712E-07	7.244E-09	4.742E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5.00E+01	9.175E-02	1.348E-02	2.479E-03	3.681E-04	2.139E-05	2.067E-06	2.143E-07	5.243E-09	3.031E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

Bremsstrahlung depth dose distributions, D(z), MeV cm2/g.
Semi-infinite slab case (z = depth), detector material: tissue

z(g/cm2)	50.000	20.000	10.000	5.000	2.000	1.000	0.500	0.200	0.100	0.050	0.020	0.010	0.005	0.002
1.00E-06	6.332E-02	3.453E-02	2.332E-02	1.085E-02	1.043E-02	9.240E-03	7.848E-03	1.904E-02	2.756E-02	6.506E-03	3.250E-01	1.181E-03	5.844E-02	9.703E-04
1.00E-05	6.582E-02	3.630E-02	1.917E-02	1.029E-02	8.068E-03	6.707E-03	8.431E-03	1.026E-02	1.567E-02	2.327E-02	1.404E-02	1.014E-02	2.777E-03	1.345E-04
2.00E-05	6.574E-02	3.609E-02	1.925E-02	1.035E-02	7.916E-03	6.976E-03	8.605E-03	1.050E-02	1.612E-02	2.233E-02	1.542E-02	1.099E-02	3.997E-03	1.265E-04
5.00E-05	6.584E-02	3.578E-02	1.985E-02	1.081E-02	8.196E-03	7.800E-03	9.000E-03	1.148E-02	1.701E-02	2.037E-02	2.192E-02	1.041E-02	4.721E-03	1.136E-04
1.00E-04	6.635E-02	3.571E-02	2.056E-02	1.152E-02	8.802E-03	8.735E-03	9.489E-03	1.245E-02	1.748E-02	2.050E-02	2.708E-02	9.817E-03	2.977E-03	8.831E-05
2.00E-04	6.733E-02	3.592E-02	2.136E-02	1.253E-02	9.711E-03	9.884E-03	1.017E-02	1.350E-02	1.819E-02	2.382E-02	2.651E-02	9.066E-03	1.516E-03	5.738E-05
5.00E-04	6.947E-02	3.685E-02	2.241E-02	1.433E-02	1.128E-02	1.157E-02	1.143E-02	1.484E-02	2.029E-02	3.511E-02	1.617E-02	6.282E-03	8.828E-04	2.430E-05
1.00E-03	7.155E-02	3.801E-02	2.319E-02	1.590E-02	1.258E-02	1.276E-02	1.257E-02	1.637E-02	2.284E-02	3.578E-02	7.665E-03	3.257E-03	8.748E-04	9.793E-06
2.00E-03	7.368E-02	3.936E-02	2.407E-02	1.736E-02	1.373E-02	1.364E-02	1.366E-02	1.953E-02	2.582E-02	1.870E-02	2.596E-03	1.064E-03	6.053E-04	2.863E-06
5.00E-03	7.622E-02	4.124E-02	2.551E-02	1.867E-02	1.463E-02	1.403E-02	1.481E-02	2.633E-02	2.299E-02	2.714E-03	3.662E-04	1.243E-04	5.807E-05	2.887E-07
1.00E-02	7.834E-02	4.267E-02	2.670E-02	1.923E-02	1.484E-02	1.394E-02	1.569E-02	2.334E-02	7.794E-03	3.850E-04	6.280E-05	1.626E-05	1.442E-06	2.079E-08
2.00E-02	8.117E-02	4.414E-02	2.781E-02	1.956E-02	1.478E-02	1.380E-02	1.686E-02	1.016E-02	6.807E-04	5.019E-05	1.020E-05	1.622E-06	9.250E-09	3.289E-10
5.00E-02	8.760E-02	4.676E-02	2.925E-02	1.997E-02	1.411E-02	1.438E-02	1.328E-02	7.849E-04	2.428E-05	6.480E-06	1.141E-06	4.822E-08	2.726E-12	3.909E-14
1.00E-01	9.667E-02	5.034E-02	3.080E-02	2.030E-02	1.355E-02	1.357E-02	4.649E-03	6.901E-05	1.427E-05	3.613E-06	3.140E-07	1.866E-09	0.000E+00	0.000E+00
1.50E-01	1.048E-01	5.348E-02	3.209E-02	2.036E-02	1.394E-02	1.012E-02	1.456E-03	3.029E-05	1.130E-05	2.900E-06	1.600E-07	2.008E-10	0.000E+00	0.000E+00
2.00E-01	1.123E-01	5.633E-02	3.320E-02	2.036E-02	1.405E-02	6.929E-03	5.562E-04	2.341E-05	8.558E-06	2.226E-06	9.368E-08	3.471E-11	0.000E+00	0.000E+00
3.00E-01	1.263E-01	6.137E-02	3.496E-02	2.049E-02	1.240E-02	3.134E-03	1.691E-04	1.975E-05	5.446E-06	1.323E-06	3.643E-08	2.218E-12	0.000E+00	0.000E+00
4.00E-01	1.392E-01	6.580E-02	3.631E-02	2.071E-02	9.634E-03	1.488E-03	1.007E-04	1.709E-05	4.028E-06	8.591E-07	1.519E-08	0.000E+00	0.000E+00	0.000E+00
5.00E-01	1.512E-01	6.972E-02	3.740E-02	2.080E-02	7.261E-03	8.073E-04	8.121E-05	1.471E-05	3.251E-06	6.038E-07	6.607E-09	0.000E+00	0.000E+00	0.000E+00
6.00E-01	1.622E-01	7.321E-02	3.831E-02	2.064E-02	5.548E-03	5.082E-04	7.389E-05	1.282E-05	2.751E-06	4.487E-07	2.973E-09	0.000E+00	0.000E+00	0.000E+00
8.00E-01	1.820E-01	7.916E-02	3.981E-02	1.972E-02	3.504E-03	2.917E-04	6.876E-05	1.023E-05	2.134E-06	2.773E-07	6.571E-10	0.000E+00	0.000E+00	0.000E+00
1.00E+00	1.991E-01	8.406E-02	4.099E-02	1.829E-02	2.451E-03	2.390E-04	6.542E-05	8.648E-06	1.758E-06	1.892E-07	1.605E-10	0.000E+00	0.000E+00	0.000E+00
1.50E+00	2.340E-01	9.310E-02	4.242E-02	1.462E-02	1.389E-03	2.488E-04	5.682E-05	6.474E-06	1.185E-06	9.271E-08	6.694E-12	0.000E+00	0.000E+00	0.000E+00
2.00E+00	2.612E-01	9.904E-02	4.184E-02	1.185E-02	1.055E-03	2.689E-04	4.957E-05	5.230E-06	8.356E-07	5.466E-08	4.063E-13	0.000E+00	0.000E+00	0.000E+00
3.00E+00	3.013E-01	1.055E-01	3.754E-02	8.482E-03	9.346E-04	2.135E-04	3.908E-05	3.708E-06	4.693E-07	2.470E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.00E+00	3.283E-01	1.069E-01	3.280E-02	6.917E-03	9.034E-04	1.590E-04	3.199E-05	2.819E-06	3.007E-07	1.277E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5.00E+00	3.457E-01	1.050E-01	2.899E-02	6.222E-03	8.007E-04	1.392E-04	2.687E-05	2.251E-06	2.108E-07	6.801E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
6.00E+00	3.562E-01	1.009E-01	2.608E-02	5.776E-03	6.977E-04	1.280E-04	2.300E-05	1.843E-06	1.559E-07	3.647E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
7.00E+00	3.617E-01	9.568E-02	2.387E-02	5.368E-03	6.203E-04	1.162E-04	1.997E-05	1.528E-06	1.195E-07	1.959E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
8.00E+00	3.632E-01	9.002E-02	2.213E-02	4.970E-03	5.631E-04	1.038E-04	1.752E-05	1.277E-06	9.358E-08	1.051E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
9.00E+00	3.616E-01	8.452E-02	2.066E-02	4.600E-03	5.163E-04	9.236E-05	1.546E-05	1.074E-06	7.425E-08	5.630E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.00E+01	3.574E-01	7.944E-02	1.939E-02	4.265E-03	4.751E-04	8.248E-05	1.370E-05	9.082E-07	5.938E-08	3.010E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.25E+01	3.393E-01	6.883E-02	1.670E-02	3.571E-03	3.863E-04	6.411E-05	1.024E-05	6.077E-07	3.458E-08	6.282E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.50E+01	3.156E-01	6.048E-02	1.451E-02	3.028E-03	3.144E-04	5.109E-05	7.735E-06	4.157E-07	2.033E-08	1.325E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.75E+01	2.900E-01	5.364E-02	1.268E-02	2.587E-03	2.576E-04	4.088E-05	5.883E-06	2.898E-07	1.195E-08	2.851E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.00E+01	2.648E-01	4.790E-02	1.113E-02	2.222E-03	2.126E-04	3.265E-05	4.499E-06	2.052E-07	7.021E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.25E+01	2.412E-01	4.297E-02	9.808E-03	1.917E-03	1.765E-04	2.607E-05	3.453E-06	1.467E-07	4.121E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.50E+01	2.197E-01	3.870E-02	8.679E-03	1.662E-03	1.472E-04	2.088E-05	2.657E-06	1.054E-07	2.418E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.75E+01	2.005E-01	3.495E-02	7.709E-03	1.447E-03	1.231E-04	1.677E-05	2.047E-06	7.605E-08	1.420E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.00E+01	1.835E-01	3.164E-02	6.871E-03	1.266E-03	1.033E-04	1.353E-05	1.580E-06	5.497E-08	8.350E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.25E+01	1.683E-01	2.870E-02	6.140E-03	1.110E-03	8.684E-05	1.095E-05	1.222E-06	3.979E-08	4.922E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.50E+01	1.545E-01	2.603E-02	5.489E-03	9.729E-04	7.288E-05	8.873E-06	9.462E-07	2.881E-08	2.910E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.75E+01	1.418E-01	2.360E-02	4.903E-03	8.508E-04	6.097E-05	7.197E-06	7.340E-07	2.087E-08	1.726E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.00E+01	1.300E-01	2.138E-02	4.372E-03	7.412E-04	5.078E-05	5.828E-06	5.703E-07	1.512E-08	1.027E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.25E+01	1.191E-01	1.933E-02	3.890E-03	6.429E-04	4.209E-05	4.662E-06	4.439E-07	1.095E-08	6.141E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.50E+01	1.089E-01	1.745E-02	3.453E-03	5.549E-04	3.471E-05	3.646E-06	3.462E-07	7.927E-09	3.685E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.75E+01	9.948E-02	1.573E-02	3.056E-03	4.765E-04	2.848E-05	2.769E-06	2.705E-07	5.739E-09	2.221E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5.00E+01	9.072E-02	1.415E-02	2.698E-03	4.072E-04	2.324E-05	2.033E-06	2.118E-07	4.156E-09	1.345E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

Bremsstrahlung depth dose distributions, D(z), MeV cm2/g.
Finite slab case (z = thickness), detector material: tissue

z(g/cm2)	50.000	20.000	10.000	5.000	2.000	1.000	0.500	0.200	0.100	0.050	0.020	0.010	0.005	0.002
1.00E-06	3.774E-10	7.713E-07	1.516E-03	2.526E-05	5.287E-01	4.592E-06	1.695E-04	8.815E-06	9.600E-05	1.755E-04	1.933E-04	2.453E-04	3.436E-05	1.389E-05
1.00E-05	1.416E-04	5.492E-05	2.334E-04	4.479E-05	1.587E-04	7.339E-05	8.664E-05	2.413E-04	2.516E-04	2.759E-04	4.019E-04	2.597E-03	1.011E-03	1.136E-04
2.00E-05	3.621E-04	1.338E-04	2.788E-04	1.275E-04	1.426E-04	1.892E-04	1.578E-04	4.499E-04	4.091E-04	5.560E-04	9.660E-04	3.951E-03	2.681E-03	1.291E-04
5.00E-05	6.372E-04	3.668E-04	4.947E-04	5.397E-04	2.754E-04	6.064E-04	4.194E-04	8.975E-04	8.422E-04	1.393E-03	3.237E-03	5.929E-03	4.425E-03	1.154E-04
1.00E-04	9.126E-04	7.186E-04	8.912E-04	1.383E-03	5.959E-04	1.284E-03	8.793E-04	1.437E-03	1.496E-03	2.622E-03	7.048E-03	7.376E-03	3.016E-03	8.783E-05
2.00E-04	1.386E-03	1.317E-03	1.640E-03	2.852E-03	1.323E-03	2.334E-03	1.714E-03	2.266E-03	2.629E-03	5.012E-03	1.181E-02	8.156E-03	1.540E-03	5.650E-05
5.00E-04	2.927E-03	2.678E-03	3.215E-03	4.807E-03	2.970E-03	3.875E-03	3.368E-03	4.190E-03	5.169E-03	1.194E-02	1.313E-02	6.341E-03	8.719E-04	2.392E-05
1.00E-03	5.412E-03	4.197E-03	4.621E-03	5.498E-03	4.336E-03	4.769E-03	4.754E-03	6.660E-03	7.963E-03	1.628E-02	8.239E-03	3.340E-03	8.632E-04	9.691E-06
2.00E-03	8.638E-03	5.909E-03	5.899E-03	5.790E-03	5.482E-03	5.442E-03	5.979E-03	1.023E-02	1.128E-02	1.140E-02	3.172E-03	1.064E-03	6.032E-04	2.851E-06
5.00E-03	1.081E-02	7.751E-03	6.993E-03	6.459E-03	6.507E-03	6.305E-03	7.105E-03	1.482E-02	1.243E-02	2.359E-03	4.509E-04	1.185E-04	5.825E-05	2.889E-07
1.00E-02	1.148E-02	8.871E-03	7.556E-03	7.172E-03	6.911E-03	6.849E-03	7.636E-03	1.192E-02	5.168E-03	3.881E-04	7.252E-05	1.541E-05	1.432E-06	2.079E-08
2.00E-02	1.392E-02	1.028E-02	8.319E-03	7.836E-03	7.090E-03	7.104E-03	8.060E-03	4.428E-03	5.639E-04	5.072E-05	1.085E-05	1.623E-06	8.997E-09	3.284E-10
5.00E-02	2.311E-02	1.361E-02	1.020E-02	8.582E-03	6.986E-03	7.268E-03	6.334E-03	4.368E-04	2.383E-05	6.075E-06	1.077E-06	5.319E-08	2.551E-12	3.917E-14
1.00E-01	3.477E-02	1.806E-02	1.251E-02	9.334E-03	6.841E-03	6.708E-03	2.494E-03	7.552E-05	1.355E-05	3.385E-06	2.636E-07	1.867E-09	0.000E+00	0.000E+00
1.50E-01	4.421E-02	2.194E-02	1.433E-02	9.902E-03	7.085E-03	5.090E-03	9.066E-04	3.548E-05	1.026E-05	2.755E-06	1.261E-07	1.651E-10	0.000E+00	0.000E+00
2.00E-01	5.257E-02	2.546E-02	1.586E-02	1.037E-02	7.207E-03	3.626E-03	3.927E-04	2.406E-05	7.568E-06	2.122E-06	7.196E-08	2.283E-11	0.000E+00	0.000E+00
3.00E-01	6.766E-02	3.163E-02	1.840E-02	1.116E-02	6.596E-03	1.830E-03	1.385E-04	1.624E-05	4.779E-06	1.256E-06	2.828E-08	9.231E-13	0.000E+00	0.000E+00
4.00E-01	8.156E-02	3.691E-02	2.048E-02	1.179E-02	5.398E-03	9.828E-04	8.693E-05	1.323E-05	3.619E-06	8.090E-07	1.243E-08	0.000E+00	0.000E+00	0.000E+00
5.00E-01	9.451E-02	4.155E-02	2.225E-02	1.224E-02	4.299E-03	5.932E-04	7.082E-05	1.156E-05	2.962E-06	5.642E-07	5.777E-09	0.000E+00	0.000E+00	0.000E+00
6.00E-01	1.066E-01	4.568E-02	2.377E-02	1.250E-02	3.462E-03	4.047E-04	6.412E-05	1.042E-05	2.486E-06	4.165E-07	2.770E-09	0.000E+00	0.000E+00	0.000E+00
8.00E-01	1.281E-01	5.280E-02	2.628E-02	1.258E-02	2.396E-03	2.542E-04	5.844E-05	8.792E-06	1.840E-06	2.547E-07	6.787E-10	0.000E+00	0.000E+00	0.000E+00
1.00E+00	1.467E-01	5.875E-02	2.826E-02	1.225E-02	1.805E-03	2.124E-04	5.461E-05	7.569E-06	1.447E-06	1.725E-07	1.780E-10	0.000E+00	0.000E+00	0.000E+00
1.50E+00	1.842E-01	7.011E-02	3.133E-02	1.082E-02	1.154E-03	2.096E-04	4.622E-05	5.503E-06	9.280E-07	8.369E-08	8.007E-12	0.000E+00	0.000E+00	0.000E+00
2.00E+00	2.134E-01	7.799E-02	3.234E-02	9.396E-03	9.201E-04	2.157E-04	3.982E-05	4.285E-06	6.656E-07	4.918E-08	4.788E-13	0.000E+00	0.000E+00	0.000E+00
3.00E+00	2.576E-01	8.743E-02	3.095E-02	7.271E-03	8.021E-04	1.721E-04	3.111E-05	2.966E-06	4.002E-07	2.228E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.00E+00	2.878E-01	9.124E-02	2.822E-02	6.092E-03	7.501E-04	1.316E-04	2.542E-05	2.251E-06	2.641E-07	1.156E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5.00E+00	3.075E-01	9.135E-02	2.560E-02	5.482E-03	6.644E-04	1.143E-04	2.135E-05	1.785E-06	1.825E-07	6.164E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
6.00E+00	3.198E-01	8.912E-02	2.336E-02	5.059E-03	5.836E-04	1.036E-04	1.829E-05	1.452E-06	1.316E-07	3.296E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
7.00E+00	3.270E-01	8.550E-02	2.150E-02	4.684E-03	5.212E-04	9.375E-05	1.588E-05	1.203E-06	9.865E-08	1.760E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
8.00E+00	3.303E-01	8.124E-02	1.994E-02	4.333E-03	4.731E-04	8.407E-05	1.394E-05	1.008E-06	7.604E-08	9.361E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
9.00E+00	3.304E-01	7.687E-02	1.860E-02	4.014E-03	4.330E-04	7.526E-05	1.230E-05	8.513E-07	5.963E-08	4.957E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.00E+01	3.279E-01	7.265E-02	1.742E-02	3.726E-03	3.978E-04	6.751E-05	1.090E-05	7.228E-07	4.729E-08	2.616E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.25E+01	3.138E-01	6.337E-02	1.498E-02	3.129E-03	3.231E-04	5.240E-05	8.129E-06	4.877E-07	2.720E-08	5.248E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.50E+01	2.935E-01	5.577E-02	1.304E-02	2.658E-03	2.635E-04	4.138E-05	6.119E-06	3.342E-07	1.585E-08	1.057E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.75E+01	2.708E-01	4.948E-02	1.143E-02	2.275E-03	2.163E-04	3.291E-05	4.635E-06	2.318E-07	9.226E-09	2.162E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.00E+01	2.481E-01	4.422E-02	1.007E-02	1.956E-03	1.789E-04	2.626E-05	3.529E-06	1.624E-07	5.350E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.25E+01	2.265E-01	3.972E-02	8.899E-03	1.690E-03	1.487E-04	2.102E-05	2.701E-06	1.147E-07	3.106E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.50E+01	2.067E-01	3.581E-02	7.891E-03	1.466E-03	1.240E-04	1.689E-05	2.077E-06	8.171E-08	1.813E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.75E+01	1.889E-01	3.237E-02	7.016E-03	1.276E-03	1.037E-04	1.361E-05	1.604E-06	5.861E-08	1.066E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.00E+01	1.730E-01	2.932E-02	6.253E-03	1.115E-03	8.691E-05	1.101E-05	1.245E-06	4.232E-08	6.326E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.25E+01	1.588E-01	2.661E-02	5.585E-03	9.770E-04	7.296E-05	8.932E-06	9.704E-07	3.075E-08	3.791E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.50E+01	1.460E-01	2.419E-02	4.998E-03	8.575E-04	6.132E-05	7.248E-06	7.596E-07	2.247E-08	2.296E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.75E+01	1.343E-01	2.201E-02	4.480E-03	7.531E-04	5.159E-05	5.873E-06	5.971E-07	1.652E-08	1.407E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.00E+01	1.237E-01	2.005E-02	4.021E-03	6.616E-04	4.344E-05	4.749E-06	4.713E-07	1.221E-08	8.713E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.25E+01	1.140E-01	1.828E-02	3.614E-03	5.811E-04	3.661E-05	3.829E-06	3.734E-07	9.072E-09	5.458E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.50E+01	1.052E-01	1.668E-02	3.252E-03	5.102E-04	3.087E-05	3.078E-06	2.970E-07	6.774E-09	3.456E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.75E+01	9.701E-02	1.523E-02	2.929E-03	4.477E-04	2.604E-05	2.467E-06	2.371E-07	5.082E-09	2.212E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5.00E+01	8.953E-02	1.392E-02	2.641E-03	3.927E-04	2.199E-05	1.971E-06	1.899E-07	3.831E-09	1.430E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

Bremsstrahlung depth dose distributions, D(z), MeV cm2/g.
Semi-infinite slab case (z = depth), detector material: water

z(g/cm2)	50.000	20.000	10.000	5.000	2.000	1.000	0.500	0.200	0.100	0.050	0.020	0.010	0.005	0.002
1.00E-06	6.283E-02	3.548E-02	2.446E-02	1.148E-02	1.136E-02	1.011E-02	8.477E-03	2.129E-02	5.922E-03	7.220E-03	3.524E-01	1.225E-03	6.467E-02	1.059E-03
1.00E-05	6.721E-02	3.745E-02	1.993E-02	1.084E-02	8.741E-03	7.318E-03	9.246E-03	1.125E-02	1.916E-02	2.557E-02	1.543E-02	1.118E-02	3.051E-03	1.478E-04
2.00E-05	6.709E-02	3.723E-02	2.001E-02	1.091E-02	8.574E-03	7.613E-03	9.436E-03	1.151E-02	1.903E-02	2.454E-02	1.696E-02	1.210E-02	4.394E-03	1.390E-04
5.00E-05	6.709E-02	3.688E-02	2.067E-02	1.141E-02	8.882E-03	8.520E-03	9.861E-03	1.260E-02	1.763E-02	2.239E-02	2.412E-02	1.141E-02	5.193E-03	1.248E-04
1.00E-04	6.761E-02	3.679E-02	2.144E-02	1.219E-02	9.548E-03	9.548E-03	1.039E-02	1.368E-02	1.717E-02	2.252E-02	2.983E-02	1.076E-02	3.273E-03	9.701E-05
2.00E-04	6.870E-02	3.702E-02	2.233E-02	1.330E-02	1.055E-02	1.081E-02	1.115E-02	1.483E-02	1.836E-02	2.616E-02	2.925E-02	9.969E-03	1.666E-03	6.304E-05
5.00E-04	7.115E-02	3.804E-02	2.348E-02	1.529E-02	1.226E-02	1.266E-02	1.254E-02	1.628E-02	2.490E-02	3.860E-02	1.786E-02	6.945E-03	9.703E-04	2.669E-05
1.00E-03	7.349E-02	3.930E-02	2.433E-02	1.701E-02	1.369E-02	1.397E-02	1.380E-02	1.793E-02	3.191E-02	3.938E-02	8.450E-03	3.604E-03	9.627E-04	1.076E-05
2.00E-03	7.574E-02	4.078E-02	2.529E-02	1.861E-02	1.495E-02	1.494E-02	1.500E-02	2.142E-02	3.259E-02	2.060E-02	2.841E-03	1.172E-03	6.667E-04	3.143E-06
5.00E-03	7.810E-02	4.279E-02	2.686E-02	2.004E-02	1.594E-02	1.536E-02	1.620E-02	2.906E-02	1.700E-02	2.966E-03	3.925E-04	1.346E-04	6.384E-05	3.171E-07
1.00E-02	8.017E-02	4.431E-02	2.813E-02	2.062E-02	1.617E-02	1.525E-02	1.714E-02	2.579E-02	5.446E-03	4.110E-04	6.583E-05	1.726E-05	1.575E-06	2.286E-08
2.00E-02	8.345E-02	4.583E-02	2.929E-02	2.096E-02	1.609E-02	1.508E-02	1.853E-02	1.113E-02	9.198E-04	5.149E-05	1.045E-05	1.677E-06	9.959E-09	3.618E-10
5.00E-02	9.043E-02	4.848E-02	3.074E-02	2.135E-02	1.532E-02	1.571E-02	1.470E-02	8.231E-04	5.320E-05	6.352E-06	1.139E-06	4.822E-08	2.823E-12	4.298E-14
1.00E-01	9.885E-02	5.208E-02	3.228E-02	2.165E-02	1.468E-02	1.485E-02	5.059E-03	6.872E-05	1.049E-05	3.526E-06	3.104E-07	1.857E-09	0.000E+00	0.000E+00
1.50E-01	1.069E-01	5.525E-02	3.357E-02	2.166E-02	1.512E-02	1.106E-02	1.542E-03	2.967E-05	6.868E-06	2.838E-06	1.578E-07	2.024E-10	0.000E+00	0.000E+00
2.00E-01	1.146E-01	5.812E-02	3.467E-02	2.162E-02	1.525E-02	7.543E-03	5.755E-04	2.285E-05	6.202E-06	2.177E-06	9.238E-08	3.562E-11	0.000E+00	0.000E+00
3.00E-01	1.290E-01	6.319E-02	3.642E-02	2.169E-02	1.344E-02	3.358E-03	1.699E-04	1.931E-05	5.636E-06	1.290E-06	3.593E-08	2.371E-12	0.000E+00	0.000E+00
4.00E-01	1.422E-01	6.765E-02	3.774E-02	2.189E-02	1.038E-02	1.561E-03	1.001E-04	1.675E-05	4.749E-06	8.352E-07	1.499E-08	0.000E+00	0.000E+00	0.000E+00
5.00E-01	1.544E-01	7.159E-02	3.881E-02	2.195E-02	7.764E-03	8.304E-04	8.038E-05	1.444E-05	3.865E-06	5.861E-07	6.518E-09	0.000E+00	0.000E+00	0.000E+00
6.00E-01	1.656E-01	7.510E-02	3.970E-02	2.175E-02	5.888E-03	5.149E-04	7.310E-05	1.260E-05	3.158E-06	4.351E-07	2.932E-09	0.000E+00	0.000E+00	0.000E+00
8.00E-01	1.855E-01	8.108E-02	4.116E-02	2.071E-02	3.665E-03	2.903E-04	6.815E-05	1.007E-05	2.215E-06	2.686E-07	6.471E-10	0.000E+00	0.000E+00	0.000E+00
1.00E+00	2.028E-01	8.600E-02	4.231E-02	1.913E-02	2.530E-03	2.367E-04	6.497E-05	8.517E-06	1.665E-06	1.832E-07	1.578E-10	0.000E+00	0.000E+00	0.000E+00
1.50E+00	2.378E-01	9.504E-02	4.363E-02	1.512E-02	1.401E-03	2.483E-04	5.662E-05	6.384E-06	9.942E-07	8.971E-08	6.537E-12	0.000E+00	0.000E+00	0.000E+00
2.00E+00	2.652E-01	1.010E-01	4.291E-02	1.214E-02	1.054E-03	2.707E-04	4.949E-05	5.162E-06	6.914E-07	5.288E-08	3.940E-13	0.000E+00	0.000E+00	0.000E+00
3.00E+00	3.060E-01	1.073E-01	3.828E-02	8.585E-03	9.364E-04	2.149E-04	3.909E-05	3.664E-06	4.157E-07	2.389E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.00E+00	3.335E-01	1.086E-01	3.328E-02	6.963E-03	9.108E-04	1.593E-04	3.201E-05	2.789E-06	2.861E-07	1.235E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5.00E+00	3.510E-01	1.065E-01	2.932E-02	6.263E-03	8.074E-04	1.395E-04	2.689E-05	2.229E-06	2.096E-07	6.574E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
6.00E+00	3.614E-01	1.023E-01	2.633E-02	5.821E-03	7.024E-04	1.285E-04	2.302E-05	1.826E-06	1.591E-07	3.525E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
7.00E+00	3.666E-01	9.689E-02	2.408E-02	5.414E-03	6.239E-04	1.168E-04	1.999E-05	1.516E-06	1.237E-07	1.893E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
8.00E+00	3.678E-01	9.108E-02	2.232E-02	5.013E-03	5.663E-04	1.043E-04	1.753E-05	1.268E-06	9.757E-08	1.016E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
9.00E+00	3.660E-01	8.546E-02	2.084E-02	4.639E-03	5.194E-04	9.276E-05	1.548E-05	1.067E-06	7.754E-08	5.438E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.00E+01	3.617E-01	8.028E-02	1.956E-02	4.300E-03	4.781E-04	8.282E-05	1.372E-05	9.025E-07	6.187E-08	2.907E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.25E+01	3.437E-01	6.952E-02	1.685E-02	3.600E-03	3.889E-04	6.438E-05	1.026E-05	6.042E-07	3.545E-08	6.065E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.50E+01	3.200E-01	6.108E-02	1.464E-02	3.053E-03	3.165E-04	5.134E-05	7.746E-06	4.134E-07	2.039E-08	1.279E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.75E+01	2.941E-01	5.417E-02	1.279E-02	2.609E-03	2.593E-04	4.110E-05	5.890E-06	2.881E-07	1.176E-08	2.751E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.00E+01	2.684E-01	4.837E-02	1.123E-02	2.240E-03	2.140E-04	3.281E-05	4.505E-06	2.040E-07	6.812E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.25E+01	2.442E-01	4.340E-02	9.896E-03	1.933E-03	1.777E-04	2.620E-05	3.458E-06	1.458E-07	3.958E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.50E+01	2.223E-01	3.909E-02	8.758E-03	1.676E-03	1.482E-04	2.097E-05	2.660E-06	1.048E-07	2.308E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.75E+01	2.028E-01	3.530E-02	7.779E-03	1.459E-03	1.240E-04	1.685E-05	2.050E-06	7.563E-08	1.352E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.00E+01	1.854E-01	3.196E-02	6.934E-03	1.276E-03	1.040E-04	1.359E-05	1.583E-06	5.468E-08	7.951E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.25E+01	1.699E-01	2.899E-02	6.196E-03	1.119E-03	8.743E-05	1.100E-05	1.224E-06	3.959E-08	4.700E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.50E+01	1.559E-01	2.630E-02	5.540E-03	9.810E-04	7.337E-05	8.916E-06	9.481E-07	2.868E-08	2.792E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.75E+01	1.432E-01	2.385E-02	4.949E-03	8.579E-04	6.138E-05	7.232E-06	7.356E-07	2.078E-08	1.668E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.00E+01	1.316E-01	2.160E-02	4.413E-03	7.475E-04	5.113E-05	5.858E-06	5.718E-07	1.506E-08	1.002E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.25E+01	1.208E-01	1.953E-02	3.927E-03	6.484E-04	4.239E-05	4.686E-06	4.452E-07	1.091E-08	6.048E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.50E+01	1.105E-01	1.764E-02	3.485E-03	5.597E-04	3.497E-05	3.666E-06	3.474E-07	7.902E-09	3.672E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.75E+01	1.008E-01	1.590E-02	3.086E-03	4.808E-04	2.870E-05	2.785E-06	2.715E-07	5.725E-09	2.242E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5.00E+01	9.149E-02	1.430E-02	2.725E-03	4.109E-04	2.344E-05	2.045E-06	2.127E-07	4.148E-09	1.376E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

Bremsstrahlung depth dose distributions, D(z), MeV cm2/g.
Finite slab case (z = thickness), detector material: water

z(g/cm2)	50.000	20.000	10.000	5.000	2.000	1.000	0.500	0.200	0.100	0.050	0.020	0.010	0.005	0.002
1.00E-06	4.035E-10	8.489E-07	1.673E-03	2.764E-05	5.849E-01	5.058E-06	1.846E-04	9.871E-06	1.057E-04	1.962E-04	2.021E-04	2.530E-04	3.763E-05	1.527E-05
1.00E-05	1.555E-04	6.019E-05	2.566E-04	4.906E-05	1.743E-04	8.043E-05	9.518E-05	2.648E-04	2.763E-04	3.027E-04	4.419E-04	2.866E-03	1.111E-03	1.247E-04
2.00E-05	3.975E-04	1.466E-04	3.063E-04	1.398E-04	1.566E-04	2.076E-04	1.733E-04	4.940E-04	4.493E-04	6.105E-04	1.062E-03	4.355E-03	2.948E-03	1.419E-04
5.00E-05	6.977E-04	4.020E-04	5.431E-04	5.925E-04	3.023E-04	6.659E-04	4.605E-04	9.866E-04	9.253E-04	1.531E-03	3.558E-03	6.503E-03	4.869E-03	1.269E-04
1.00E-04	9.980E-04	7.877E-04	9.784E-04	1.520E-03	6.542E-04	1.411E-03	9.653E-04	1.581E-03	1.644E-03	2.881E-03	7.752E-03	8.087E-03	3.316E-03	9.652E-05
2.00E-04	1.515E-03	1.444E-03	1.801E-03	3.134E-03	1.453E-03	2.566E-03	1.882E-03	2.491E-03	2.889E-03	5.507E-03	1.302E-02	8.973E-03	1.692E-03	6.209E-05
5.00E-04	3.199E-03	2.934E-03	3.529E-03	5.282E-03	3.261E-03	4.259E-03	3.702E-03	4.600E-03	5.674E-03	1.313E-02	1.449E-02	7.013E-03	9.582E-04	2.627E-05
1.00E-03	5.910E-03	4.591E-03	5.070E-03	6.038E-03	4.760E-03	5.240E-03	5.229E-03	7.310E-03	8.735E-03	1.792E-02	9.083E-03	3.694E-03	9.498E-04	1.064E-05
2.00E-03	9.403E-03	6.448E-03	6.463E-03	6.352E-03	6.018E-03	5.976E-03	6.571E-03	1.126E-02	1.239E-02	1.255E-02	3.473E-03	1.169E-03	6.642E-04	3.131E-06
5.00E-03	1.165E-02	8.411E-03	7.637E-03	7.072E-03	7.137E-03	6.919E-03	7.781E-03	1.643E-02	1.372E-02	2.578E-03	4.843E-04	1.278E-04	6.404E-05	3.174E-07
1.00E-02	1.225E-02	9.567E-03	8.217E-03	7.833E-03	7.572E-03	7.508E-03	8.355E-03	1.319E-02	5.677E-03	4.140E-04	7.620E-05	1.630E-05	1.564E-06	2.286E-08
2.00E-02	1.468E-02	1.100E-02	8.991E-03	8.526E-03	7.752E-03	7.775E-03	8.858E-03	4.810E-03	5.952E-04	5.193E-05	1.112E-05	1.679E-06	9.679E-09	3.612E-10
5.00E-02	2.404E-02	1.438E-02	1.090E-02	9.267E-03	7.599E-03	7.947E-03	6.992E-03	4.519E-04	2.337E-05	5.936E-06	1.071E-06	5.352E-08	2.633E-12	4.307E-14
1.00E-01	3.587E-02	1.888E-02	1.323E-02	1.000E-02	7.406E-03	7.331E-03	2.702E-03	7.541E-05	1.320E-05	3.293E-06	2.594E-07	1.855E-09	0.000E+00	0.000E+00
1.50E-01	4.543E-02	2.280E-02	1.506E-02	1.055E-02	7.666E-03	5.542E-03	9.562E-04	3.495E-05	1.000E-05	2.688E-06	1.239E-07	1.638E-10	0.000E+00	0.000E+00
2.00E-01	5.389E-02	2.635E-02	1.660E-02	1.101E-02	7.795E-03	3.923E-03	4.047E-04	2.357E-05	7.368E-06	2.070E-06	7.067E-08	2.270E-11	0.000E+00	0.000E+00
3.00E-01	6.916E-02	3.257E-02	1.914E-02	1.177E-02	7.105E-03	1.946E-03	1.388E-04	1.585E-05	4.645E-06	1.221E-06	2.778E-08	9.265E-13	0.000E+00	0.000E+00
4.00E-01	8.323E-02	3.790E-02	2.122E-02	1.239E-02	5.769E-03	1.024E-03	8.618E-05	1.292E-05	3.515E-06	7.847E-07	1.220E-08	0.000E+00	0.000E+00	0.000E+00
5.00E-01	9.635E-02	4.257E-02	2.299E-02	1.282E-02	4.554E-03	6.073E-04	7.000E-05	1.130E-05	2.877E-06	5.465E-07	5.664E-09	0.000E+00	0.000E+00	0.000E+00
6.00E-01	1.085E-01	4.674E-02	2.451E-02	1.306E-02	3.637E-03	4.088E-04	6.339E-05	1.019E-05	2.414E-06	4.031E-07	2.713E-09	0.000E+00	0.000E+00	0.000E+00
8.00E-01	1.304E-01	5.391E-02	2.702E-02	1.309E-02	2.482E-03	2.529E-04	5.792E-05	8.620E-06	1.787E-06	2.463E-07	6.636E-10	0.000E+00	0.000E+00	0.000E+00
1.00E+00	1.492E-01	5.991E-02	2.899E-02	1.268E-02	1.850E-03	2.105E-04	5.426E-05	7.434E-06	1.406E-06	1.667E-07	1.739E-10	0.000E+00	0.000E+00	0.000E+00
1.50E+00	1.871E-01	7.134E-02	3.203E-02	1.110E-02	1.162E-03	2.093E-04	4.608E-05	5.423E-06	9.026E-07	8.087E-08	7.817E-12	0.000E+00	0.000E+00	0.000E+00
2.00E+00	2.167E-01	7.926E-02	3.298E-02	9.574E-03	9.206E-04	2.171E-04	3.978E-05	4.230E-06	6.481E-07	4.751E-08	4.681E-13	0.000E+00	0.000E+00	0.000E+00
3.00E+00	2.613E-01	8.872E-02	3.143E-02	7.348E-03	8.049E-04	1.733E-04	3.112E-05	2.935E-06	3.904E-07	2.152E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.00E+00	2.919E-01	9.249E-02	2.857E-02	6.137E-03	7.564E-04	1.320E-04	2.545E-05	2.231E-06	2.580E-07	1.117E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5.00E+00	3.118E-01	9.253E-02	2.587E-02	5.523E-03	6.700E-04	1.146E-04	2.138E-05	1.770E-06	1.784E-07	5.951E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
6.00E+00	3.242E-01	9.022E-02	2.358E-02	5.100E-03	5.879E-04	1.041E-04	1.832E-05	1.442E-06	1.288E-07	3.181E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
7.00E+00	3.314E-01	8.650E-02	2.170E-02	4.724E-03	5.247E-04	9.427E-05	1.591E-05	1.195E-06	9.657E-08	1.698E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
8.00E+00	3.346E-01	8.214E-02	2.012E-02	4.371E-03	4.762E-04	8.454E-05	1.396E-05	1.002E-06	7.448E-08	9.032E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
9.00E+00	3.347E-01	7.769E-02	1.877E-02	4.048E-03	4.360E-04	7.567E-05	1.232E-05	8.464E-07	5.845E-08	4.783E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.00E+01	3.321E-01	7.341E-02	1.758E-02	3.757E-03	4.006E-04	6.787E-05	1.092E-05	7.189E-07	4.637E-08	2.524E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.25E+01	3.177E-01	6.401E-02	1.512E-02	3.155E-03	3.254E-04	5.268E-05	8.150E-06	4.854E-07	2.671E-08	5.064E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.50E+01	2.970E-01	5.633E-02	1.316E-02	2.681E-03	2.654E-04	4.161E-05	6.135E-06	3.328E-07	1.558E-08	1.020E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1.75E+01	2.741E-01	4.998E-02	1.154E-02	2.294E-03	2.179E-04	3.309E-05	4.647E-06	2.308E-07	9.070E-09	2.087E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.00E+01	2.510E-01	4.467E-02	1.016E-02	1.973E-03	1.802E-04	2.641E-05	3.539E-06	1.617E-07	5.261E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.25E+01	2.292E-01	4.013E-02	8.981E-03	1.704E-03	1.498E-04	2.114E-05	2.708E-06	1.143E-07	3.055E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.50E+01	2.092E-01	3.618E-02	7.964E-03	1.478E-03	1.250E-04	1.698E-05	2.082E-06	8.139E-08	1.783E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.75E+01	1.912E-01	3.271E-02	7.081E-03	1.287E-03	1.045E-04	1.369E-05	1.609E-06	5.838E-08	1.049E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.00E+01	1.751E-01	2.963E-02	6.312E-03	1.125E-03	8.756E-05	1.107E-05	1.248E-06	4.216E-08	6.223E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.25E+01	1.607E-01	2.689E-02	5.638E-03	9.854E-04	7.350E-05	8.983E-06	9.733E-07	3.064E-08	3.730E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.50E+01	1.477E-01	2.444E-02	5.046E-03	8.649E-04	6.177E-05	7.290E-06	7.621E-07	2.240E-08	2.259E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.75E+01	1.359E-01	2.223E-02	4.523E-03	7.597E-04	5.197E-05	5.908E-06	5.993E-07	1.647E-08	1.384E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.00E+01	1.252E-01	2.025E-02	4.060E-03	6.674E-04	4.376E-05	4.777E-06	4.731E-07	1.218E-08	8.576E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.25E+01	1.154E-01	1.846E-02	3.649E-03	5.863E-04	3.688E-05	3.852E-06	3.750E-07	9.051E-09	5.373E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.50E+01	1.064E-01	1.685E-02	3.283E-03	5.148E-04	3.111E-05	3.097E-06	2.984E-07	6.761E-09	3.403E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.75E+01	9.817E-02	1.539E-02	2.957E-03	4.518E-04	2.626E-05	2.483E-06	2.383E-07	5.075E-09	2.179E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5.00E+01	9.060E-02	1.406E-02	2.667E-03	3.963E-04	2.218E-05	1.984E-06	1.909E-07	3.827E-09	1.409E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00