

Sample Clinical Databook

LANDAUER Cancer Institute

LINAC Commissioning

Varian TrueBeam #9999

2/01/2020



LANDAUER®
MEDICAL PHYSICS

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Varian TrueBeam #9999 Commissioning Data Summary

The following report summarizes the results of the commission.

Collection of Data

A description of the data collected along with the detectors used follows this cover page. Please note, ALL measurements were performed taking into account the effective measurement point of the detector. NO shifting of the data is required in regard to the effective measurement point.

Data Processing

The data contained in this data book and the associated digital copy has been processed with PTW Mephysto software as follows:

1. Photon PDD scans were smoothed once and interpolated to 1mm equidistant spacing.
2. Photon open field profiles were shifted along their CAX deviations by the 50% lines, symmetrized, and interpolated to 1 mm equidistant spacing (field sizes 4 cm square and smaller) or 2mm spacing (field sizes 5 cm square and larger).
3. Electron depth ionization scans were smoothed once and interpolated to 1 mm resolution, then converted to dose (TG-51).

The raw and processed data will be provided on an online shared drive for download.

Site Physicist Responsibilities

- 1) The absolute dose calibration of the LINAC.
- 2) Verification of correspondence between wedge orientation, collimator, gantry and couch angles between the planning system, record/verify and the LINAC.
- 3) Verification of correspondence of MLC configuration between the planning system, record/verify and the LINAC.
- 4) Appropriate initial and ongoing safety testing and performance testing of the LINAC such as that recommended by the IEC (60601-2-1/60976) and AAPM TG-142.
- 5) Establishment of treatment planning system quality assurance program such as recommended by AAPM TG-53.
- 6) Appropriate clinical use of all data provided including dose distribution and MU verification for each treatment modality/energy used.

If you have any questions or comments on this data, please do not hesitate to contact me.

Best regards,

Matthew Daniels, Ph.D., DABR
Medical Physicist – Commissioning Division
LANDAUER Medical Physics

Photons

A subset of open field output factors for Eclipse were measured for square and rectangular fields with a PTW 0.125cc ion chamber at 95 cm SSD, d₅ cm for comparison with Varian representative data. Square field sizes of 3, 5, 10, 20, 30, and 40 cm and rectangular field sizes of 3x20, 10x40, 30x3, and 40x10 cm were measured.

Open field CAX depth dose scans at 100 cm SSD: Square field sizes 3, 6, 10, 30, and 40 cm were collected with a PTW 0.125cc ion chamber. All scans extend to 38.2 cm depth.

Open field profiles at 100 cm SSD: Crossline profiles for square field sizes 3, 6, 10, 30, and 40 cm were collected at depths d_{max}, 10, and 30 cm. Inline profiles for square field sizes of 10 and 30cm were collected at 10 cm only with a PTW 0.125cc ion chamber.

Diagonal profiles: True diagonal profiles were collected for field size 40x40 cm² at depths d_{max}, 5cm, 10 cm, and 20cm with a PTW 0.125cc ion chamber.

Electrons

CAX depth dose scans at 100 cm SSD: Depth dose scans were collected for all energies for the 10x10 applicator with a PTW 0.125cc ion chamber. All scans extend to a depth $R_p + 10$ cm or greater.

Profiles at 100 cm SSD: Profiles were collected for the (20x20) applicator with a PTW 0.125cc ion chamber. Inplane and crossplane profiles were collected with the chamber at dmax of the reference (10x10cm²) applicator.

Profiles in Air: Air crossplane profiles were collected for a 40x40 cm² open field with a PTW 60023 microsilicon diode at 95 cm source-to-detector distance for comparison with Varian eMC gold beam data for all electron energies.

Output factors for the 6 standard applicators were measured at 100, 105, and 110 cm SSD with a PTW 0.125 cc ion chamber at dmax of the reference (10x10 cm²) applicator.

Data

Photon Energies

Photon Energies

6X TMR

Normalized to 1.5 cm	6X TMR Open								
	Landauer Cancer Institute - Jackson, WY								
	Varian TrueBeam #9999								
Depth (cm)	2x2 (cm ²)	3x3 (cm ²)	4x4 (cm ²)	5x5 (cm ²)	6x6 (cm ²)	7x7 (cm ²)	8x8 (cm ²)	9x9 (cm ²)	10x10 (cm ²)
0.0	0.459	0.464	0.469	0.476	0.484	0.495	0.506	0.513	0.521
0.5	0.835	0.838	0.840	0.842	0.844	0.848	0.851	0.857	0.862
1.0	0.975	0.974	0.973	0.974	0.975	0.975	0.975	0.977	0.978
1.5	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2.0	0.992	0.993	0.994	0.995	0.996	0.996	0.995	0.996	0.997
2.5	0.975	0.977	0.980	0.981	0.982	0.983	0.984	0.985	0.986
3.0	0.956	0.958	0.962	0.966	0.969	0.970	0.971	0.972	0.973
3.5	0.932	0.938	0.944	0.949	0.953	0.955	0.957	0.959	0.960
4.0	0.914	0.920	0.926	0.931	0.935	0.939	0.942	0.945	0.946
4.5	0.892	0.900	0.908	0.914	0.920	0.924	0.928	0.931	0.932
5.0	0.872	0.880	0.890	0.897	0.903	0.908	0.912	0.916	0.919
5.5	0.849	0.859	0.871	0.880	0.887	0.893	0.897	0.901	0.903
6.0	0.832	0.842	0.854	0.863	0.870	0.876	0.881	0.885	0.889
6.5	0.811	0.823	0.836	0.846	0.854	0.860	0.866	0.871	0.874
7.0	0.793	0.804	0.818	0.828	0.836	0.844	0.851	0.856	0.860
7.5	0.773	0.786	0.801	0.812	0.820	0.828	0.834	0.840	0.845
8.0	0.760	0.771	0.784	0.795	0.805	0.813	0.820	0.826	0.830
8.5	0.742	0.753	0.766	0.777	0.787	0.796	0.804	0.811	0.816
9.0	0.721	0.734	0.749	0.761	0.772	0.781	0.788	0.795	0.801
9.5	0.704	0.716	0.732	0.744	0.753	0.763	0.772	0.780	0.786
10.0	0.692	0.703	0.716	0.727	0.738	0.748	0.757	0.765	0.771
10.5	0.675	0.686	0.700	0.712	0.722	0.733	0.741	0.749	0.756
11.0	0.656	0.668	0.683	0.696	0.706	0.717	0.727	0.736	0.743
11.5	0.639	0.652	0.668	0.682	0.692	0.703	0.712	0.720	0.727
12.0	0.626	0.638	0.653	0.666	0.678	0.689	0.697	0.705	0.713
12.5	0.611	0.623	0.639	0.652	0.663	0.674	0.683	0.692	0.700
13.0	0.600	0.611	0.624	0.637	0.648	0.660	0.670	0.679	0.687
13.5	0.581	0.594	0.611	0.624	0.635	0.646	0.655	0.664	0.672
14.0	0.573	0.583	0.597	0.610	0.621	0.633	0.642	0.651	0.659
14.5	0.559	0.569	0.584	0.596	0.607	0.618	0.628	0.638	0.646
15.0	0.544	0.555	0.570	0.583	0.594	0.606	0.615	0.625	0.633
15.5	0.532	0.543	0.557	0.570	0.581	0.592	0.602	0.612	0.620
16.0	0.518	0.530	0.545	0.558	0.569	0.581	0.590	0.599	0.606
16.5	0.506	0.518	0.533	0.546	0.556	0.568	0.577	0.587	0.595
17.0	0.498	0.508	0.521	0.533	0.544	0.556	0.566	0.575	0.583
17.5	0.484	0.495	0.510	0.522	0.533	0.544	0.553	0.562	0.571
18.0	0.475	0.485	0.499	0.511	0.521	0.532	0.542	0.551	0.559
18.5	0.463	0.474	0.487	0.499	0.509	0.520	0.530	0.540	0.549
19.0	0.454	0.464	0.477	0.488	0.498	0.509	0.518	0.527	0.536
19.5	0.445	0.453	0.466	0.477	0.487	0.498	0.507	0.516	0.524
20.0	0.433	0.442	0.455	0.466	0.477	0.487	0.497	0.506	0.514

Normalized to 1.5 cm	6X TMR Open								
	Landauer Cancer Institute - Jackson, WY								
	Varian TrueBeam #9999								
Depth (cm)	2x2 (cm ²)	3x3 (cm ²)	4x4 (cm ²)	5x5 (cm ²)	6x6 (cm ²)	7x7 (cm ²)	8x8 (cm ²)	9x9 (cm ²)	10x10 (cm ²)
20.5	0.423	0.432	0.445	0.457	0.467	0.477	0.486	0.495	0.503
21.0	0.416	0.424	0.435	0.446	0.456	0.467	0.476	0.485	0.493
21.5	0.402	0.412	0.425	0.437	0.447	0.457	0.466	0.475	0.483
22.0	0.399	0.406	0.417	0.427	0.437	0.448	0.457	0.465	0.474
22.5	0.390	0.397	0.408	0.418	0.427	0.437	0.446	0.455	0.464
23.0	0.381	0.388	0.399	0.409	0.418	0.428	0.437	0.445	0.454
23.5	0.370	0.378	0.390	0.400	0.409	0.419	0.428	0.437	0.445
24.0	0.360	0.369	0.381	0.392	0.401	0.410	0.418	0.427	0.435
24.5	0.354	0.361	0.373	0.383	0.392	0.402	0.410	0.418	0.426
25.0	0.345	0.353	0.365	0.375	0.383	0.392	0.401	0.409	0.417
25.5	0.340	0.346	0.357	0.366	0.375	0.384	0.392	0.400	0.408
26.0	0.330	0.338	0.349	0.359	0.367	0.376	0.384	0.392	0.400
26.5	0.323	0.331	0.341	0.350	0.359	0.368	0.377	0.384	0.392
27.0	0.317	0.324	0.334	0.343	0.351	0.360	0.368	0.376	0.383
27.5	0.312	0.318	0.328	0.336	0.344	0.352	0.361	0.368	0.376
28.0	0.304	0.311	0.321	0.329	0.337	0.345	0.353	0.361	0.368
28.5	0.299	0.305	0.314	0.322	0.330	0.338	0.346	0.353	0.360
29.0	0.291	0.297	0.307	0.315	0.322	0.331	0.339	0.346	0.353
29.5	0.282	0.289	0.300	0.309	0.316	0.324	0.331	0.339	0.346
30.0	0.278	0.284	0.293	0.301	0.309	0.317	0.325	0.332	0.339
30.5	0.272	0.278	0.287	0.295	0.302	0.310	0.318	0.325	0.331
31.0	0.267	0.273	0.281	0.288	0.296	0.304	0.312	0.318	0.325
31.5	0.261	0.266	0.275	0.282	0.289	0.297	0.305	0.311	0.318
32.0	0.257	0.262	0.270	0.277	0.284	0.291	0.298	0.305	0.311
32.5	0.248	0.254	0.264	0.271	0.278	0.285	0.292	0.298	0.304
33.0	0.245	0.250	0.259	0.266	0.272	0.279	0.286	0.292	0.299
33.5	0.241	0.245	0.253	0.259	0.265	0.272	0.280	0.286	0.292
34.0	0.232	0.238	0.247	0.255	0.261	0.268	0.274	0.280	0.286
34.5	0.228	0.234	0.242	0.250	0.256	0.262	0.269	0.275	0.280

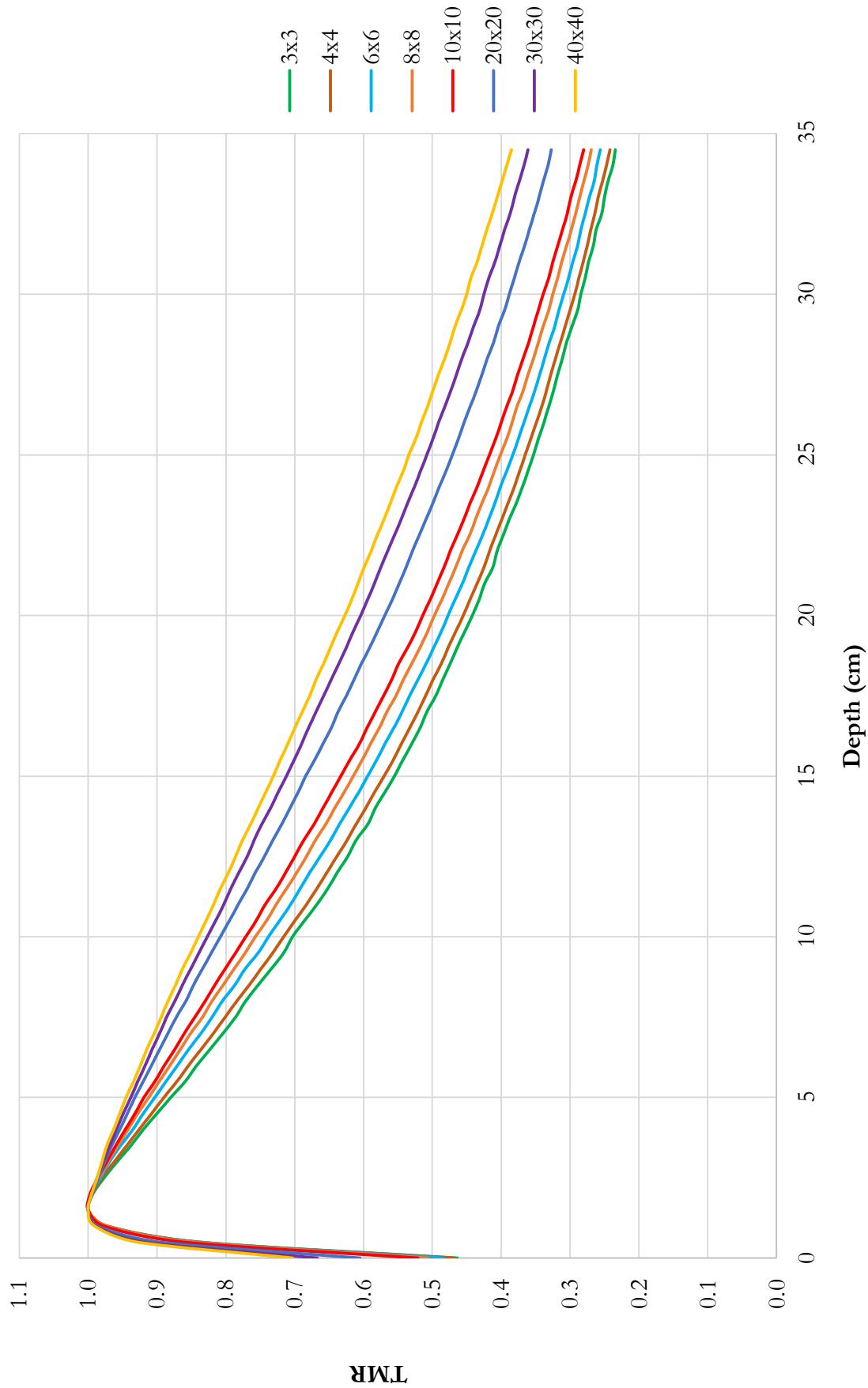
Normalized to 1.5 cm	6X TMR Open									
	Landauer Cancer Institute - Jackson, WY									
	Varian TrueBeam #9999									
Depth (cm)	11x11 (cm ²)	12x12 (cm ²)	13x13 (cm ²)	14x14 (cm ²)	15x15 (cm ²)	16x16 (cm ²)	17x17 (cm ²)	18x18 (cm ²)	19x19 (cm ²)	20x20 (cm ²)
0.0	0.529	0.537	0.546	0.554	0.563	0.571	0.579	0.588	0.596	0.605
0.5	0.866	0.869	0.873	0.876	0.880	0.883	0.887	0.890	0.894	0.897
1.0	0.979	0.980	0.981	0.982	0.982	0.983	0.984	0.985	0.986	0.987
1.5	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2.0	0.997	0.996	0.996	0.996	0.996	0.995	0.995	0.995	0.995	0.994
2.5	0.986	0.986	0.986	0.986	0.986	0.986	0.986	0.986	0.986	0.985
3.0	0.973	0.974	0.974	0.974	0.975	0.975	0.975	0.976	0.976	0.976
3.5	0.962	0.962	0.962	0.963	0.963	0.964	0.965	0.965	0.966	0.966
4.0	0.947	0.948	0.949	0.949	0.950	0.951	0.952	0.953	0.953	0.954
4.5	0.934	0.935	0.936	0.937	0.938	0.939	0.940	0.941	0.942	0.943
5.0	0.921	0.922	0.924	0.925	0.926	0.927	0.929	0.930	0.931	0.932
5.5	0.906	0.907	0.909	0.910	0.912	0.914	0.915	0.917	0.918	0.920
6.0	0.892	0.894	0.896	0.897	0.899	0.901	0.903	0.905	0.907	0.908
6.5	0.878	0.880	0.882	0.884	0.886	0.888	0.890	0.892	0.894	0.896
7.0	0.864	0.866	0.869	0.871	0.873	0.876	0.878	0.880	0.882	0.884
7.5	0.849	0.852	0.854	0.856	0.859	0.862	0.864	0.867	0.869	0.872
8.0	0.835	0.837	0.840	0.842	0.845	0.848	0.851	0.853	0.856	0.858
8.5	0.822	0.825	0.827	0.830	0.832	0.836	0.839	0.841	0.844	0.847
9.0	0.808	0.811	0.814	0.816	0.819	0.823	0.826	0.828	0.831	0.834
9.5	0.793	0.796	0.799	0.802	0.805	0.809	0.812	0.815	0.818	0.821
10.0	0.778	0.781	0.784	0.787	0.791	0.794	0.798	0.801	0.805	0.808
10.5	0.764	0.768	0.771	0.774	0.777	0.781	0.785	0.788	0.791	0.795
11.0	0.750	0.754	0.757	0.761	0.764	0.768	0.772	0.775	0.779	0.782
11.5	0.734	0.739	0.742	0.746	0.749	0.753	0.758	0.761	0.765	0.769
12.0	0.721	0.725	0.729	0.733	0.737	0.741	0.746	0.750	0.753	0.757
12.5	0.708	0.713	0.716	0.720	0.724	0.728	0.733	0.737	0.741	0.744
13.0	0.694	0.699	0.703	0.707	0.711	0.716	0.720	0.724	0.728	0.732
13.5	0.680	0.685	0.689	0.693	0.698	0.702	0.707	0.711	0.715	0.719
14.0	0.667	0.672	0.677	0.681	0.685	0.690	0.694	0.699	0.703	0.707
14.5	0.654	0.660	0.664	0.669	0.673	0.678	0.682	0.687	0.691	0.695
15.0	0.641	0.647	0.651	0.656	0.660	0.665	0.670	0.675	0.679	0.684
15.5	0.628	0.634	0.638	0.643	0.647	0.652	0.657	0.662	0.666	0.671
16.0	0.614	0.621	0.625	0.630	0.635	0.640	0.645	0.650	0.654	0.659
16.5	0.602	0.609	0.613	0.618	0.623	0.628	0.633	0.638	0.643	0.647
17.0	0.592	0.599	0.603	0.608	0.612	0.617	0.622	0.627	0.632	0.637
17.5	0.579	0.586	0.591	0.595	0.600	0.605	0.610	0.615	0.620	0.625
18.0	0.568	0.575	0.580	0.585	0.589	0.594	0.599	0.604	0.609	0.614
18.5	0.556	0.563	0.568	0.573	0.577	0.583	0.588	0.593	0.598	0.603
19.0	0.544	0.552	0.556	0.561	0.566	0.571	0.576	0.581	0.586	0.591
19.5	0.533	0.541	0.546	0.551	0.555	0.560	0.566	0.571	0.575	0.580
20.0	0.522	0.529	0.534	0.539	0.544	0.549	0.554	0.559	0.564	0.569

Normalized to 1.5 cm	6X TMR Open Landauer Cancer Institute - Jackson, WY Varian TrueBeam #9999									
Depth (cm)	11x11 (cm ²)	12x12 (cm ²)	13x13 (cm ²)	14x14 (cm ²)	15x15 (cm ²)	16x16 (cm ²)	17x17 (cm ²)	18x18 (cm ²)	19x19 (cm ²)	20x20 (cm ²)
20.5	0.511	0.519	0.524	0.529	0.533	0.538	0.543	0.549	0.553	0.558
21.0	0.501	0.509	0.514	0.519	0.524	0.529	0.534	0.539	0.544	0.548
21.5	0.491	0.499	0.504	0.508	0.513	0.518	0.523	0.528	0.533	0.538
22.0	0.481	0.489	0.495	0.499	0.504	0.509	0.514	0.519	0.524	0.529
22.5	0.472	0.480	0.485	0.490	0.494	0.499	0.504	0.509	0.514	0.519
23.0	0.462	0.469	0.475	0.480	0.484	0.489	0.494	0.499	0.504	0.509
23.5	0.452	0.460	0.466	0.470	0.475	0.480	0.485	0.490	0.495	0.499
24.0	0.442	0.450	0.456	0.461	0.465	0.470	0.475	0.480	0.485	0.490
24.5	0.433	0.441	0.447	0.452	0.456	0.461	0.466	0.471	0.476	0.480
25.0	0.424	0.431	0.437	0.442	0.446	0.451	0.456	0.461	0.466	0.471
25.5	0.415	0.423	0.429	0.434	0.438	0.443	0.448	0.453	0.458	0.462
26.0	0.408	0.415	0.421	0.426	0.430	0.435	0.440	0.445	0.449	0.454
26.5	0.399	0.406	0.412	0.416	0.421	0.426	0.431	0.435	0.440	0.445
27.0	0.390	0.397	0.404	0.408	0.412	0.417	0.422	0.427	0.431	0.436
27.5	0.383	0.390	0.396	0.401	0.405	0.410	0.414	0.419	0.424	0.428
28.0	0.375	0.382	0.388	0.393	0.397	0.402	0.406	0.411	0.416	0.420
28.5	0.366	0.373	0.380	0.384	0.388	0.393	0.398	0.402	0.407	0.411
29.0	0.360	0.367	0.373	0.377	0.381	0.386	0.390	0.395	0.399	0.404
29.5	0.352	0.359	0.365	0.369	0.373	0.378	0.382	0.386	0.391	0.395
30.0	0.345	0.351	0.357	0.362	0.366	0.370	0.375	0.379	0.384	0.388
30.5	0.338	0.344	0.350	0.355	0.359	0.363	0.368	0.372	0.377	0.381
31.0	0.331	0.338	0.344	0.348	0.352	0.357	0.361	0.365	0.369	0.374
31.5	0.324	0.330	0.337	0.341	0.345	0.349	0.353	0.358	0.362	0.366
32.0	0.317	0.323	0.329	0.334	0.338	0.342	0.346	0.350	0.355	0.359
32.5	0.311	0.317	0.323	0.327	0.331	0.335	0.339	0.343	0.348	0.352
33.0	0.305	0.310	0.316	0.321	0.325	0.329	0.333	0.337	0.341	0.345
33.5	0.298	0.304	0.310	0.314	0.318	0.322	0.326	0.330	0.334	0.339
34.0	0.292	0.298	0.304	0.309	0.313	0.317	0.321	0.325	0.329	0.332
34.5	0.286	0.292	0.298	0.303	0.307	0.311	0.315	0.319	0.323	0.327

Normalized to 1.5 cm	6X TMR Open									
	Landauer Cancer Institute - Jackson, WY									
	Varian TrueBeam #9999									
Depth (cm)	22x22 (cm ²)	24x24 (cm ²)	26x26 (cm ²)	28x28 (cm ²)	30x30 (cm ²)	32x32 (cm ²)	34x34 (cm ²)	36x36 (cm ²)	38x38 (cm ²)	40x40 (cm ²)
0.0	0.617	0.629	0.642	0.654	0.667	0.674	0.681	0.688	0.696	0.703
0.5	0.901	0.906	0.910	0.914	0.919	0.921	0.923	0.925	0.927	0.929
1.0	0.987	0.988	0.988	0.989	0.989	0.989	0.990	0.990	0.991	0.991
1.5	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2.0	0.994	0.995	0.995	0.995	0.995	0.995	0.995	0.995	0.995	0.995
2.5	0.986	0.986	0.986	0.987	0.987	0.987	0.987	0.987	0.987	0.987
3.0	0.977	0.977	0.978	0.978	0.978	0.979	0.979	0.979	0.980	0.980
3.5	0.967	0.967	0.968	0.968	0.969	0.970	0.970	0.971	0.972	0.973
4.0	0.956	0.956	0.958	0.958	0.959	0.961	0.961	0.962	0.963	0.963
4.5	0.945	0.946	0.947	0.948	0.949	0.951	0.952	0.952	0.953	0.954
5.0	0.934	0.935	0.936	0.937	0.938	0.940	0.941	0.942	0.944	0.945
5.5	0.923	0.924	0.926	0.927	0.928	0.930	0.931	0.932	0.934	0.934
6.0	0.912	0.913	0.914	0.916	0.917	0.919	0.920	0.922	0.923	0.924
6.5	0.900	0.902	0.903	0.905	0.907	0.910	0.911	0.912	0.914	0.915
7.0	0.888	0.890	0.892	0.894	0.896	0.899	0.900	0.901	0.903	0.904
7.5	0.876	0.879	0.881	0.883	0.886	0.889	0.890	0.891	0.893	0.894
8.0	0.863	0.866	0.868	0.871	0.874	0.877	0.879	0.881	0.883	0.884
8.5	0.852	0.855	0.857	0.860	0.863	0.866	0.868	0.870	0.872	0.873
9.0	0.840	0.843	0.846	0.849	0.851	0.855	0.857	0.859	0.861	0.863
9.5	0.828	0.830	0.833	0.836	0.839	0.843	0.845	0.847	0.849	0.851
10.0	0.815	0.818	0.821	0.824	0.827	0.831	0.834	0.836	0.838	0.840
10.5	0.802	0.805	0.809	0.812	0.815	0.819	0.822	0.825	0.827	0.829
11.0	0.790	0.793	0.797	0.800	0.803	0.807	0.811	0.813	0.816	0.818
11.5	0.776	0.781	0.785	0.789	0.793	0.797	0.801	0.803	0.806	0.808
12.0	0.766	0.770	0.774	0.778	0.781	0.786	0.790	0.792	0.794	0.796
12.5	0.753	0.758	0.762	0.766	0.769	0.774	0.778	0.781	0.783	0.786
13.0	0.741	0.746	0.750	0.755	0.759	0.763	0.768	0.770	0.773	0.776
13.5	0.728	0.734	0.738	0.743	0.748	0.753	0.758	0.760	0.762	0.764
14.0	0.716	0.722	0.727	0.731	0.735	0.740	0.745	0.748	0.751	0.753
14.5	0.705	0.711	0.715	0.720	0.724	0.728	0.733	0.736	0.739	0.742
15.0	0.693	0.700	0.704	0.708	0.712	0.717	0.722	0.725	0.728	0.731
15.5	0.680	0.687	0.692	0.697	0.701	0.706	0.712	0.715	0.718	0.721
16.0	0.669	0.676	0.681	0.686	0.690	0.695	0.700	0.704	0.707	0.710
16.5	0.657	0.665	0.670	0.675	0.680	0.685	0.690	0.694	0.697	0.700
17.0	0.646	0.654	0.659	0.664	0.669	0.674	0.679	0.683	0.686	0.689
17.5	0.635	0.644	0.648	0.653	0.658	0.663	0.668	0.672	0.675	0.678
18.0	0.624	0.632	0.637	0.642	0.647	0.652	0.658	0.663	0.666	0.669
18.5	0.613	0.622	0.627	0.632	0.636	0.642	0.647	0.652	0.655	0.658
19.0	0.601	0.610	0.615	0.620	0.625	0.631	0.636	0.641	0.645	0.648
19.5	0.590	0.600	0.605	0.610	0.615	0.621	0.626	0.632	0.635	0.638
20.0	0.579	0.589	0.594	0.599	0.604	0.609	0.615	0.620	0.624	0.627

Normalized to 1.5 cm	6X TMR Open										
	Landauer Cancer Institute - Jackson, WY										
	Varian TrueBeam #9999										
Depth (cm)	22x22 (cm ²)	24x24 (cm ²)	26x26 (cm ²)	28x28 (cm ²)	30x30 (cm ²)	33 (cm ²)	32x32 (cm ²)	34x34 (cm ²)	36x36 (cm ²)	38x38 (cm ²)	40x40 (cm ²)
20.5	0.568	0.578	0.583	0.588	0.594	0.599	0.605	0.611	0.614	0.617	
21.0	0.558	0.568	0.574	0.579	0.584	0.590	0.596	0.602	0.605	0.608	
21.5	0.548	0.558	0.564	0.569	0.575	0.580	0.586	0.592	0.596	0.599	
22.0	0.539	0.549	0.555	0.560	0.565	0.571	0.576	0.582	0.586	0.589	
22.5	0.529	0.538	0.545	0.550	0.555	0.561	0.567	0.572	0.577	0.580	
23.0	0.518	0.528	0.535	0.540	0.545	0.551	0.556	0.562	0.567	0.570	
23.5	0.509	0.519	0.526	0.531	0.536	0.542	0.547	0.553	0.558	0.561	
24.0	0.499	0.509	0.516	0.521	0.526	0.532	0.538	0.543	0.548	0.552	
24.5	0.490	0.499	0.507	0.512	0.517	0.523	0.528	0.534	0.539	0.542	
25.0	0.480	0.490	0.497	0.503	0.508	0.514	0.520	0.526	0.531	0.534	
25.5	0.472	0.481	0.489	0.494	0.499	0.505	0.510	0.516	0.521	0.524	
26.0	0.463	0.473	0.481	0.486	0.491	0.496	0.502	0.507	0.512	0.516	
26.5	0.454	0.464	0.472	0.477	0.482	0.488	0.493	0.499	0.504	0.507	
27.0	0.445	0.455	0.463	0.468	0.473	0.479	0.485	0.490	0.496	0.499	
27.5	0.437	0.447	0.455	0.460	0.465	0.471	0.476	0.482	0.488	0.491	
28.0	0.429	0.438	0.447	0.452	0.457	0.462	0.467	0.473	0.478	0.482	
28.5	0.420	0.430	0.438	0.443	0.448	0.454	0.459	0.465	0.471	0.474	
29.0	0.412	0.421	0.430	0.435	0.440	0.446	0.451	0.457	0.463	0.467	
29.5	0.404	0.413	0.421	0.426	0.431	0.437	0.442	0.448	0.453	0.458	
30.0	0.397	0.406	0.415	0.420	0.425	0.430	0.435	0.441	0.446	0.450	
30.5	0.390	0.399	0.407	0.413	0.418	0.423	0.428	0.434	0.439	0.444	
31.0	0.382	0.390	0.399	0.404	0.409	0.414	0.420	0.425	0.431	0.435	
31.5	0.374	0.383	0.391	0.397	0.402	0.407	0.412	0.418	0.423	0.428	
32.0	0.367	0.376	0.384	0.390	0.395	0.400	0.405	0.411	0.416	0.421	
32.5	0.360	0.368	0.377	0.383	0.387	0.393	0.398	0.403	0.408	0.413	
33.0	0.353	0.362	0.370	0.376	0.381	0.386	0.391	0.396	0.401	0.406	
33.5	0.347	0.355	0.363	0.369	0.374	0.379	0.384	0.389	0.394	0.399	
34.0	0.340	0.348	0.356	0.362	0.367	0.372	0.377	0.381	0.387	0.392	
34.5	0.335	0.343	0.351	0.357	0.361	0.366	0.371	0.375	0.380	0.385	

6X TMR Open
Landauer Cancer Institute - Jackson, WY
Varian TrueBeam #9999



Photon Energies

6X PDD

Normalized to 1.5 cm	6X PDD Open									
	Landauer Cancer Institute - Jackson, WY									
	Varian TrueBeam #9999									
Depth (cm)	2x2 (cm ²)	3x3 (cm ²)	4x4 (cm ²)	5x5 (cm ²)	6x6 (cm ²)	7x7 (cm ²)	8x8 (cm ²)	9x9 (cm ²)	10x10 (cm ²)	
0.0	47.300	47.800	48.300	49.000	49.800	51.000	52.100	52.900	53.600	
0.5	85.100	85.400	85.700	85.900	86.100	86.400	86.800	87.400	88.000	
1.0	98.400	98.300	98.200	98.300	98.400	98.500	98.500	98.700	98.800	
1.5	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	
2.0	98.200	98.400	98.500	98.600	98.700	98.600	98.600	98.700	98.700	
2.5	95.700	95.900	96.200	96.300	96.300	96.400	96.500	96.600	96.800	
3.0	92.900	93.200	93.500	93.900	94.200	94.300	94.300	94.400	94.500	
3.5	89.800	90.400	91.000	91.400	91.800	92.000	92.200	92.300	92.500	
4.0	87.200	87.800	88.400	88.800	89.300	89.600	90.000	90.100	90.300	
4.5	84.400	85.100	85.900	86.500	87.000	87.400	87.800	88.000	88.100	
5.0	81.700	82.600	83.500	84.100	84.700	85.100	85.500	85.800	86.100	
5.5	78.800	79.900	81.000	81.700	82.500	82.900	83.300	83.600	83.900	
6.0	76.500	77.600	78.700	79.400	80.100	80.600	81.100	81.500	81.800	
6.5	74.000	75.200	76.400	77.200	77.900	78.500	79.000	79.400	79.800	
7.0	71.700	72.900	74.000	74.900	75.700	76.400	77.000	77.400	77.800	
7.5	69.300	70.600	72.000	72.800	73.600	74.200	74.900	75.300	75.800	
8.0	67.500	68.600	69.700	70.700	71.700	72.300	73.000	73.400	73.800	
8.5	65.300	66.400	67.600	68.500	69.500	70.200	71.000	71.500	72.000	
9.0	63.000	64.200	65.500	66.600	67.600	68.300	69.000	69.600	70.200	
9.5	60.900	62.200	63.500	64.500	65.400	66.200	67.000	67.700	68.300	
10.0	59.400	60.500	61.500	62.600	63.600	64.400	65.200	65.800	66.400	
10.5	57.400	58.500	59.700	60.700	61.700	62.500	63.300	64.000	64.700	
11.0	55.300	56.600	57.900	58.900	59.900	60.800	61.600	62.300	63.000	
11.5	53.400	54.800	56.100	57.200	58.200	59.000	59.800	60.500	61.100	
12.0	51.900	53.100	54.400	55.500	56.600	57.300	58.100	58.800	59.500	
12.5	50.200	51.500	52.800	53.800	54.900	55.700	56.500	57.300	58.000	
13.0	48.900	50.000	51.100	52.200	53.200	54.100	55.000	55.700	56.400	
13.5	47.000	48.400	49.700	50.700	51.600	52.500	53.400	54.100	54.800	
14.0	45.900	47.000	48.100	49.200	50.200	51.000	51.900	52.600	53.300	
14.5	44.400	45.500	46.600	47.600	48.600	49.500	50.500	51.200	51.900	
15.0	42.900	44.000	45.200	46.200	47.300	48.200	49.000	49.700	50.400	
15.5	41.600	42.700	43.900	44.900	45.900	46.800	47.700	48.300	49.000	
16.0	40.200	41.400	42.500	43.600	44.600	45.400	46.200	46.900	47.600	
16.5	39.000	40.100	41.300	42.300	43.300	44.100	45.000	45.700	46.300	
17.0	38.000	39.000	40.000	41.000	42.000	42.900	43.800	44.500	45.200	
17.5	36.700	37.800	38.900	39.800	40.800	41.600	42.500	43.200	43.900	
18.0	35.700	36.700	37.800	38.700	39.600	40.500	41.300	42.000	42.700	
18.5	34.600	35.600	36.600	37.500	38.400	39.300	40.200	40.800	41.500	
19.0	33.600	34.500	35.500	36.400	37.300	38.100	38.900	39.600	40.300	
19.5	32.600	33.500	34.400	35.300	36.200	37.000	37.800	38.500	39.200	
20.0	31.500	32.500	33.400	34.300	35.200	36.000	36.800	37.500	38.100	

Normalized to 1.5 cm	6X PDD Open								
	Landauer Cancer Institute - Jackson, WY								
	Varian TrueBeam #9999								
Depth (cm)	2x2 (cm ²)	3x3 (cm ²)	4x4 (cm ²)	5x5 (cm ²)	6x6 (cm ²)	7x7 (cm ²)	8x8 (cm ²)	9x9 (cm ²)	10x10 (cm ²)
20.5	30.500	31.500	32.500	33.300	34.200	35.000	35.700	36.400	37.100
21.0	29.800	30.600	31.400	32.300	33.300	34.000	34.800	35.400	36.100
21.5	28.700	29.600	30.600	31.400	32.300	33.000	33.800	34.500	35.100
22.0	28.100	28.900	29.600	30.500	31.400	32.100	32.900	33.500	34.200
22.5	27.300	28.000	28.800	29.600	30.400	31.200	31.900	32.600	33.300
23.0	26.400	27.200	27.900	28.800	29.600	30.300	31.000	31.700	32.400
23.5	25.500	26.300	27.100	27.900	28.800	29.500	30.200	30.800	31.500
24.0	24.700	25.500	26.400	27.100	27.900	28.600	29.300	30.000	30.600
24.5	24.000	24.800	25.600	26.400	27.200	27.800	28.500	29.100	29.800
25.0	23.300	24.100	24.900	25.600	26.300	27.000	27.700	28.300	28.900
25.5	22.700	23.400	24.100	24.900	25.600	26.200	26.900	27.500	28.100
26.0	21.900	22.700	23.500	24.200	24.900	25.600	26.200	26.800	27.400
26.5	21.300	22.000	22.700	23.500	24.200	24.900	25.500	26.100	26.600
27.0	20.800	21.400	22.100	22.800	23.500	24.100	24.700	25.300	25.900
27.5	20.200	20.900	21.500	22.200	22.800	23.500	24.100	24.700	25.200
28.0	19.600	20.200	20.900	21.500	22.200	22.800	23.500	24.000	24.600
28.5	19.100	19.700	20.300	21.000	21.600	22.200	22.800	23.300	23.900
29.0	18.500	19.100	19.700	20.400	21.000	21.600	22.200	22.700	23.300
29.5	17.800	18.500	19.200	19.800	20.400	21.000	21.600	22.100	22.600
30.0	17.400	18.000	18.600	19.200	19.900	20.400	21.000	21.500	22.000
30.5	16.900	17.500	18.100	18.700	19.300	19.900	20.400	20.900	21.400
31.0	16.500	17.000	17.500	18.200	18.800	19.300	19.900	20.400	20.900
31.5	16.000	16.500	17.000	17.700	18.300	18.800	19.300	19.800	20.300
32.0	15.600	16.100	16.600	17.200	17.800	18.300	18.800	19.300	19.700
32.5	15.000	15.600	16.200	16.700	17.200	17.800	18.300	18.700	19.200
33.0	14.700	15.200	15.700	16.300	16.800	17.300	17.800	18.200	18.700
33.5	14.300	14.800	15.200	15.800	16.300	16.800	17.300	17.800	18.200
34.0	13.700	14.300	14.900	15.400	15.900	16.400	16.800	17.300	17.800
34.5	13.400	14.000	14.500	15.000	15.500	15.900	16.400	16.900	17.300

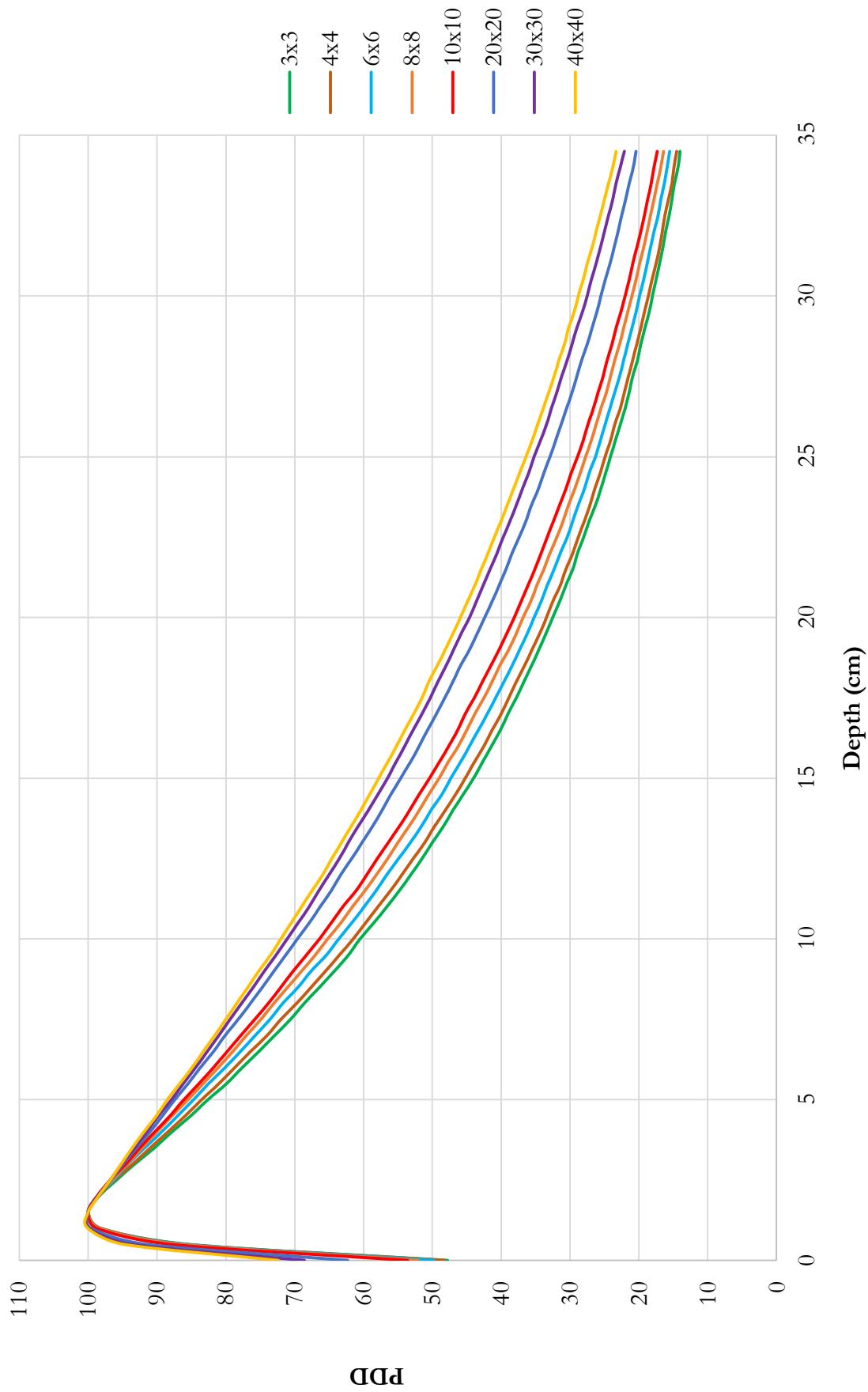
Normalized to 1.5 cm	6X PDD Open									
	Landauer Cancer Institute - Jackson, WY									
	Varian TrueBeam #9999									
Depth (cm)	11x11 (cm ²)	12x12 (cm ²)	13x13 (cm ²)	14x14 (cm ²)	15x15 (cm ²)	16x16 (cm ²)	17x17 (cm ²)	18x18 (cm ²)	19x19 (cm ²)	20x20 (cm ²)
0.0	54.500	55.300	56.200	57.100	57.900	58.800	59.700	60.500	61.400	62.300
0.5	88.300	88.700	89.000	89.400	89.700	90.100	90.400	90.800	91.100	91.500
1.0	98.900	99.000	99.000	99.100	99.200	99.300	99.400	99.500	99.500	99.600
1.5	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
2.0	98.700	98.700	98.700	98.600	98.600	98.600	98.600	98.500	98.500	98.500
2.5	96.700	96.700	96.700	96.700	96.700	96.700	96.700	96.700	96.700	96.700
3.0	94.600	94.600	94.700	94.700	94.700	94.800	94.800	94.800	94.900	94.900
3.5	92.600	92.600	92.700	92.700	92.800	92.800	92.900	92.900	93.000	93.000
4.0	90.300	90.400	90.500	90.600	90.700	90.700	90.800	90.900	91.000	91.000
4.5	88.200	88.300	88.400	88.500	88.600	88.700	88.800	88.900	89.100	89.200
5.0	86.200	86.400	86.500	86.600	86.700	86.900	87.000	87.100	87.200	87.400
5.5	84.100	84.200	84.400	84.500	84.700	84.800	85.000	85.100	85.300	85.500
6.0	82.000	82.200	82.400	82.600	82.800	82.900	83.100	83.300	83.500	83.700
6.5	80.000	80.200	80.400	80.600	80.800	81.000	81.200	81.400	81.600	81.800
7.0	78.100	78.300	78.500	78.700	78.900	79.200	79.400	79.600	79.800	80.100
7.5	76.000	76.300	76.500	76.800	77.000	77.300	77.500	77.700	78.000	78.200
8.0	74.100	74.400	74.600	74.900	75.100	75.400	75.600	75.900	76.100	76.400
8.5	72.300	72.600	72.900	73.100	73.400	73.700	73.900	74.200	74.500	74.700
9.0	70.500	70.800	71.000	71.300	71.600	71.900	72.200	72.500	72.700	73.000
9.5	68.600	68.900	69.200	69.500	69.800	70.100	70.400	70.700	71.000	71.300
10.0	66.700	67.000	67.400	67.700	68.000	68.300	68.600	69.000	69.300	69.600
10.5	65.000	65.300	65.700	66.000	66.300	66.600	66.900	67.300	67.600	67.900
11.0	63.300	63.600	64.000	64.300	64.600	65.000	65.300	65.600	66.000	66.300
11.5	61.500	61.900	62.200	62.600	62.900	63.300	63.600	64.000	64.300	64.700
12.0	59.900	60.300	60.600	61.000	61.400	61.800	62.100	62.500	62.900	63.300
12.5	58.300	58.700	59.100	59.500	59.800	60.200	60.600	60.900	61.300	61.700
13.0	56.800	57.200	57.600	57.900	58.300	58.700	59.100	59.500	59.900	60.200
13.5	55.200	55.600	56.000	56.400	56.800	57.200	57.500	57.900	58.300	58.700
14.0	53.700	54.100	54.500	54.900	55.300	55.700	56.100	56.500	56.900	57.300
14.5	52.300	52.700	53.100	53.500	53.900	54.300	54.700	55.100	55.600	56.000
15.0	50.800	51.300	51.700	52.100	52.500	52.900	53.400	53.800	54.200	54.600
15.5	49.400	49.900	50.300	50.700	51.100	51.500	51.900	52.400	52.800	53.200
16.0	48.000	48.500	48.900	49.300	49.800	50.200	50.600	51.100	51.500	51.900
16.5	46.700	47.200	47.600	48.000	48.500	48.900	49.300	49.800	50.200	50.700
17.0	45.600	46.000	46.400	46.900	47.300	47.700	48.100	48.600	49.000	49.400
17.5	44.300	44.700	45.200	45.600	46.000	46.500	46.900	47.300	47.800	48.200
18.0	43.200	43.600	44.000	44.400	44.900	45.300	45.700	46.100	46.600	47.000
18.5	41.900	42.400	42.800	43.200	43.700	44.100	44.600	45.000	45.400	45.900
19.0	40.800	41.200	41.600	42.100	42.500	42.900	43.300	43.800	44.200	44.600
19.5	39.700	40.100	40.500	41.000	41.400	41.800	42.300	42.700	43.100	43.500
20.0	38.500	39.000	39.400	39.800	40.300	40.700	41.100	41.600	42.000	42.400

Normalized to 1.5 cm	6X PDD Open Landauer Cancer Institute - Jackson, WY Varian TrueBeam #9999									
Depth (cm)	11x11 (cm ²)	12x12 (cm ²)	13x13 (cm ²)	14x14 (cm ²)	15x15 (cm ²)	16x16 (cm ²)	17x17 (cm ²)	18x18 (cm ²)	19x19 (cm ²)	20x20 (cm ²)
20.5	37.500	37.900	38.400	38.800	39.200	39.600	40.000	40.500	40.900	41.300
21.0	36.500	36.900	37.400	37.800	38.200	38.600	39.100	39.500	39.900	40.300
21.5	35.500	35.900	36.400	36.800	37.200	37.600	38.000	38.500	38.900	39.300
22.0	34.600	35.000	35.500	35.900	36.300	36.700	37.100	37.600	38.000	38.400
22.5	33.700	34.100	34.500	34.900	35.400	35.800	36.200	36.600	37.000	37.400
23.0	32.800	33.200	33.600	34.000	34.400	34.800	35.200	35.600	36.000	36.400
23.5	31.900	32.300	32.700	33.100	33.500	33.900	34.300	34.700	35.200	35.600
24.0	31.000	31.400	31.800	32.200	32.600	33.000	33.400	33.800	34.200	34.600
24.5	30.200	30.600	31.000	31.400	31.800	32.200	32.600	33.000	33.400	33.800
25.0	29.300	29.700	30.100	30.500	30.900	31.300	31.700	32.100	32.500	32.900
25.5	28.500	28.900	29.300	29.700	30.100	30.500	30.900	31.300	31.700	32.100
26.0	27.800	28.200	28.600	29.000	29.400	29.800	30.200	30.600	30.900	31.300
26.5	27.000	27.400	27.800	28.200	28.600	29.000	29.400	29.700	30.100	30.500
27.0	26.300	26.700	27.000	27.400	27.800	28.200	28.600	29.000	29.300	29.700
27.5	25.600	26.000	26.400	26.800	27.100	27.500	27.900	28.300	28.600	29.000
28.0	24.900	25.300	25.700	26.100	26.400	26.800	27.200	27.500	27.900	28.300
28.5	24.200	24.600	25.000	25.300	25.700	26.100	26.400	26.800	27.200	27.500
29.0	23.600	24.000	24.300	24.700	25.000	25.400	25.800	26.100	26.500	26.800
29.5	23.000	23.300	23.700	24.000	24.400	24.700	25.100	25.400	25.800	26.100
30.0	22.300	22.700	23.000	23.400	23.800	24.100	24.500	24.800	25.200	25.500
30.5	21.800	22.100	22.500	22.800	23.200	23.500	23.900	24.200	24.600	24.900
31.0	21.200	21.600	21.900	22.200	22.600	22.900	23.200	23.600	23.900	24.200
31.5	20.600	21.000	21.300	21.600	22.000	22.300	22.600	23.000	23.300	23.600
32.0	20.100	20.400	20.700	21.100	21.400	21.700	22.100	22.400	22.700	23.000
32.5	19.500	19.900	20.200	20.500	20.800	21.200	21.500	21.800	22.100	22.500
33.0	19.000	19.300	19.700	20.000	20.300	20.600	21.000	21.300	21.600	21.900
33.5	18.500	18.800	19.200	19.500	19.800	20.100	20.400	20.700	21.100	21.400
34.0	18.100	18.400	18.700	19.000	19.300	19.600	19.900	20.200	20.500	20.800
34.5	17.600	17.900	18.200	18.500	18.900	19.200	19.500	19.800	20.100	20.400

Normalized to 1.5 cm	6X PDD Open									
	Landauer Cancer Institute - Jackson, WY									
	Varian TrueBeam #9999									
Depth (cm)	22x22 (cm ²)	24x24 (cm ²)	26x26 (cm ²)	28x28 (cm ²)	30x30 (cm ²)	32x32 (cm ²)	34x34 (cm ²)	36x36 (cm ²)	38x38 (cm ²)	40x40 (cm ²)
0.0	63.500	64.800	66.100	67.300	68.600	69.400	70.100	70.900	71.700	72.400
0.5	91.900	92.400	92.800	93.300	93.700	93.900	94.100	94.400	94.600	94.800
1.0	99.700	99.700	99.800	99.800	99.900	99.900	100.000	100.000	100.100	100.100
1.5	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
2.0	98.500	98.500	98.500	98.600	98.600	98.600	98.600	98.500	98.500	98.500
2.5	96.700	96.700	96.800	96.800	96.800	96.800	96.800	96.800	96.800	96.800
3.0	94.900	95.000	95.000	95.100	95.100	95.100	95.100	95.200	95.200	95.200
3.5	93.100	93.100	93.200	93.200	93.300	93.400	93.400	93.500	93.600	93.600
4.0	91.100	91.200	91.300	91.400	91.500	91.600	91.700	91.700	91.800	91.900
4.5	89.300	89.400	89.500	89.600	89.800	89.800	89.900	90.000	90.100	90.100
5.0	87.500	87.600	87.700	87.800	87.900	88.000	88.100	88.200	88.400	88.500
5.5	85.600	85.800	85.900	86.100	86.200	86.300	86.400	86.500	86.600	86.700
6.0	83.800	84.000	84.100	84.300	84.400	84.500	84.600	84.700	84.800	84.900
6.5	82.000	82.200	82.400	82.600	82.700	82.900	83.000	83.100	83.200	83.300
7.0	80.200	80.400	80.600	80.800	81.000	81.100	81.200	81.400	81.500	81.600
7.5	78.500	78.700	78.900	79.200	79.400	79.500	79.600	79.800	79.900	80.000
8.0	76.600	76.900	77.200	77.400	77.700	77.800	78.000	78.100	78.300	78.400
8.5	75.000	75.200	75.500	75.800	76.000	76.200	76.300	76.500	76.600	76.800
9.0	73.300	73.600	73.800	74.100	74.400	74.500	74.700	74.900	75.100	75.200
9.5	71.600	71.900	72.200	72.400	72.700	72.900	73.000	73.200	73.400	73.500
10.0	69.900	70.200	70.500	70.800	71.100	71.300	71.500	71.600	71.800	72.000
10.5	68.200	68.500	68.900	69.200	69.500	69.700	69.900	70.100	70.300	70.500
11.0	66.600	67.000	67.300	67.600	67.900	68.100	68.300	68.500	68.700	69.000
11.5	65.000	65.400	65.800	66.200	66.500	66.700	66.900	67.100	67.300	67.500
12.0	63.600	64.000	64.300	64.700	65.000	65.200	65.400	65.600	65.800	65.900
12.5	62.100	62.400	62.800	63.100	63.500	63.700	63.900	64.200	64.400	64.600
13.0	60.600	61.000	61.400	61.800	62.200	62.400	62.600	62.800	63.000	63.200
13.5	59.100	59.600	60.000	60.400	60.800	61.000	61.200	61.400	61.600	61.800
14.0	57.700	58.100	58.500	58.900	59.300	59.500	59.800	60.000	60.200	60.400
14.5	56.300	56.700	57.100	57.500	57.900	58.100	58.400	58.600	58.800	59.100
15.0	55.000	55.400	55.800	56.100	56.500	56.800	57.000	57.300	57.500	57.800
15.5	53.600	54.000	54.500	54.900	55.300	55.500	55.800	56.000	56.300	56.500
16.0	52.300	52.700	53.200	53.600	54.000	54.200	54.500	54.700	55.000	55.200
16.5	51.100	51.500	51.900	52.400	52.800	53.000	53.300	53.500	53.800	54.000
17.0	49.800	50.300	50.700	51.100	51.500	51.800	52.000	52.300	52.500	52.700
17.5	48.600	49.100	49.500	49.900	50.300	50.600	50.800	51.000	51.300	51.500
18.0	47.400	47.900	48.300	48.700	49.200	49.400	49.700	50.000	50.200	50.500
18.5	46.300	46.700	47.100	47.600	48.000	48.200	48.500	48.800	49.000	49.300
19.0	45.100	45.500	46.000	46.400	46.900	47.100	47.400	47.600	47.800	48.100
19.5	44.000	44.400	44.900	45.300	45.800	46.000	46.300	46.500	46.800	47.000
20.0	42.900	43.300	43.700	44.200	44.600	44.900	45.100	45.400	45.600	45.900

Normalized to 1.5 cm	6X PDD Open									
	Landauer Cancer Institute - Jackson, WY									
	Varian TrueBeam #9999									
Depth (cm)	22x22 (cm ²)	24x24 (cm ²)	26x26 (cm ²)	28x28 (cm ²)	30x30 (cm ²)	32x32 (cm ²)	34x34 (cm ²)	36x36 (cm ²)	38x38 (cm ²)	40x40 (cm ²)
20.5	41.700	42.200	42.700	43.100	43.600	43.800	44.100	44.400	44.600	44.900
21.0	40.800	41.200	41.700	42.200	42.600	42.900	43.100	43.300	43.600	43.800
21.5	39.800	40.200	40.700	41.200	41.600	41.900	42.100	42.400	42.600	42.900
22.0	38.800	39.300	39.700	40.200	40.600	40.900	41.100	41.400	41.600	41.900
22.5	37.900	38.300	38.800	39.200	39.700	39.900	40.200	40.500	40.700	41.000
23.0	36.900	37.300	37.800	38.200	38.700	38.900	39.200	39.500	39.700	40.000
23.5	36.000	36.400	36.900	37.300	37.800	38.000	38.300	38.600	38.800	39.100
24.0	35.100	35.500	36.000	36.400	36.900	37.100	37.400	37.700	37.900	38.200
24.5	34.200	34.600	35.100	35.500	36.000	36.200	36.500	36.800	37.000	37.300
25.0	33.300	33.800	34.300	34.700	35.200	35.400	35.700	35.900	36.200	36.400
25.5	32.500	33.000	33.400	33.800	34.300	34.500	34.800	35.000	35.300	35.500
26.0	31.800	32.200	32.600	33.000	33.400	33.700	33.900	34.200	34.400	34.700
26.5	31.000	31.400	31.800	32.200	32.700	32.900	33.200	33.400	33.700	33.900
27.0	30.200	30.600	31.000	31.500	31.900	32.100	32.400	32.600	32.900	33.100
27.5	29.400	29.900	30.300	30.700	31.200	31.400	31.600	31.900	32.100	32.300
28.0	28.700	29.100	29.500	29.900	30.400	30.600	30.800	31.100	31.300	31.600
28.5	28.000	28.400	28.800	29.200	29.700	29.900	30.100	30.400	30.600	30.800
29.0	27.300	27.700	28.100	28.500	29.000	29.200	29.400	29.700	29.900	30.200
29.5	26.500	26.900	27.400	27.800	28.200	28.400	28.700	28.900	29.200	29.400
30.0	25.900	26.300	26.700	27.100	27.500	27.800	28.000	28.300	28.500	28.800
30.5	25.300	25.700	26.100	26.500	26.900	27.200	27.400	27.600	27.900	28.100
31.0	24.600	25.000	25.400	25.800	26.200	26.500	26.700	27.000	27.200	27.500
31.5	24.000	24.400	24.800	25.200	25.600	25.900	26.100	26.300	26.600	26.800
32.0	23.400	23.800	24.200	24.600	25.000	25.300	25.500	25.700	26.000	26.200
32.5	22.900	23.300	23.600	24.000	24.400	24.600	24.900	25.100	25.300	25.600
33.0	22.300	22.700	23.100	23.500	23.800	24.100	24.300	24.500	24.700	25.000
33.5	21.800	22.100	22.500	22.900	23.300	23.500	23.700	23.900	24.100	24.400
34.0	21.200	21.600	21.900	22.300	22.700	22.900	23.100	23.400	23.600	23.800
34.5	20.800	21.100	21.500	21.800	22.100	22.400	22.600	22.800	23.100	23.300

6X PDD Open
Landauer Cancer Institute - Jackson, WY
Varian TrueBeam #9999

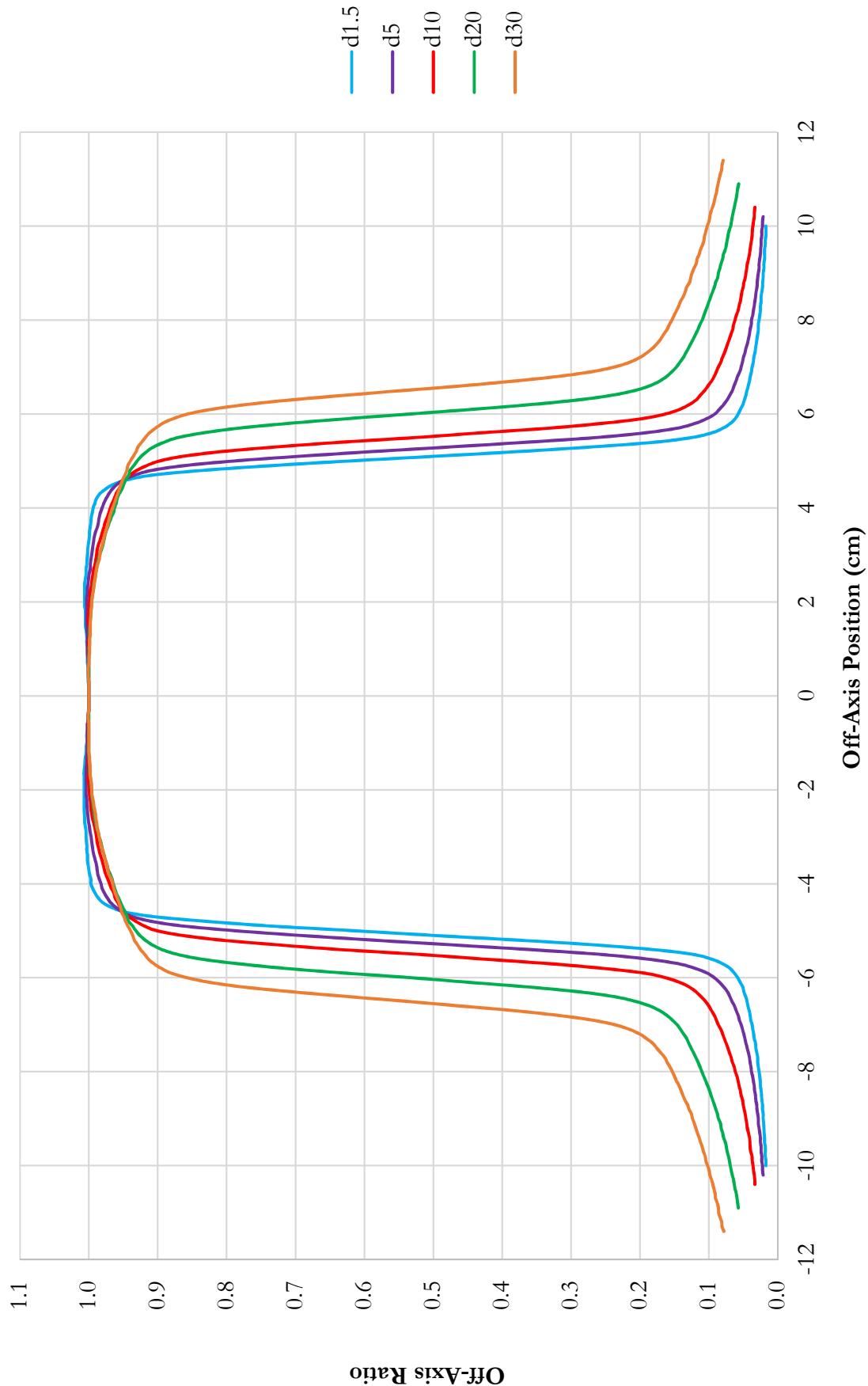


Photon Energies

6X Crossplane

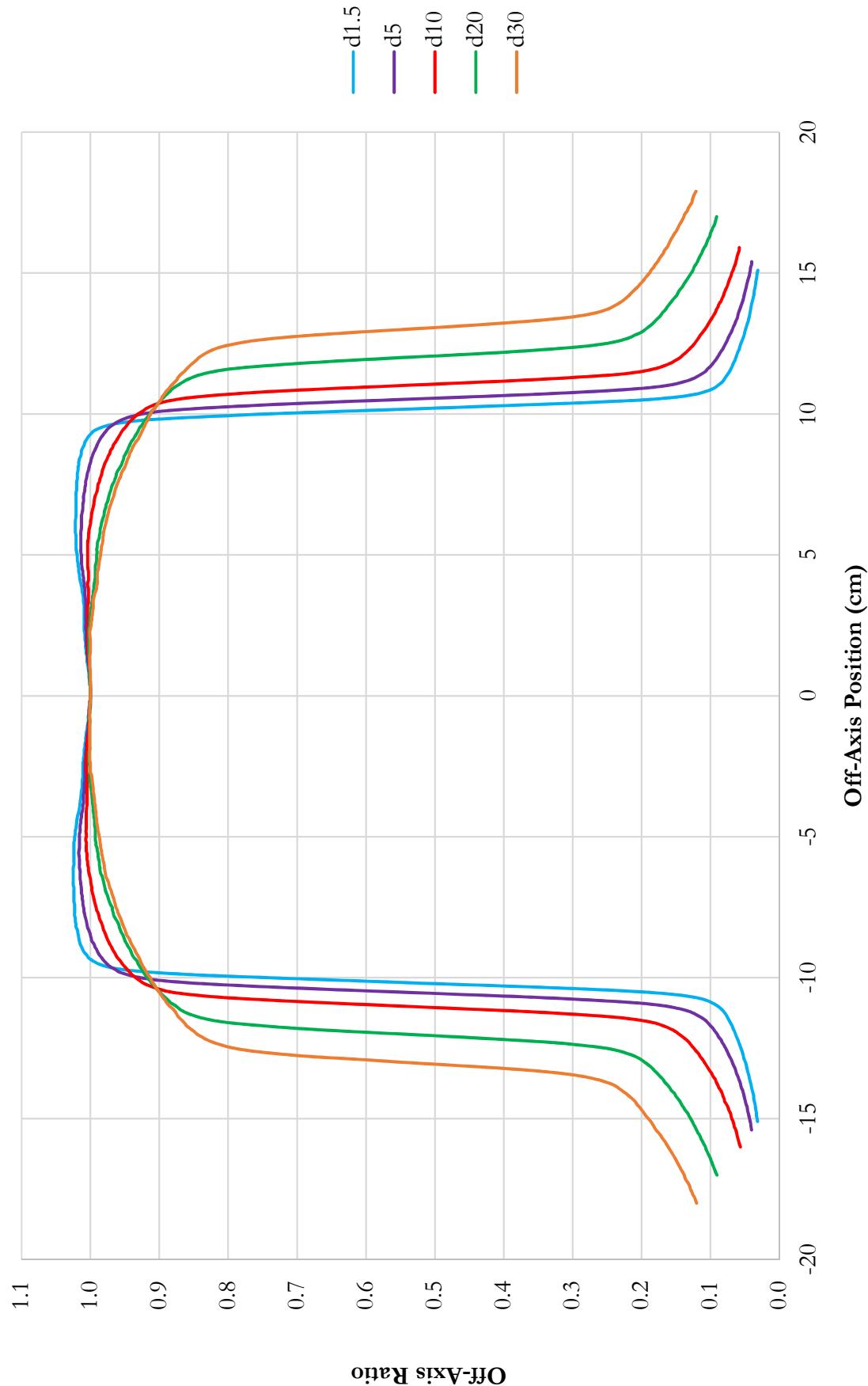
6X Crossplane Open 10x10 100 SSD Landauer Cancer Institute - Jackson, WY Varian TrueBeam #9999					
Off-Axis (cm)	d1.5	d5	d10	d20	d30
-7.0	0.037	0.053	0.086	0.146	0.236
-6.5	0.044	0.066	0.105	0.207	0.541
-6.0	0.058	0.092	0.163	0.532	0.857
-5.5	0.124	0.260	0.524	0.872	0.919
-5.0	0.614	0.787	0.901	0.932	0.940
-4.5	0.967	0.961	0.954	0.951	0.954
-4.0	0.997	0.982	0.970	0.965	0.966
-3.5	1.002	0.991	0.981	0.976	0.976
-3.0	1.004	0.997	0.989	0.985	0.985
-2.5	1.006	1.002	0.996	0.992	0.990
-2.0	1.007	1.004	1.000	0.996	0.996
-1.5	1.006	1.004	1.001	0.999	0.998
-1.0	1.003	1.002	1.001	1.000	1.000
-0.5	1.001	1.001	1.001	1.000	1.001
0.0	1.000	1.000	1.000	1.000	1.000
0.5	1.001	1.001	1.000	1.000	1.001
1.0	1.002	1.002	1.001	1.000	0.999
1.5	1.005	1.003	1.000	0.998	0.998
2.0	1.006	1.003	0.999	0.996	0.996
2.5	1.005	1.000	0.995	0.991	0.991
3.0	1.002	0.996	0.989	0.985	0.984
3.5	0.999	0.990	0.980	0.975	0.975
4.0	0.994	0.981	0.969	0.963	0.966
4.5	0.964	0.959	0.952	0.950	0.953
5.0	0.621	0.789	0.897	0.930	0.940
5.5	0.124	0.262	0.524	0.870	0.918
6.0	0.057	0.091	0.163	0.534	0.856
6.5	0.044	0.066	0.106	0.207	0.544
7.0	0.037	0.053	0.086	0.147	0.237

6X Crossplane Open 10x10 100 SSD
Landauer Cancer Institute - Jackson, WY
Varian TrueBeam #9999



6X Crossplane Open 20x20 100 SSD Landauer Cancer Institute - Jackson, WY					
Off-Axis (cm)	d1.5	d5	d10	d20	d30
-12.0	0.064	0.090	0.146	0.546	0.845
-11.5	0.073	0.108	0.204	0.825	0.868
-11.0	0.090	0.166	0.555	0.876	0.886
-10.5	0.201	0.562	0.885	0.900	0.901
-10.0	0.740	0.927	0.934	0.918	0.913
-9.5	0.989	0.976	0.954	0.931	0.926
-9.0	1.011	0.991	0.968	0.942	0.936
-8.5	1.018	1.000	0.978	0.952	0.947
-8.0	1.022	1.006	0.985	0.961	0.955
-7.5	1.023	1.010	0.992	0.968	0.963
-7.0	1.024	1.013	0.997	0.977	0.969
-6.5	1.025	1.015	1.000	0.982	0.976
-6.0	1.024	1.016	1.004	0.987	0.980
-5.5	1.024	1.017	1.006	0.990	0.984
-5.0	1.023	1.016	1.006	0.993	0.987
-4.5	1.020	1.014	1.006	0.994	0.991
-4.0	1.016	1.011	1.006	0.996	0.993
-3.5	1.014	1.010	1.005	0.998	0.995
-3.0	1.012	1.008	1.005	1.001	0.998
-2.5	1.011	1.008	1.006	1.001	1.000
-2.0	1.009	1.007	1.005	1.002	1.001
-1.5	1.007	1.005	1.004	1.001	1.001
-1.0	1.004	1.003	1.003	1.001	1.001
-0.5	1.002	1.001	1.002	1.001	1.001
0.0	1.000	1.000	1.000	1.000	1.000
0.5	1.001	1.000	1.001	1.001	1.000
1.0	1.003	1.002	1.002	1.001	1.001
1.5	1.006	1.005	1.004	1.002	1.000
2.0	1.008	1.006	1.004	1.002	1.000
2.5	1.009	1.007	1.004	1.001	0.999
3.0	1.009	1.007	1.004	0.999	0.997
3.5	1.010	1.008	1.003	0.997	0.995
4.0	1.014	1.009	1.004	0.994	0.990
4.5	1.017	1.012	1.004	0.993	0.988
5.0	1.019	1.013	1.004	0.991	0.985
5.5	1.021	1.014	1.004	0.989	0.982
6.0	1.022	1.013	1.001	0.985	0.979
6.5	1.021	1.012	0.998	0.980	0.974
7.0	1.021	1.010	0.994	0.974	0.968
7.5	1.020	1.007	0.989	0.968	0.961
8.0	1.018	1.003	0.983	0.960	0.953
8.5	1.014	0.997	0.974	0.951	0.944
9.0	1.008	0.988	0.964	0.941	0.934
9.5	0.986	0.974	0.950	0.929	0.923
10.0	0.744	0.924	0.931	0.914	0.912
10.5	0.198	0.563	0.878	0.897	0.898
11.0	0.090	0.166	0.556	0.874	0.883
11.5	0.072	0.108	0.202	0.822	0.864
12.0	0.063	0.090	0.144	0.548	0.842

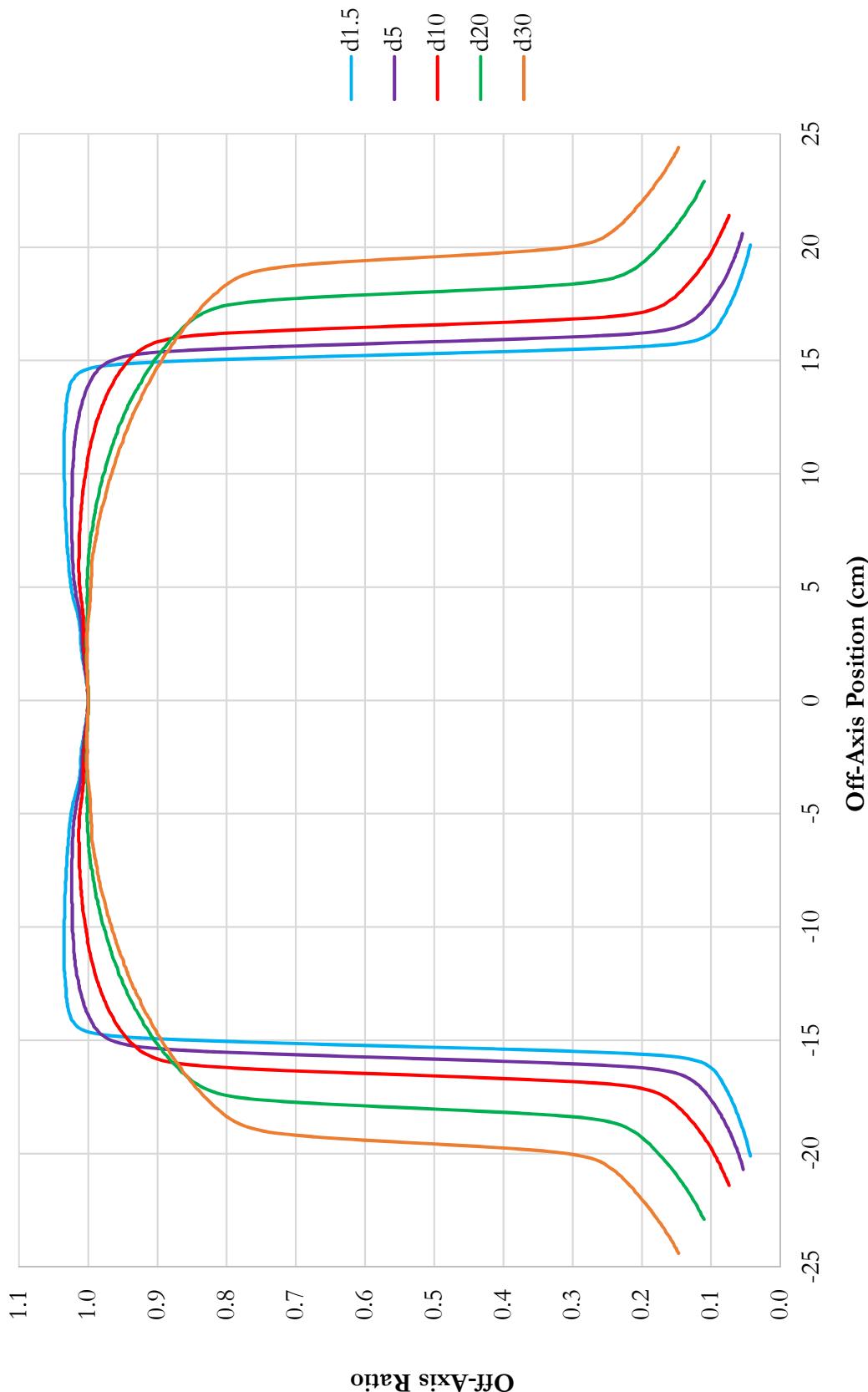
6X Crossplane Open 20x20 100 SSD
Landauer Cancer Institute - Jackson, WY
Varian TrueBeam #9999



6X Crossplane Open 30x30 100 SSD Landauer Cancer Institute - Jackson, WY Varian TrueBeam #9999					
Off-Axis (cm)	d1.5	d5	d10	d20	d30
-17.0	0.081	0.117	0.224	0.839	0.847
-16.5	0.091	0.145	0.563	0.861	0.860
-16.0	0.111	0.332	0.875	0.878	0.872
-15.5	0.286	0.824	0.923	0.892	0.883
-15.0	0.844	0.967	0.942	0.905	0.894
-14.5	1.011	0.988	0.955	0.915	0.904
-14.0	1.025	0.998	0.964	0.925	0.913
-13.5	1.030	1.006	0.973	0.934	0.922
-13.0	1.032	1.010	0.980	0.943	0.930
-12.5	1.033	1.014	0.986	0.950	0.937
-12.0	1.034	1.017	0.991	0.957	0.943
-11.5	1.035	1.019	0.995	0.962	0.949
-11.0	1.035	1.021	0.999	0.968	0.956
-10.5	1.035	1.022	1.001	0.973	0.962
-10.0	1.035	1.023	1.004	0.977	0.966
-9.5	1.034	1.023	1.006	0.982	0.972
-9.0	1.034	1.023	1.009	0.986	0.975
-8.5	1.033	1.024	1.010	0.989	0.980
-8.0	1.033	1.024	1.011	0.992	0.984
-7.5	1.032	1.024	1.012	0.994	0.987
-7.0	1.031	1.024	1.013	0.998	0.990
-6.5	1.030	1.023	1.013	0.999	0.993
-6.0	1.028	1.022	1.014	1.000	0.995
-5.5	1.027	1.021	1.013	1.001	0.995
-5.0	1.025	1.019	1.012	1.002	0.996
-4.5	1.022	1.017	1.010	1.002	0.997
-4.0	1.018	1.013	1.008	1.001	0.999
-3.5	1.013	1.011	1.007	1.002	1.001
-3.0	1.011	1.009	1.007	1.002	1.002
-2.5	1.011	1.009	1.006	1.003	1.002
-2.0	1.009	1.007	1.005	1.003	1.002
-1.5	1.006	1.005	1.004	1.002	1.002
-1.0	1.003	1.003	1.002	1.001	1.001
-0.5	1.001	1.001	1.001	1.000	1.000

6X Crossplane Open 30x30 100 SSD Landauer Cancer Institute - Jackson, WY Varian TrueBeam #9999					
Off-Axis (cm)	d1.5	d5	d10	d20	d30
0.0	1.000	1.000	1.000	1.000	1.000
0.5	1.001	1.001	1.001	1.000	1.000
1.0	1.003	1.003	1.002	1.001	1.001
1.5	1.006	1.005	1.004	1.002	1.002
2.0	1.009	1.007	1.005	1.003	1.002
2.5	1.011	1.009	1.006	1.003	1.002
3.0	1.011	1.009	1.007	1.002	1.002
3.5	1.013	1.011	1.007	1.002	1.000
4.0	1.017	1.013	1.008	1.001	0.998
4.5	1.022	1.017	1.010	1.002	0.997
5.0	1.025	1.019	1.012	1.002	0.996
5.5	1.027	1.021	1.013	1.001	0.995
6.0	1.028	1.022	1.014	1.000	0.995
6.5	1.030	1.023	1.013	0.999	0.993
7.0	1.031	1.023	1.013	0.997	0.990
7.5	1.032	1.024	1.012	0.994	0.987
8.0	1.033	1.024	1.011	0.992	0.984
8.5	1.034	1.024	1.010	0.989	0.981
9.0	1.034	1.023	1.009	0.985	0.975
9.5	1.034	1.023	1.006	0.982	0.972
10.0	1.035	1.023	1.004	0.978	0.966
10.5	1.035	1.022	1.002	0.973	0.961
11.0	1.035	1.021	0.999	0.968	0.956
11.5	1.035	1.019	0.995	0.963	0.949
12.0	1.034	1.017	0.991	0.957	0.943
12.5	1.033	1.014	0.985	0.950	0.937
13.0	1.032	1.010	0.980	0.943	0.929
13.5	1.030	1.005	0.973	0.934	0.922
14.0	1.026	0.998	0.964	0.924	0.912
14.5	1.011	0.988	0.955	0.915	0.904
15.0	0.848	0.966	0.942	0.905	0.894
15.5	0.290	0.820	0.923	0.892	0.882
16.0	0.112	0.336	0.874	0.878	0.872
16.5	0.090	0.146	0.567	0.862	0.860
17.0	0.081	0.118	0.226	0.839	0.846

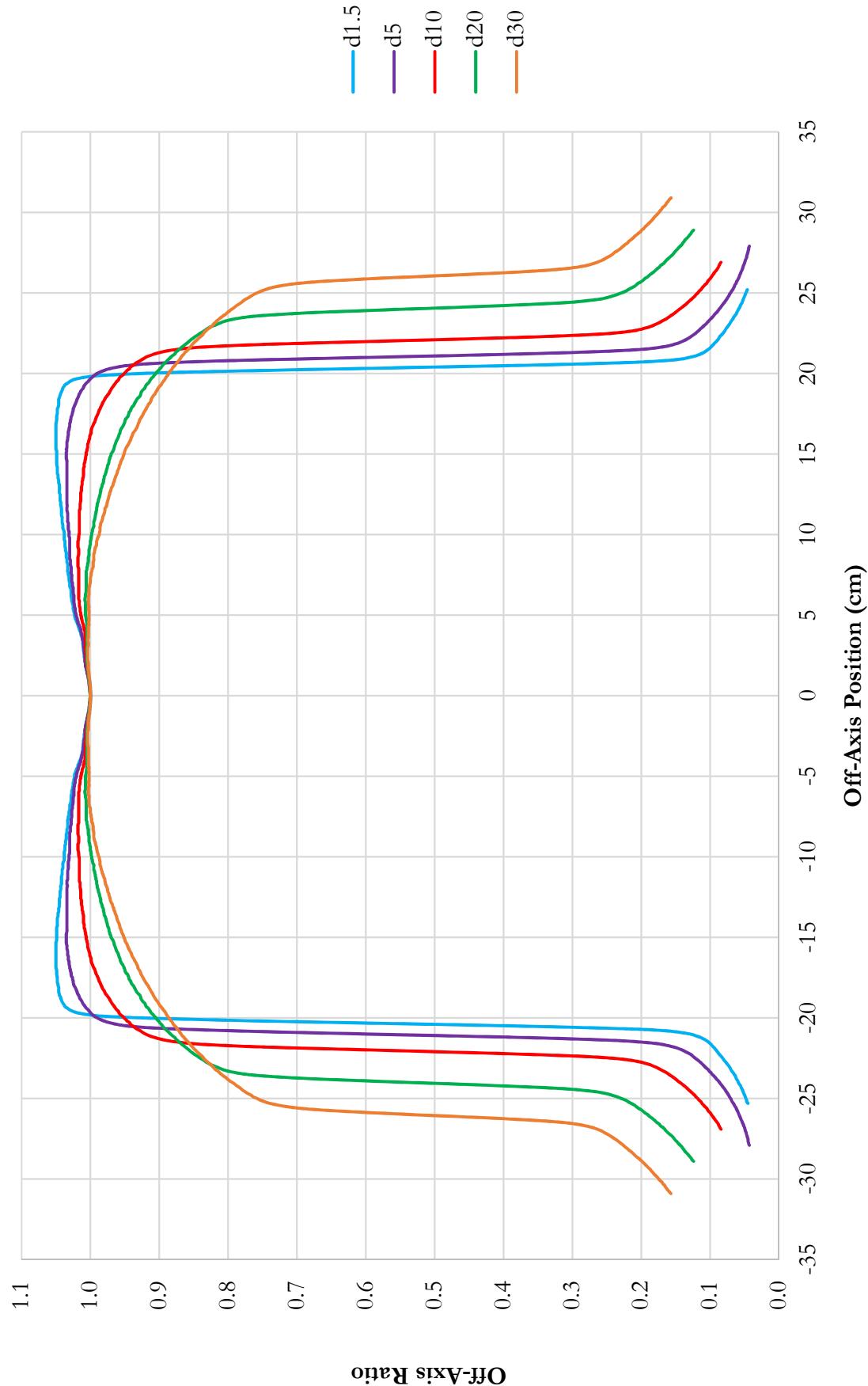
6X Crossplane Open 30x30 100 SSD
Landauer Cancer Institute - Jackson, WY
Varian TrueBeam #9999



6X Crossplane Open 40x40 100 SSD Landauer Cancer Institute - Jackson, WY Varian TrueBeam #9999					
Off-Axis (cm)	d1.5	d5	d10	d20	d30
-22.0	0.091	0.140	0.582	0.857	0.848
-21.5	0.102	0.200	0.874	0.871	0.858
-21.0	0.129	0.598	0.920	0.884	0.868
-20.5	0.383	0.946	0.938	0.895	0.877
-20.0	0.924	0.990	0.951	0.905	0.886
-19.5	1.030	1.003	0.962	0.914	0.894
-19.0	1.041	1.012	0.970	0.923	0.902
-18.5	1.045	1.018	0.978	0.930	0.910
-18.0	1.047	1.024	0.984	0.938	0.916
-17.5	1.048	1.026	0.989	0.944	0.924
-17.0	1.049	1.029	0.994	0.950	0.930
-16.5	1.050	1.031	0.999	0.956	0.935
-16.0	1.050	1.033	1.001	0.960	0.940
-15.5	1.050	1.034	1.004	0.965	0.946
-15.0	1.049	1.035	1.006	0.970	0.952
-14.5	1.049	1.034	1.008	0.973	0.956
-14.0	1.048	1.034	1.010	0.977	0.960
-13.5	1.047	1.034	1.011	0.980	0.964
-13.0	1.045	1.034	1.013	0.983	0.968
-12.5	1.044	1.034	1.014	0.986	0.972
-12.0	1.043	1.034	1.014	0.989	0.975
-11.5	1.042	1.034	1.016	0.991	0.979
-11.0	1.041	1.033	1.016	0.994	0.983
-10.5	1.040	1.032	1.016	0.995	0.986
-10.0	1.038	1.031	1.016	0.998	0.988
-9.5	1.037	1.030	1.018	1.000	0.991
-9.0	1.036	1.030	1.017	1.002	0.994
-8.5	1.034	1.030	1.018	1.003	0.995
-8.0	1.033	1.028	1.018	1.005	0.996
-7.5	1.032	1.027	1.017	1.006	0.999
-7.0	1.030	1.026	1.017	1.006	1.000
-6.5	1.028	1.025	1.017	1.006	1.002
-6.0	1.027	1.024	1.017	1.008	1.003
-5.5	1.025	1.023	1.015	1.007	1.002
-5.0	1.023	1.020	1.014	1.007	1.002
-4.5	1.019	1.017	1.011	1.005	1.002
-4.0	1.015	1.014	1.008	1.005	1.003
-3.5	1.011	1.012	1.007	1.005	1.003
-3.0	1.010	1.010	1.007	1.005	1.004
-2.5	1.009	1.008	1.006	1.005	1.004
-2.0	1.007	1.007	1.005	1.005	1.003
-1.5	1.005	1.005	1.004	1.003	1.003
-1.0	1.003	1.002	1.002	1.002	1.001
-0.5	1.000	1.001	1.001	1.001	1.000

6X Crossplane Open 40x40 100 SSD Landauer Cancer Institute - Jackson, WY Varian TrueBeam #9999					
Off-Axis (cm)	d1.5	d5	d10	d20	d30
0.0	1.000	1.000	1.000	1.000	1.000
0.5	1.000	1.001	1.001	1.001	1.000
1.0	1.003	1.002	1.002	1.002	1.001
1.5	1.005	1.005	1.004	1.003	1.002
2.0	1.007	1.007	1.005	1.005	1.003
2.5	1.009	1.008	1.006	1.005	1.004
3.0	1.010	1.010	1.007	1.005	1.004
3.5	1.012	1.011	1.007	1.005	1.004
4.0	1.015	1.014	1.008	1.005	1.003
4.5	1.019	1.018	1.011	1.005	1.002
5.0	1.023	1.021	1.014	1.007	1.002
5.5	1.025	1.023	1.015	1.007	1.002
6.0	1.027	1.024	1.017	1.008	1.003
6.5	1.028	1.025	1.017	1.006	1.002
7.0	1.030	1.026	1.017	1.006	1.000
7.5	1.032	1.027	1.017	1.006	0.999
8.0	1.033	1.028	1.018	1.005	0.996
8.5	1.034	1.030	1.018	1.003	0.995
9.0	1.036	1.030	1.017	1.002	0.994
9.5	1.037	1.030	1.018	1.000	0.991
10.0	1.038	1.031	1.016	0.998	0.987
10.5	1.040	1.032	1.016	0.995	0.986
11.0	1.041	1.033	1.016	0.994	0.982
11.5	1.042	1.034	1.016	0.991	0.979
12.0	1.043	1.034	1.014	0.989	0.975
12.5	1.044	1.034	1.014	0.986	0.972
13.0	1.045	1.034	1.013	0.983	0.968
13.5	1.047	1.034	1.011	0.980	0.964
14.0	1.048	1.034	1.010	0.977	0.960
14.5	1.049	1.034	1.008	0.973	0.956
15.0	1.049	1.035	1.006	0.970	0.951
15.5	1.050	1.034	1.004	0.965	0.946
16.0	1.050	1.033	1.001	0.960	0.941
16.5	1.050	1.031	0.999	0.956	0.934
17.0	1.049	1.029	0.994	0.950	0.929
17.5	1.048	1.026	0.989	0.944	0.923
18.0	1.046	1.023	0.984	0.938	0.917
18.5	1.045	1.018	0.978	0.930	0.910
19.0	1.041	1.012	0.970	0.923	0.903
19.5	1.030	1.003	0.962	0.914	0.894
20.0	0.926	0.990	0.951	0.905	0.886
20.5	0.381	0.946	0.938	0.895	0.877
21.0	0.130	0.595	0.920	0.884	0.869
21.5	0.102	0.199	0.874	0.871	0.858
22.0	0.091	0.140	0.582	0.857	0.848

6X Crossplane Open 40x40 100 SSD
Landauer Cancer Institute - Jackson, WY
Varian TrueBeam #9999



Photon Energies

6X Beam Match Verification

6X Eclipse Output Factors 95 SSD d5
 Landauer Cancer Institute
 Varian TrueBeam #9999

Verification Data Measured on TrueBeam #4285

Representative TrueBeam Data

Open Field

Y (cm)	X (cm)					Field size X (cm)				
	3	4	5	7	10	15	20	30	40	40
3	0.879					0.925				
4										
5										
7										
10										
15										
20										
30										
40										

% difference (Verification/Representative)

Open Field

Y (cm)	X (cm)					Field size X (cm)				
	3	4	5	7	10	15	20	30	40	40
3	0.880	0.891	0.899	0.908	0.915	0.920	0.923	0.926	0.926	
4	0.892	0.906	0.915	0.927	0.936	0.943	0.946	0.950	0.951	
5	0.901	0.917	0.928	0.942	0.952	0.961	0.966	0.970	0.971	
7	0.913	0.932	0.946	0.963	0.977	0.988	0.995	1.001	1.003	
10	0.924	0.946	0.962	0.983	1.000	1.015	1.024	1.032	1.035	
15	0.932	0.956	0.974	0.999	1.020	1.039	1.052	1.063	1.067	
20	0.936	0.961	0.980	1.007	1.031	1.053	1.067	1.082	1.086	
30	0.941	0.967	0.987	1.016	1.043	1.069	1.086	1.104	1.110	
40	0.943	0.970	0.990	1.020	1.048	1.076	1.095	1.113	1.119	

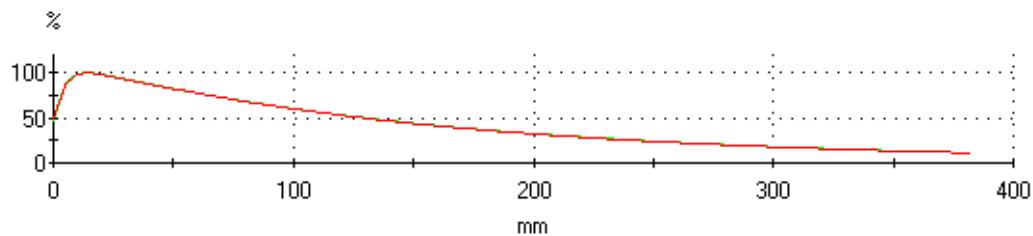
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-01-26 10:34

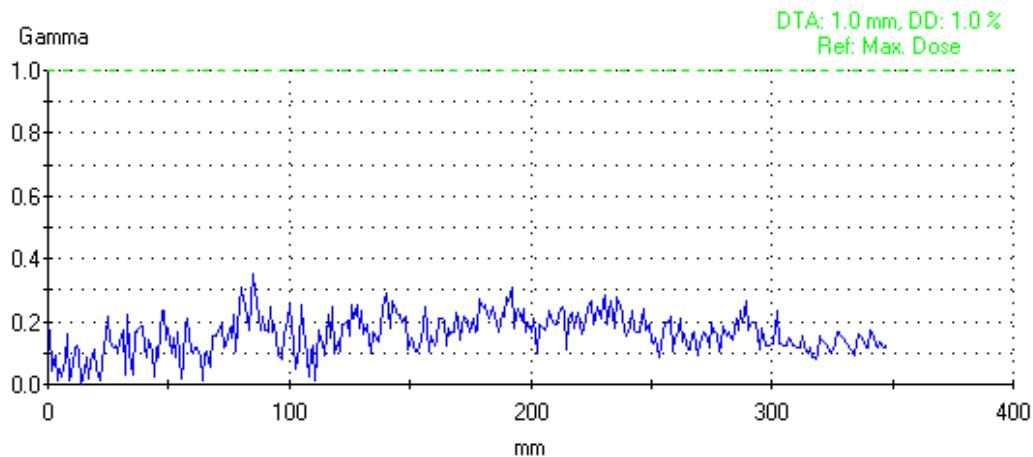
Setup

Measurement Parameters

Energy [MV]:	6.0
Field Size TG x LR [cm x cm]:	3.0 x 3.0
Depth [mm]:	
Profile Type:	PDD



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



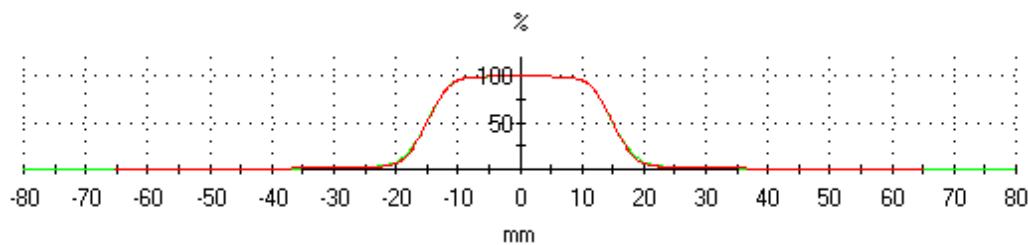
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-01-26 10:38

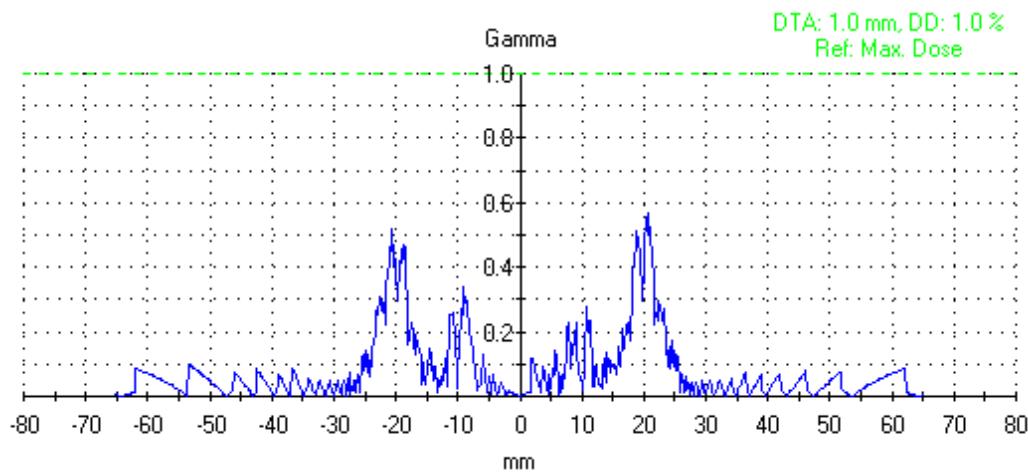
Setup

Measurement Parameters

Energy [MV]:	6.0
Field Size Inpla. x Cross. [cm x cm]:	3.0 x 3.0
Depth [mm]:	15.0
Profile Type:	Crossplane Profile



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



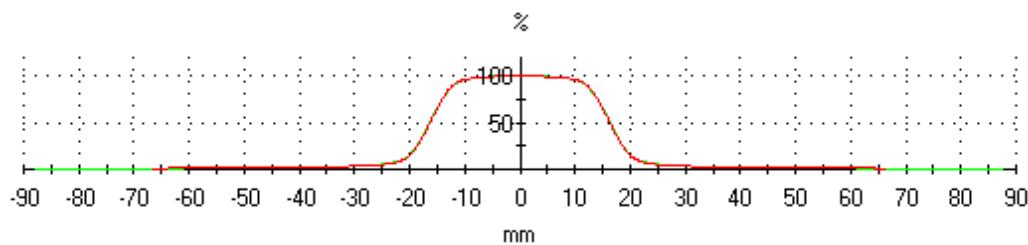
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-01-26 10:39

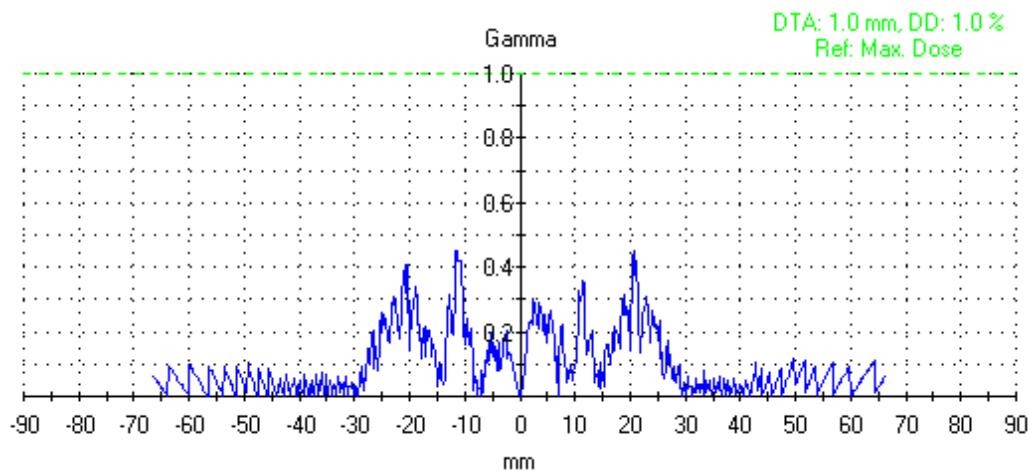
Setup

Measurement Parameters

Energy [MV]:	6.0
Field Size Inpla. x Cross. [cm x cm]:	3.0 x 3.0
Depth [mm]:	100.0
Profile Type:	Crossplane Profile



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



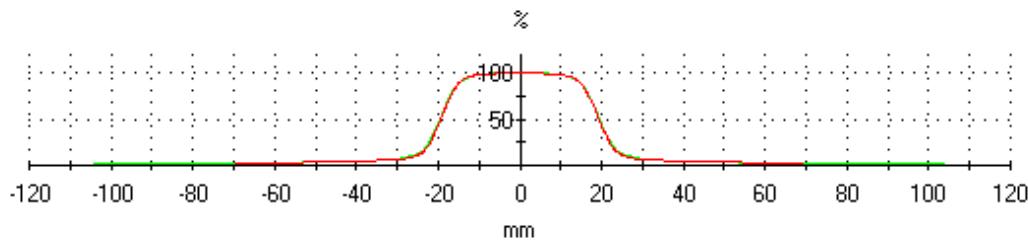
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-01-26 10:39

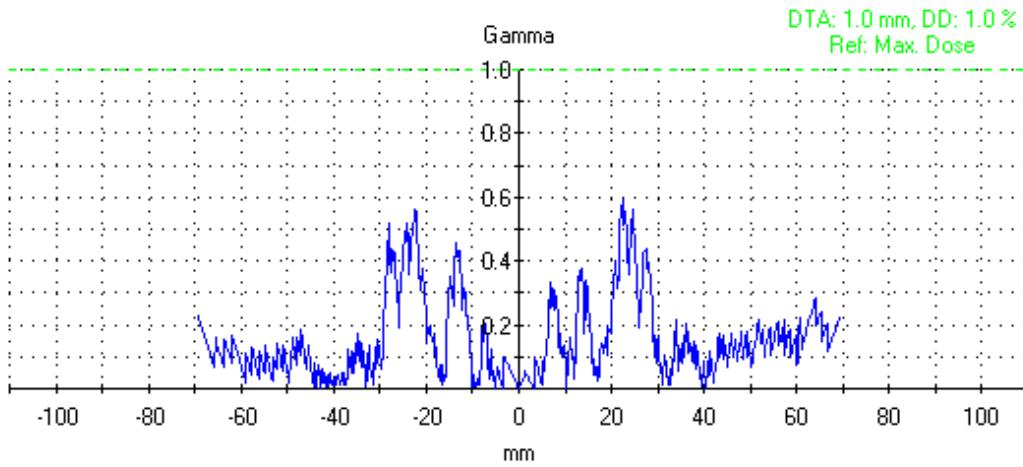
Setup

Measurement Parameters

Energy [MV]:	6.0
Field Size Inpla. x Cross. [cm x cm]:	3.0 x 3.0
Depth [mm]:	300.0
Profile Type:	Crossplane Profile



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



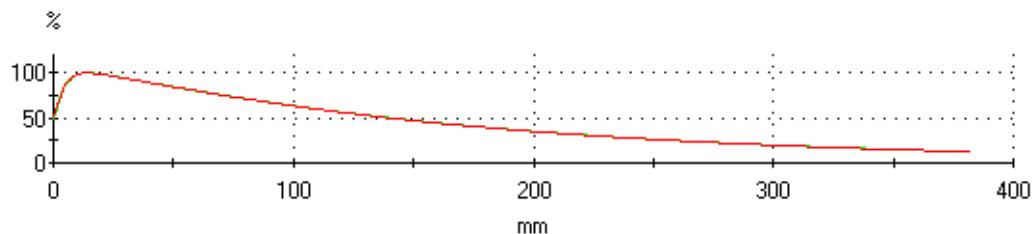
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-01-26 10:35

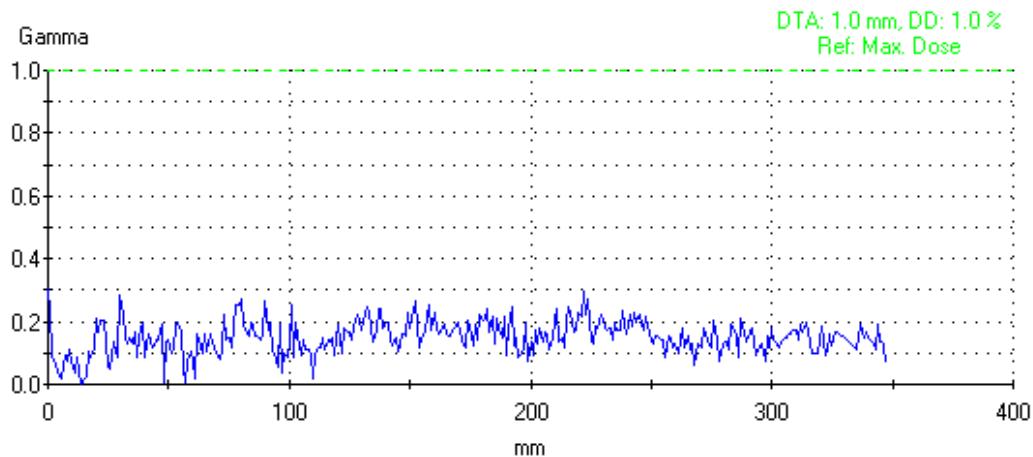
Setup

Measurement Parameters

Energy [MV]:	6.0
Field Size TG x LR [cm x cm]:	6.0 x 6.0
Depth [mm]:	
Profile Type:	PDD



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



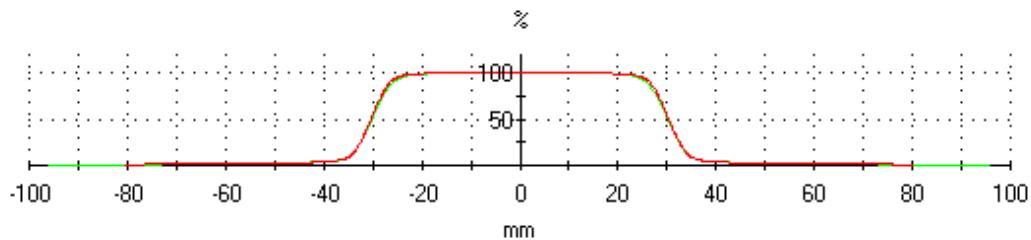
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-01-26 10:40

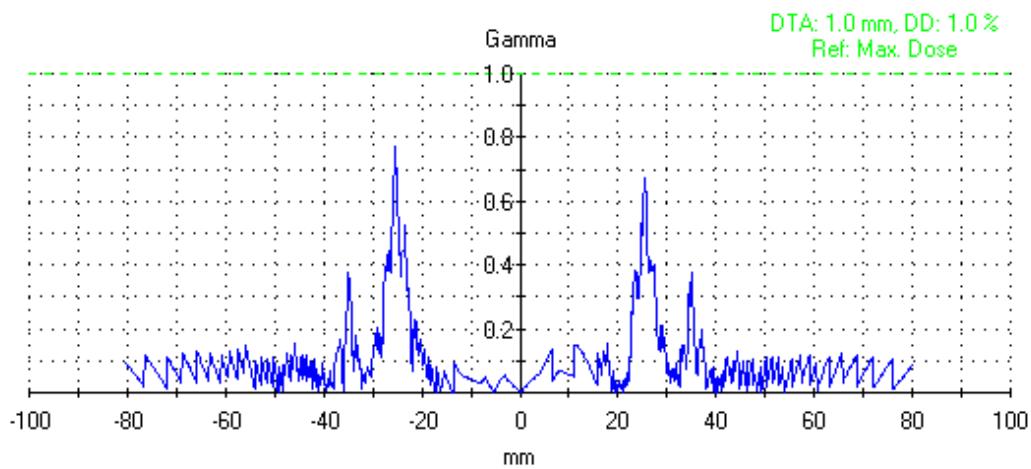
Setup

Measurement Parameters

Energy [MV]:	6.0
Field Size Inpla. x Cross. [cm x cm]:	6.0 x 6.0
Depth [mm]:	15.0
Profile Type:	Crossplane Profile



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



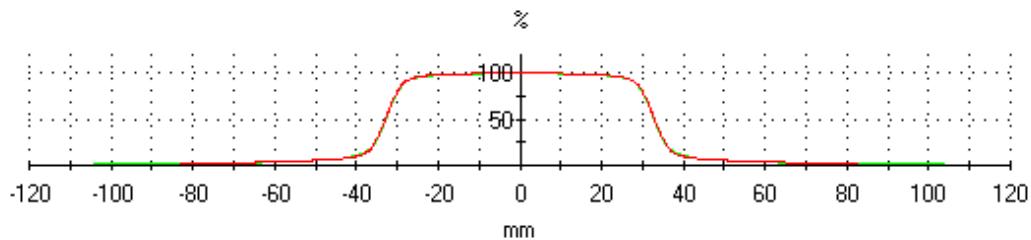
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-01-26 10:40

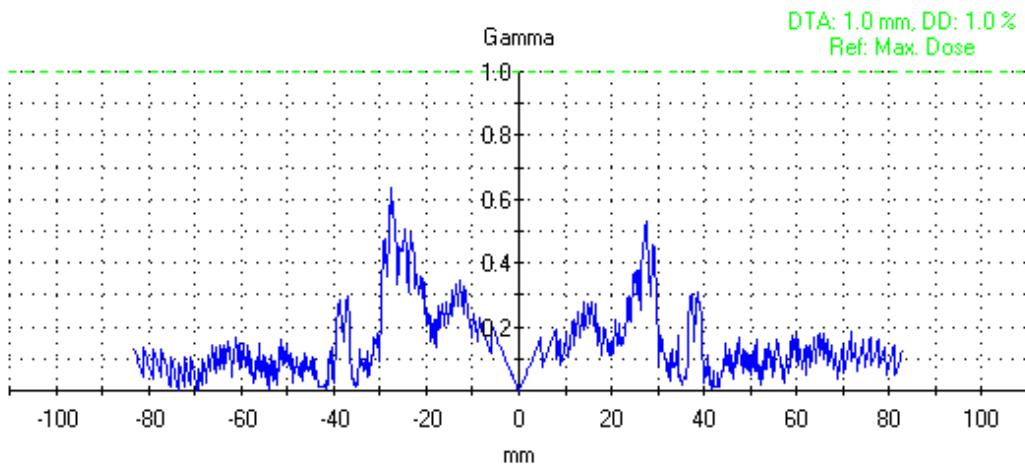
Setup

Measurement Parameters

Energy [MV]:	6.0
Field Size Inpla. x Cross. [cm x cm]:	6.0 x 6.0
Depth [mm]:	100.0
Profile Type:	Crossplane Profile



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



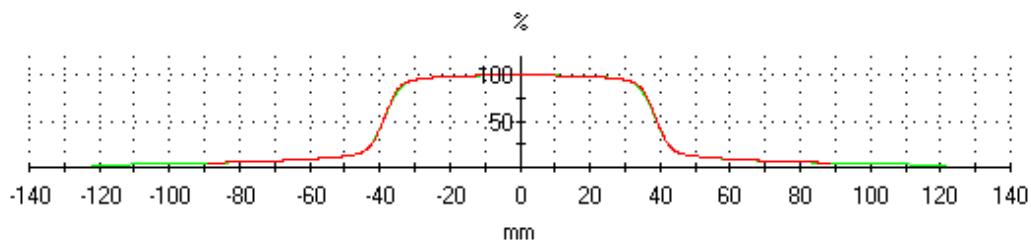
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-01-26 10:41

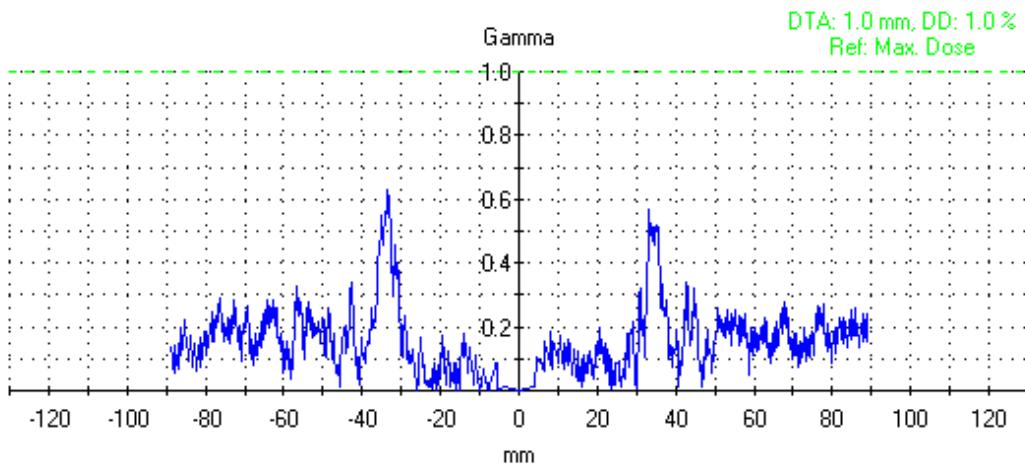
Setup

Measurement Parameters

Energy [MV]:	6.0
Field Size Inpla. x Cross. [cm x cm]:	6.0 x 6.0
Depth [mm]:	300.0
Profile Type:	Crossplane Profile



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



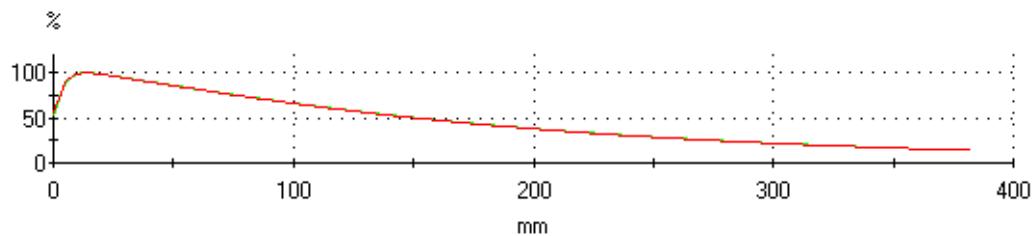
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-01-26 10:35

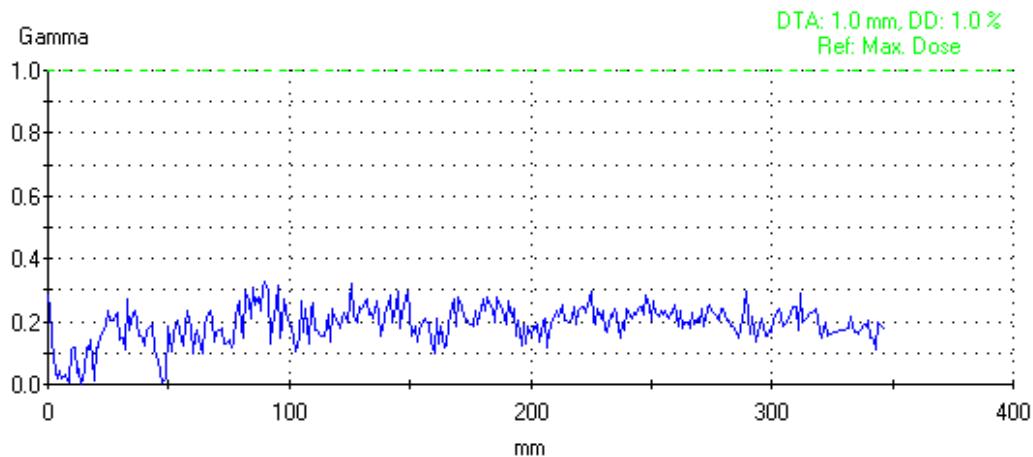
Setup

Measurement Parameters

Energy [MV]:	6.0
Field Size TG x LR [cm x cm]:	10.0 x 10.0
Depth [mm]:	
Profile Type:	PDD



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



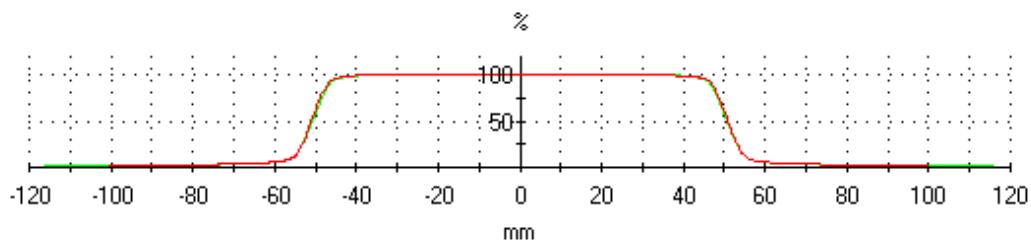
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-01-26 10:42

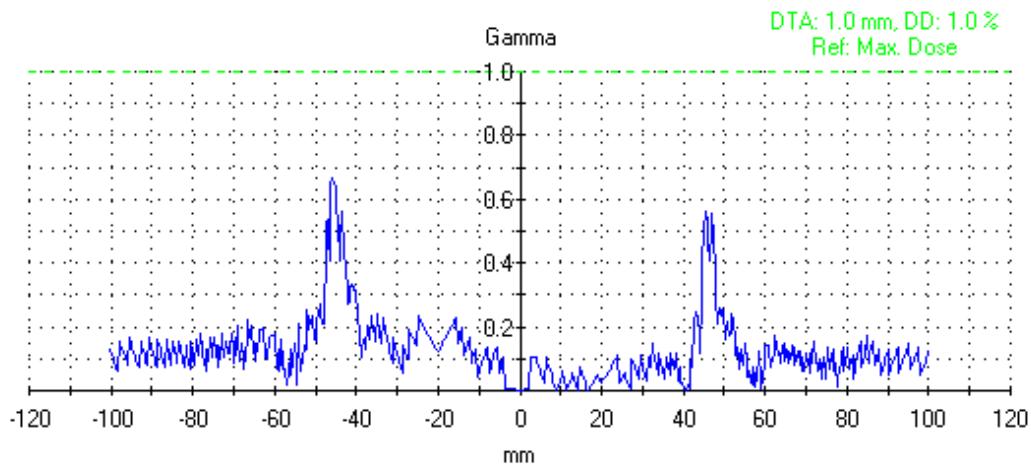
Setup

Measurement Parameters

Energy [MV]:	6.0
Field Size Inpla. x Cross. [cm x cm]:	10.0 x 10.0
Depth [mm]:	15.0
Profile Type:	Crossplane Profile



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



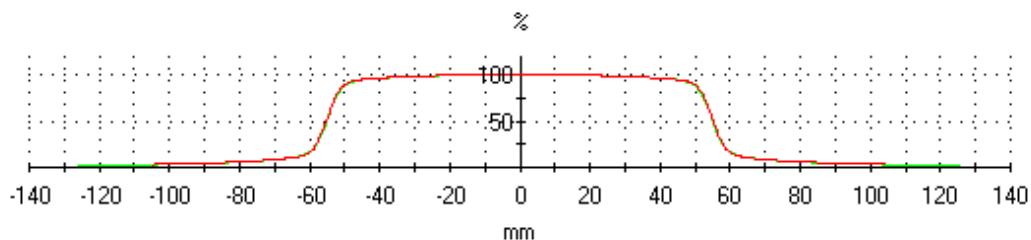
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-01-26 10:42

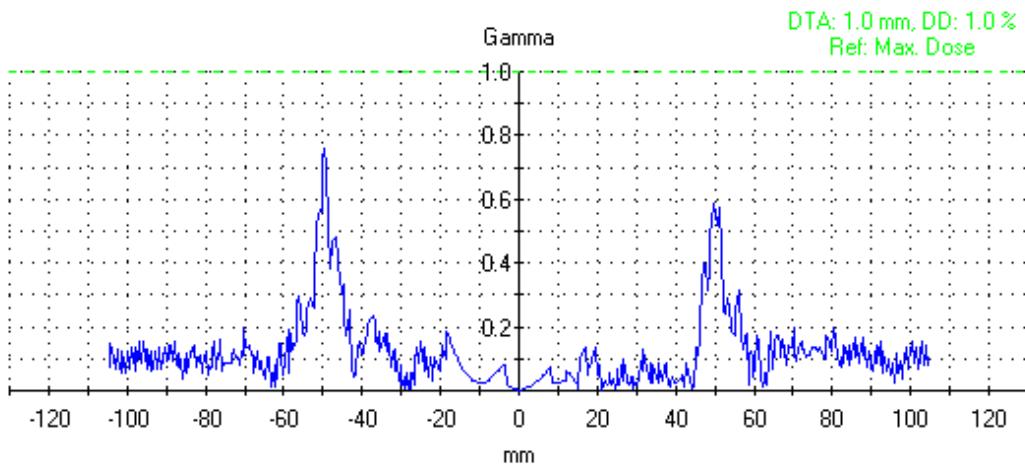
Setup

Measurement Parameters

Energy [MV]:	6.0
Field Size Inpla. x Cross. [cm x cm]:	10.0 x 10.0
Depth [mm]:	100.0
Profile Type:	Crossplane Profile



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



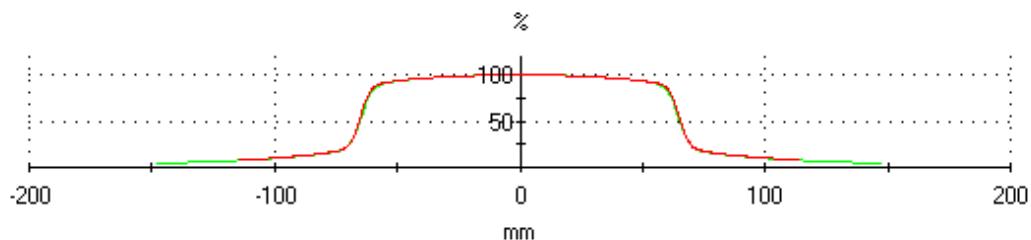
Mephysto mcc - Report

Institution: Landauer Cancer Institut
Operator:
Comment:
Print-Date: 2020-01-26 10:42

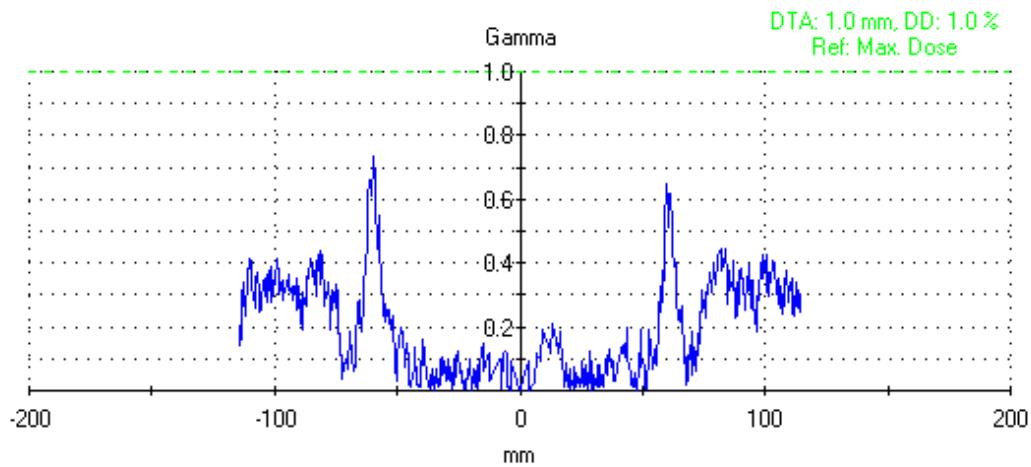
Setup

Measurement Parameters

Energy [MV]:	6.0
Field Size Inpla. x Cross. [cm x cm]:	10.0 x 10.0
Depth [mm]:	300.0
Profile Type:	Crossplane Profile



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



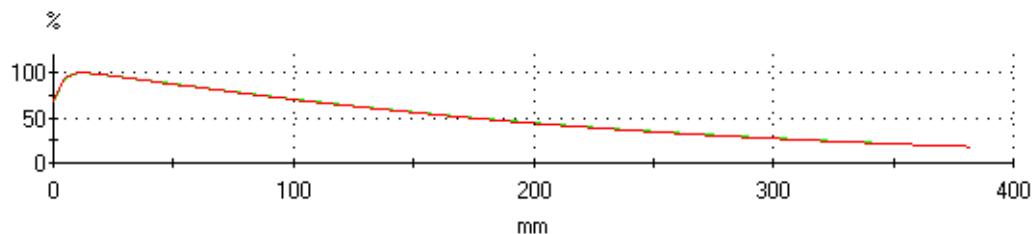
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-01-26 10:36

Setup

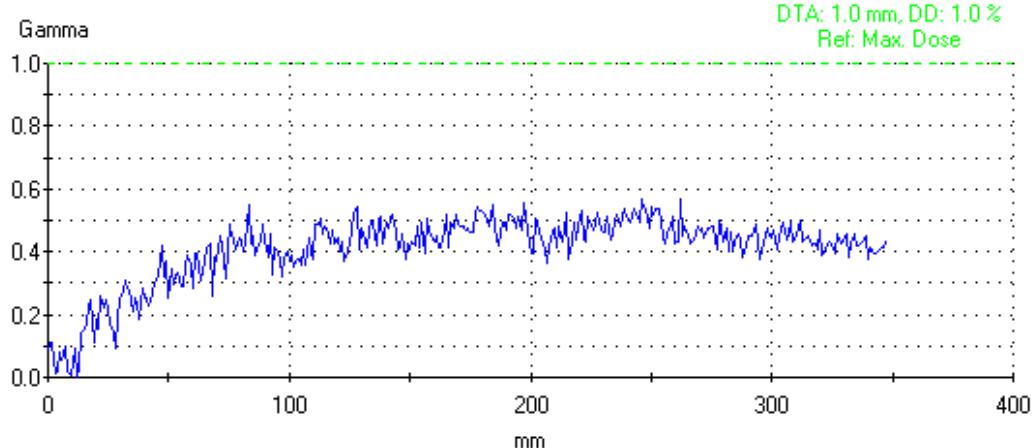
Measurement Parameters

Energy [MV]:	6.0
Field Size TG x LR [cm x cm]:	30.0 x 30.0
Depth [mm]:	
Profile Type:	PDD



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)

DTA: 1.0 mm, DD: 1.0 %
Ref: Max. Dose



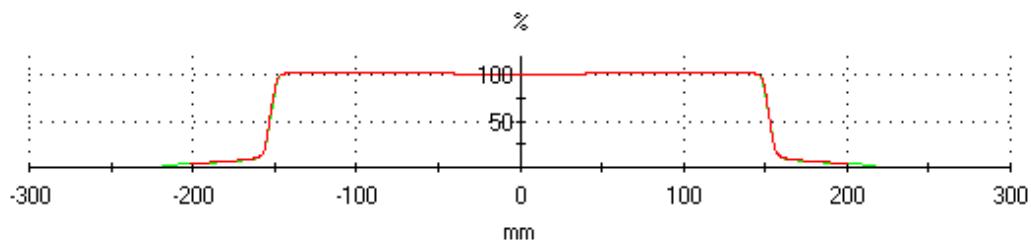
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-01-26 10:43

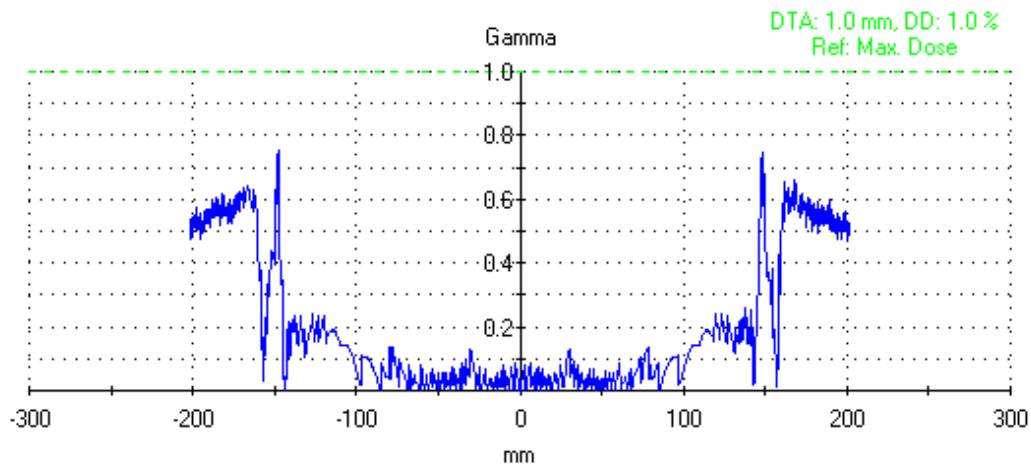
Setup

Measurement Parameters

Energy [MV]:	6.0
Field Size Inpla. x Cross. [cm x cm]:	30.0 x 30.0
Depth [mm]:	15.0
Profile Type:	Crossplane Profile



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



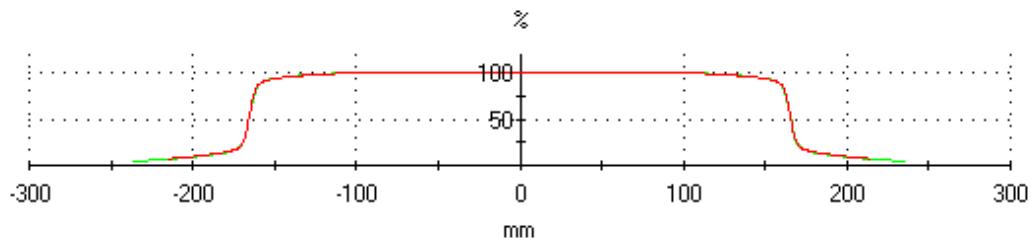
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-01-26 10:43

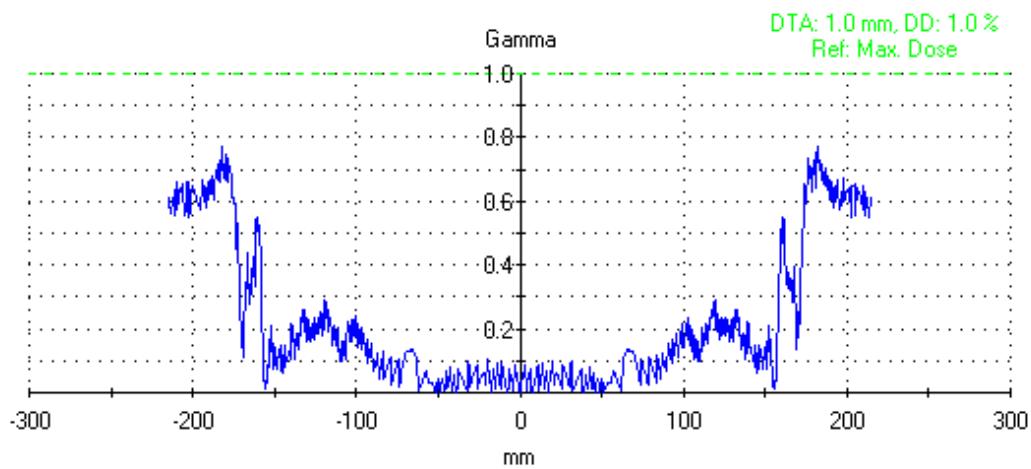
Setup

Measurement Parameters

Energy [MV]:	6.0
Field Size Inpla. x Cross. [cm x cm]:	30.0 x 30.0
Depth [mm]:	100.0
Profile Type:	Crossplane Profile



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



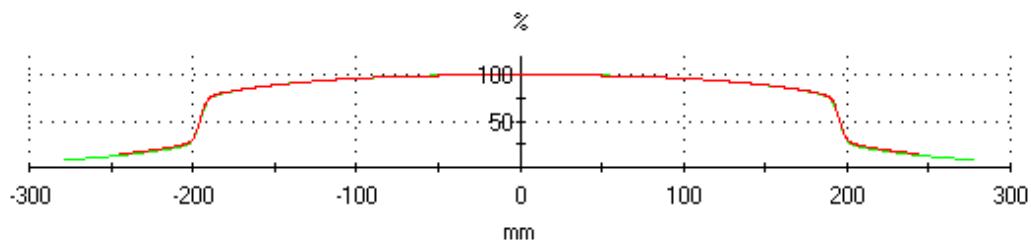
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-01-26 10:44

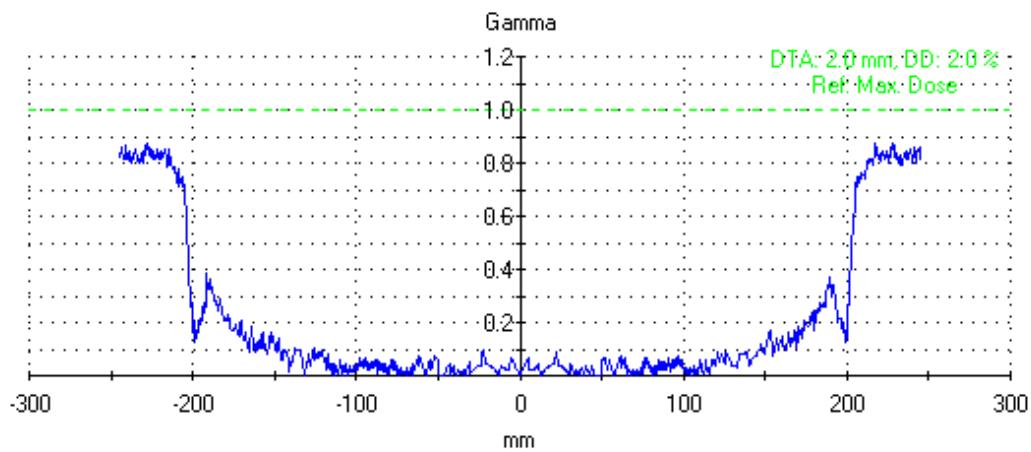
Setup

Measurement Parameters

Energy [MV]:	6.0
Field Size Inpla. x Cross. [cm x cm]:	30.0 x 30.0
Depth [mm]:	300.0
Profile Type:	Crossplane Profile



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



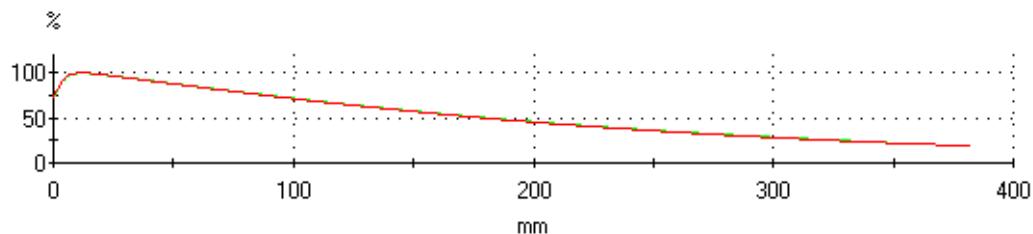
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-01-26 10:36

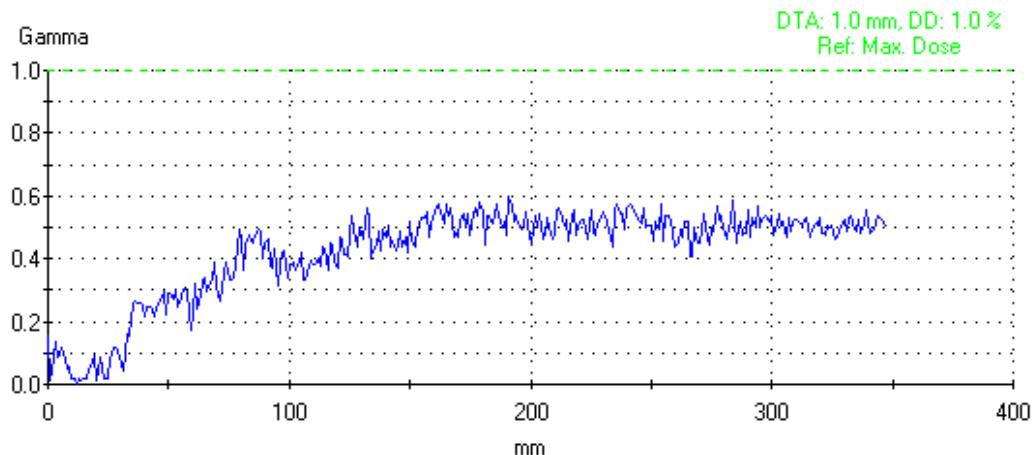
Setup

Measurement Parameters

Energy [MV]:	6.0
Field Size TG x LR [cm x cm]:	40.0 x 40.0
Depth [mm]:	
Profile Type:	PDD



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



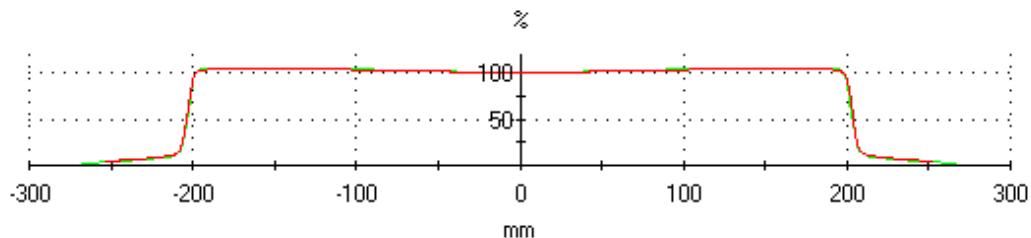
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-01-26 10:45

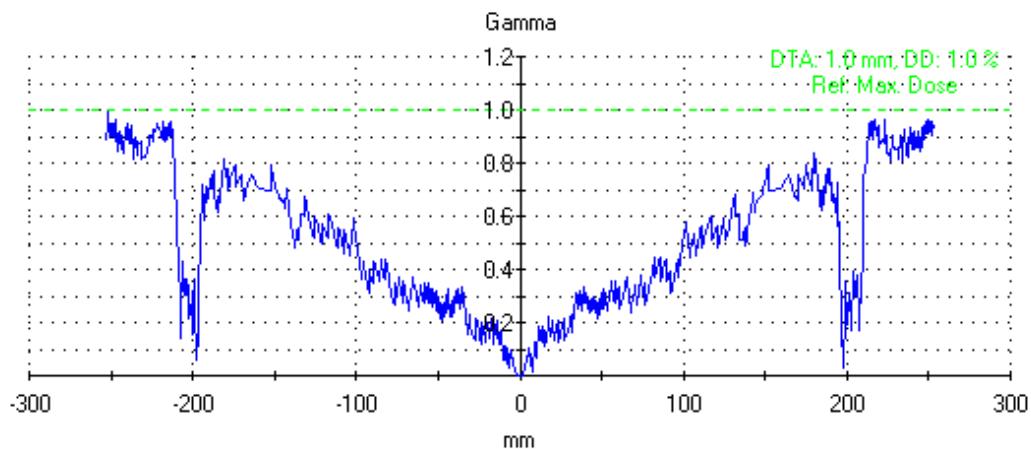
Setup

Measurement Parameters

Energy [MV]:	6.0
Field Size Inpla. x Cross. [cm x cm]:	40.0 x 40.0
Depth [mm]:	15.0
Profile Type:	Crossplane Profile



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



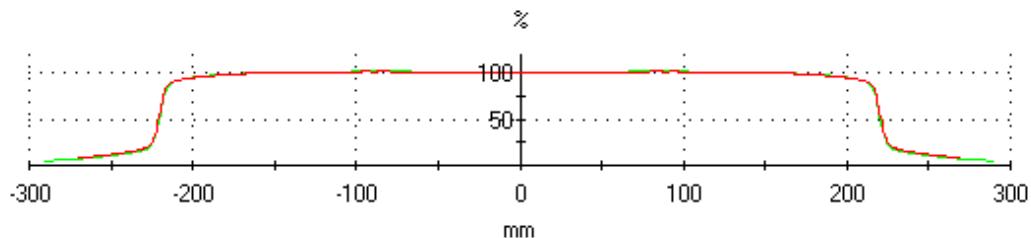
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-01-26 10:45

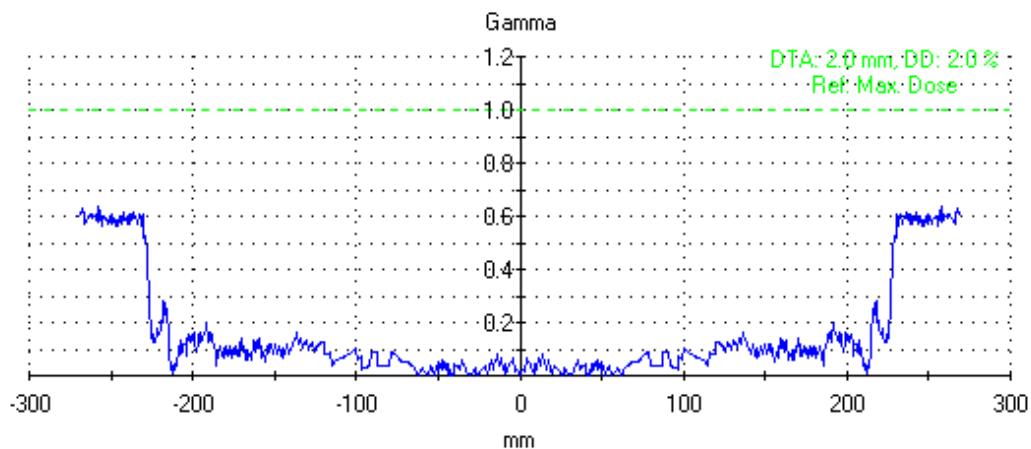
Setup

Measurement Parameters

Energy [MV]:	6.0
Field Size Inpla. x Cross. [cm x cm]:	40.0 x 40.0
Depth [mm]:	100.0
Profile Type:	Crossplane Profile



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



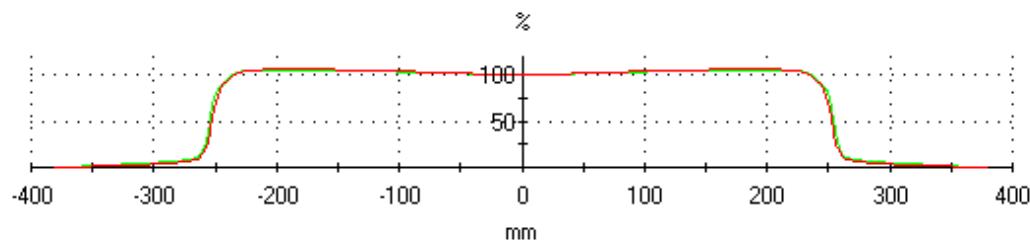
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: Diagonal
Print-Date: 2020-01-26 10:11

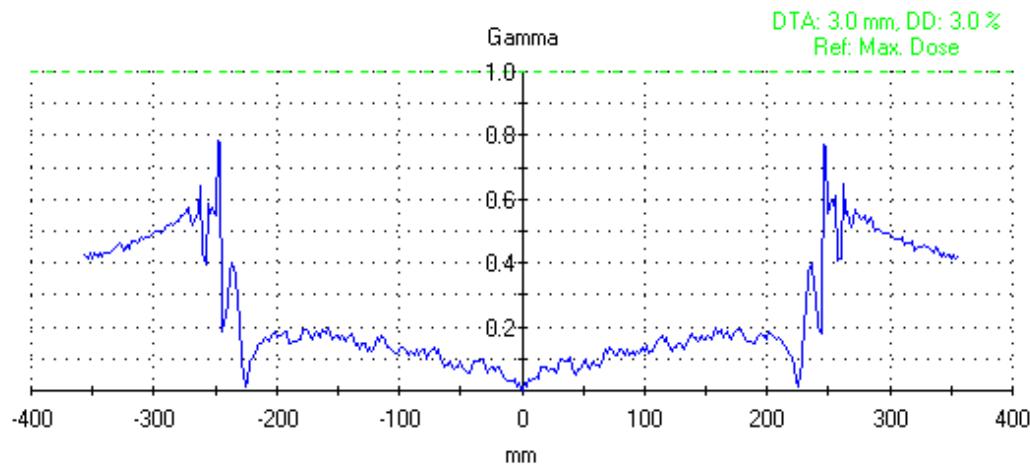
Setup

Measurement Parameters

Energy [MV]:	6.0
Field Size TG x LR [cm x cm]:	40.0 x 40.0
Depth [mm]:	15.0
Profile Type:	LR Profile
Wedge:	Open
Block:	None
Raw/Processed:	Processed



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



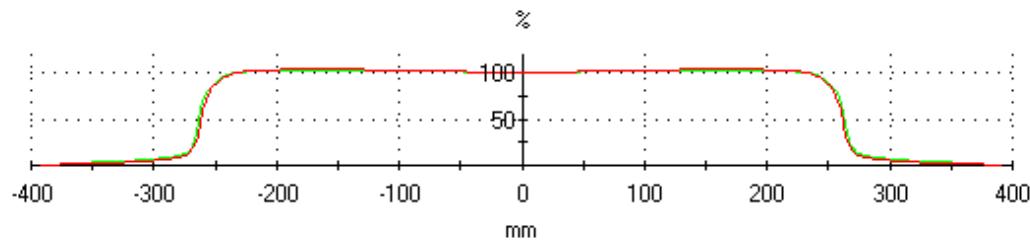
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator: Diagonal
Comment: 2020-01-26 10:12
Print-Date:

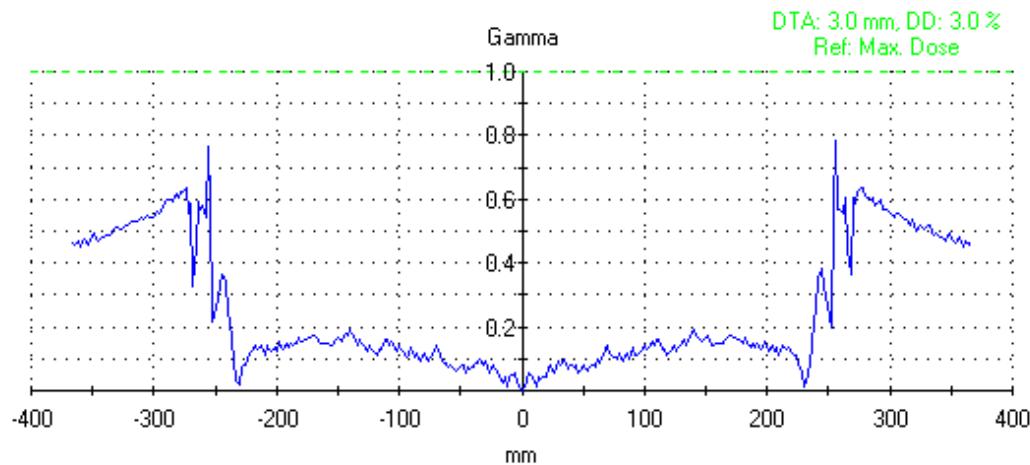
Setup

Measurement Parameters

Energy [MV]:	6.0
Field Size TG x LR [cm x cm]:	40.0 x 40.0
Depth [mm]:	50.0
Profile Type:	LR Profile
Wedge:	Open
Block:	None
Raw/Processed:	Processed



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



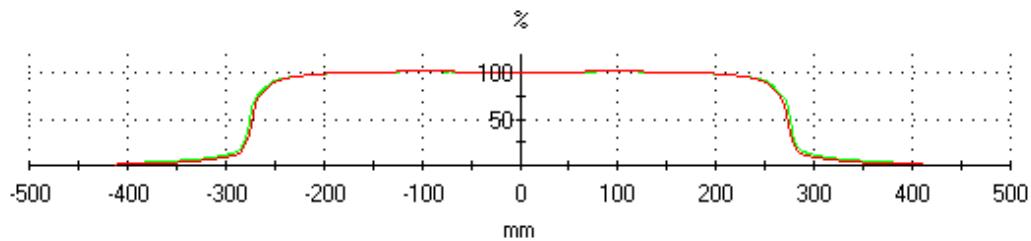
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: Diagonal
Print-Date: 2020-01-26 10:13

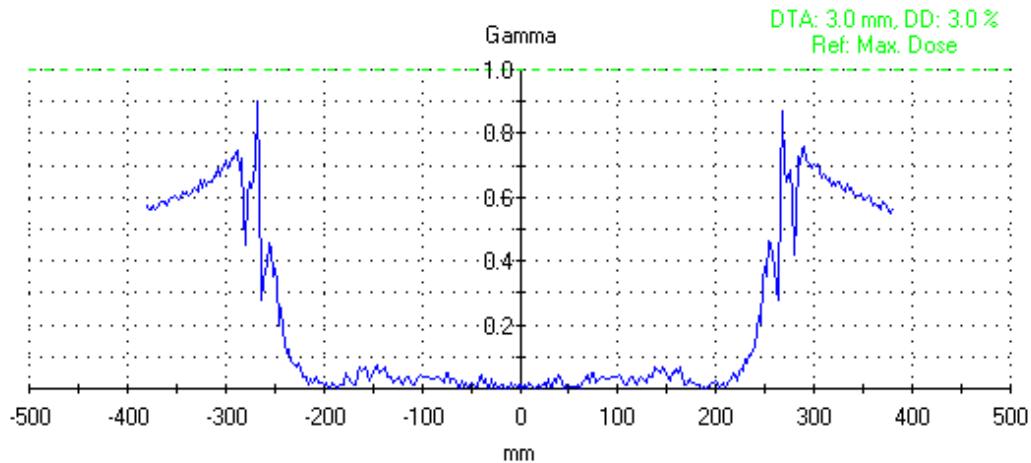
Setup

Measurement Parameters

Energy [MV]:	6.0
Field Size TG x LR [cm x cm]:	40.0 x 40.0
Depth [mm]:	100.0
Profile Type:	LR Profile
Wedge:	Open
Block:	None
Raw/Processed:	Processed



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



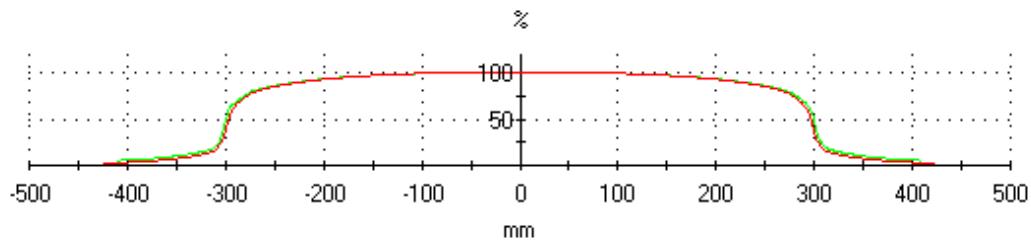
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: Diagonal
Print-Date: 2020-01-26 10:13

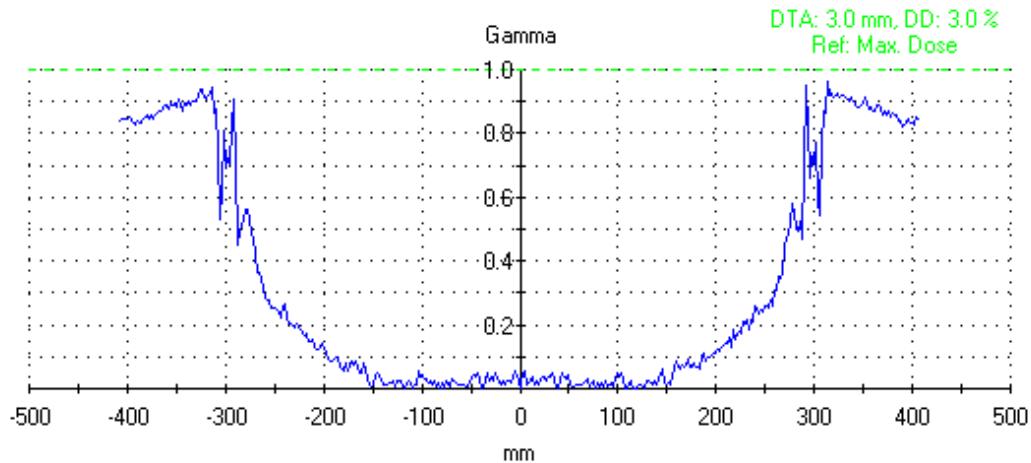
Setup

Measurement Parameters

Energy [MV]:	6.0
Field Size TG x LR [cm x cm]:	40.0 x 40.0
Depth [mm]:	200.0
Profile Type:	LR Profile
Wedge:	Open
Block:	None
Raw/Processed:	Processed



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



Photon Energies

10X TMR

Normalized to 2.4 cm	10X TMR Open								
	Landauer Cancer Institute - Jackson, WY								
	Varian TrueBeam #9999								
Depth (cm)	2x2 (cm ²)	3x3 (cm ²)	4x4 (cm ²)	5x5 (cm ²)	6x6 (cm ²)	7x7 (cm ²)	8x8 (cm ²)	9x9 (cm ²)	10x10 (cm ²)
0.0	0.280	0.287	0.293	0.304	0.314	0.326	0.339	0.349	0.358
0.5	0.643	0.643	0.641	0.646	0.652	0.659	0.668	0.676	0.685
1.0	0.851	0.850	0.846	0.848	0.852	0.857	0.862	0.867	0.871
1.5	0.952	0.949	0.944	0.944	0.946	0.947	0.949	0.951	0.952
2.0	0.989	0.988	0.986	0.986	0.987	0.986	0.987	0.988	0.988
2.4	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2.5	1.001	1.000	0.999	0.999	1.000	0.999	0.999	0.999	0.998
3.0	0.995	0.996	0.998	0.999	1.000	0.999	0.998	0.998	0.997
3.5	0.987	0.987	0.989	0.990	0.991	0.991	0.991	0.991	0.990
4.0	0.971	0.973	0.977	0.979	0.980	0.980	0.981	0.981	0.980
4.5	0.954	0.957	0.963	0.965	0.968	0.968	0.969	0.970	0.968
5.0	0.937	0.941	0.948	0.952	0.956	0.956	0.958	0.958	0.957
5.5	0.922	0.926	0.934	0.938	0.942	0.943	0.945	0.946	0.946
6.0	0.908	0.912	0.919	0.924	0.928	0.930	0.933	0.934	0.934
6.5	0.891	0.896	0.905	0.911	0.915	0.917	0.921	0.923	0.923
7.0	0.876	0.881	0.890	0.896	0.901	0.904	0.908	0.911	0.911
7.5	0.862	0.867	0.876	0.883	0.889	0.892	0.896	0.899	0.899
8.0	0.844	0.851	0.862	0.870	0.876	0.879	0.884	0.887	0.887
8.5	0.832	0.837	0.847	0.855	0.863	0.867	0.871	0.874	0.876
9.0	0.817	0.823	0.834	0.842	0.850	0.854	0.859	0.862	0.865
9.5	0.807	0.811	0.821	0.829	0.837	0.841	0.846	0.850	0.853
10.0	0.789	0.795	0.807	0.816	0.823	0.828	0.833	0.838	0.841
10.5	0.775	0.781	0.792	0.802	0.810	0.815	0.820	0.825	0.828
11.0	0.762	0.768	0.781	0.790	0.799	0.804	0.809	0.813	0.816
11.5	0.744	0.752	0.766	0.777	0.786	0.792	0.797	0.802	0.806
12.0	0.736	0.741	0.754	0.764	0.773	0.779	0.785	0.790	0.793
12.5	0.722	0.728	0.741	0.751	0.760	0.767	0.773	0.779	0.782
13.0	0.710	0.716	0.729	0.740	0.749	0.755	0.760	0.766	0.771
13.5	0.692	0.700	0.716	0.728	0.737	0.743	0.749	0.755	0.760
14.0	0.686	0.690	0.703	0.714	0.724	0.731	0.737	0.743	0.748
14.5	0.668	0.676	0.691	0.703	0.713	0.719	0.726	0.731	0.736
15.0	0.662	0.667	0.680	0.690	0.700	0.707	0.714	0.720	0.725
15.5	0.649	0.655	0.669	0.680	0.690	0.696	0.703	0.709	0.714
16.0	0.638	0.644	0.658	0.670	0.679	0.685	0.693	0.699	0.704
16.5	0.626	0.632	0.646	0.658	0.668	0.674	0.681	0.687	0.692
17.0	0.616	0.621	0.635	0.647	0.656	0.662	0.670	0.677	0.683
17.5	0.605	0.610	0.625	0.637	0.646	0.653	0.661	0.667	0.672
18.0	0.595	0.599	0.613	0.625	0.635	0.642	0.650	0.655	0.661
18.5	0.587	0.591	0.604	0.615	0.625	0.632	0.639	0.645	0.651
19.0	0.579	0.581	0.593	0.603	0.613	0.621	0.629	0.635	0.641
19.5	0.565	0.569	0.583	0.595	0.604	0.612	0.619	0.625	0.632
20.0	0.554	0.559	0.573	0.585	0.594	0.601	0.608	0.615	0.621

Normalized to 2.4 cm	10X TMR Open								
	Landauer Cancer Institute - Jackson, WY								
	Varian TrueBeam #9999								
Depth (cm)	2x2 (cm ²)	3x3 (cm ²)	4x4 (cm ²)	5x5 (cm ²)	6x6 (cm ²)	7x7 (cm ²)	8x8 (cm ²)	9x9 (cm ²)	10x10 (cm ²)
20.5	0.544	0.549	0.564	0.575	0.585	0.592	0.599	0.605	0.611
21.0	0.536	0.540	0.553	0.564	0.574	0.583	0.590	0.595	0.602
21.5	0.529	0.532	0.546	0.556	0.565	0.572	0.579	0.585	0.592
22.0	0.517	0.522	0.536	0.548	0.557	0.565	0.571	0.576	0.582
22.5	0.509	0.513	0.527	0.538	0.547	0.555	0.561	0.567	0.573
23.0	0.501	0.504	0.518	0.529	0.538	0.546	0.552	0.558	0.565
23.5	0.494	0.497	0.510	0.521	0.530	0.537	0.543	0.549	0.555
24.0	0.487	0.489	0.502	0.511	0.521	0.528	0.535	0.541	0.548
24.5	0.476	0.480	0.493	0.504	0.513	0.520	0.526	0.531	0.538
25.0	0.470	0.472	0.485	0.494	0.503	0.511	0.517	0.523	0.529
25.5	0.460	0.463	0.476	0.486	0.495	0.503	0.510	0.515	0.521
26.0	0.454	0.456	0.469	0.478	0.488	0.495	0.502	0.507	0.514
26.5	0.448	0.450	0.462	0.471	0.479	0.486	0.493	0.499	0.506
27.0	0.437	0.440	0.453	0.463	0.472	0.479	0.485	0.490	0.496
27.5	0.434	0.435	0.446	0.455	0.464	0.471	0.478	0.484	0.490
28.0	0.425	0.427	0.439	0.447	0.456	0.463	0.469	0.475	0.481
28.5	0.418	0.420	0.432	0.441	0.449	0.456	0.462	0.467	0.474
29.0	0.410	0.412	0.424	0.433	0.442	0.448	0.454	0.460	0.467
29.5	0.406	0.407	0.418	0.426	0.434	0.440	0.446	0.451	0.457
30.0	0.398	0.399	0.411	0.420	0.427	0.434	0.440	0.445	0.451
30.5	0.389	0.391	0.403	0.413	0.421	0.427	0.433	0.438	0.445
31.0	0.383	0.385	0.397	0.406	0.413	0.420	0.425	0.430	0.436
31.5	0.376	0.378	0.390	0.399	0.407	0.414	0.420	0.425	0.431
32.0	0.372	0.374	0.385	0.393	0.401	0.407	0.413	0.418	0.423
32.5	0.368	0.368	0.379	0.387	0.394	0.400	0.406	0.411	0.416
33.0	0.360	0.361	0.372	0.380	0.387	0.393	0.399	0.405	0.410
33.5	0.354	0.355	0.366	0.374	0.381	0.388	0.393	0.399	0.403
34.0	0.348	0.349	0.360	0.368	0.375	0.381	0.386	0.392	0.397
34.5	0.338	0.341	0.353	0.362	0.369	0.375	0.380	0.386	0.390

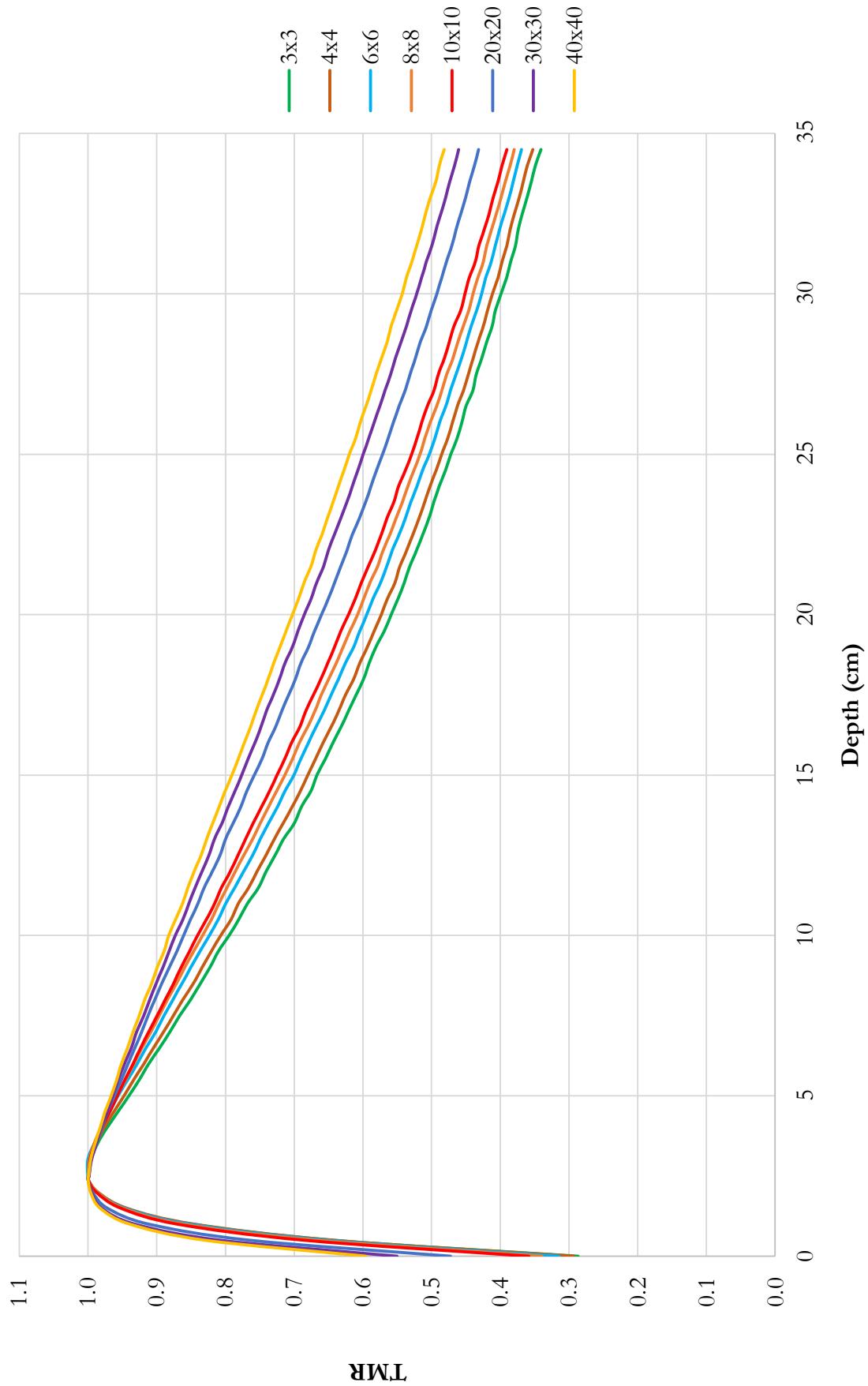
Normalized to 2.4 cm	10X TMR Open Landauer Cancer Institute - Jackson, WY Varian TrueBeam #9999									
Depth (cm)	11x11 (cm ²)	12x12 (cm ²)	13x13 (cm ²)	14x14 (cm ²)	15x15 (cm ²)	16x16 (cm ²)	17x17 (cm ²)	18x18 (cm ²)	19x19 (cm ²)	20x20 (cm ²)
0.0	0.369	0.382	0.393	0.403	0.415	0.426	0.439	0.450	0.460	0.472
0.5	0.693	0.701	0.708	0.716	0.724	0.732	0.740	0.748	0.756	0.764
1.0	0.874	0.880	0.883	0.887	0.891	0.894	0.899	0.904	0.908	0.912
1.5	0.954	0.957	0.959	0.961	0.963	0.963	0.966	0.968	0.970	0.972
2.0	0.988	0.990	0.990	0.991	0.990	0.991	0.992	0.993	0.993	0.994
2.4	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2.5	0.998	0.999	0.999	0.999	0.998	0.998	0.999	0.999	0.999	0.999
3.0	0.997	0.998	0.997	0.997	0.996	0.996	0.997	0.996	0.996	0.996
3.5	0.989	0.990	0.990	0.990	0.989	0.989	0.990	0.989	0.989	0.989
4.0	0.980	0.981	0.981	0.981	0.980	0.980	0.981	0.981	0.980	0.980
4.5	0.968	0.969	0.970	0.970	0.969	0.970	0.971	0.971	0.971	0.972
5.0	0.957	0.958	0.959	0.959	0.960	0.959	0.961	0.961	0.962	0.962
5.5	0.946	0.947	0.948	0.949	0.949	0.949	0.950	0.951	0.951	0.952
6.0	0.935	0.937	0.938	0.938	0.939	0.939	0.940	0.941	0.942	0.942
6.5	0.924	0.925	0.927	0.928	0.928	0.928	0.930	0.931	0.931	0.932
7.0	0.912	0.914	0.915	0.916	0.917	0.917	0.919	0.920	0.921	0.922
7.5	0.901	0.903	0.905	0.906	0.907	0.907	0.909	0.910	0.912	0.913
8.0	0.889	0.891	0.893	0.895	0.896	0.897	0.899	0.900	0.902	0.903
8.5	0.877	0.880	0.882	0.884	0.885	0.886	0.888	0.890	0.891	0.893
9.0	0.866	0.868	0.871	0.873	0.874	0.875	0.878	0.879	0.881	0.882
9.5	0.855	0.857	0.860	0.862	0.863	0.864	0.867	0.868	0.870	0.871
10.0	0.843	0.845	0.848	0.850	0.852	0.853	0.856	0.858	0.859	0.861
10.5	0.830	0.833	0.836	0.838	0.840	0.841	0.845	0.847	0.849	0.851
11.0	0.818	0.822	0.825	0.827	0.829	0.832	0.834	0.836	0.838	0.840
11.5	0.808	0.811	0.814	0.817	0.819	0.822	0.824	0.826	0.828	0.831
12.0	0.796	0.799	0.802	0.805	0.808	0.810	0.812	0.815	0.817	0.819
12.5	0.784	0.788	0.791	0.794	0.796	0.799	0.801	0.804	0.806	0.808
13.0	0.774	0.777	0.781	0.784	0.787	0.789	0.792	0.795	0.797	0.800
13.5	0.764	0.767	0.770	0.773	0.776	0.779	0.781	0.784	0.786	0.789
14.0	0.752	0.756	0.759	0.762	0.765	0.767	0.770	0.773	0.775	0.778
14.5	0.741	0.745	0.748	0.752	0.754	0.757	0.760	0.763	0.766	0.769
15.0	0.729	0.733	0.737	0.740	0.743	0.746	0.749	0.752	0.755	0.758
15.5	0.719	0.722	0.726	0.730	0.732	0.735	0.739	0.741	0.744	0.747
16.0	0.708	0.712	0.715	0.719	0.722	0.725	0.730	0.732	0.735	0.738
16.5	0.697	0.701	0.705	0.709	0.712	0.715	0.719	0.721	0.724	0.727
17.0	0.687	0.691	0.695	0.699	0.702	0.706	0.710	0.712	0.715	0.718
17.5	0.676	0.680	0.684	0.688	0.691	0.695	0.699	0.701	0.704	0.708
18.0	0.665	0.670	0.674	0.678	0.681	0.685	0.689	0.692	0.695	0.698
18.5	0.656	0.661	0.665	0.669	0.673	0.676	0.681	0.683	0.686	0.690
19.0	0.646	0.650	0.654	0.658	0.662	0.665	0.669	0.672	0.675	0.679
19.5	0.636	0.641	0.645	0.649	0.653	0.656	0.661	0.663	0.667	0.670
20.0	0.626	0.631	0.635	0.639	0.643	0.646	0.651	0.653	0.657	0.660

Normalized to 2.4 cm	10X TMR Open									
	Landauer Cancer Institute - Jackson, WY									
	Varian TrueBeam #9999									
Depth (cm)	11x11 (cm ²)	12x12 (cm ²)	13x13 (cm ²)	14x14 (cm ²)	15x15 (cm ²)	16x16 (cm ²)	17x17 (cm ²)	18x18 (cm ²)	19x19 (cm ²)	20x20 (cm ²)
20.5	0.616	0.620	0.624	0.629	0.632	0.636	0.641	0.643	0.647	0.650
21.0	0.606	0.611	0.615	0.619	0.623	0.627	0.631	0.634	0.638	0.641
21.5	0.597	0.604	0.607	0.611	0.615	0.618	0.623	0.625	0.628	0.632
22.0	0.587	0.594	0.597	0.602	0.606	0.609	0.614	0.616	0.620	0.623
22.5	0.579	0.585	0.589	0.593	0.597	0.601	0.605	0.608	0.611	0.615
23.0	0.570	0.576	0.580	0.584	0.588	0.591	0.596	0.598	0.602	0.605
23.5	0.561	0.567	0.571	0.575	0.579	0.582	0.587	0.589	0.593	0.596
24.0	0.553	0.559	0.562	0.566	0.570	0.574	0.578	0.581	0.584	0.588
24.5	0.543	0.550	0.554	0.558	0.562	0.566	0.570	0.573	0.576	0.580
25.0	0.535	0.541	0.545	0.549	0.554	0.557	0.562	0.564	0.568	0.571
25.5	0.526	0.532	0.536	0.541	0.545	0.548	0.553	0.556	0.559	0.563
26.0	0.519	0.525	0.528	0.533	0.537	0.540	0.545	0.548	0.551	0.555
26.5	0.511	0.516	0.520	0.524	0.529	0.532	0.537	0.541	0.543	0.547
27.0	0.502	0.509	0.513	0.517	0.521	0.525	0.529	0.533	0.535	0.538
27.5	0.495	0.501	0.505	0.509	0.513	0.517	0.521	0.525	0.527	0.531
28.0	0.486	0.492	0.497	0.501	0.505	0.509	0.513	0.517	0.519	0.523
28.5	0.479	0.486	0.490	0.494	0.498	0.502	0.506	0.510	0.512	0.516
29.0	0.472	0.477	0.481	0.485	0.489	0.493	0.498	0.501	0.504	0.507
29.5	0.463	0.469	0.474	0.478	0.482	0.486	0.490	0.494	0.496	0.500
30.0	0.457	0.462	0.468	0.471	0.475	0.479	0.483	0.486	0.489	0.492
30.5	0.450	0.456	0.461	0.464	0.468	0.471	0.476	0.479	0.482	0.485
31.0	0.442	0.448	0.453	0.457	0.460	0.464	0.469	0.472	0.475	0.478
31.5	0.436	0.441	0.446	0.449	0.453	0.457	0.461	0.465	0.467	0.470
32.0	0.428	0.434	0.439	0.442	0.446	0.450	0.455	0.458	0.460	0.464
32.5	0.422	0.428	0.433	0.436	0.440	0.444	0.448	0.452	0.454	0.457
33.0	0.415	0.421	0.426	0.429	0.433	0.437	0.441	0.445	0.447	0.450
33.5	0.409	0.415	0.420	0.423	0.427	0.431	0.435	0.438	0.441	0.444
34.0	0.403	0.408	0.413	0.416	0.420	0.423	0.428	0.431	0.433	0.437
34.5	0.396	0.401	0.406	0.409	0.413	0.417	0.422	0.425	0.428	0.431

Normalized to 2.4 cm	10X TMR Open									
	Landauer Cancer Institute - Jackson, WY									
	Varian TrueBeam #9999									
Depth (cm)	22x22 (cm ²)	24x24 (cm ²)	26x26 (cm ²)	28x28 (cm ²)	30x30 (cm ²)	32x32 (cm ²)	34x34 (cm ²)	36x36 (cm ²)	38x38 (cm ²)	40x40 (cm ²)
0.0	0.487	0.503	0.519	0.535	0.550	0.559	0.568	0.577	0.586	0.596
0.5	0.773	0.781	0.789	0.799	0.807	0.811	0.816	0.820	0.825	0.829
1.0	0.916	0.919	0.923	0.928	0.932	0.933	0.934	0.936	0.937	0.939
1.5	0.973	0.974	0.976	0.979	0.980	0.980	0.980	0.981	0.982	0.982
2.0	0.993	0.993	0.994	0.995	0.995	0.994	0.994	0.995	0.996	0.996
2.4	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2.5	0.998	0.998	0.998	0.999	0.999	0.998	0.998	0.999	0.999	0.999
3.0	0.995	0.995	0.995	0.996	0.995	0.994	0.995	0.996	0.996	0.996
3.5	0.988	0.988	0.988	0.988	0.988	0.988	0.988	0.989	0.990	0.990
4.0	0.979	0.979	0.980	0.981	0.981	0.980	0.980	0.982	0.982	0.982
4.5	0.971	0.971	0.971	0.972	0.972	0.972	0.972	0.974	0.974	0.975
5.0	0.962	0.962	0.963	0.964	0.964	0.964	0.964	0.966	0.966	0.966
5.5	0.952	0.952	0.953	0.955	0.956	0.956	0.956	0.957	0.958	0.958
6.0	0.943	0.943	0.944	0.946	0.947	0.947	0.948	0.949	0.950	0.951
6.5	0.933	0.933	0.934	0.936	0.937	0.938	0.938	0.940	0.941	0.942
7.0	0.924	0.924	0.925	0.927	0.929	0.930	0.930	0.932	0.933	0.934
7.5	0.915	0.915	0.916	0.918	0.919	0.920	0.921	0.923	0.924	0.925
8.0	0.906	0.906	0.907	0.909	0.910	0.911	0.912	0.914	0.916	0.917
8.5	0.896	0.896	0.897	0.899	0.901	0.901	0.903	0.905	0.906	0.907
9.0	0.886	0.886	0.888	0.890	0.891	0.892	0.894	0.896	0.898	0.899
9.5	0.875	0.876	0.877	0.880	0.882	0.883	0.886	0.887	0.888	0.889
10.0	0.865	0.866	0.868	0.871	0.873	0.874	0.877	0.879	0.880	0.882
10.5	0.855	0.856	0.858	0.861	0.862	0.864	0.867	0.868	0.871	0.872
11.0	0.845	0.846	0.848	0.851	0.853	0.855	0.858	0.859	0.861	0.862
11.5	0.835	0.837	0.839	0.842	0.844	0.846	0.849	0.851	0.852	0.854
12.0	0.825	0.827	0.828	0.832	0.834	0.835	0.839	0.841	0.843	0.845
12.5	0.813	0.817	0.818	0.822	0.824	0.826	0.830	0.832	0.834	0.835
13.0	0.805	0.809	0.810	0.813	0.816	0.818	0.822	0.823	0.825	0.827
13.5	0.794	0.798	0.799	0.803	0.805	0.807	0.811	0.813	0.816	0.818
14.0	0.784	0.787	0.789	0.793	0.796	0.798	0.803	0.805	0.807	0.809
14.5	0.775	0.779	0.780	0.784	0.786	0.788	0.793	0.795	0.797	0.800
15.0	0.764	0.768	0.770	0.774	0.776	0.779	0.783	0.785	0.788	0.790
15.5	0.753	0.758	0.760	0.764	0.767	0.769	0.774	0.776	0.778	0.782
16.0	0.744	0.749	0.752	0.755	0.757	0.760	0.764	0.767	0.770	0.773
16.5	0.733	0.739	0.742	0.745	0.748	0.751	0.756	0.759	0.761	0.764
17.0	0.725	0.730	0.733	0.737	0.740	0.743	0.748	0.751	0.753	0.756
17.5	0.714	0.720	0.723	0.727	0.730	0.734	0.738	0.741	0.743	0.747
18.0	0.705	0.712	0.715	0.718	0.721	0.725	0.729	0.732	0.735	0.738
18.5	0.697	0.704	0.707	0.710	0.713	0.717	0.721	0.724	0.727	0.730
19.0	0.685	0.692	0.696	0.699	0.702	0.706	0.710	0.714	0.717	0.721
19.5	0.677	0.684	0.687	0.691	0.694	0.698	0.702	0.706	0.708	0.712
20.0	0.667	0.674	0.677	0.681	0.685	0.688	0.693	0.697	0.699	0.703

Normalized to 2.4 cm	10X TMR Open									
	Landauer Cancer Institute - Jackson, WY									
	Varian TrueBeam #9999									
Depth (cm)	22x22 (cm ²)	24x24 (cm ²)	26x26 (cm ²)	28x28 (cm ²)	30x30 (cm ²)	32x32 (cm ²)	34x34 (cm ²)	36x36 (cm ²)	38x38 (cm ²)	40x40 (cm ²)
20.5	0.657	0.665	0.668	0.672	0.675	0.679	0.683	0.687	0.690	0.694
21.0	0.648	0.656	0.659	0.663	0.667	0.670	0.675	0.679	0.682	0.686
21.5	0.639	0.646	0.650	0.653	0.657	0.661	0.665	0.670	0.673	0.676
22.0	0.631	0.638	0.643	0.646	0.650	0.654	0.658	0.663	0.666	0.669
22.5	0.622	0.630	0.634	0.637	0.641	0.645	0.649	0.653	0.656	0.660
23.0	0.612	0.620	0.624	0.628	0.632	0.636	0.640	0.645	0.648	0.652
23.5	0.603	0.611	0.616	0.619	0.623	0.627	0.632	0.636	0.640	0.644
24.0	0.595	0.602	0.607	0.611	0.615	0.620	0.624	0.629	0.633	0.636
24.5	0.587	0.594	0.600	0.604	0.607	0.612	0.616	0.620	0.624	0.628
25.0	0.578	0.586	0.591	0.595	0.599	0.603	0.607	0.612	0.616	0.620
25.5	0.570	0.578	0.583	0.587	0.591	0.595	0.599	0.603	0.608	0.611
26.0	0.562	0.569	0.575	0.579	0.583	0.587	0.591	0.596	0.600	0.604
26.5	0.554	0.562	0.568	0.572	0.575	0.580	0.584	0.588	0.593	0.596
27.0	0.545	0.553	0.559	0.564	0.567	0.571	0.575	0.580	0.584	0.588
27.5	0.538	0.545	0.551	0.556	0.559	0.564	0.568	0.573	0.577	0.581
28.0	0.530	0.537	0.544	0.549	0.552	0.556	0.560	0.565	0.570	0.573
28.5	0.523	0.530	0.536	0.541	0.544	0.548	0.552	0.556	0.561	0.565
29.0	0.514	0.521	0.528	0.533	0.536	0.541	0.545	0.550	0.554	0.559
29.5	0.507	0.514	0.521	0.526	0.529	0.533	0.537	0.542	0.547	0.551
30.0	0.499	0.506	0.513	0.518	0.521	0.525	0.530	0.534	0.539	0.543
30.5	0.492	0.499	0.506	0.511	0.514	0.518	0.523	0.527	0.532	0.537
31.0	0.485	0.492	0.499	0.504	0.507	0.511	0.515	0.520	0.524	0.529
31.5	0.477	0.484	0.491	0.497	0.499	0.504	0.508	0.512	0.517	0.522
32.0	0.471	0.478	0.485	0.490	0.493	0.497	0.501	0.505	0.510	0.515
32.5	0.464	0.471	0.478	0.484	0.486	0.490	0.495	0.499	0.504	0.509
33.0	0.457	0.464	0.471	0.476	0.479	0.483	0.488	0.492	0.498	0.502
33.5	0.451	0.457	0.464	0.470	0.473	0.476	0.481	0.485	0.490	0.494
34.0	0.443	0.450	0.457	0.463	0.466	0.470	0.474	0.479	0.484	0.489
34.5	0.438	0.445	0.451	0.458	0.461	0.464	0.468	0.472	0.477	0.482

10X TMR Open
Landauer Cancer Institute - Jackson, WY
Varian TrueBeam #9999



Photon Energies

10X PDD

Normalized to 2.4 cm	10X PDD Open								
	Landauer Cancer Institute - Jackson, WY								
	Varian TrueBeam #9999								
Depth (cm)	2x2 (cm ²)	3x3 (cm ²)	4x4 (cm ²)	5x5 (cm ²)	6x6 (cm ²)	7x7 (cm ²)	8x8 (cm ²)	9x9 (cm ²)	10x10 (cm ²)
0.0	29.4	30.0	30.7	31.9	33.0	34.3	35.5	36.6	37.6
0.5	66.8	66.7	66.6	67.2	67.8	68.6	69.4	70.3	71.2
1.0	87.6	87.3	87.0	87.4	87.8	88.3	88.8	89.3	89.7
1.5	97.0	96.6	96.2	96.3	96.4	96.6	96.8	97.0	97.2
2.0	99.8	99.7	99.6	99.6	99.6	99.6	99.6	99.7	99.8
2.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2.5	100.1	100.0	99.9	100.0	100.0	100.0	99.9	99.9	99.9
3.0	98.6	98.8	98.9	99.0	99.1	99.0	98.9	98.8	98.8
3.5	96.9	97.0	97.1	97.2	97.3	97.2	97.2	97.2	97.2
4.0	94.5	94.8	95.1	95.2	95.3	95.3	95.4	95.4	95.4
4.5	92.1	92.4	92.8	93.0	93.2	93.3	93.4	93.3	93.3
5.0	89.6	90.1	90.6	90.9	91.2	91.3	91.4	91.4	91.3
5.5	87.4	87.9	88.5	88.8	89.1	89.3	89.4	89.4	89.4
6.0	85.3	85.8	86.3	86.7	87.0	87.2	87.5	87.5	87.6
6.5	82.9	83.6	84.3	84.6	85.0	85.3	85.6	85.7	85.8
7.0	80.8	81.5	82.2	82.5	82.9	83.3	83.7	83.8	83.9
7.5	78.9	79.5	80.1	80.6	81.2	81.5	81.8	82.0	82.1
8.0	76.7	77.4	78.2	78.7	79.2	79.6	80.0	80.2	80.3
8.5	74.9	75.5	76.1	76.8	77.4	77.8	78.1	78.3	78.6
9.0	72.9	73.6	74.4	75.0	75.6	76.0	76.4	76.6	76.8
9.5	71.4	71.9	72.5	73.2	73.8	74.2	74.6	74.9	75.2
10.0	69.2	70.0	70.7	71.3	71.9	72.4	73.0	73.2	73.5
10.5	67.4	68.1	68.9	69.5	70.2	70.7	71.2	71.5	71.7
11.0	65.7	66.5	67.3	68.0	68.7	69.1	69.5	69.8	70.1
11.5	63.7	64.6	65.6	66.3	67.0	67.5	68.0	68.3	68.7
12.0	62.4	63.2	63.9	64.7	65.4	65.9	66.4	66.7	67.1
12.5	60.7	61.5	62.3	63.0	63.8	64.4	65.0	65.2	65.5
13.0	59.3	60.0	60.8	61.5	62.3	62.8	63.3	63.7	64.1
13.5	57.3	58.3	59.3	60.0	60.7	61.3	61.9	62.3	62.7
14.0	56.3	57.0	57.7	58.5	59.3	59.8	60.4	60.8	61.3
14.5	54.5	55.4	56.4	57.1	57.9	58.4	58.9	59.4	59.9
15.0	53.5	54.2	54.9	55.6	56.4	57.0	57.6	58.0	58.4
15.5	52.0	52.8	53.6	54.3	55.1	55.7	56.3	56.7	57.1
16.0	50.8	51.6	52.4	53.1	53.8	54.4	55.0	55.4	55.8
16.5	49.4	50.2	51.0	51.7	52.5	53.0	53.6	54.1	54.5
17.0	48.2	48.9	49.7	50.4	51.1	51.8	52.5	52.9	53.3
17.5	47.0	47.7	48.5	49.3	50.0	50.6	51.2	51.6	52.1
18.0	45.8	46.5	47.3	48.0	48.8	49.4	50.0	50.4	50.8
18.5	44.9	45.5	46.1	46.9	47.7	48.2	48.8	49.3	49.8
19.0	43.8	44.3	44.9	45.6	46.4	47.1	47.7	48.1	48.5
19.5	42.5	43.2	43.9	44.6	45.3	46.0	46.6	47.1	47.5
20.0	41.4	42.1	42.8	43.5	44.2	44.8	45.5	45.9	46.4

Normalized to 2.4 cm	10X PDD Open								
	Landauer Cancer Institute - Jackson, WY								
	Varian TrueBeam #9999								
Depth (cm)	2x2 (cm ²)	3x3 (cm ²)	4x4 (cm ²)	5x5 (cm ²)	6x6 (cm ²)	7x7 (cm ²)	8x8 (cm ²)	9x9 (cm ²)	10x10 (cm ²)
20.5	40.3	41.1	41.8	42.5	43.2	43.8	44.4	44.8	45.3
21.0	39.4	40.0	40.7	41.4	42.2	42.8	43.4	43.8	44.2
21.5	38.6	39.2	39.8	40.5	41.1	41.7	42.3	42.8	43.3
22.0	37.5	38.2	38.9	39.6	40.3	40.8	41.3	41.8	42.3
22.5	36.6	37.2	37.9	38.6	39.2	39.8	40.4	40.9	41.4
23.0	35.7	36.3	37.0	37.6	38.3	38.9	39.5	39.9	40.4
23.5	34.9	35.5	36.1	36.8	37.4	38.0	38.5	39.0	39.5
24.0	34.2	34.7	35.2	35.9	36.5	37.1	37.7	38.2	38.6
24.5	33.2	33.8	34.4	35.0	35.7	36.2	36.7	37.2	37.7
25.0	32.5	33.0	33.5	34.2	34.8	35.4	35.9	36.4	36.9
25.5	31.6	32.1	32.7	33.4	34.1	34.6	35.1	35.5	36.0
26.0	30.9	31.4	32.0	32.6	33.3	33.8	34.3	34.8	35.2
26.5	30.3	30.7	31.2	31.8	32.4	33.0	33.6	34.0	34.4
27.0	29.4	29.9	30.5	31.1	31.7	32.2	32.7	33.2	33.7
27.5	28.9	29.3	29.7	30.4	31.0	31.5	32.1	32.5	32.9
28.0	28.1	28.6	29.0	29.6	30.2	30.7	31.2	31.7	32.2
28.5	27.5	27.9	28.4	29.0	29.5	30.0	30.6	31.0	31.5
29.0	26.8	27.2	27.7	28.3	28.8	29.4	29.9	30.3	30.7
29.5	26.3	26.6	27.0	27.6	28.1	28.6	29.1	29.6	30.0
30.0	25.6	26.0	26.4	27.0	27.5	28.0	28.5	28.9	29.4
30.5	24.8	25.3	25.8	26.4	26.9	27.4	27.9	28.3	28.7
31.0	24.2	24.7	25.2	25.7	26.2	26.7	27.2	27.7	28.1
31.5	23.6	24.1	24.6	25.1	25.7	26.2	26.7	27.1	27.4
32.0	23.2	23.6	24.1	24.6	25.1	25.6	26.0	26.4	26.8
32.5	22.7	23.1	23.5	24.0	24.5	25.0	25.4	25.9	26.3
33.0	22.1	22.5	22.9	23.4	23.9	24.4	24.9	25.3	25.7
33.5	21.6	22.0	22.4	22.9	23.4	23.9	24.3	24.7	25.1
34.0	21.1	21.5	21.9	22.4	22.8	23.3	23.8	24.2	24.5
34.5	20.4	20.9	21.4	21.9	22.3	22.8	23.2	23.6	24.0

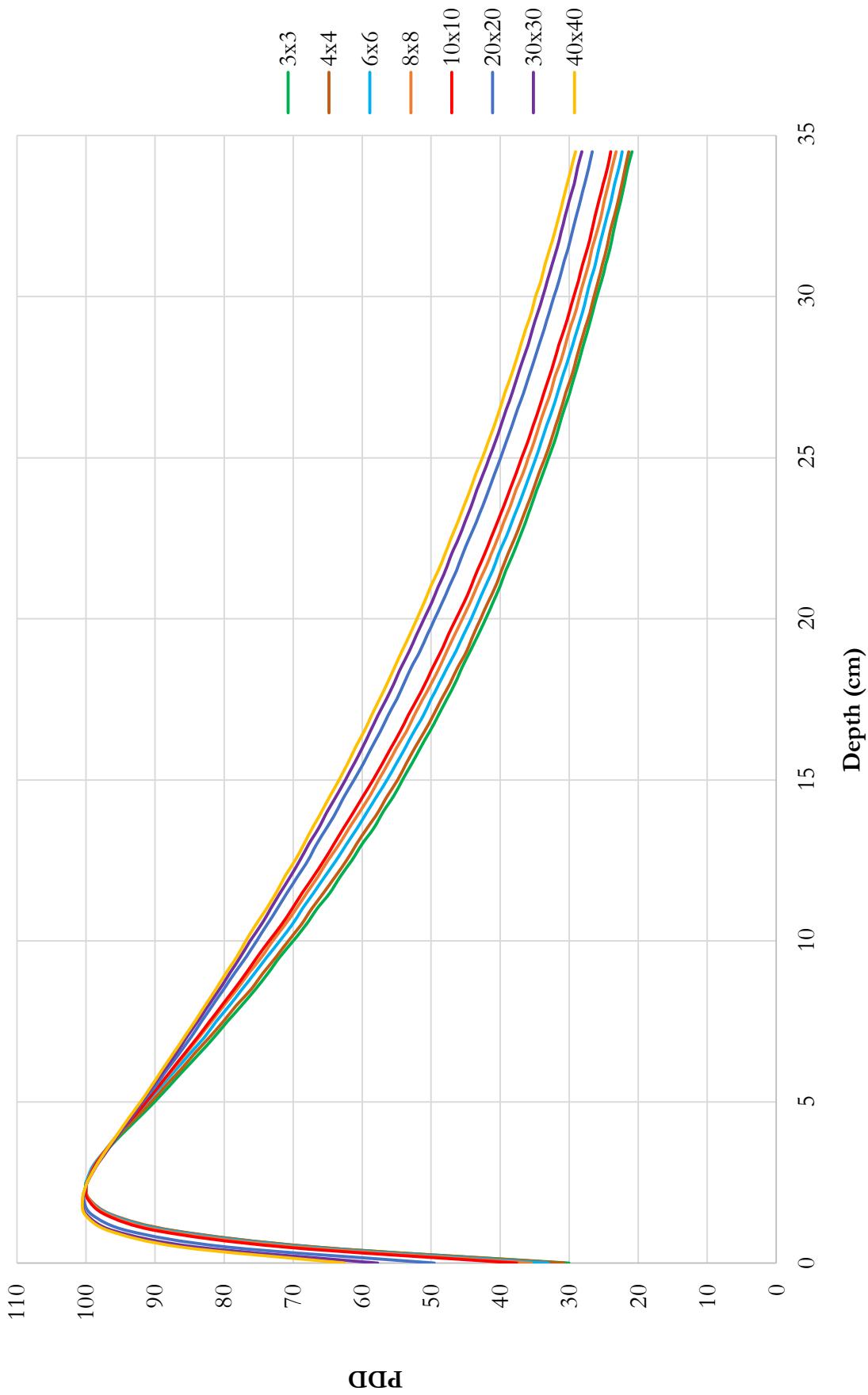
Normalized to 2.4 cm	10X PDD Open									
	Landauer Cancer Institute - Jackson, WY									
	Varian TrueBeam #9999									
Depth (cm)	11x11 (cm ²)	12x12 (cm ²)	13x13 (cm ²)	14x14 (cm ²)	15x15 (cm ²)	16x16 (cm ²)	17x17 (cm ²)	18x18 (cm ²)	19x19 (cm ²)	20x20 (cm ²)
0.0	38.8	40.0	41.2	42.4	43.6	44.8	46.0	47.2	48.4	49.6
0.5	72.0	72.9	73.7	74.5	75.3	76.2	77.0	77.8	78.6	79.5
1.0	90.1	90.5	91.0	91.4	91.8	92.2	92.6	93.1	93.5	93.9
1.5	97.3	97.5	97.7	97.9	98.1	98.3	98.5	98.7	98.9	99.1
2.0	99.9	99.9	100.0	100.0	100.1	100.1	100.2	100.2	100.3	100.3
2.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2.5	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
3.0	98.8	98.8	98.7	98.7	98.7	98.7	98.7	98.7	98.6	98.6
3.5	97.1	97.1	97.1	97.1	97.1	97.1	97.0	97.0	97.0	97.0
4.0	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.2
4.5	93.3	93.3	93.4	93.4	93.4	93.4	93.5	93.5	93.5	93.6
5.0	91.3	91.4	91.4	91.5	91.5	91.6	91.6	91.7	91.7	91.8
5.5	89.5	89.5	89.6	89.6	89.7	89.7	89.8	89.8	89.9	90.0
6.0	87.7	87.7	87.8	87.9	87.9	88.0	88.1	88.1	88.2	88.3
6.5	85.8	85.9	86.0	86.1	86.1	86.2	86.3	86.4	86.5	86.5
7.0	84.0	84.1	84.2	84.3	84.4	84.4	84.5	84.6	84.7	84.8
7.5	82.2	82.3	82.5	82.6	82.7	82.8	82.9	83.0	83.2	83.3
8.0	80.4	80.6	80.7	80.9	81.0	81.1	81.3	81.4	81.5	81.7
8.5	78.7	78.9	79.0	79.2	79.3	79.5	79.6	79.8	79.9	80.1
9.0	77.0	77.2	77.3	77.5	77.7	77.8	78.0	78.1	78.3	78.5
9.5	75.4	75.5	75.7	75.8	76.0	76.2	76.3	76.5	76.7	76.8
10.0	73.7	73.8	74.0	74.2	74.4	74.6	74.7	74.9	75.1	75.3
10.5	71.9	72.1	72.3	72.5	72.8	73.0	73.2	73.4	73.6	73.8
11.0	70.3	70.6	70.8	71.0	71.2	71.4	71.6	71.9	72.1	72.3
11.5	68.9	69.1	69.3	69.5	69.8	70.0	70.2	70.4	70.6	70.9
12.0	67.3	67.5	67.7	68.0	68.2	68.4	68.7	68.9	69.1	69.4
12.5	65.8	66.0	66.2	66.5	66.7	66.9	67.1	67.4	67.6	67.8
13.0	64.4	64.6	64.9	65.1	65.4	65.6	65.9	66.1	66.4	66.6
13.5	62.9	63.2	63.4	63.7	63.9	64.2	64.4	64.7	64.9	65.2
14.0	61.5	61.8	62.0	62.3	62.5	62.8	63.0	63.3	63.5	63.8
14.5	60.1	60.4	60.7	60.9	61.2	61.5	61.7	62.0	62.3	62.6
15.0	58.7	59.0	59.2	59.5	59.8	60.1	60.3	60.6	60.9	61.2
15.5	57.4	57.6	57.9	58.2	58.5	58.7	59.0	59.3	59.6	59.8
16.0	56.1	56.4	56.7	56.9	57.2	57.5	57.8	58.1	58.4	58.6
16.5	54.8	55.1	55.4	55.6	55.9	56.2	56.5	56.8	57.1	57.4
17.0	53.6	53.9	54.2	54.5	54.8	55.1	55.4	55.7	56.0	56.2
17.5	52.3	52.6	52.9	53.2	53.5	53.8	54.1	54.4	54.7	55.0
18.0	51.1	51.5	51.8	52.1	52.4	52.7	53.0	53.3	53.6	53.9
18.5	50.1	50.4	50.7	51.0	51.3	51.6	51.9	52.2	52.6	52.9
19.0	48.8	49.2	49.5	49.8	50.1	50.4	50.7	51.0	51.3	51.6
19.5	47.8	48.1	48.4	48.7	49.0	49.3	49.7	50.0	50.3	50.6
20.0	46.7	47.0	47.3	47.6	47.9	48.2	48.5	48.8	49.2	49.5

Normalized to 2.4 cm	10X PDD Open									
	Landauer Cancer Institute - Jackson, WY									
	Varian TrueBeam #9999									
Depth (cm)	11x11 (cm ²)	12x12 (cm ²)	13x13 (cm ²)	14x14 (cm ²)	15x15 (cm ²)	16x16 (cm ²)	17x17 (cm ²)	18x18 (cm ²)	19x19 (cm ²)	20x20 (cm ²)
20.5	45.6	45.9	46.2	46.5	46.8	47.1	47.5	47.8	48.1	48.4
21.0	44.5	44.9	45.2	45.5	45.8	46.1	46.4	46.7	47.1	47.4
21.5	43.6	43.9	44.2	44.5	44.8	45.1	45.4	45.7	46.0	46.3
22.0	42.6	42.9	43.2	43.5	43.9	44.2	44.5	44.8	45.1	45.4
22.5	41.7	42.0	42.3	42.6	42.9	43.2	43.6	43.9	44.2	44.5
23.0	40.7	41.0	41.3	41.6	41.9	42.2	42.5	42.9	43.2	43.5
23.5	39.8	40.1	40.4	40.7	41.0	41.3	41.6	41.9	42.2	42.5
24.0	38.9	39.2	39.5	39.8	40.1	40.4	40.7	41.0	41.3	41.6
24.5	38.0	38.3	38.6	39.0	39.3	39.6	39.9	40.2	40.5	40.8
25.0	37.2	37.5	37.8	38.1	38.4	38.7	39.0	39.3	39.6	39.9
25.5	36.3	36.6	36.9	37.2	37.6	37.9	38.2	38.5	38.8	39.1
26.0	35.5	35.8	36.1	36.4	36.7	37.0	37.4	37.7	38.0	38.3
26.5	34.7	35.0	35.3	35.6	35.9	36.3	36.6	36.9	37.2	37.5
27.0	34.0	34.3	34.6	34.9	35.1	35.4	35.7	36.0	36.3	36.6
27.5	33.2	33.5	33.8	34.1	34.4	34.7	35.0	35.3	35.6	35.9
28.0	32.4	32.7	33.0	33.3	33.6	33.9	34.2	34.5	34.8	35.1
28.5	31.8	32.1	32.4	32.6	32.9	33.2	33.5	33.8	34.1	34.4
29.0	31.0	31.3	31.6	31.9	32.2	32.4	32.7	33.0	33.3	33.6
29.5	30.3	30.6	30.9	31.2	31.5	31.7	32.0	32.3	32.6	32.9
30.0	29.6	29.9	30.2	30.5	30.8	31.1	31.3	31.6	31.9	32.2
30.5	28.9	29.3	29.6	29.9	30.1	30.3	30.7	31.0	31.3	31.5
31.0	28.3	28.7	28.9	29.2	29.5	29.7	30.1	30.4	30.7	30.9
31.5	27.6	28.0	28.3	28.6	28.8	29.0	29.4	29.7	30.0	30.2
32.0	27.0	27.4	27.7	28.0	28.2	28.4	28.8	29.1	29.4	29.6
32.5	26.5	26.8	27.1	27.4	27.7	27.9	28.2	28.5	28.8	29.0
33.0	25.9	26.2	26.5	26.8	27.0	27.3	27.6	27.9	28.1	28.4
33.5	25.4	25.7	25.9	26.2	26.5	26.8	27.0	27.3	27.6	27.8
34.0	24.8	25.1	25.3	25.6	25.9	26.1	26.4	26.7	27.0	27.2
34.5	24.3	24.5	24.8	25.1	25.4	25.6	25.9	26.2	26.4	26.7

Normalized to 2.4 cm	10X PDD Open									
	Landauer Cancer Institute - Jackson, WY									
	Varian TrueBeam #9999									
Depth (cm)	22x22 (cm ²)	24x24 (cm ²)	26x26 (cm ²)	28x28 (cm ²)	30x30 (cm ²)	32x32 (cm ²)	34x34 (cm ²)	36x36 (cm ²)	38x38 (cm ²)	40x40 (cm ²)
0.0	51.2	52.8	54.5	56.1	57.8	58.7	59.7	60.6	61.6	62.5
0.5	80.4	81.3	82.2	83.1	84.0	84.4	84.9	85.3	85.8	86.2
1.0	94.3	94.7	95.1	95.6	96.0	96.1	96.2	96.4	96.5	96.7
1.5	99.3	99.4	99.6	99.8	99.9	100.0	100.0	100.0	100.1	100.1
2.0	100.4	100.4	100.4	100.4	100.5	100.5	100.5	100.5	100.5	100.5
2.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2.5	99.9	99.9	99.9	99.9	99.8	99.9	99.9	99.9	99.9	99.9
3.0	98.6	98.6	98.6	98.6	98.5	98.6	98.6	98.6	98.6	98.6
3.5	97.0	97.0	96.9	96.9	96.9	97.0	97.0	97.0	97.1	97.1
4.0	95.3	95.3	95.3	95.3	95.3	95.3	95.4	95.4	95.4	95.5
4.5	93.6	93.6	93.6	93.6	93.6	93.6	93.7	93.7	93.8	93.8
5.0	91.8	91.9	91.9	91.9	92.0	92.0	92.0	92.1	92.1	92.1
5.5	90.0	90.1	90.2	90.3	90.3	90.4	90.4	90.4	90.5	90.5
6.0	88.4	88.4	88.5	88.6	88.7	88.7	88.8	88.9	88.9	89.0
6.5	86.6	86.7	86.8	86.9	87.0	87.1	87.2	87.2	87.3	87.4
7.0	85.0	85.1	85.2	85.3	85.5	85.5	85.6	85.7	85.8	85.8
7.5	83.4	83.5	83.6	83.7	83.8	83.9	84.0	84.1	84.2	84.3
8.0	81.8	81.9	82.0	82.2	82.3	82.4	82.5	82.6	82.7	82.7
8.5	80.2	80.3	80.4	80.5	80.7	80.8	80.9	81.0	81.1	81.2
9.0	78.6	78.8	78.9	79.0	79.2	79.3	79.4	79.5	79.6	79.7
9.5	77.0	77.2	77.3	77.5	77.6	77.8	77.9	78.0	78.1	78.2
10.0	75.5	75.7	75.8	76.0	76.2	76.3	76.5	76.6	76.7	76.9
10.5	74.0	74.1	74.3	74.5	74.6	74.8	75.0	75.1	75.3	75.4
11.0	72.5	72.7	72.9	73.1	73.2	73.4	73.5	73.6	73.7	73.9
11.5	71.1	71.3	71.5	71.7	71.9	72.0	72.1	72.2	72.3	72.5
12.0	69.6	69.8	70.0	70.2	70.4	70.5	70.7	70.9	71.0	71.2
12.5	68.1	68.3	68.6	68.8	69.0	69.2	69.3	69.5	69.6	69.7
13.0	66.8	67.1	67.3	67.5	67.7	67.9	68.0	68.2	68.3	68.4
13.5	65.4	65.6	65.9	66.1	66.3	66.5	66.7	66.9	67.1	67.2
14.0	64.0	64.3	64.6	64.8	65.1	65.3	65.4	65.6	65.7	65.9
14.5	62.8	63.0	63.3	63.5	63.7	63.9	64.1	64.3	64.5	64.7
15.0	61.4	61.7	61.9	62.2	62.4	62.6	62.8	63.0	63.2	63.4
15.5	60.1	60.4	60.6	60.9	61.2	61.4	61.6	61.7	61.9	62.1
16.0	58.9	59.2	59.4	59.7	59.9	60.2	60.4	60.6	60.8	61.0
16.5	57.7	58.0	58.2	58.5	58.8	59.0	59.2	59.4	59.6	59.7
17.0	56.5	56.8	57.1	57.4	57.7	57.9	58.1	58.3	58.4	58.6
17.5	55.3	55.6	55.9	56.2	56.5	56.7	56.9	57.1	57.3	57.5
18.0	54.2	54.5	54.8	55.1	55.4	55.6	55.8	56.0	56.2	56.3
18.5	53.2	53.5	53.8	54.1	54.3	54.5	54.7	54.9	55.1	55.3
19.0	51.9	52.2	52.5	52.8	53.1	53.4	53.6	53.8	54.0	54.2
19.5	50.9	51.2	51.5	51.8	52.1	52.3	52.5	52.7	52.9	53.1
20.0	49.8	50.1	50.4	50.7	51.0	51.2	51.4	51.6	51.9	52.1

Normalized to 2.4 cm	10X PDD Open									
	Landauer Cancer Institute - Jackson, WY									
	Varian TrueBeam #9999									
Depth (cm)	22x22 (cm ²)	24x24 (cm ²)	26x26 (cm ²)	28x28 (cm ²)	30x30 (cm ²)	32x32 (cm ²)	34x34 (cm ²)	36x36 (cm ²)	38x38 (cm ²)	40x40 (cm ²)
20.5	48.7	49.0	49.3	49.6	49.9	50.1	50.4	50.6	50.8	51.0
21.0	47.7	48.0	48.3	48.6	48.9	49.2	49.4	49.6	49.8	50.1
21.5	46.6	47.0	47.3	47.6	47.9	48.1	48.3	48.6	48.8	49.0
22.0	45.8	46.1	46.4	46.7	47.1	47.2	47.4	47.6	47.8	48.0
22.5	44.8	45.1	45.4	45.7	46.0	46.2	46.5	46.7	46.9	47.1
23.0	43.8	44.1	44.4	44.8	45.1	45.3	45.5	45.7	45.9	46.1
23.5	42.9	43.2	43.5	43.8	44.2	44.4	44.6	44.8	45.0	45.2
24.0	42.0	42.3	42.7	43.0	43.4	43.6	43.8	44.0	44.1	44.3
24.5	41.1	41.5	41.8	42.1	42.4	42.7	42.9	43.1	43.3	43.5
25.0	40.3	40.6	40.9	41.2	41.6	41.8	42.0	42.2	42.4	42.6
25.5	39.4	39.7	40.1	40.4	40.7	40.9	41.1	41.3	41.5	41.7
26.0	38.6	38.9	39.2	39.6	39.9	40.1	40.3	40.5	40.7	40.9
26.5	37.8	38.1	38.5	38.8	39.1	39.3	39.5	39.7	39.9	40.1
27.0	36.9	37.3	37.6	37.9	38.3	38.5	38.7	38.9	39.1	39.3
27.5	36.2	36.5	36.9	37.2	37.5	37.7	37.9	38.1	38.3	38.5
28.0	35.4	35.8	36.1	36.4	36.8	37.0	37.1	37.3	37.5	37.7
28.5	34.7	35.0	35.3	35.6	36.0	36.2	36.4	36.6	36.8	37.0
29.0	33.9	34.3	34.6	35.0	35.3	35.5	35.7	35.9	36.1	36.3
29.5	33.2	33.6	33.9	34.2	34.6	34.7	34.9	35.1	35.3	35.5
30.0	32.5	32.8	33.2	33.5	33.8	34.0	34.2	34.4	34.7	34.9
30.5	31.8	32.1	32.5	32.9	33.2	33.3	33.5	33.8	33.9	34.1
31.0	31.3	31.5	31.8	32.2	32.5	32.6	32.8	33.1	33.3	33.5
31.5	30.6	30.8	31.1	31.5	31.8	31.9	32.1	32.4	32.6	32.8
32.0	29.9	30.2	30.5	30.9	31.2	31.3	31.5	31.7	31.9	32.1
32.5	29.3	29.6	29.9	30.3	30.6	30.7	30.9	31.2	31.3	31.5
33.0	28.7	28.9	29.2	29.7	30.0	30.1	30.2	30.5	30.7	30.9
33.5	28.1	28.3	28.6	29.0	29.3	29.4	29.7	29.9	30.1	30.3
34.0	27.5	27.8	28.1	28.5	28.8	28.8	29.1	29.3	29.5	29.7
34.5	27.0	27.3	27.5	27.9	28.2	28.3	28.5	28.7	28.9	29.1

10X PDD Open
Landauer Cancer Institute - Jackson, WY
Varian TrueBeam #9999

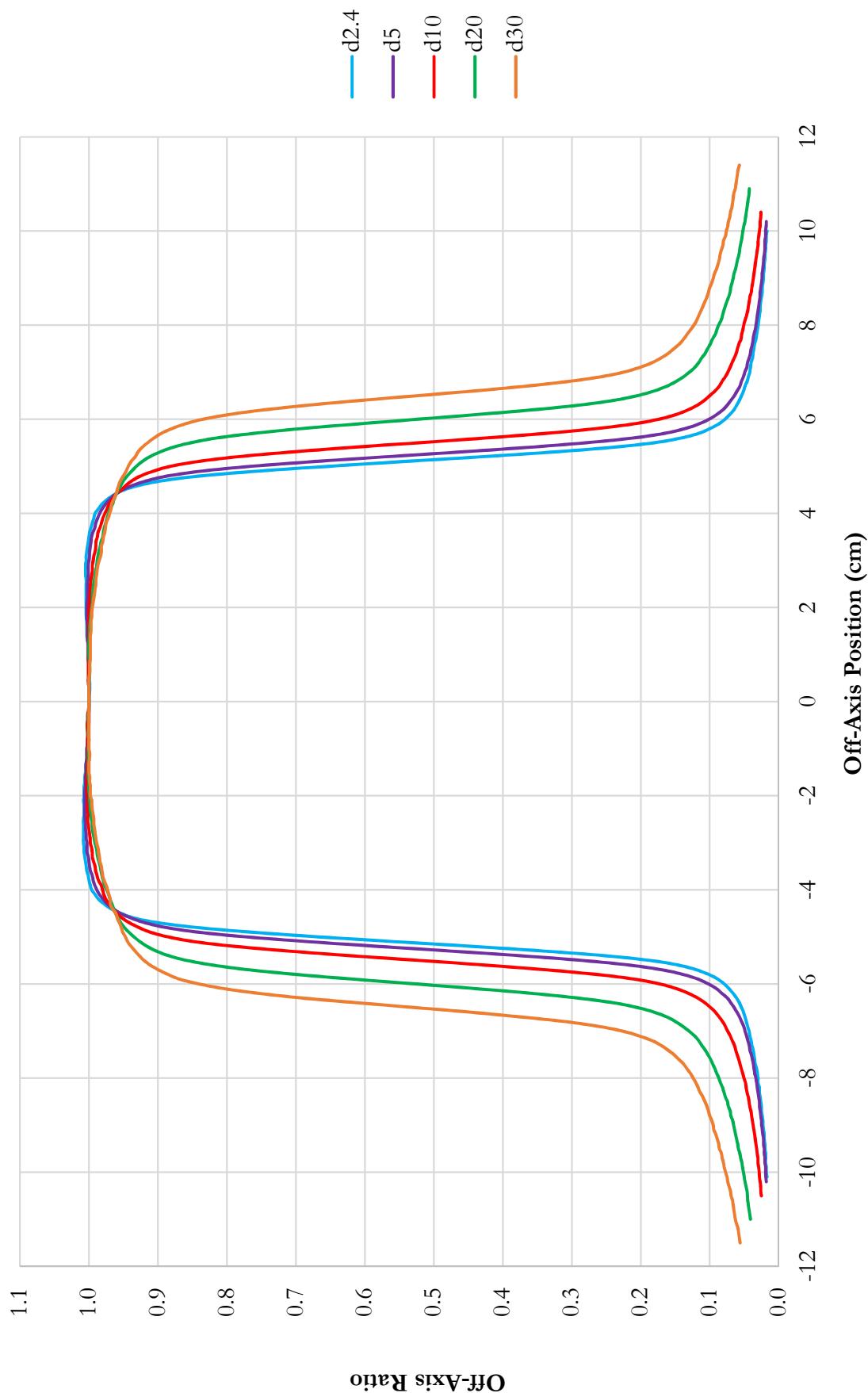


Photon Energies

10X Crossplane

10X Crossplane Open 10x10 100 SSD Landauer Cancer Institute - Jackson, WY Varian TrueBeam #9999					
Off-Axis (cm)	d2.4	d5	d10	d20	d30
-7.0	0.043	0.049	0.074	0.130	0.227
-6.5	0.054	0.065	0.099	0.205	0.528
-6.0	0.079	0.102	0.172	0.525	0.840
-5.5	0.186	0.284	0.520	0.858	0.920
-5.0	0.665	0.772	0.885	0.935	0.947
-4.5	0.953	0.955	0.960	0.961	0.961
-4.0	0.996	0.989	0.980	0.974	0.973
-3.5	1.004	0.999	0.991	0.984	0.982
-3.0	1.008	1.003	0.998	0.991	0.989
-2.5	1.008	1.006	1.002	0.996	0.993
-2.0	1.007	1.006	1.002	0.999	0.998
-1.5	1.005	1.004	1.003	1.001	1.000
-1.0	1.003	1.003	1.002	1.001	1.000
-0.5	1.001	1.000	1.003	1.001	1.000
0.0	1.000	1.000	1.000	1.000	1.000
0.5	1.000	1.000	1.001	1.000	1.000
1.0	1.001	1.001	1.001	1.000	0.998
1.5	1.003	1.002	1.001	0.999	0.997
2.0	1.004	1.003	1.000	0.996	0.995
2.5	1.004	1.002	0.998	0.993	0.990
3.0	1.004	1.000	0.994	0.988	0.985
3.5	1.000	0.996	0.988	0.980	0.979
4.0	0.991	0.984	0.977	0.972	0.970
4.5	0.949	0.951	0.953	0.958	0.959
5.0	0.653	0.765	0.882	0.931	0.943
5.5	0.181	0.280	0.522	0.853	0.915
6.0	0.078	0.101	0.174	0.523	0.835
6.5	0.054	0.064	0.100	0.205	0.524
7.0	0.042	0.049	0.074	0.129	0.225

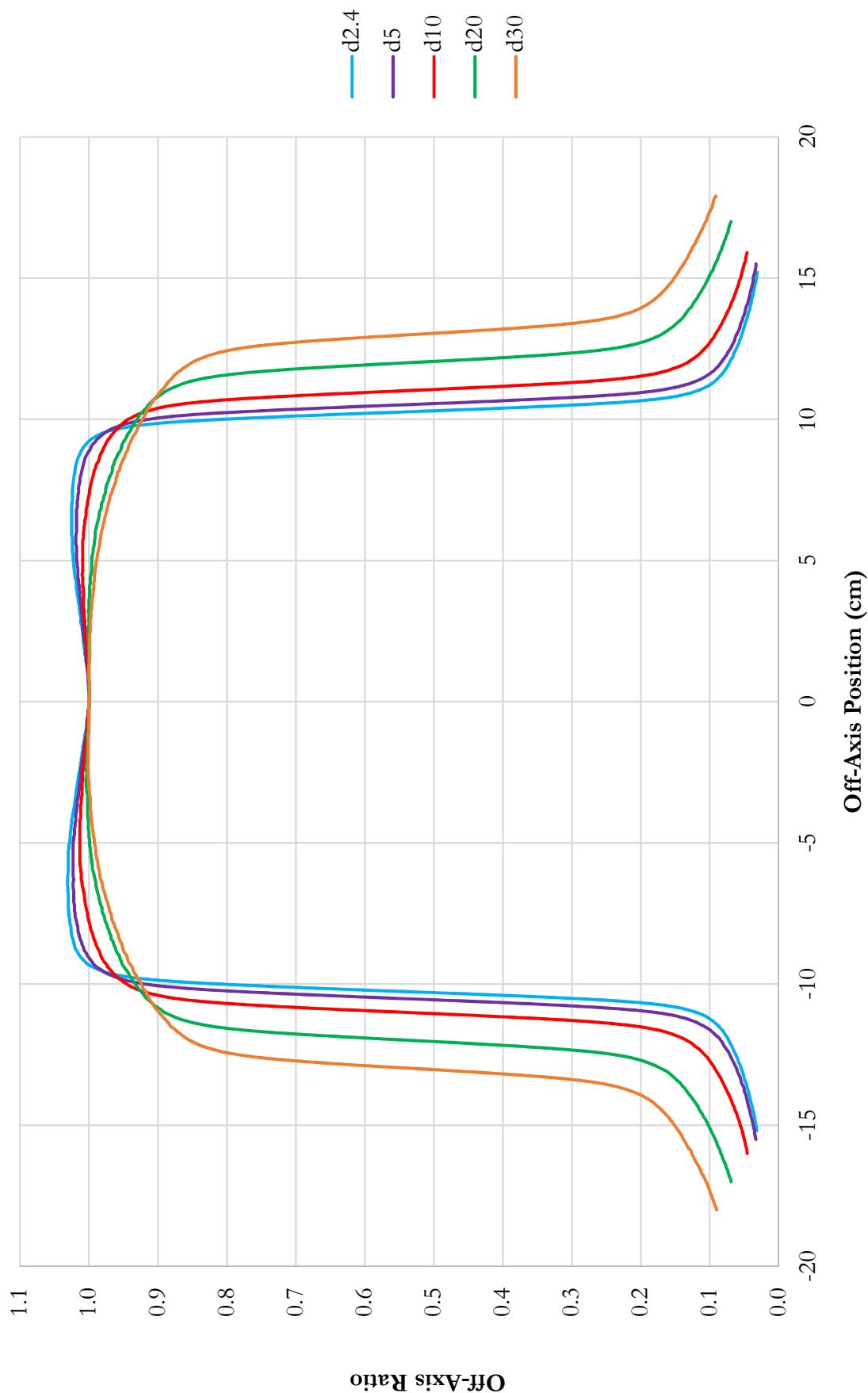
10X Crossplane Open 10x10 100 SSD
Landauer Cancer Institute - Jackson, WY
Varian TrueBeam #9999



10X Crossplane Open 20x20 100 SSD
Landauer Cancer Institute - Jackson, WY
Varian TrueBeam #9999

Off-Axis (cm)	d2.4	d5	d10	d20	d30
-12.0	0.072	0.084	0.133	0.530	0.854
-11.5	0.087	0.108	0.205	0.821	0.881
-11.0	0.120	0.181	0.545	0.891	0.899
-10.5	0.307	0.562	0.878	0.917	0.913
-10.0	0.811	0.919	0.945	0.933	0.924
-9.5	0.985	0.982	0.969	0.946	0.936
-9.0	1.013	1.002	0.983	0.956	0.945
-8.5	1.022	1.011	0.991	0.965	0.954
-8.0	1.026	1.016	0.998	0.973	0.962
-7.5	1.029	1.020	1.002	0.980	0.968
-7.0	1.030	1.022	1.006	0.985	0.975
-6.5	1.031	1.023	1.010	0.990	0.980
-6.0	1.030	1.023	1.012	0.994	0.985
-5.5	1.030	1.023	1.013	0.997	0.989
-5.0	1.028	1.023	1.013	0.999	0.992
-4.5	1.026	1.021	1.013	1.001	0.995
-4.0	1.024	1.019	1.012	1.002	0.997
-3.5	1.020	1.017	1.011	1.002	0.998
-3.0	1.017	1.014	1.010	1.004	1.000
-2.5	1.014	1.012	1.009	1.003	1.001
-2.0	1.011	1.009	1.007	1.003	1.001
-1.5	1.008	1.007	1.004	1.002	1.001
-1.0	1.004	1.003	1.003	1.001	1.000
-0.5	1.002	1.001	1.001	1.000	1.000
0.0	1.000	1.000	1.000	1.000	1.000
0.5	1.001	1.000	1.000	1.000	0.999
1.0	1.002	1.001	1.001	1.000	1.000
1.5	1.004	1.004	1.002	1.000	0.999
2.0	1.007	1.005	1.004	1.001	0.999
2.5	1.009	1.008	1.005	1.001	0.998
3.0	1.012	1.010	1.007	1.000	0.997
3.5	1.015	1.012	1.008	1.000	0.996
4.0	1.018	1.014	1.008	0.999	0.993
4.5	1.020	1.016	1.010	0.997	0.992
5.0	1.023	1.018	1.009	0.996	0.989
5.5	1.024	1.018	1.009	0.993	0.985
6.0	1.025	1.018	1.008	0.991	0.982
6.5	1.025	1.018	1.005	0.986	0.977
7.0	1.025	1.017	1.002	0.982	0.972
7.5	1.024	1.015	0.999	0.976	0.966
8.0	1.022	1.012	0.994	0.969	0.959
8.5	1.018	1.007	0.986	0.963	0.952
9.0	1.008	0.997	0.978	0.953	0.943
9.5	0.981	0.978	0.965	0.943	0.933
10.0	0.804	0.913	0.943	0.930	0.923
10.5	0.302	0.558	0.876	0.914	0.911
11.0	0.119	0.181	0.551	0.888	0.896
11.5	0.086	0.107	0.208	0.821	0.878
12.0	0.072	0.084	0.133	0.539	0.851

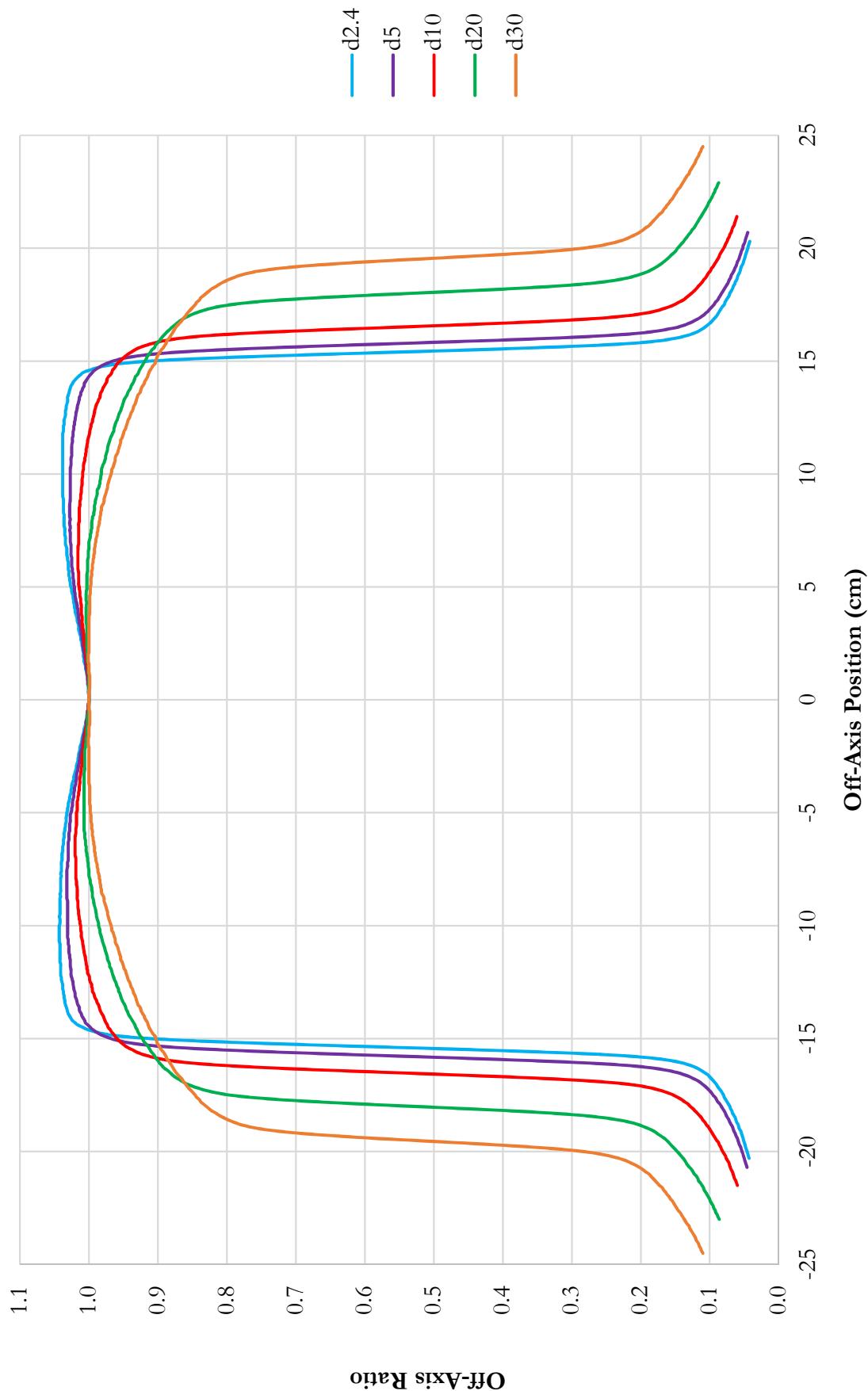
10X Crossplane Open 20x20 100 SSD
Landauer Cancer Institute - Jackson, WY
Varian TrueBeam #9999



10X Crossplane Open 30x30 100 SSD Landauer Cancer Institute - Jackson, WY Varian TrueBeam #9999					
Off-Axis (cm)	d2.4	d5	d10	d20	d30
-17.0	0.091	0.111	0.224	0.859	0.860
-16.5	0.108	0.147	0.565	0.883	0.874
-16.0	0.152	0.338	0.876	0.899	0.884
-15.5	0.436	0.806	0.937	0.911	0.895
-15.0	0.911	0.968	0.959	0.922	0.903
-14.5	1.009	0.998	0.972	0.932	0.913
-14.0	1.028	1.010	0.979	0.941	0.920
-13.5	1.034	1.016	0.986	0.948	0.929
-13.0	1.037	1.020	0.993	0.955	0.935
-12.5	1.039	1.023	0.998	0.961	0.941
-12.0	1.041	1.026	1.002	0.967	0.947
-11.5	1.042	1.027	1.005	0.973	0.954
-11.0	1.042	1.029	1.008	0.977	0.958
-10.5	1.043	1.031	1.011	0.982	0.963
-10.0	1.043	1.031	1.012	0.986	0.968
-9.5	1.042	1.031	1.015	0.989	0.973
-9.0	1.042	1.031	1.016	0.993	0.977
-8.5	1.041	1.032	1.017	0.995	0.982
-8.0	1.041	1.032	1.018	0.998	0.984
-7.5	1.040	1.032	1.019	1.000	0.987
-7.0	1.039	1.030	1.019	1.002	0.990
-6.5	1.038	1.030	1.020	1.004	0.992
-6.0	1.036	1.029	1.020	1.006	0.995
-5.5	1.034	1.028	1.018	1.007	0.996
-5.0	1.032	1.026	1.018	1.007	0.998
-4.5	1.029	1.024	1.017	1.007	0.999
-4.0	1.026	1.021	1.014	1.007	0.999
-3.5	1.022	1.018	1.013	1.007	1.000
-3.0	1.018	1.016	1.011	1.006	1.000
-2.5	1.015	1.013	1.010	1.006	1.000
-2.0	1.012	1.010	1.008	1.005	1.001
-1.5	1.008	1.007	1.005	1.003	1.000
-1.0	1.005	1.004	1.003	1.002	0.999
-0.5	1.002	1.002	1.002	1.001	0.999

10X Crossplane Open 30x30 100 SSD Landauer Cancer Institute - Jackson, WY Varian TrueBeam #9999					
Off-Axis (cm)	d2.4	d5	d10	d20	d30
0.0	1.000	1.000	1.000	1.000	1.000
0.5	1.001	1.000	1.000	1.000	0.999
1.0	1.002	1.002	1.001	1.000	0.999
1.5	1.005	1.004	1.003	1.001	1.000
2.0	1.008	1.006	1.004	1.002	1.001
2.5	1.010	1.009	1.006	1.003	1.000
3.0	1.014	1.011	1.008	1.003	1.000
3.5	1.017	1.014	1.010	1.004	1.000
4.0	1.020	1.016	1.011	1.004	0.999
4.5	1.023	1.019	1.012	1.004	0.999
5.0	1.026	1.021	1.014	1.003	0.998
5.5	1.029	1.023	1.015	1.003	0.996
6.0	1.030	1.025	1.016	1.002	0.995
6.5	1.032	1.026	1.016	1.001	0.992
7.0	1.034	1.027	1.015	1.000	0.990
7.5	1.035	1.028	1.015	0.997	0.987
8.0	1.036	1.027	1.014	0.995	0.984
8.5	1.037	1.028	1.014	0.992	0.982
9.0	1.038	1.027	1.012	0.989	0.977
9.5	1.038	1.027	1.010	0.985	0.973
10.0	1.038	1.027	1.009	0.982	0.968
10.5	1.038	1.026	1.007	0.978	0.963
11.0	1.038	1.025	1.004	0.974	0.958
11.5	1.038	1.024	1.002	0.970	0.954
12.0	1.037	1.022	0.998	0.964	0.947
12.5	1.035	1.020	0.994	0.958	0.941
13.0	1.033	1.017	0.990	0.952	0.935
13.5	1.030	1.012	0.984	0.945	0.929
14.0	1.024	1.007	0.976	0.937	0.920
14.5	1.008	0.995	0.967	0.928	0.913
15.0	0.912	0.965	0.955	0.919	0.903
15.5	0.441	0.807	0.933	0.909	0.895
16.0	0.152	0.340	0.870	0.896	0.884
16.5	0.107	0.147	0.556	0.880	0.874
17.0	0.090	0.111	0.222	0.855	0.860

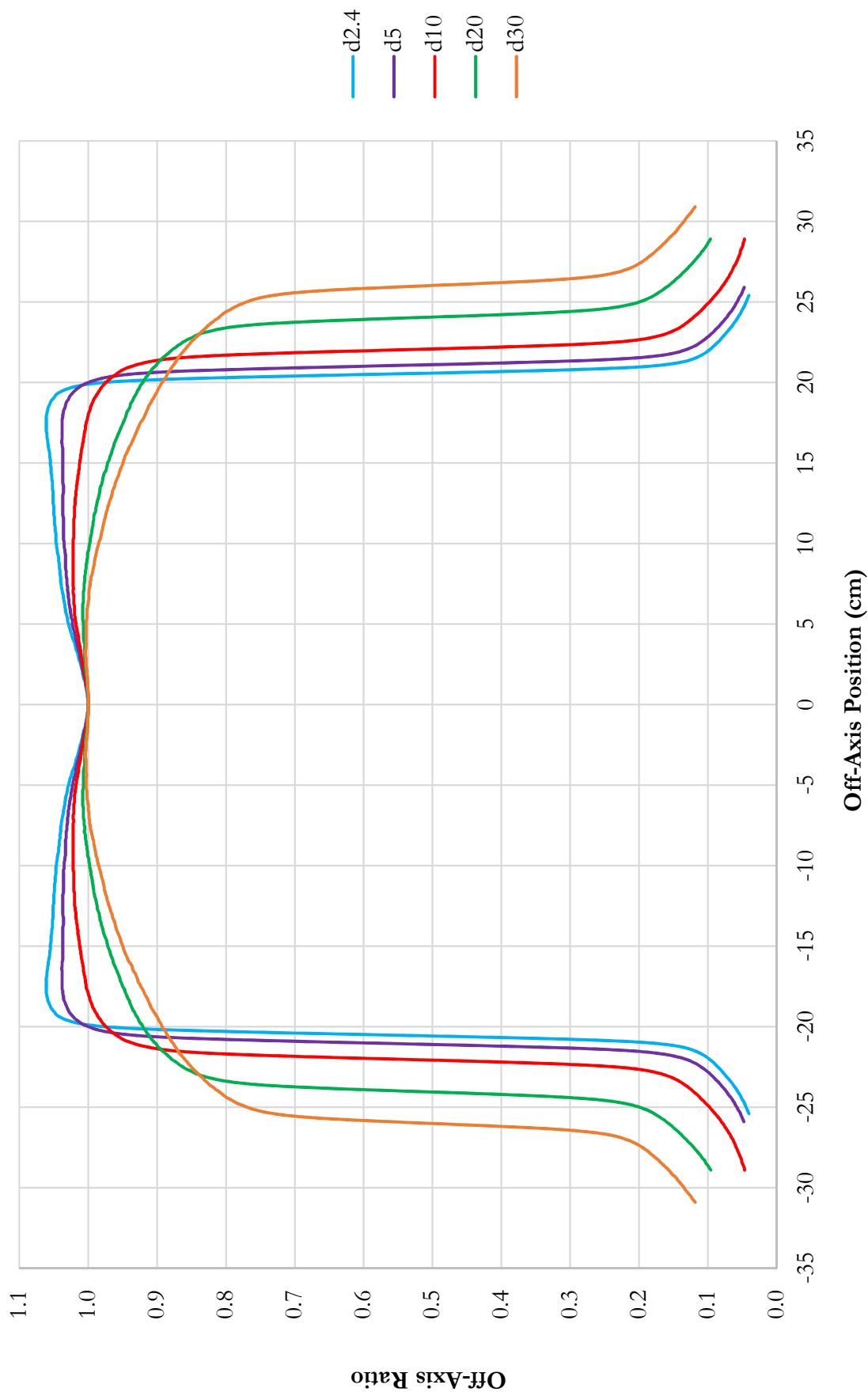
10X Crossplane Open 30x30 100 SSD
Landauer Cancer Institute - Jackson, WY
Varian TrueBeam #9999



10X Crossplane Open 40x40 100 SSD Landauer Cancer Institute - Jackson, WY Varian TrueBeam #9999					
Off-Axis (cm)	d2.4	d5	d10	d20	d30
-22.0	0.098	0.134	0.569	0.879	0.860
-21.5	0.119	0.212	0.875	0.892	0.870
-21.0	0.187	0.607	0.937	0.903	0.877
-20.5	0.586	0.942	0.960	0.913	0.885
-20.0	0.976	1.000	0.974	0.921	0.893
-19.5	1.036	1.019	0.984	0.928	0.899
-19.0	1.051	1.029	0.991	0.935	0.906
-18.5	1.058	1.034	0.996	0.940	0.912
-18.0	1.060	1.037	1.000	0.945	0.918
-17.5	1.061	1.038	1.003	0.950	0.924
-17.0	1.061	1.038	1.005	0.954	0.929
-16.5	1.060	1.038	1.007	0.959	0.935
-16.0	1.058	1.038	1.009	0.964	0.940
-15.5	1.056	1.037	1.011	0.968	0.946
-15.0	1.055	1.037	1.012	0.972	0.950
-14.5	1.054	1.037	1.014	0.975	0.954
-14.0	1.053	1.037	1.015	0.979	0.959
-13.5	1.052	1.036	1.017	0.982	0.962
-13.0	1.051	1.037	1.018	0.984	0.966
-12.5	1.051	1.037	1.020	0.987	0.970
-12.0	1.050	1.037	1.020	0.990	0.973
-11.5	1.049	1.036	1.021	0.992	0.977
-11.0	1.048	1.036	1.021	0.994	0.979
-10.5	1.047	1.036	1.021	0.996	0.982
-10.0	1.046	1.035	1.022	0.998	0.985
-9.5	1.045	1.034	1.022	1.000	0.988
-9.0	1.043	1.033	1.022	1.002	0.990
-8.5	1.042	1.033	1.022	1.003	0.992
-8.0	1.040	1.032	1.022	1.005	0.995
-7.5	1.040	1.031	1.022	1.006	0.997
-7.0	1.038	1.030	1.022	1.007	0.999
-6.5	1.036	1.028	1.021	1.007	1.000
-6.0	1.034	1.027	1.020	1.008	1.001
-5.5	1.031	1.025	1.019	1.008	1.002
-5.0	1.028	1.023	1.018	1.007	1.003
-4.5	1.026	1.020	1.016	1.007	1.003
-4.0	1.022	1.018	1.014	1.006	1.003
-3.5	1.018	1.015	1.012	1.005	1.003
-3.0	1.014	1.012	1.010	1.005	1.004
-2.5	1.012	1.009	1.008	1.004	1.003
-2.0	1.008	1.007	1.006	1.003	1.002
-1.5	1.006	1.004	1.003	1.002	1.001
-1.0	1.003	1.002	1.002	1.001	1.001
-0.5	1.001	1.001	1.000	1.000	1.000

10X Crossplane Open 40x40 100 SSD Landauer Cancer Institute - Jackson, WY Varian TrueBeam #9999					
Off-Axis (cm)	d2.4	d5	d10	d20	d30
0.0	1.000	1.000	1.000	1.000	1.000
0.5	1.001	1.001	1.000	1.000	1.000
1.0	1.003	1.002	1.002	1.001	1.001
1.5	1.006	1.004	1.004	1.002	1.001
2.0	1.008	1.007	1.006	1.003	1.002
2.5	1.011	1.010	1.008	1.004	1.003
3.0	1.014	1.012	1.010	1.005	1.004
3.5	1.018	1.015	1.012	1.005	1.003
4.0	1.022	1.018	1.014	1.007	1.003
4.5	1.026	1.020	1.016	1.007	1.003
5.0	1.028	1.023	1.018	1.007	1.003
5.5	1.031	1.025	1.020	1.008	1.002
6.0	1.034	1.027	1.020	1.008	1.001
6.5	1.036	1.028	1.021	1.007	0.999
7.0	1.038	1.030	1.022	1.007	0.999
7.5	1.040	1.031	1.022	1.006	0.997
8.0	1.040	1.032	1.022	1.005	0.995
8.5	1.042	1.033	1.022	1.003	0.992
9.0	1.043	1.033	1.022	1.002	0.990
9.5	1.045	1.034	1.022	1.000	0.988
10.0	1.046	1.035	1.022	0.998	0.985
10.5	1.047	1.036	1.021	0.996	0.981
11.0	1.048	1.036	1.021	0.994	0.979
11.5	1.049	1.036	1.021	0.992	0.976
12.0	1.050	1.037	1.020	0.989	0.973
12.5	1.051	1.037	1.019	0.987	0.970
13.0	1.051	1.037	1.018	0.984	0.966
13.5	1.052	1.036	1.017	0.982	0.962
14.0	1.053	1.037	1.015	0.979	0.958
14.5	1.054	1.037	1.014	0.975	0.954
15.0	1.055	1.037	1.012	0.972	0.949
15.5	1.056	1.037	1.011	0.967	0.946
16.0	1.058	1.038	1.009	0.963	0.940
16.5	1.060	1.038	1.007	0.959	0.934
17.0	1.061	1.038	1.005	0.954	0.929
17.5	1.061	1.038	1.003	0.949	0.924
18.0	1.060	1.037	1.000	0.945	0.917
18.5	1.058	1.033	0.996	0.939	0.912
19.0	1.051	1.028	0.991	0.934	0.906
19.5	1.036	1.019	0.984	0.928	0.899
20.0	0.977	1.000	0.975	0.921	0.893
20.5	0.590	0.942	0.960	0.913	0.885
21.0	0.187	0.607	0.937	0.903	0.878
21.5	0.119	0.212	0.875	0.893	0.870
22.0	0.098	0.134	0.569	0.879	0.861

10X Crossplane Open 40x40 100 SSD
Landauer Cancer Institute - Jackson, WY
Varian TrueBeam #9999



Photon Energies

10X Beam Match Verification

10X Eclipse Output Factors 95 SSD d5
 Landauer Cancer Institute
 Varian TrueBeam #9999

Verification Data Measured on TrueBeam #4285

Representative TrueBeam Data

% difference (Verification/Representative)

Open Field

Y (cm)	X (cm)					Field size X (cm)				
	3	4	5	7	10	15	20	30	40	
3	0.882					0.927				
4		0.897	0.904	0.912	0.917	0.921	0.924	0.926	0.926	0.1%
5		0.898	0.914	0.923	0.933	0.941	0.946	0.949	0.952	0.1%
7		0.907	0.925	0.935	0.947	0.956	0.963	0.966	0.970	0.0%
10		0.918	0.939	0.952	0.967	0.979	0.987	0.992	0.997	0.0%
15		0.928	0.952	0.966	0.985	1.000	1.011	1.018	1.024	0.2%
20		0.940	0.967	0.984	1.008	1.028	1.045	1.062	1.069	0.1%
30		0.945	0.973	0.991	1.016	1.038	1.058	1.072	1.085	0.2%
40		0.947	0.975	0.994	1.020	1.043	1.064	1.079	1.093	0.3%

Open Field

Y (cm)	X (cm)					Field size X (cm)				
	3	4	5	7	10	15	20	30	40	
3	0.883	0.897	0.904	0.912	0.917	0.921	0.924	0.926	0.926	
4	0.898	0.914	0.923	0.933	0.941	0.946	0.949	0.952	0.952	
5	0.907	0.925	0.935	0.947	0.956	0.963	0.966	0.970	0.970	
7	0.918	0.939	0.952	0.967	0.979	0.987	0.992	0.997	0.998	
10	0.928	0.952	0.966	0.985	1.000	1.011	1.018	1.024	1.026	
15	0.936	0.962	0.979	1.000	1.019	1.033	1.043	1.054	1.054	
20	0.940	0.967	0.984	1.008	1.028	1.045	1.062	1.069	1.069	
30	0.945	0.973	0.991	1.016	1.038	1.058	1.072	1.085	1.089	
40	0.947	0.975	0.994	1.020	1.043	1.064	1.079	1.093	1.097	

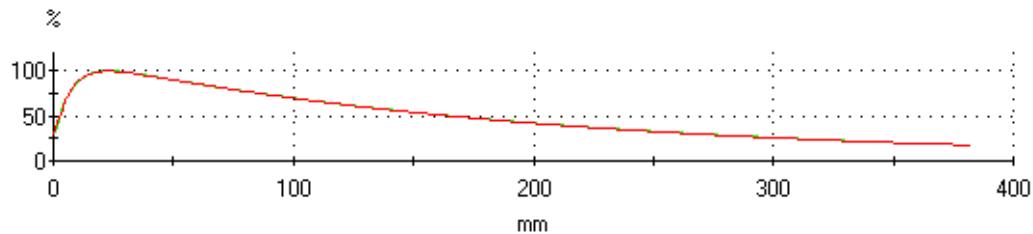
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-01-26 10:18

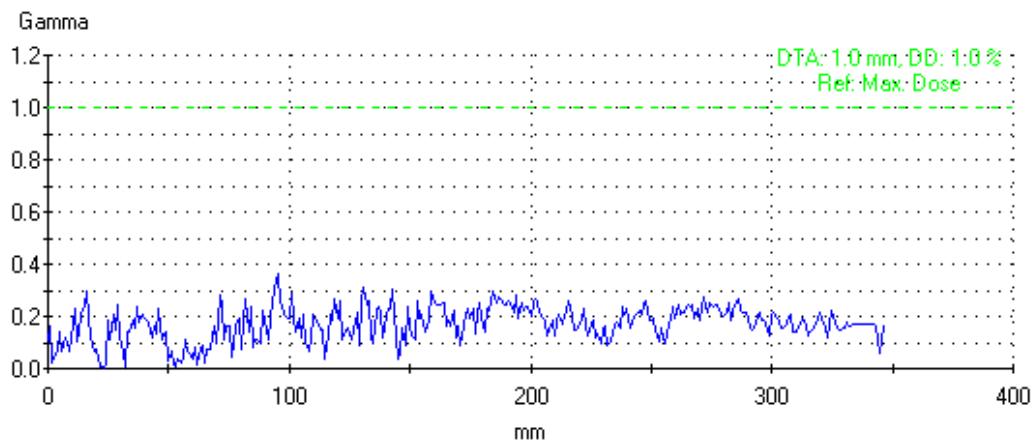
Setup

Measurement Parameters

Energy [MV]:	10.0
Field Size TG x LR [cm x cm]:	3.0 x 3.0
Depth [mm]:	
Profile Type:	PDD
Wedge:	Open
Block:	None
Raw/Processed:	Processed



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



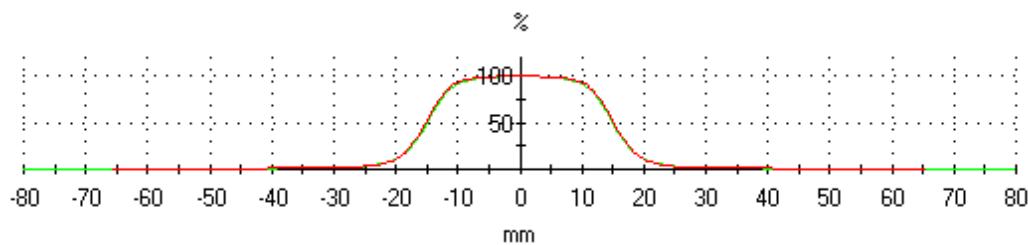
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-01-26 10:23

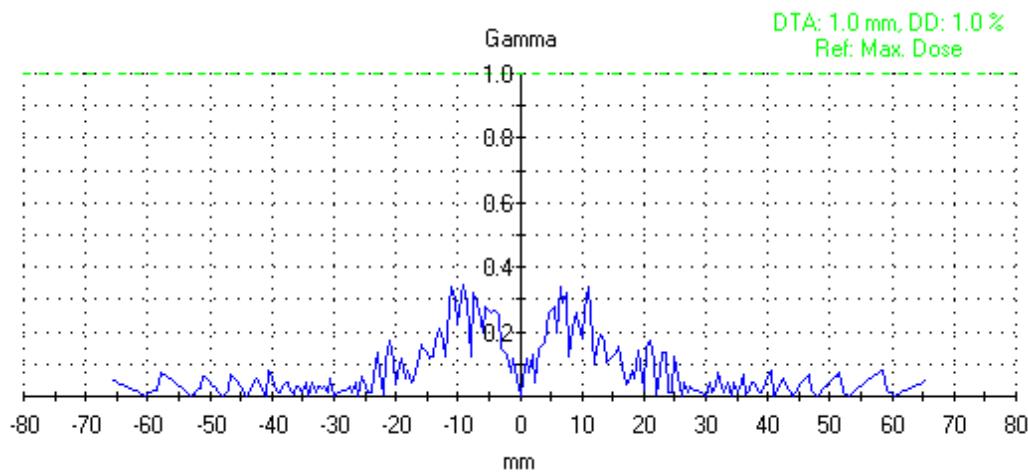
Setup

Measurement Parameters

Energy [MV]:	10.0
Field Size Inpla. x Cross. [cm x cm]:	3.0 x 3.0
Depth [mm]:	24.0
Profile Type:	Crossplane Profile



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



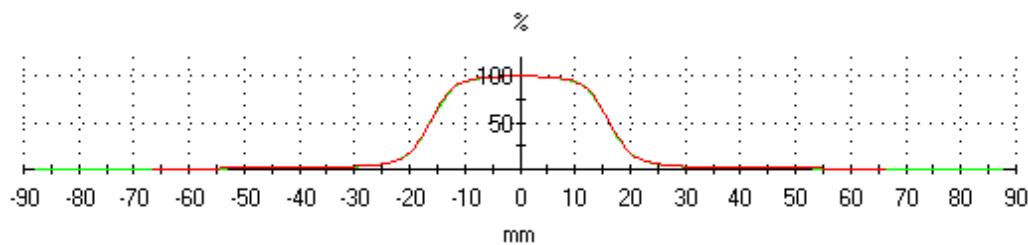
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-01-26 10:23

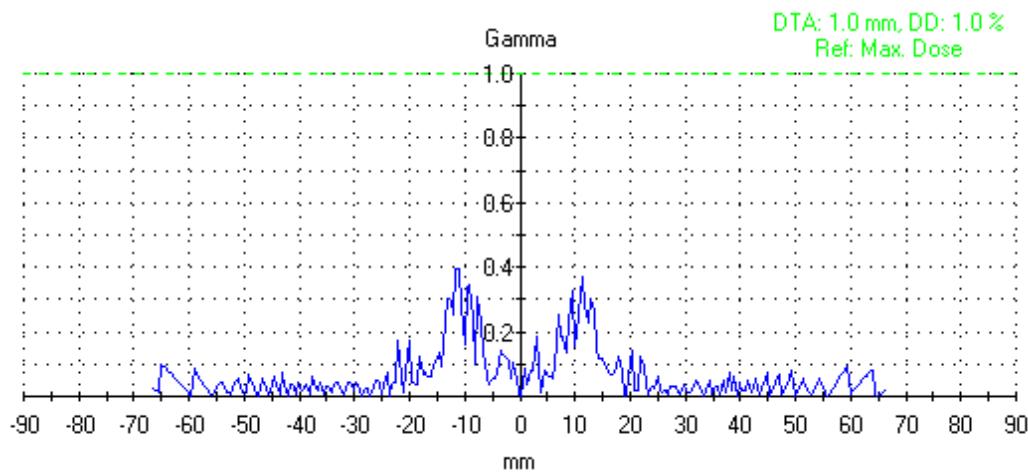
Setup

Measurement Parameters

Energy [MV]:	10.0
Field Size Inpla. x Cross. [cm x cm]:	3.0 x 3.0
Depth [mm]:	100.0
Profile Type:	Crossplane Profile



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



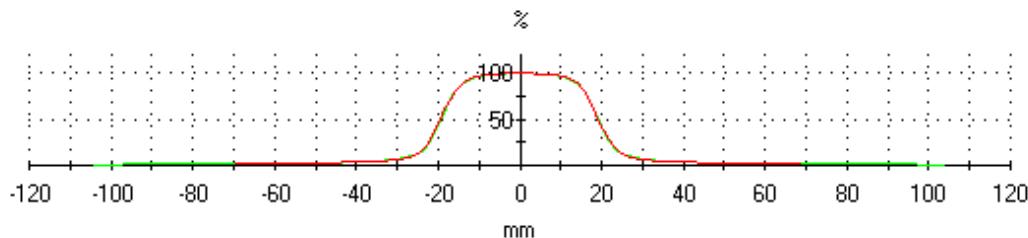
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-01-26 10:24

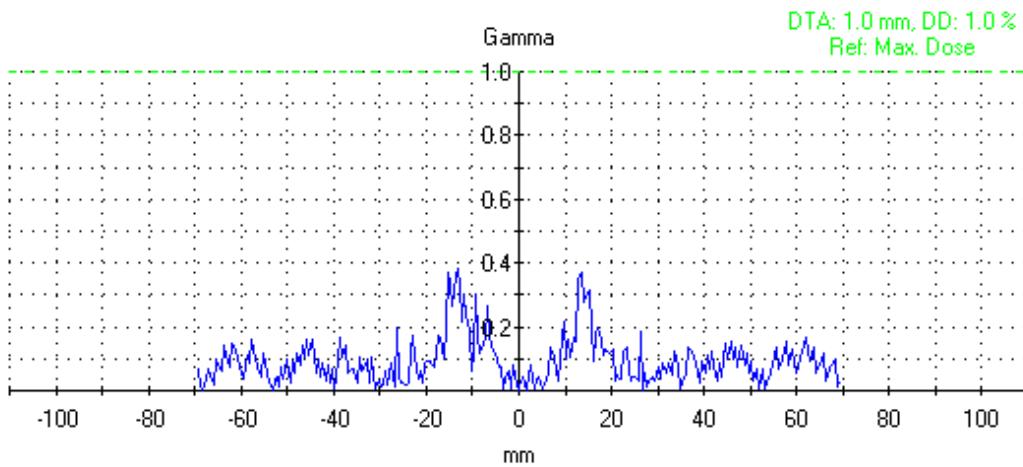
Setup

Measurement Parameters

Energy [MV]:	10.0
Field Size Inpla. x Cross. [cm x cm]:	3.0 x 3.0
Depth [mm]:	300.0
Profile Type:	Crossplane Profile



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



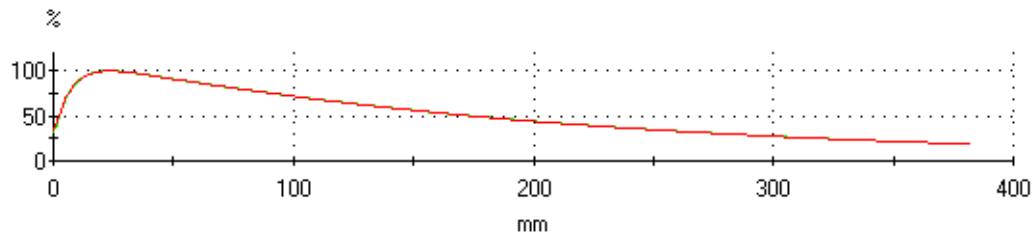
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-01-26 10:19

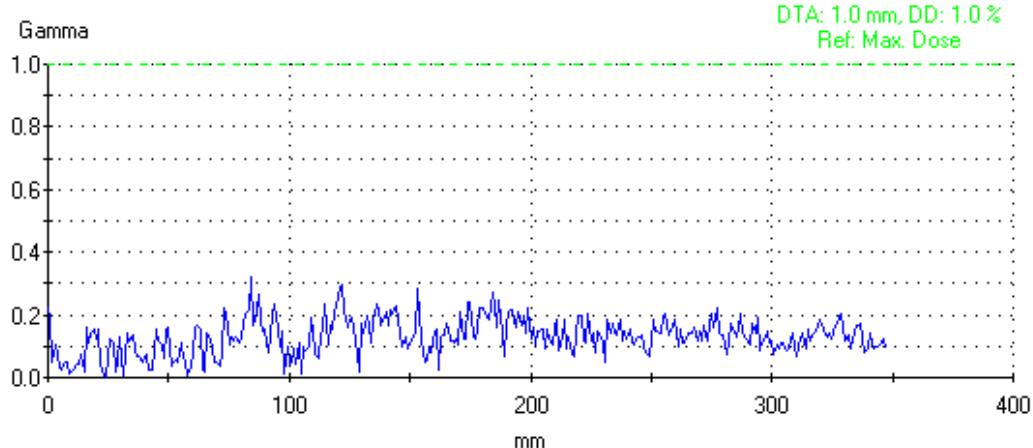
Setup

Measurement Parameters

Energy [MV]:	10.0
Field Size TG x LR [cm x cm]:	6.0 x 6.0
Depth [mm]:	
Profile Type:	PDD
Wedge:	Open
Block:	None
Raw/Processed:	Processed



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



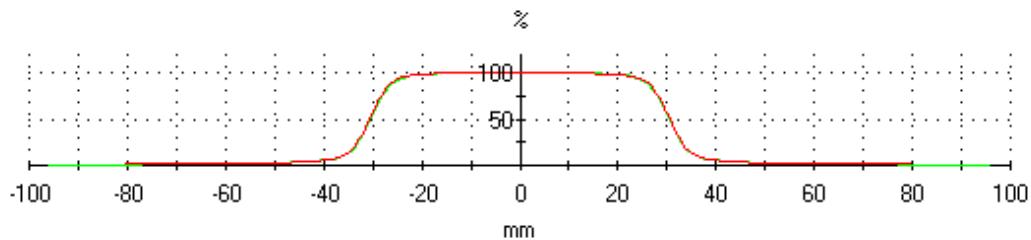
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-01-26 10:25

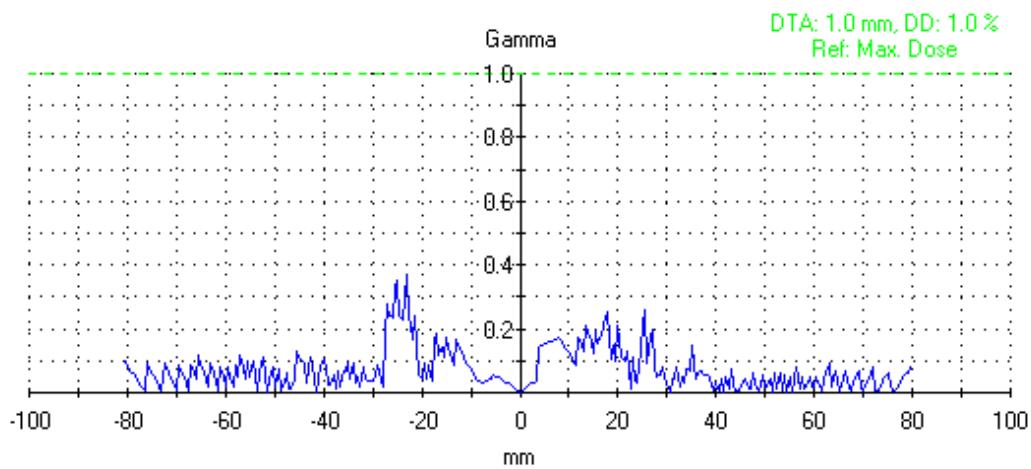
Setup

Measurement Parameters

Energy [MV]:	10.0
Field Size Inpla. x Cross. [cm x cm]:	6.0 x 6.0
Depth [mm]:	24.0
Profile Type:	Crossplane Profile



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



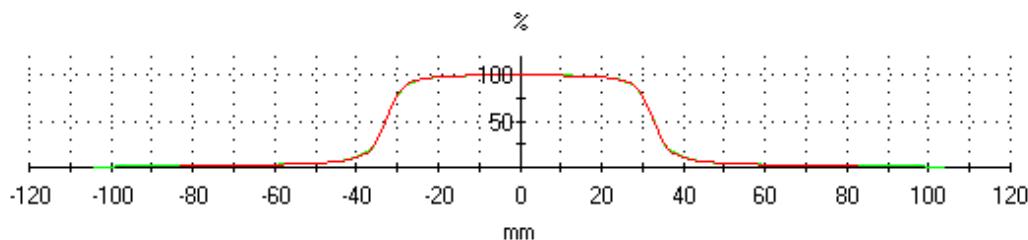
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-01-26 10:25

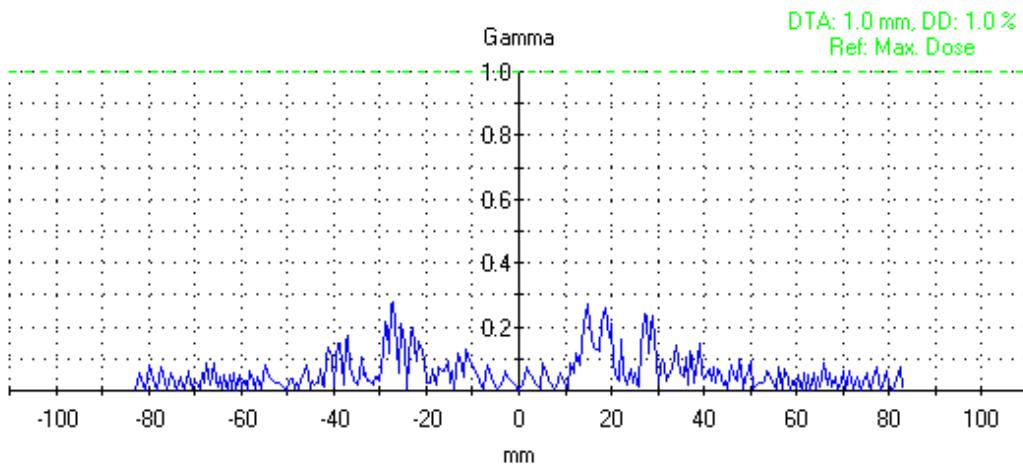
Setup

Measurement Parameters

Energy [MV]:	10.0
Field Size Inpla. x Cross. [cm x cm]:	6.0 x 6.0
Depth [mm]:	100.0
Profile Type:	Crossplane Profile



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



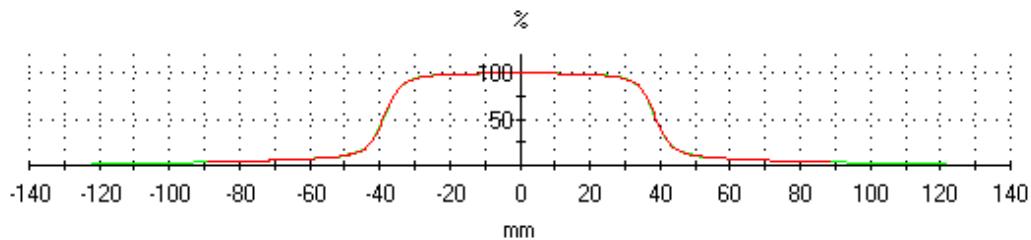
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-01-26 10:26

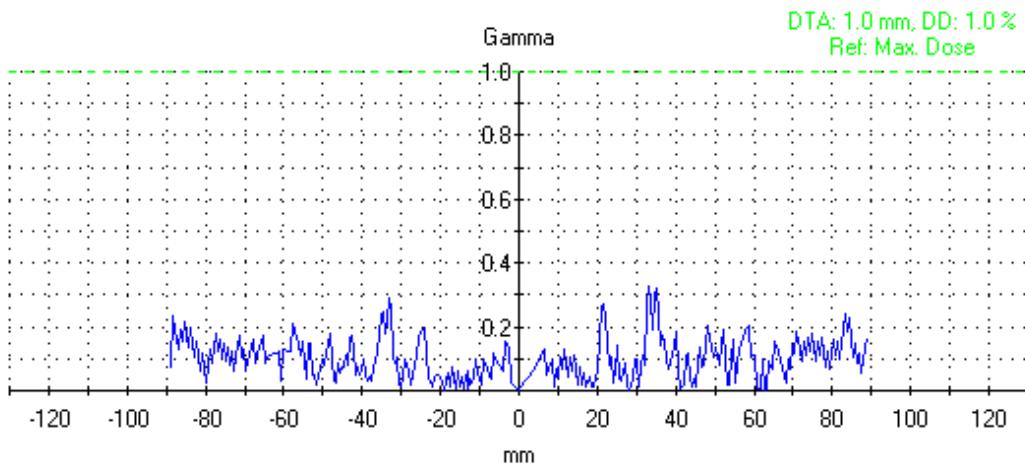
Setup

Measurement Parameters

Energy [MV]:	10.0
Field Size Inpla. x Cross. [cm x cm]:	6.0 x 6.0
Depth [mm]:	300.0
Profile Type:	Crossplane Profile



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



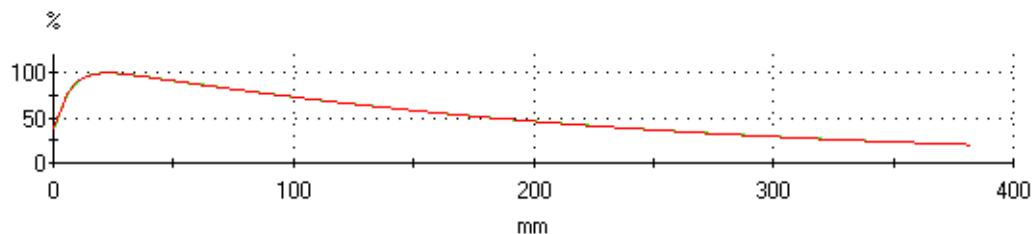
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-01-26 10:20

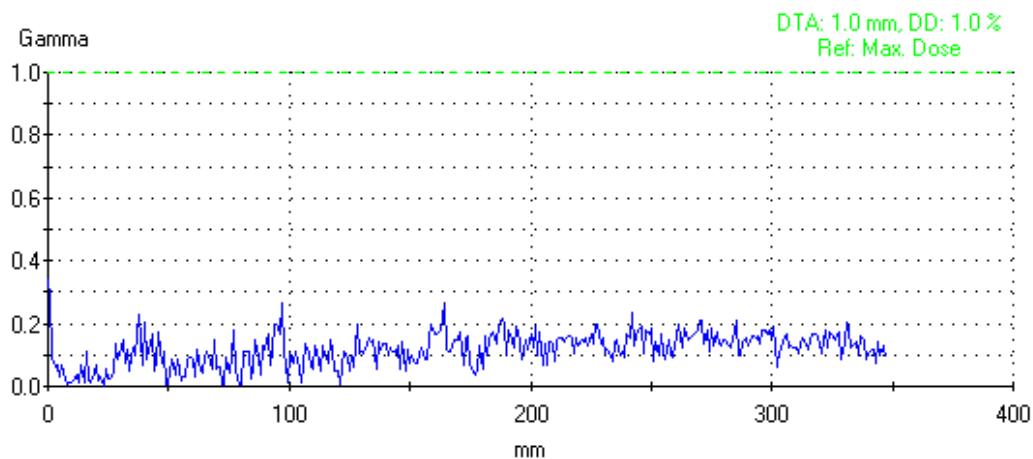
Setup

Measurement Parameters

Energy [MV]:	10.0
Field Size TG x LR [cm x cm]:	10.0 x 10.0
Depth [mm]:	
Profile Type:	PDD



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



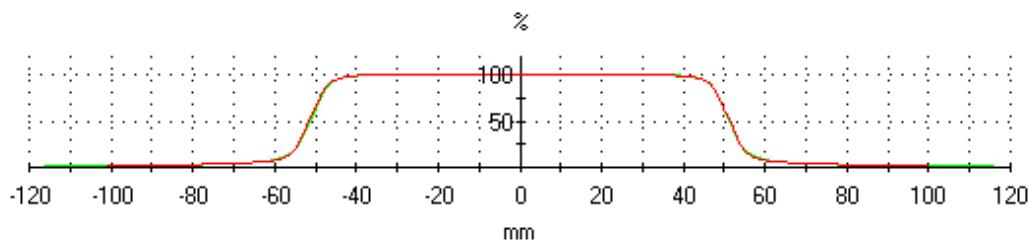
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-01-26 10:26

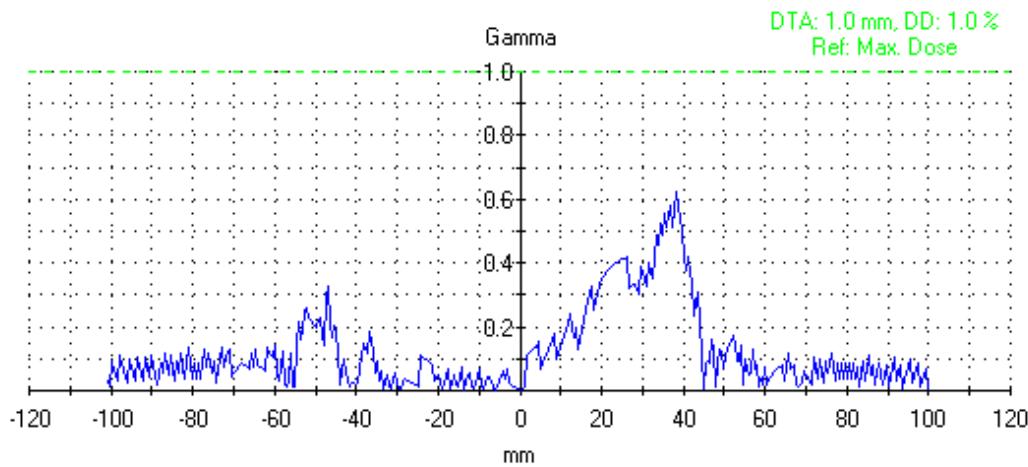
Setup

Measurement Parameters

Energy [MV]:	10.0
Field Size Inpla. x Cross. [cm x cm]:	10.0 x 10.0
Depth [mm]:	24.0
Profile Type:	Crossplane Profile



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



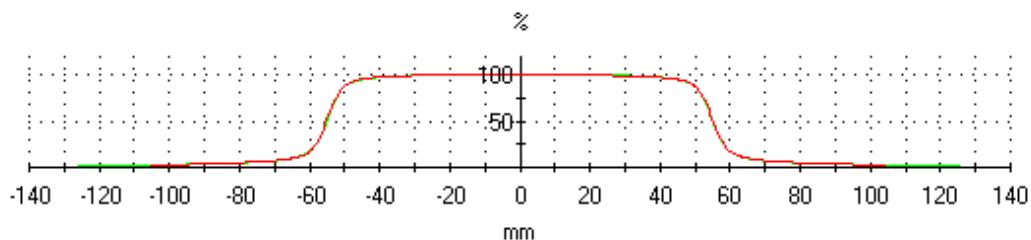
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-01-26 10:26

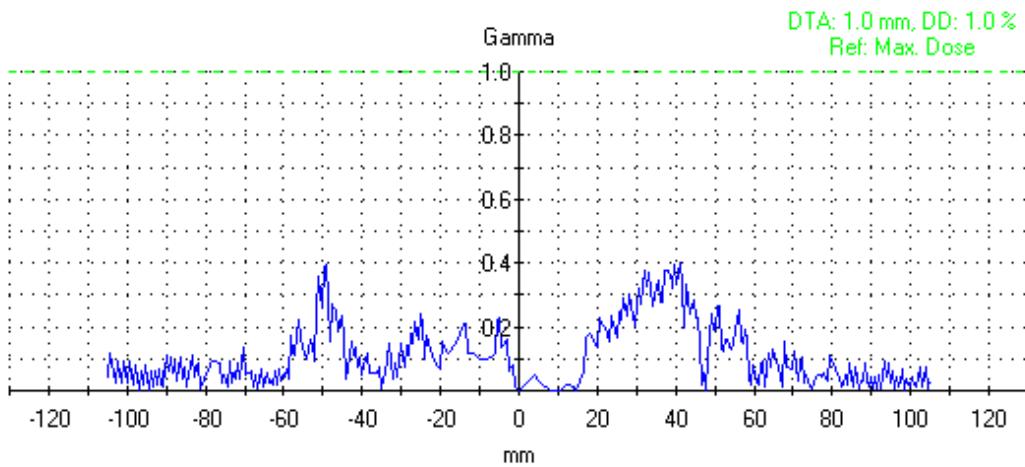
Setup

Measurement Parameters

Energy [MV]:	10.0
Field Size Inpla. x Cross. [cm x cm]:	10.0 x 10.0
Depth [mm]:	100.0
Profile Type:	Crossplane Profile



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



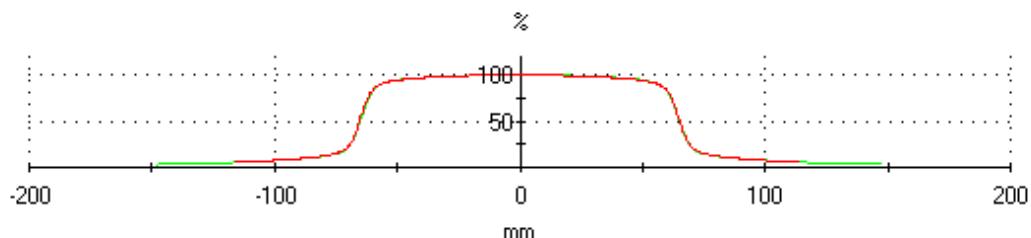
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-01-26 10:27

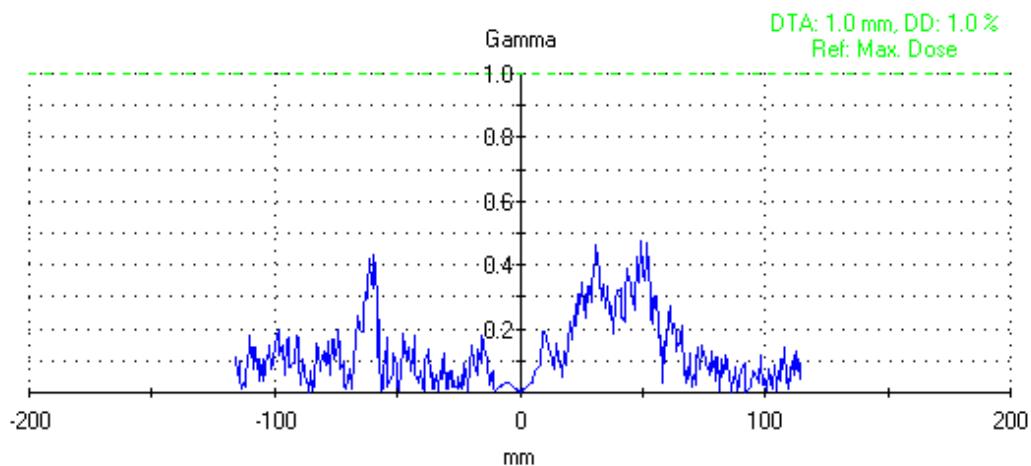
Setup

Measurement Parameters

Energy [MV]:	10.0
Field Size Inpla. x Cross. [cm x cm]:	10.0 x 10.0
Depth [mm]:	300.0
Profile Type:	Crossplane Profile



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



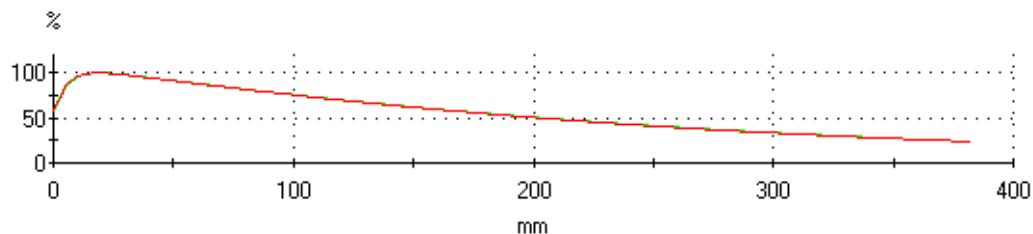
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-01-26 10:20

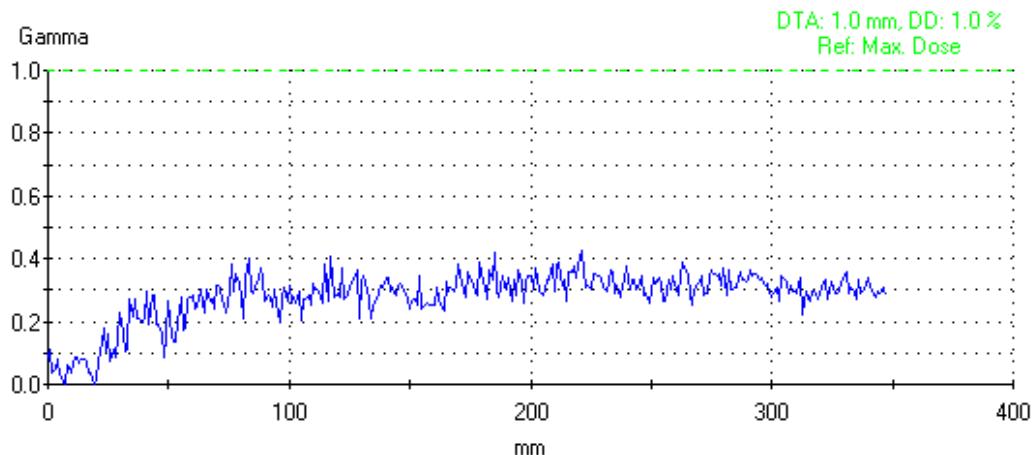
Setup

Measurement Parameters

Energy [MV]:	10.0
Field Size TG x LR [cm x cm]:	30.0 x 30.0
Depth [mm]:	
Profile Type:	PDD



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



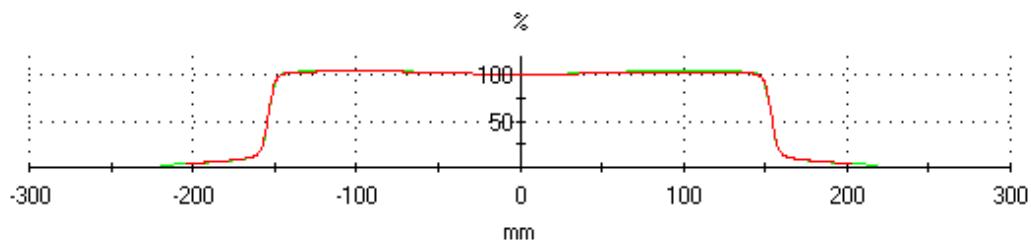
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-01-26 10:27

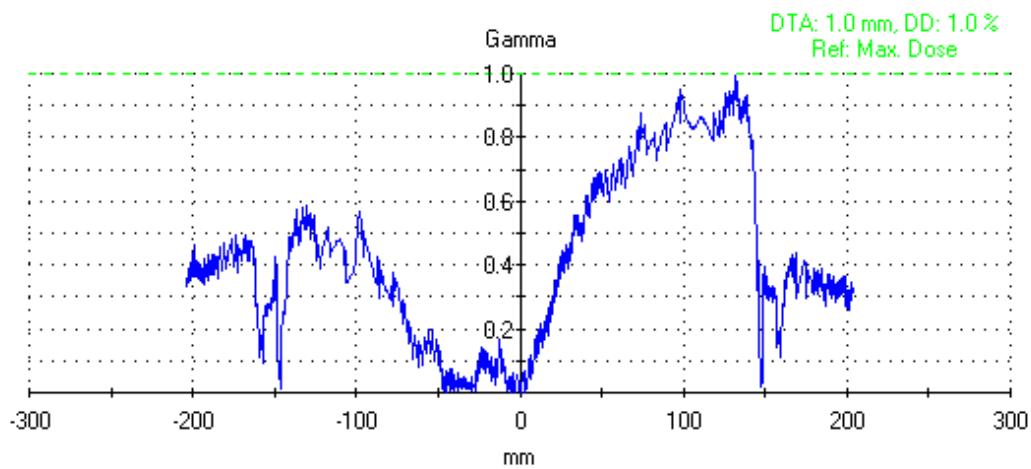
Setup

Measurement Parameters

Energy [MV]:	10.0
Field Size Inpla. x Cross. [cm x cm]:	30.0 x 30.0
Depth [mm]:	24.0
Profile Type:	Crossplane Profile



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



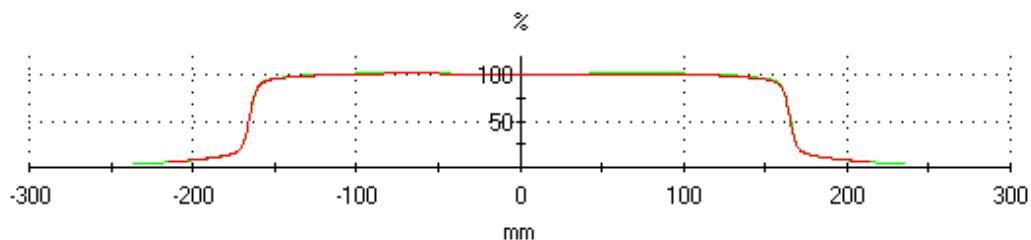
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-01-26 10:28

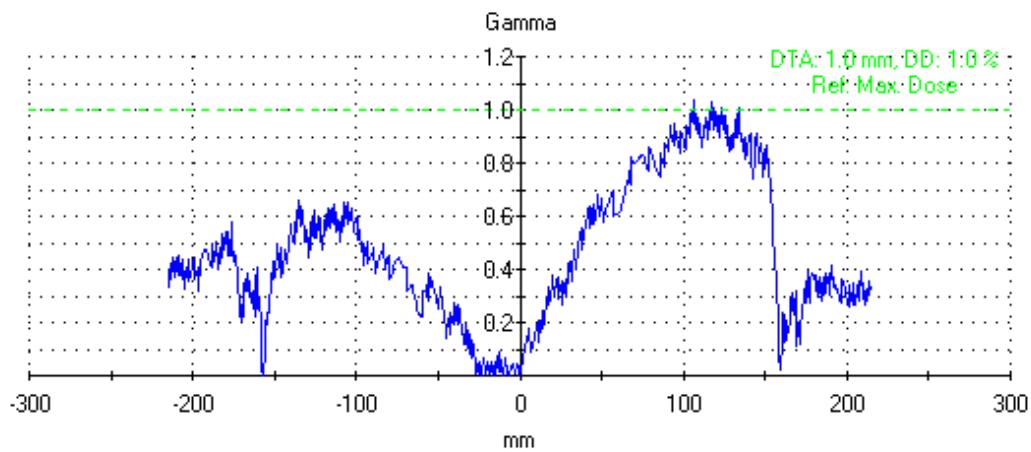
Setup

Measurement Parameters

Energy [MV]:	10.0
Field Size Inpla. x Cross. [cm x cm]:	30.0 x 30.0
Depth [mm]:	100.0
Profile Type:	Crossplane Profile



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



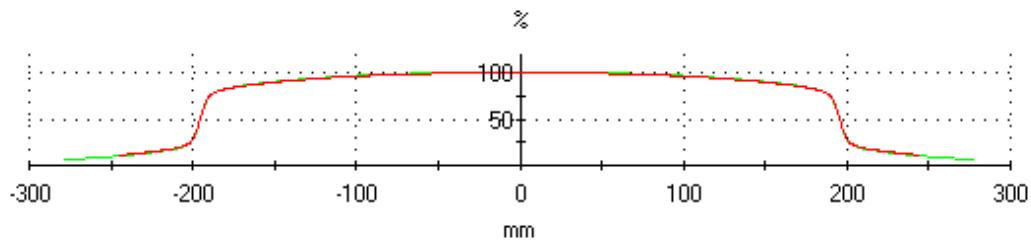
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-01-26 10:28

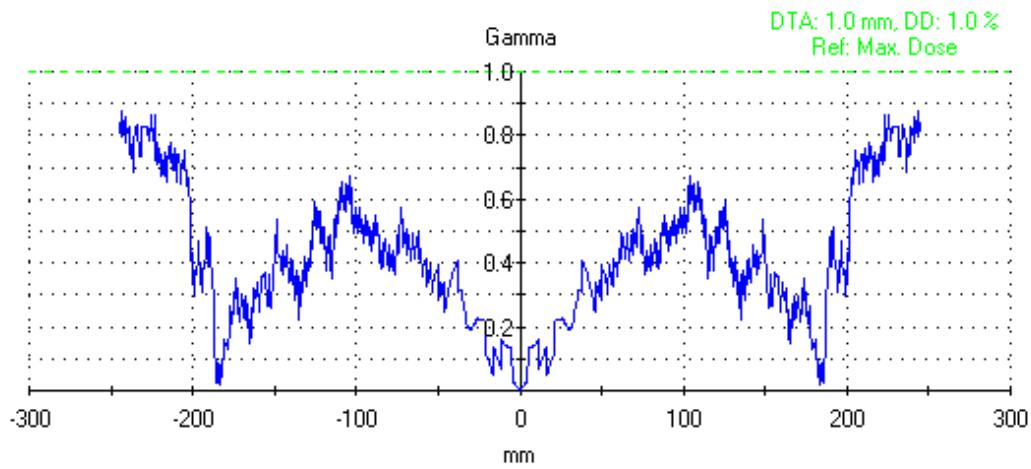
Setup

Measurement Parameters

Energy [MV]:	10.0
Field Size Inpla. x Cross. [cm x cm]:	30.0 x 30.0
Depth [mm]:	300.0
Profile Type:	Crossplane Profile



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



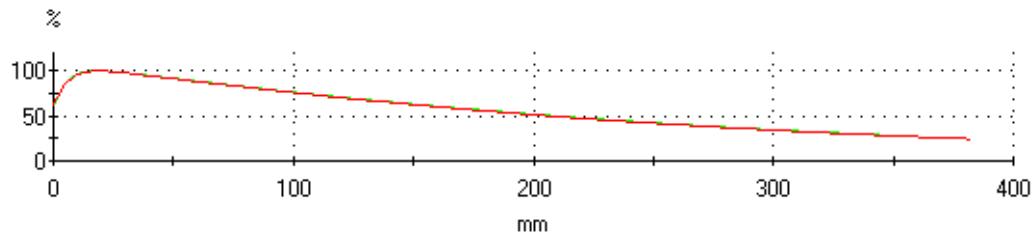
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-01-26 10:21

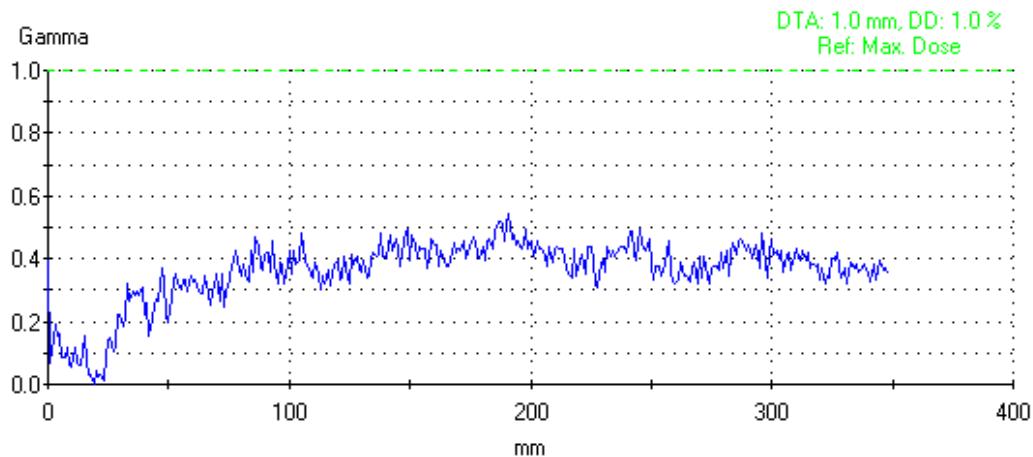
Setup

Measurement Parameters

Energy [MV]:	10.0
Field Size TG x LR [cm x cm]:	40.0 x 40.0
Depth [mm]:	
Profile Type:	PDD



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



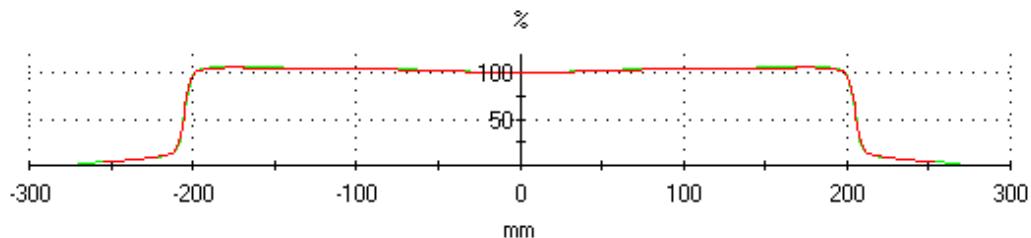
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-01-26 10:29

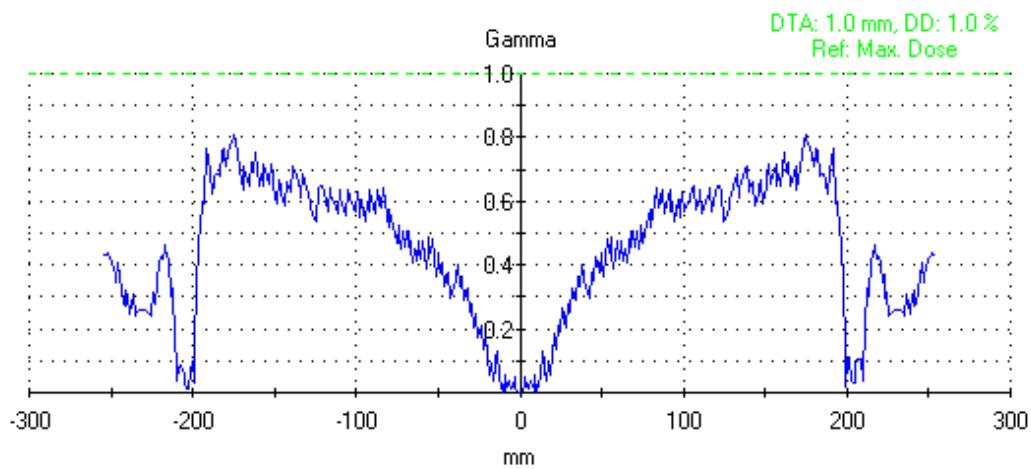
Setup

Measurement Parameters

Energy [MV]:	10.0
Field Size Impl. x Cross. [cm x cm]:	40.0 x 40.0
Depth [mm]:	24.0
Profile Type:	Crossplane Profile



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



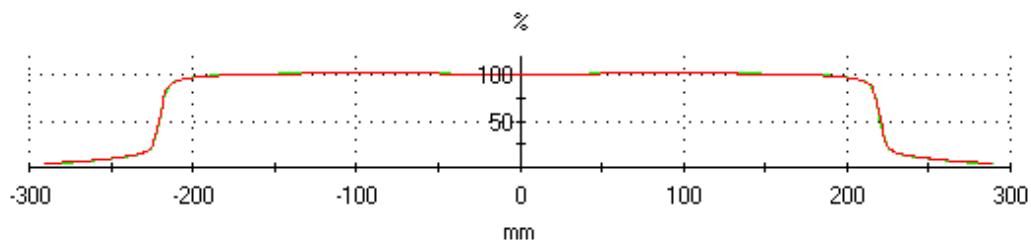
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-01-26 10:30

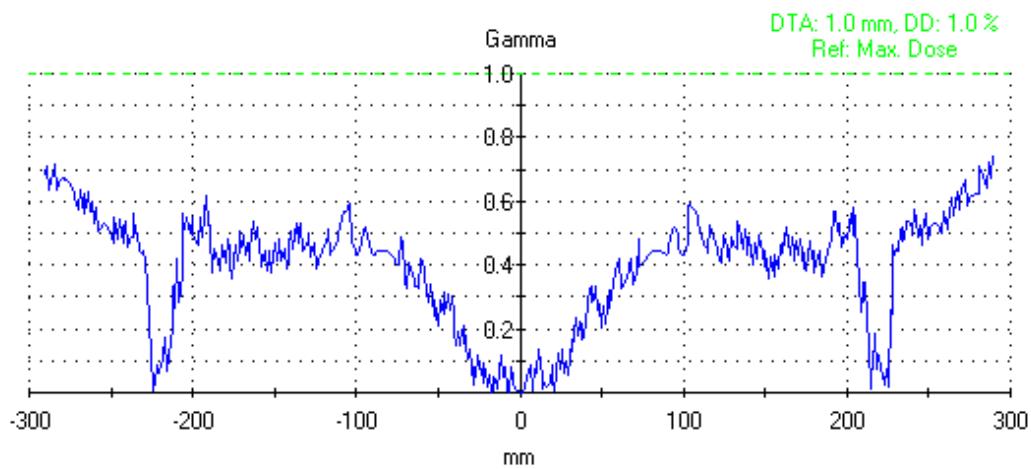
Setup

Measurement Parameters

Energy [MV]:	10.0
Field Size Inpla. x Cross. [cm x cm]:	40.0 x 40.0
Depth [mm]:	100.0
Profile Type:	Crossplane Profile



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



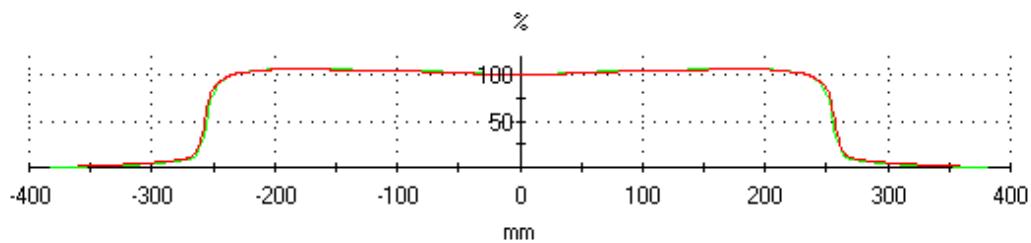
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: Diagonal
Print-Date: 2020-01-26 10:14

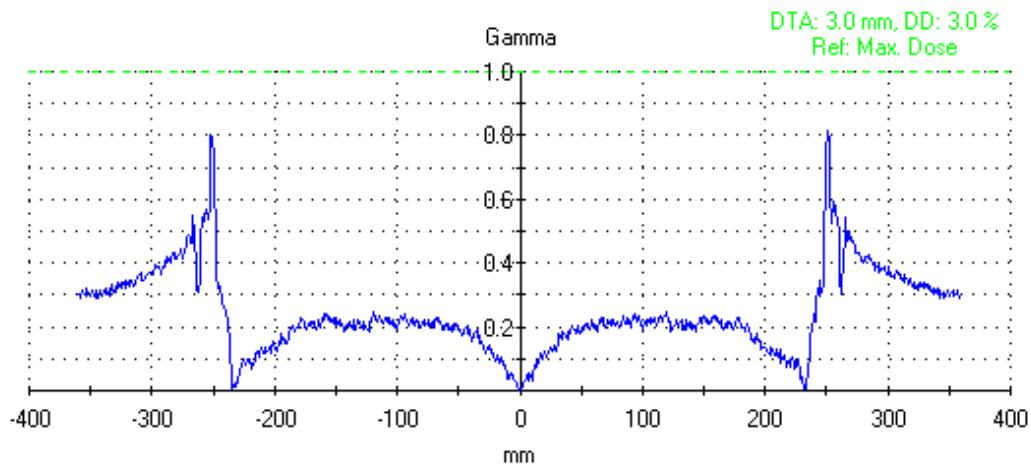
Setup

Measurement Parameters

Energy [MV]:	10.0
Field Size Inpla. x Cross. [cm x cm]:	40.0 x 40.0
Depth [mm]:	24.0
Profile Type:	Crossplane Profile
Wedge:	Open
Block:	None
Raw/Processed:	Processed



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



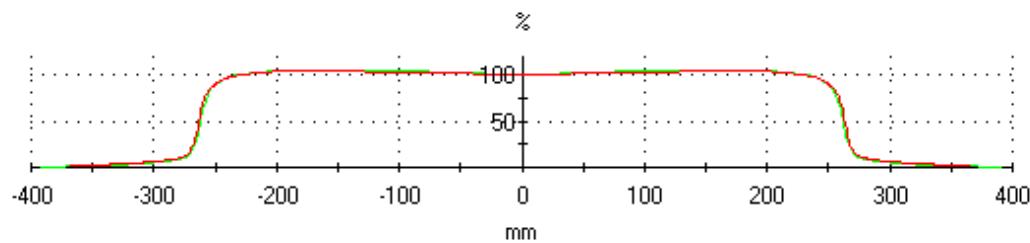
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator: Diagonal
Comment: 2020-01-26 10:15
Print-Date:

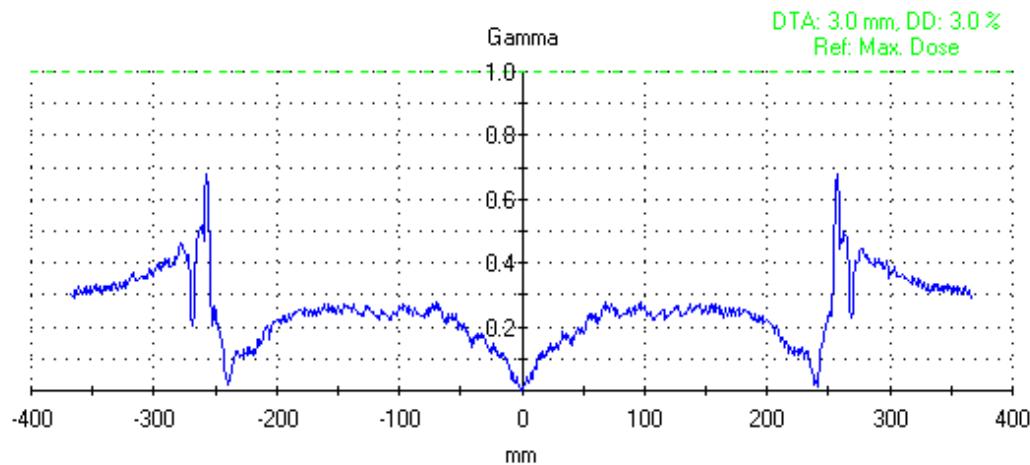
Setup

Measurement Parameters

Energy [MV]:	10.0
Field Size Inpla. x Cross. [cm x cm]:	40.0 x 40.0
Depth [mm]:	50.0
Profile Type:	Crossplane Profile
Wedge:	Open
Block:	None
Raw/Processed:	Processed



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



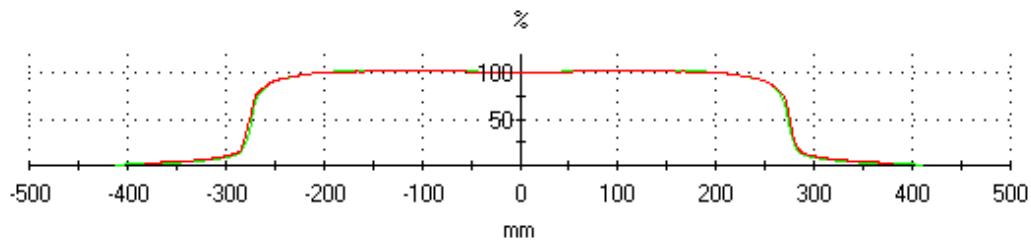
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: Diagonal
Print-Date: 2020-01-26 10:15

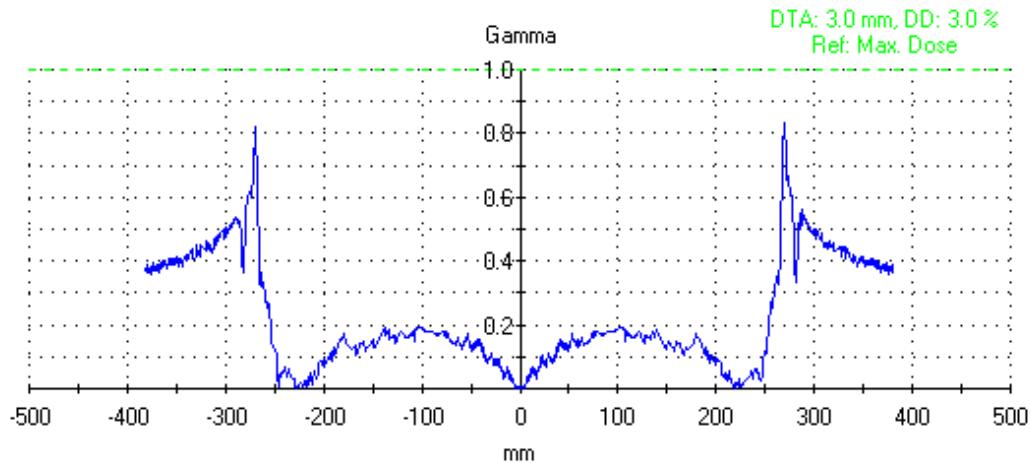
Setup

Measurement Parameters

Energy [MV]:	10.0
Field Size Inpla. x Cross. [cm x cm]:	40.0 x 40.0
Depth [mm]:	100.0
Profile Type:	Crossplane Profile
Wedge:	Open
Block:	None
Raw/Processed:	Processed



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



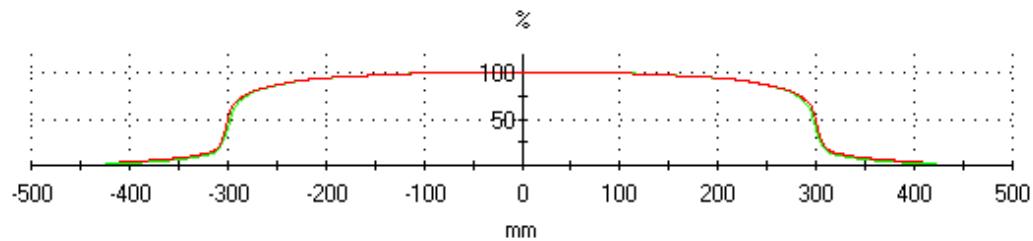
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: Diagonal
Print-Date: 2020-01-26 10:16

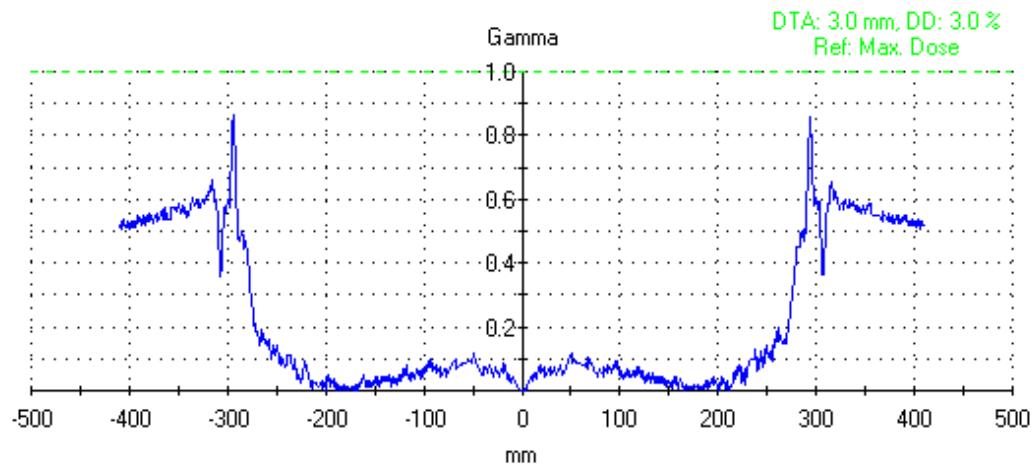
Setup

Measurement Parameters

Energy [MV]:	10.0
Field Size Inpla. x Cross. [cm x cm]:	40.0 x 40.0
Depth [mm]:	200.0
Profile Type:	Crossplane Profile
Wedge:	Open
Block:	None
Raw/Processed:	Processed



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



Photon Energies

6FFF TMR

Normalized to 1.5 cm	6FFF TMR Open								
	Landauer Cancer Institute - Jackson, WY								
	Varian TrueBeam #9999								
Depth (cm)	2x2 (cm ²)	3x3 (cm ²)	4x4 (cm ²)	5x5 (cm ²)	6x6 (cm ²)	7x7 (cm ²)	8x8 (cm ²)	9x9 (cm ²)	10x10 (cm ²)
0.0	0.550	0.556	0.561	0.567	0.572	0.578	0.585	0.590	0.595
0.5	0.873	0.874	0.875	0.877	0.878	0.879	0.880	0.882	0.884
1.0	0.983	0.983	0.982	0.982	0.982	0.983	0.983	0.984	0.984
1.5	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2.0	0.989	0.990	0.990	0.992	0.993	0.993	0.993	0.993	0.993
2.5	0.966	0.970	0.974	0.976	0.979	0.979	0.980	0.981	0.981
3.0	0.944	0.949	0.954	0.958	0.961	0.963	0.965	0.967	0.968
3.5	0.920	0.927	0.934	0.939	0.943	0.947	0.949	0.951	0.952
4.0	0.898	0.905	0.914	0.919	0.925	0.928	0.932	0.934	0.936
4.5	0.875	0.883	0.892	0.899	0.906	0.911	0.915	0.918	0.920
5.0	0.849	0.859	0.870	0.879	0.886	0.892	0.898	0.901	0.904
5.5	0.825	0.837	0.850	0.859	0.867	0.874	0.878	0.883	0.886
6.0	0.806	0.817	0.829	0.839	0.848	0.855	0.861	0.867	0.871
6.5	0.783	0.796	0.810	0.820	0.829	0.836	0.843	0.849	0.854
7.0	0.763	0.776	0.791	0.802	0.812	0.820	0.827	0.833	0.838
7.5	0.743	0.756	0.771	0.783	0.794	0.803	0.810	0.816	0.821
8.0	0.724	0.737	0.752	0.764	0.775	0.785	0.793	0.800	0.805
8.5	0.706	0.719	0.734	0.746	0.758	0.768	0.775	0.783	0.788
9.0	0.687	0.700	0.715	0.728	0.739	0.749	0.758	0.766	0.772
9.5	0.668	0.681	0.696	0.709	0.721	0.732	0.740	0.748	0.755
10.0	0.650	0.663	0.678	0.691	0.703	0.714	0.723	0.732	0.738
10.5	0.632	0.646	0.661	0.674	0.686	0.697	0.706	0.715	0.721
11.0	0.618	0.630	0.645	0.658	0.670	0.681	0.690	0.699	0.706
11.5	0.601	0.614	0.629	0.642	0.654	0.666	0.676	0.685	0.691
12.0	0.586	0.598	0.613	0.626	0.638	0.650	0.660	0.669	0.676
12.5	0.572	0.584	0.598	0.611	0.623	0.635	0.645	0.654	0.661
13.0	0.554	0.567	0.583	0.597	0.608	0.620	0.630	0.640	0.647
13.5	0.542	0.554	0.568	0.581	0.593	0.605	0.615	0.625	0.632
14.0	0.529	0.541	0.555	0.568	0.579	0.591	0.600	0.610	0.617
14.5	0.515	0.526	0.540	0.553	0.565	0.577	0.587	0.597	0.604
15.0	0.500	0.512	0.527	0.540	0.551	0.562	0.572	0.582	0.590
15.5	0.490	0.501	0.514	0.526	0.537	0.549	0.558	0.568	0.576
16.0	0.474	0.486	0.500	0.513	0.524	0.536	0.545	0.555	0.563
16.5	0.464	0.475	0.489	0.501	0.512	0.524	0.533	0.543	0.551
17.0	0.453	0.463	0.476	0.488	0.499	0.511	0.520	0.530	0.538
17.5	0.441	0.452	0.465	0.477	0.487	0.498	0.508	0.517	0.526
18.0	0.430	0.440	0.454	0.466	0.476	0.487	0.496	0.506	0.514
18.5	0.421	0.431	0.443	0.455	0.465	0.476	0.485	0.494	0.503
19.0	0.409	0.419	0.432	0.443	0.453	0.464	0.473	0.482	0.491
19.5	0.400	0.409	0.421	0.432	0.443	0.453	0.462	0.471	0.479
20.0	0.389	0.399	0.410	0.422	0.432	0.442	0.451	0.460	0.469

Normalized to 1.5 cm	6FFF TMR Open								
	Landauer Cancer Institute - Jackson, WY								
	Varian TrueBeam #9999								
Depth (cm)	2x2 (cm ²)	3x3 (cm ²)	4x4 (cm ²)	5x5 (cm ²)	6x6 (cm ²)	7x7 (cm ²)	8x8 (cm ²)	9x9 (cm ²)	10x10 (cm ²)
20.5	0.380	0.389	0.401	0.412	0.421	0.431	0.440	0.449	0.457
21.0	0.369	0.379	0.391	0.402	0.411	0.421	0.430	0.438	0.446
21.5	0.362	0.371	0.382	0.392	0.402	0.412	0.420	0.429	0.437
22.0	0.352	0.361	0.372	0.383	0.392	0.402	0.411	0.419	0.427
22.5	0.346	0.354	0.364	0.374	0.383	0.392	0.401	0.409	0.417
23.0	0.337	0.345	0.355	0.365	0.374	0.383	0.391	0.400	0.408
23.5	0.330	0.337	0.347	0.356	0.365	0.374	0.382	0.390	0.398
24.0	0.320	0.328	0.338	0.348	0.357	0.366	0.374	0.382	0.389
24.5	0.312	0.320	0.330	0.340	0.348	0.357	0.365	0.373	0.381
25.0	0.305	0.312	0.323	0.332	0.340	0.349	0.357	0.364	0.372
25.5	0.297	0.304	0.314	0.324	0.332	0.341	0.349	0.356	0.363
26.0	0.292	0.298	0.308	0.316	0.324	0.332	0.341	0.348	0.356
26.5	0.285	0.291	0.301	0.309	0.317	0.324	0.332	0.340	0.348
27.0	0.278	0.285	0.293	0.301	0.309	0.317	0.325	0.332	0.339
27.5	0.270	0.277	0.287	0.295	0.303	0.310	0.318	0.325	0.332
28.0	0.265	0.272	0.280	0.288	0.296	0.303	0.310	0.317	0.324
28.5	0.258	0.264	0.273	0.281	0.289	0.296	0.304	0.310	0.316
29.0	0.253	0.259	0.267	0.275	0.282	0.289	0.296	0.303	0.310
29.5	0.246	0.253	0.261	0.269	0.276	0.283	0.289	0.296	0.303
30.0	0.241	0.247	0.255	0.263	0.269	0.276	0.283	0.290	0.296
30.5	0.234	0.241	0.249	0.256	0.263	0.270	0.277	0.283	0.289
31.0	0.231	0.236	0.243	0.250	0.257	0.264	0.270	0.277	0.283
31.5	0.227	0.232	0.238	0.244	0.251	0.257	0.264	0.270	0.276
32.0	0.221	0.226	0.233	0.240	0.246	0.253	0.259	0.265	0.270
32.5	0.216	0.221	0.227	0.233	0.240	0.246	0.252	0.258	0.265
33.0	0.213	0.217	0.223	0.228	0.234	0.241	0.247	0.253	0.259
33.5	0.208	0.212	0.218	0.223	0.229	0.236	0.242	0.248	0.253
34.0	0.201	0.206	0.212	0.218	0.224	0.231	0.237	0.242	0.248
34.5	0.196	0.201	0.208	0.214	0.220	0.225	0.231	0.237	0.242

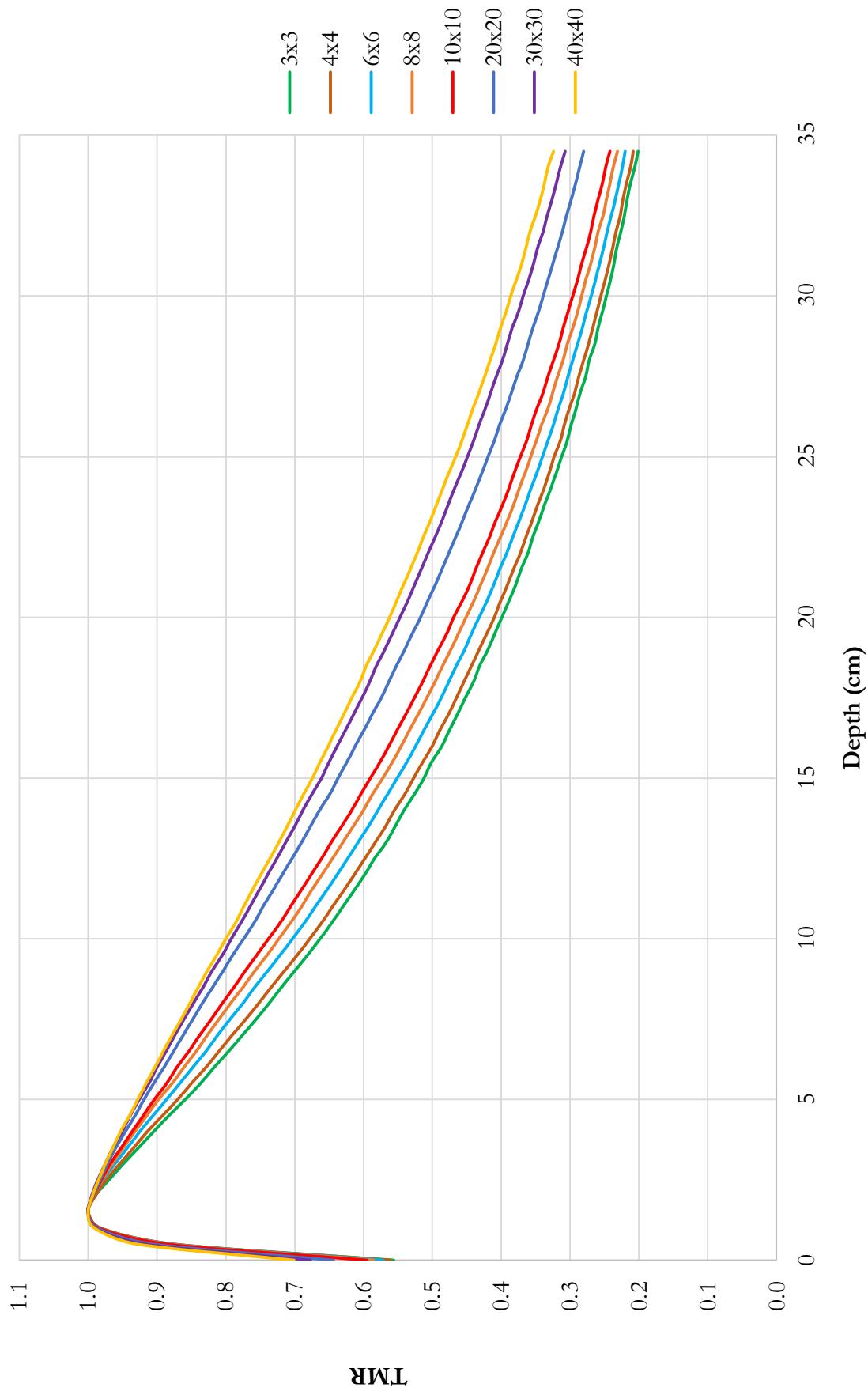
Normalized to 1.5 cm	6FFF TMR Open									
	Landauer Cancer Institute - Jackson, WY									
	Varian TrueBeam #9999									
Depth (cm)	11x11 (cm ²)	12x12 (cm ²)	13x13 (cm ²)	14x14 (cm ²)	15x15 (cm ²)	16x16 (cm ²)	17x17 (cm ²)	18x18 (cm ²)	19x19 (cm ²)	20x20 (cm ²)
0.0	0.600	0.605	0.610	0.615	0.620	0.624	0.629	0.634	0.639	0.644
0.5	0.886	0.889	0.891	0.893	0.895	0.897	0.899	0.901	0.903	0.905
1.0	0.984	0.985	0.985	0.985	0.986	0.986	0.986	0.987	0.987	0.987
1.5	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2.0	0.993	0.993	0.993	0.993	0.993	0.993	0.993	0.993	0.993	0.993
2.5	0.982	0.982	0.982	0.982	0.982	0.982	0.983	0.983	0.983	0.983
3.0	0.968	0.969	0.969	0.970	0.970	0.971	0.971	0.971	0.972	0.972
3.5	0.953	0.954	0.955	0.955	0.956	0.957	0.957	0.958	0.959	0.960
4.0	0.938	0.939	0.940	0.941	0.941	0.943	0.944	0.945	0.945	0.946
4.5	0.922	0.923	0.924	0.925	0.926	0.928	0.929	0.930	0.931	0.932
5.0	0.906	0.908	0.909	0.910	0.912	0.913	0.915	0.916	0.917	0.919
5.5	0.889	0.891	0.893	0.894	0.896	0.898	0.900	0.902	0.903	0.905
6.0	0.874	0.876	0.878	0.879	0.881	0.883	0.885	0.887	0.889	0.890
6.5	0.858	0.860	0.862	0.864	0.866	0.868	0.870	0.872	0.874	0.876
7.0	0.842	0.844	0.846	0.849	0.851	0.854	0.856	0.858	0.860	0.862
7.5	0.826	0.829	0.831	0.833	0.836	0.839	0.841	0.843	0.846	0.848
8.0	0.810	0.813	0.815	0.818	0.820	0.823	0.826	0.829	0.831	0.834
8.5	0.794	0.797	0.799	0.802	0.805	0.808	0.811	0.813	0.816	0.819
9.0	0.778	0.781	0.784	0.787	0.790	0.793	0.796	0.799	0.802	0.804
9.5	0.761	0.764	0.767	0.770	0.773	0.777	0.780	0.783	0.787	0.790
10.0	0.745	0.748	0.751	0.755	0.758	0.761	0.765	0.768	0.771	0.774
10.5	0.728	0.732	0.735	0.738	0.741	0.745	0.749	0.752	0.755	0.759
11.0	0.714	0.717	0.721	0.724	0.728	0.732	0.736	0.739	0.743	0.746
11.5	0.699	0.703	0.706	0.710	0.714	0.718	0.722	0.725	0.729	0.732
12.0	0.683	0.688	0.691	0.695	0.699	0.703	0.707	0.710	0.714	0.718
12.5	0.669	0.673	0.677	0.681	0.685	0.689	0.693	0.697	0.700	0.704
13.0	0.654	0.659	0.663	0.666	0.670	0.674	0.679	0.682	0.686	0.690
13.5	0.640	0.645	0.649	0.653	0.657	0.661	0.665	0.669	0.673	0.677
14.0	0.625	0.631	0.635	0.639	0.643	0.647	0.652	0.656	0.660	0.664
14.5	0.611	0.616	0.620	0.624	0.628	0.633	0.637	0.641	0.645	0.649
15.0	0.598	0.604	0.608	0.612	0.616	0.620	0.624	0.629	0.633	0.637
15.5	0.584	0.590	0.594	0.598	0.602	0.607	0.612	0.616	0.620	0.624
16.0	0.571	0.578	0.582	0.586	0.590	0.595	0.599	0.603	0.608	0.612
16.5	0.559	0.566	0.570	0.574	0.578	0.582	0.587	0.591	0.595	0.599
17.0	0.546	0.553	0.557	0.561	0.565	0.570	0.574	0.579	0.583	0.587
17.5	0.533	0.540	0.545	0.549	0.553	0.557	0.562	0.566	0.570	0.574
18.0	0.522	0.529	0.533	0.538	0.542	0.546	0.551	0.555	0.559	0.563
18.5	0.510	0.517	0.521	0.526	0.530	0.534	0.539	0.543	0.548	0.552
19.0	0.499	0.506	0.511	0.515	0.519	0.523	0.528	0.532	0.536	0.540
19.5	0.487	0.495	0.499	0.503	0.507	0.512	0.516	0.521	0.525	0.529
20.0	0.476	0.483	0.488	0.492	0.496	0.500	0.505	0.509	0.513	0.517

Normalized to 1.5 cm	6FFF TMR Open Landauer Cancer Institute - Jackson, WY Varian TrueBeam #9999									
Depth (cm)	11x11 (cm ²)	12x12 (cm ²)	13x13 (cm ²)	14x14 (cm ²)	15x15 (cm ²)	16x16 (cm ²)	17x17 (cm ²)	18x18 (cm ²)	19x19 (cm ²)	20x20 (cm ²)
20.5	0.465	0.472	0.477	0.481	0.485	0.489	0.494	0.498	0.503	0.507
21.0	0.454	0.461	0.466	0.470	0.474	0.479	0.483	0.488	0.492	0.496
21.5	0.444	0.451	0.456	0.460	0.464	0.469	0.473	0.478	0.482	0.486
22.0	0.434	0.441	0.446	0.450	0.455	0.459	0.463	0.468	0.472	0.476
22.5	0.424	0.431	0.436	0.440	0.444	0.448	0.453	0.457	0.461	0.466
23.0	0.415	0.422	0.427	0.431	0.435	0.439	0.443	0.448	0.452	0.456
23.5	0.405	0.412	0.417	0.421	0.425	0.430	0.434	0.438	0.443	0.447
24.0	0.396	0.403	0.408	0.412	0.416	0.420	0.425	0.429	0.433	0.437
24.5	0.388	0.394	0.399	0.403	0.407	0.411	0.416	0.420	0.424	0.428
25.0	0.378	0.385	0.390	0.394	0.398	0.402	0.406	0.410	0.415	0.419
25.5	0.370	0.377	0.382	0.386	0.390	0.394	0.398	0.402	0.406	0.410
26.0	0.362	0.368	0.374	0.377	0.381	0.385	0.389	0.394	0.398	0.402
26.5	0.354	0.360	0.366	0.370	0.374	0.378	0.382	0.386	0.390	0.393
27.0	0.346	0.352	0.358	0.361	0.365	0.369	0.373	0.377	0.381	0.385
27.5	0.338	0.344	0.350	0.353	0.357	0.361	0.365	0.369	0.373	0.377
28.0	0.331	0.336	0.342	0.345	0.349	0.353	0.357	0.361	0.365	0.368
28.5	0.323	0.329	0.334	0.338	0.342	0.346	0.350	0.354	0.358	0.361
29.0	0.316	0.322	0.328	0.331	0.335	0.339	0.343	0.347	0.350	0.354
29.5	0.309	0.315	0.320	0.324	0.327	0.331	0.335	0.339	0.342	0.346
30.0	0.302	0.308	0.313	0.317	0.320	0.324	0.328	0.331	0.335	0.339
30.5	0.295	0.301	0.307	0.310	0.314	0.317	0.321	0.325	0.328	0.332
31.0	0.289	0.294	0.300	0.304	0.307	0.311	0.314	0.318	0.321	0.325
31.5	0.282	0.288	0.293	0.297	0.301	0.304	0.308	0.311	0.315	0.318
32.0	0.276	0.281	0.287	0.291	0.294	0.297	0.301	0.304	0.308	0.311
32.5	0.271	0.276	0.281	0.285	0.288	0.292	0.295	0.298	0.302	0.305
33.0	0.264	0.269	0.274	0.277	0.281	0.284	0.288	0.291	0.295	0.298
33.5	0.259	0.263	0.268	0.272	0.275	0.279	0.282	0.285	0.289	0.292
34.0	0.254	0.258	0.263	0.266	0.270	0.273	0.276	0.280	0.283	0.286
34.5	0.247	0.252	0.257	0.261	0.264	0.268	0.271	0.274	0.277	0.280

Normalized to 1.5 cm	6FFF TMR Open									
	Landauer Cancer Institute - Jackson, WY									
	Varian TrueBeam #9999									
Depth (cm)	22x22 (cm ²)	24x24 (cm ²)	26x26 (cm ²)	28x28 (cm ²)	30x30 (cm ²)	32x32 (cm ²)	34x34 (cm ²)	36x36 (cm ²)	38x38 (cm ²)	40x40 (cm ²)
0.0	0.650	0.657	0.664	0.670	0.677	0.682	0.687	0.691	0.696	0.701
0.5	0.908	0.910	0.912	0.915	0.917	0.919	0.921	0.924	0.926	0.928
1.0	0.988	0.988	0.989	0.990	0.990	0.990	0.991	0.991	0.991	0.991
1.5	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2.0	0.994	0.994	0.994	0.995	0.995	0.995	0.995	0.995	0.995	0.994
2.5	0.984	0.984	0.985	0.985	0.986	0.986	0.985	0.985	0.985	0.985
3.0	0.973	0.973	0.974	0.974	0.975	0.975	0.975	0.975	0.975	0.975
3.5	0.961	0.961	0.962	0.963	0.964	0.964	0.964	0.964	0.964	0.964
4.0	0.948	0.949	0.950	0.950	0.951	0.952	0.952	0.952	0.953	0.953
4.5	0.934	0.935	0.937	0.938	0.939	0.940	0.940	0.940	0.940	0.940
5.0	0.921	0.922	0.923	0.925	0.926	0.927	0.927	0.927	0.928	0.928
5.5	0.908	0.909	0.910	0.911	0.912	0.913	0.914	0.915	0.915	0.916
6.0	0.894	0.895	0.897	0.898	0.900	0.902	0.902	0.902	0.903	0.903
6.5	0.880	0.882	0.883	0.885	0.887	0.889	0.889	0.890	0.890	0.891
7.0	0.866	0.868	0.870	0.872	0.874	0.876	0.877	0.877	0.878	0.878
7.5	0.852	0.854	0.856	0.859	0.861	0.863	0.863	0.864	0.865	0.865
8.0	0.839	0.841	0.843	0.845	0.847	0.850	0.850	0.851	0.852	0.852
8.5	0.824	0.826	0.829	0.831	0.833	0.836	0.837	0.838	0.839	0.840
9.0	0.810	0.813	0.815	0.818	0.820	0.823	0.824	0.825	0.826	0.827
9.5	0.796	0.798	0.801	0.803	0.805	0.808	0.809	0.810	0.812	0.813
10.0	0.781	0.783	0.786	0.789	0.792	0.795	0.797	0.798	0.799	0.800
10.5	0.766	0.769	0.772	0.775	0.778	0.781	0.783	0.784	0.785	0.786
11.0	0.754	0.757	0.759	0.762	0.765	0.768	0.770	0.771	0.773	0.774
11.5	0.740	0.744	0.746	0.749	0.752	0.755	0.758	0.759	0.760	0.762
12.0	0.725	0.729	0.733	0.736	0.739	0.742	0.745	0.746	0.748	0.749
12.5	0.712	0.716	0.719	0.723	0.726	0.729	0.732	0.733	0.734	0.736
13.0	0.698	0.703	0.706	0.710	0.713	0.716	0.720	0.721	0.722	0.723
13.5	0.685	0.690	0.693	0.697	0.700	0.704	0.708	0.709	0.710	0.711
14.0	0.672	0.677	0.681	0.684	0.688	0.691	0.695	0.696	0.698	0.699
14.5	0.658	0.664	0.667	0.671	0.675	0.679	0.683	0.684	0.686	0.687
15.0	0.645	0.651	0.654	0.658	0.661	0.665	0.669	0.671	0.672	0.674
15.5	0.633	0.639	0.643	0.646	0.650	0.653	0.657	0.659	0.661	0.663
16.0	0.620	0.627	0.631	0.634	0.638	0.641	0.645	0.648	0.649	0.651
16.5	0.608	0.615	0.618	0.622	0.626	0.630	0.633	0.636	0.638	0.640
17.0	0.596	0.603	0.607	0.611	0.614	0.618	0.622	0.625	0.627	0.628
17.5	0.583	0.591	0.594	0.598	0.602	0.606	0.610	0.613	0.615	0.617
18.0	0.572	0.580	0.584	0.588	0.591	0.595	0.599	0.602	0.604	0.605
18.5	0.561	0.569	0.573	0.577	0.581	0.585	0.589	0.592	0.594	0.596
19.0	0.549	0.557	0.561	0.565	0.569	0.573	0.577	0.581	0.583	0.584
19.5	0.538	0.546	0.550	0.554	0.558	0.562	0.566	0.569	0.571	0.573
20.0	0.526	0.535	0.539	0.543	0.547	0.550	0.555	0.559	0.560	0.562

Normalized to 1.5 cm	6FFF TMR Open									
	Landauer Cancer Institute - Jackson, WY									
	Varian TrueBeam #9999									
Depth (cm)	22x22 (cm ²)	24x24 (cm ²)	26x26 (cm ²)	28x28 (cm ²)	30x30 (cm ²)	32x32 (cm ²)	34x34 (cm ²)	36x36 (cm ²)	38x38 (cm ²)	40x40 (cm ²)
20.5	0.515	0.524	0.528	0.532	0.536	0.540	0.544	0.548	0.550	0.552
21.0	0.505	0.514	0.518	0.522	0.526	0.530	0.534	0.538	0.540	0.542
21.5	0.495	0.504	0.508	0.512	0.516	0.520	0.524	0.528	0.531	0.532
22.0	0.485	0.494	0.498	0.502	0.506	0.510	0.514	0.518	0.520	0.522
22.5	0.474	0.483	0.488	0.492	0.496	0.500	0.504	0.508	0.511	0.513
23.0	0.464	0.473	0.478	0.482	0.486	0.490	0.494	0.498	0.501	0.503
23.5	0.455	0.463	0.469	0.473	0.477	0.481	0.485	0.489	0.492	0.494
24.0	0.446	0.454	0.460	0.464	0.468	0.472	0.476	0.480	0.483	0.485
24.5	0.436	0.444	0.450	0.454	0.458	0.462	0.466	0.470	0.474	0.476
25.0	0.427	0.435	0.441	0.445	0.449	0.453	0.457	0.461	0.464	0.466
25.5	0.418	0.426	0.432	0.436	0.440	0.444	0.448	0.451	0.455	0.457
26.0	0.410	0.418	0.424	0.428	0.432	0.436	0.439	0.443	0.447	0.449
26.5	0.401	0.409	0.416	0.420	0.423	0.427	0.431	0.435	0.439	0.441
27.0	0.393	0.401	0.407	0.411	0.415	0.419	0.423	0.426	0.430	0.432
27.5	0.385	0.393	0.400	0.403	0.407	0.411	0.414	0.418	0.422	0.424
28.0	0.376	0.384	0.391	0.394	0.398	0.402	0.406	0.410	0.414	0.416
28.5	0.369	0.377	0.384	0.388	0.391	0.395	0.398	0.402	0.406	0.408
29.0	0.362	0.369	0.376	0.380	0.384	0.387	0.391	0.395	0.398	0.401
29.5	0.353	0.361	0.368	0.372	0.375	0.379	0.383	0.387	0.391	0.393
30.0	0.346	0.353	0.361	0.364	0.368	0.372	0.375	0.379	0.383	0.386
30.5	0.339	0.346	0.353	0.357	0.360	0.364	0.368	0.371	0.375	0.378
31.0	0.332	0.339	0.346	0.349	0.353	0.356	0.360	0.364	0.367	0.370
31.5	0.325	0.332	0.339	0.343	0.347	0.350	0.354	0.357	0.361	0.364
32.0	0.318	0.325	0.332	0.336	0.339	0.343	0.347	0.350	0.354	0.358
32.5	0.312	0.319	0.325	0.330	0.333	0.336	0.340	0.343	0.347	0.350
33.0	0.305	0.312	0.319	0.323	0.326	0.330	0.333	0.336	0.340	0.343
33.5	0.299	0.306	0.312	0.317	0.320	0.323	0.327	0.330	0.334	0.337
34.0	0.293	0.299	0.306	0.310	0.314	0.317	0.321	0.324	0.328	0.332
34.5	0.287	0.293	0.299	0.304	0.307	0.311	0.314	0.317	0.320	0.324

6FFF TMR Open
Landauer Cancer Institute - Jackson, WY
Varian TrueBeam #9999



Photon Energies

6FFF PDD

Normalized to 1.5 cm	6FFF PDD Open									
	Landauer Cancer Institute - Jackson, WY									
	Varian TrueBeam #9999									
Depth (cm)	2x2 (cm ²)	3x3 (cm ²)	4x4 (cm ²)	5x5 (cm ²)	6x6 (cm ²)	7x7 (cm ²)	8x8 (cm ²)	9x9 (cm ²)	10x10 (cm ²)	
0.0	56.700	57.200	57.800	58.300	58.900	59.500	60.200	60.700	61.300	
0.5	89.000	89.100	89.200	89.400	89.500	89.700	89.800	90.000	90.200	
1.0	99.300	99.200	99.200	99.200	99.100	99.200	99.300	99.300	99.300	
1.5	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	
2.0	97.900	98.000	98.100	98.200	98.400	98.400	98.400	98.400	98.400	
2.5	94.800	95.200	95.600	95.800	96.000	96.100	96.100	96.200	96.300	
3.0	91.800	92.300	92.700	93.100	93.400	93.600	93.800	93.900	94.000	
3.5	88.600	89.300	90.000	90.400	90.900	91.200	91.400	91.500	91.700	
4.0	85.600	86.400	87.200	87.700	88.300	88.600	88.900	89.100	89.300	
4.5	82.700	83.500	84.400	85.000	85.700	86.100	86.600	86.800	87.000	
5.0	79.500	80.600	81.600	82.400	83.100	83.600	84.200	84.400	84.700	
5.5	76.600	77.800	79.000	79.800	80.700	81.100	81.600	82.000	82.400	
6.0	74.200	75.300	76.400	77.300	78.200	78.800	79.400	79.800	80.200	
6.5	71.400	72.700	74.100	74.900	75.700	76.400	77.100	77.500	77.900	
7.0	69.000	70.300	71.700	72.600	73.500	74.200	74.900	75.400	75.800	
7.5	66.600	68.000	69.300	70.300	71.300	72.000	72.700	73.200	73.700	
8.0	64.300	65.600	67.000	68.000	69.100	69.800	70.600	71.100	71.700	
8.5	62.200	63.500	64.800	65.900	67.000	67.700	68.500	69.000	69.600	
9.0	59.900	61.300	62.600	63.700	64.800	65.600	66.400	67.000	67.600	
9.5	57.800	59.100	60.400	61.600	62.700	63.500	64.300	64.900	65.500	
10.0	55.800	57.100	58.400	59.500	60.600	61.500	62.300	63.000	63.600	
10.5	53.800	55.100	56.500	57.600	58.700	59.600	60.400	61.000	61.600	
11.0	52.100	53.400	54.600	55.700	56.900	57.700	58.600	59.200	59.900	
11.5	50.300	51.600	52.800	54.000	55.100	56.000	56.900	57.500	58.100	
12.0	48.600	49.800	51.100	52.200	53.400	54.200	55.100	55.800	56.400	
12.5	47.000	48.200	49.400	50.600	51.700	52.600	53.400	54.100	54.800	
13.0	45.200	46.500	47.900	48.900	50.000	50.900	51.800	52.500	53.100	
13.5	43.800	45.000	46.200	47.300	48.400	49.300	50.200	50.900	51.600	
14.0	42.400	43.600	44.800	45.800	46.900	47.800	48.600	49.300	50.000	
14.5	40.900	42.100	43.200	44.300	45.400	46.300	47.200	47.800	48.400	
15.0	39.500	40.700	41.900	42.900	43.900	44.800	45.600	46.400	47.100	
15.5	38.300	39.400	40.400	41.500	42.500	43.400	44.200	44.900	45.600	
16.0	36.800	38.000	39.100	40.100	41.200	42.000	42.900	43.600	44.300	
16.5	35.800	36.800	37.900	38.900	39.900	40.800	41.600	42.300	43.000	
17.0	34.600	35.600	36.600	37.600	38.600	39.500	40.300	41.000	41.700	
17.5	33.400	34.500	35.600	36.500	37.400	38.200	39.100	39.800	40.400	
18.0	32.300	33.400	34.400	35.300	36.200	37.100	38.000	38.600	39.300	
18.5	31.400	32.400	33.300	34.200	35.200	36.000	36.800	37.400	38.100	
19.0	30.300	31.300	32.300	33.100	34.000	34.800	35.700	36.300	37.000	
19.5	29.400	30.300	31.200	32.100	33.000	33.800	34.600	35.200	35.900	
20.0	28.400	29.300	30.200	31.100	31.900	32.700	33.500	34.100	34.800	

Normalized to 1.5 cm	6FFF PDD Open								
	Landauer Cancer Institute - Jackson, WY								
	Varian TrueBeam #9999								
Depth (cm)	2x2 (cm ²)	3x3 (cm ²)	4x4 (cm ²)	5x5 (cm ²)	6x6 (cm ²)	7x7 (cm ²)	8x8 (cm ²)	9x9 (cm ²)	10x10 (cm ²)
20.5	27.400	28.300	29.200	30.100	30.900	31.700	32.400	33.100	33.700
21.0	26.500	27.400	28.300	29.200	30.000	30.700	31.400	32.100	32.700
21.5	25.800	26.600	27.400	28.300	29.100	29.800	30.500	31.100	31.700
22.0	24.900	25.700	26.600	27.400	28.200	28.900	29.600	30.200	30.800
22.5	24.200	25.000	25.700	26.500	27.300	28.000	28.700	29.300	29.900
23.0	23.400	24.200	25.000	25.700	26.500	27.200	27.900	28.500	29.000
23.5	22.700	23.500	24.200	24.900	25.700	26.300	27.000	27.600	28.200
24.0	21.900	22.700	23.500	24.200	24.900	25.600	26.200	26.800	27.300
24.5	21.200	21.900	22.700	23.400	24.100	24.800	25.500	26.000	26.600
25.0	20.600	21.300	22.000	22.700	23.400	24.100	24.700	25.200	25.700
25.5	19.900	20.600	21.300	22.000	22.700	23.300	24.000	24.500	25.100
26.0	19.400	20.000	20.700	21.400	22.000	22.700	23.300	23.800	24.300
26.5	18.800	19.400	20.100	20.700	21.300	22.000	22.600	23.100	23.600
27.0	18.200	18.800	19.400	20.100	20.800	21.300	21.900	22.400	22.900
27.5	17.600	18.200	18.900	19.500	20.100	20.700	21.300	21.800	22.300
28.0	17.100	17.700	18.300	18.900	19.500	20.100	20.700	21.100	21.600
28.5	16.500	17.100	17.800	18.400	19.000	19.500	20.000	20.500	21.000
29.0	16.000	16.600	17.200	17.800	18.400	18.900	19.500	20.000	20.400
29.5	15.500	16.100	16.700	17.300	17.800	18.400	18.900	19.400	19.800
30.0	15.100	15.700	16.200	16.800	17.300	17.900	18.400	18.800	19.200
30.5	14.600	15.200	15.700	16.300	16.800	17.300	17.800	18.300	18.700
31.0	14.200	14.700	15.200	15.800	16.300	16.800	17.300	17.800	18.200
31.5	13.900	14.300	14.800	15.300	15.800	16.300	16.800	17.300	17.700
32.0	13.400	13.900	14.400	14.900	15.400	15.900	16.300	16.700	17.200
32.5	13.000	13.500	13.900	14.400	14.900	15.400	15.900	16.300	16.700
33.0	12.700	13.100	13.500	14.000	14.500	15.000	15.400	15.800	16.200
33.5	12.300	12.700	13.100	13.600	14.100	14.600	15.000	15.400	15.700
34.0	11.900	12.300	12.800	13.200	13.700	14.200	14.600	15.000	15.300
34.5	11.500	12.000	12.400	12.900	13.300	13.700	14.100	14.500	14.900

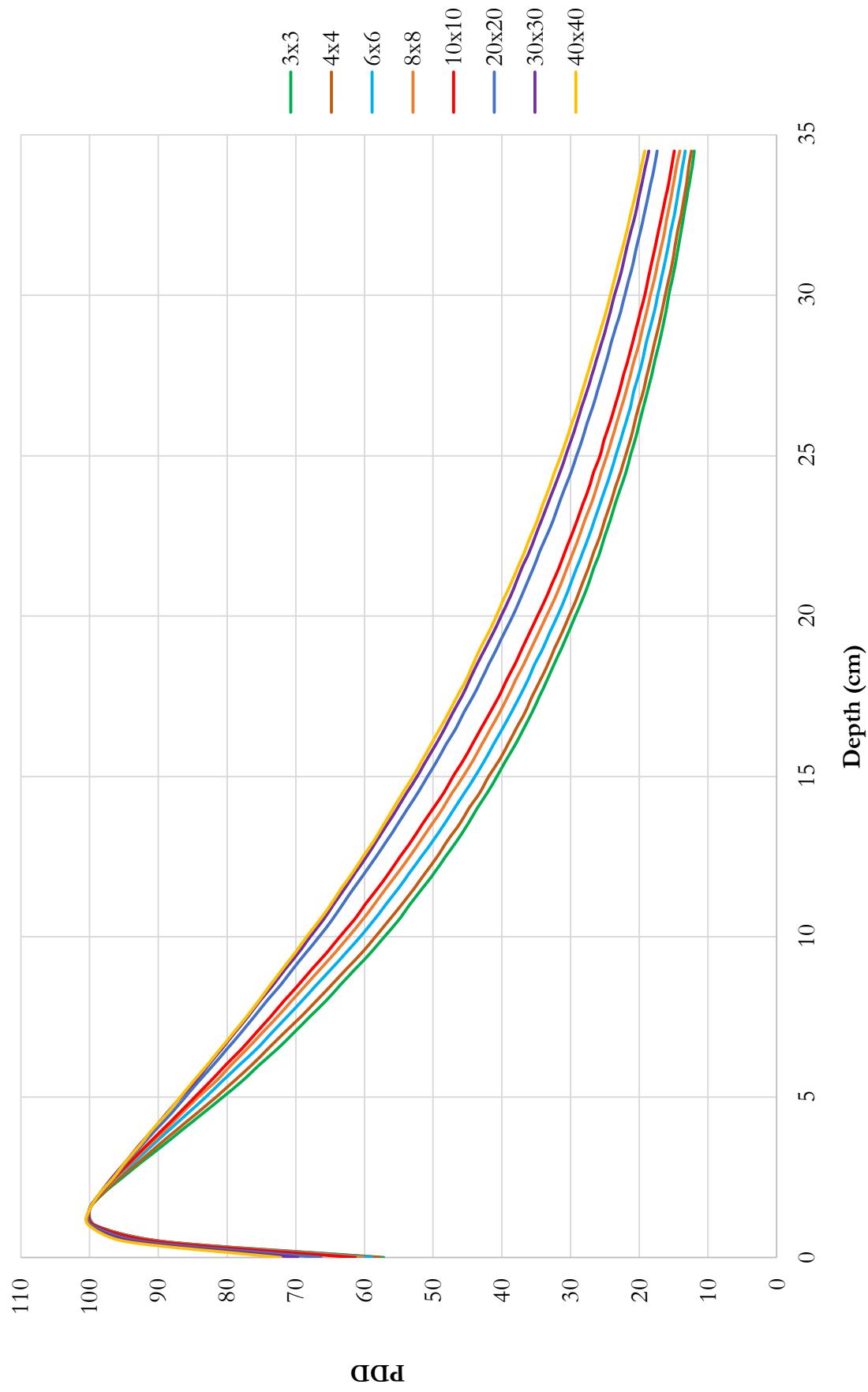
Normalized to 1.5 cm	6FFF PDD Open									
	Landauer Cancer Institute - Jackson, WY									
	Varian TrueBeam #9999									
Depth (cm)	11x11 (cm ²)	12x12 (cm ²)	13x13 (cm ²)	14x14 (cm ²)	15x15 (cm ²)	16x16 (cm ²)	17x17 (cm ²)	18x18 (cm ²)	19x19 (cm ²)	20x20 (cm ²)
0.0	61.800	62.300	62.800	63.300	63.800	64.300	64.800	65.300	65.800	66.300
0.5	90.400	90.600	90.800	91.000	91.300	91.500	91.700	91.900	92.100	92.300
1.0	99.400	99.400	99.500	99.500	99.500	99.600	99.600	99.600	99.700	99.700
1.5	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
2.0	98.400	98.400	98.400	98.400	98.400	98.400	98.400	98.400	98.400	98.400
2.5	96.300	96.300	96.300	96.300	96.400	96.400	96.400	96.400	96.400	96.400
3.0	94.100	94.100	94.200	94.200	94.300	94.300	94.300	94.400	94.400	94.500
3.5	91.700	91.800	91.900	92.000	92.000	92.100	92.200	92.200	92.300	92.400
4.0	89.400	89.500	89.600	89.700	89.800	89.900	90.000	90.100	90.200	90.300
4.5	87.100	87.200	87.300	87.500	87.600	87.700	87.800	87.900	88.000	88.100
5.0	84.800	85.000	85.100	85.300	85.400	85.500	85.700	85.800	85.900	86.100
5.5	82.500	82.700	82.900	83.000	83.200	83.400	83.500	83.700	83.900	84.100
6.0	80.400	80.500	80.700	80.900	81.100	81.200	81.400	81.600	81.800	82.000
6.5	78.200	78.400	78.600	78.800	79.000	79.200	79.400	79.600	79.800	80.000
7.0	76.100	76.300	76.500	76.700	76.900	77.100	77.400	77.600	77.800	78.000
7.5	74.000	74.200	74.400	74.700	74.900	75.100	75.400	75.600	75.800	76.100
8.0	71.900	72.200	72.400	72.700	72.900	73.200	73.400	73.700	73.900	74.200
8.5	69.900	70.100	70.400	70.600	70.900	71.200	71.400	71.700	72.000	72.200
9.0	67.900	68.200	68.400	68.700	69.000	69.300	69.500	69.800	70.100	70.400
9.5	65.800	66.100	66.400	66.700	67.000	67.300	67.600	67.900	68.200	68.500
10.0	63.900	64.200	64.500	64.800	65.100	65.400	65.700	66.000	66.300	66.600
10.5	61.900	62.300	62.600	62.900	63.200	63.500	63.800	64.200	64.500	64.800
11.0	60.200	60.600	60.900	61.200	61.600	61.900	62.200	62.600	62.900	63.200
11.5	58.500	58.800	59.200	59.500	59.900	60.200	60.600	60.900	61.200	61.600
12.0	56.800	57.100	57.500	57.800	58.100	58.500	58.800	59.200	59.500	59.900
12.5	55.100	55.500	55.800	56.200	56.500	56.900	57.200	57.600	57.900	58.300
13.0	53.500	53.800	54.200	54.500	54.900	55.300	55.600	56.000	56.300	56.700
13.5	51.900	52.300	52.600	53.000	53.400	53.700	54.100	54.400	54.800	55.200
14.0	50.400	50.800	51.100	51.500	51.900	52.200	52.600	53.000	53.300	53.700
14.5	48.800	49.200	49.600	49.900	50.300	50.700	51.100	51.400	51.800	52.200
15.0	47.400	47.800	48.200	48.500	48.900	49.300	49.600	50.000	50.400	50.800
15.5	46.000	46.400	46.800	47.100	47.500	47.900	48.300	48.700	49.000	49.400
16.0	44.700	45.000	45.400	45.800	46.200	46.600	46.900	47.300	47.700	48.100
16.5	43.400	43.800	44.100	44.500	44.900	45.200	45.600	46.000	46.400	46.700
17.0	42.100	42.400	42.800	43.200	43.600	44.000	44.400	44.700	45.100	45.500
17.5	40.800	41.200	41.600	41.900	42.300	42.700	43.000	43.400	43.800	44.200
18.0	39.700	40.000	40.400	40.800	41.200	41.500	41.900	42.300	42.700	43.000
18.5	38.500	38.800	39.200	39.600	40.000	40.400	40.700	41.100	41.500	41.900
19.0	37.400	37.700	38.100	38.500	38.800	39.200	39.600	39.900	40.300	40.700
19.5	36.200	36.600	37.000	37.300	37.700	38.100	38.500	38.800	39.200	39.600
20.0	35.100	35.500	35.900	36.200	36.600	37.000	37.300	37.700	38.100	38.400

Normalized to 1.5 cm	6FFF PDD Open Landauer Cancer Institute - Jackson, WY Varian TrueBeam #9999									
Depth (cm)	11x11 (cm ²)	12x12 (cm ²)	13x13 (cm ²)	14x14 (cm ²)	15x15 (cm ²)	16x16 (cm ²)	17x17 (cm ²)	18x18 (cm ²)	19x19 (cm ²)	20x20 (cm ²)
20.5	34.100	34.500	34.800	35.200	35.600	35.900	36.300	36.700	37.000	37.400
21.0	33.100	33.400	33.800	34.200	34.500	34.900	35.300	35.600	36.000	36.400
21.5	32.100	32.500	32.800	33.200	33.600	33.900	34.300	34.700	35.000	35.400
22.0	31.200	31.600	31.900	32.300	32.600	33.000	33.400	33.700	34.100	34.500
22.5	30.200	30.600	31.000	31.300	31.700	32.000	32.400	32.800	33.100	33.500
23.0	29.400	29.700	30.100	30.400	30.800	31.100	31.500	31.800	32.200	32.500
23.5	28.500	28.900	29.200	29.600	29.900	30.300	30.600	31.000	31.300	31.700
24.0	27.700	28.000	28.400	28.700	29.100	29.400	29.800	30.100	30.500	30.800
24.5	26.900	27.200	27.600	27.900	28.300	28.600	28.900	29.300	29.600	29.900
25.0	26.100	26.400	26.800	27.100	27.400	27.800	28.100	28.500	28.800	29.100
25.5	25.400	25.700	26.000	26.400	26.700	27.000	27.300	27.700	28.000	28.300
26.0	24.600	25.000	25.300	25.600	25.900	26.300	26.600	26.900	27.300	27.600
26.5	24.000	24.300	24.600	24.900	25.200	25.600	25.900	26.200	26.500	26.800
27.0	23.200	23.600	23.900	24.200	24.500	24.800	25.200	25.500	25.800	26.100
27.5	22.600	22.900	23.200	23.500	23.800	24.200	24.500	24.800	25.100	25.400
28.0	21.900	22.200	22.500	22.800	23.100	23.400	23.700	24.000	24.400	24.700
28.5	21.300	21.600	21.900	22.200	22.500	22.800	23.200	23.500	23.800	24.100
29.0	20.700	21.000	21.300	21.600	21.900	22.200	22.500	22.800	23.100	23.400
29.5	20.100	20.400	20.700	21.000	21.300	21.600	21.900	22.200	22.400	22.700
30.0	19.500	19.800	20.100	20.400	20.700	21.000	21.300	21.600	21.800	22.100
30.5	19.000	19.300	19.600	19.800	20.100	20.400	20.700	21.000	21.300	21.500
31.0	18.500	18.700	19.000	19.300	19.600	19.800	20.100	20.400	20.700	20.900
31.5	18.000	18.200	18.500	18.800	19.100	19.300	19.600	19.900	20.200	20.400
32.0	17.400	17.700	18.000	18.200	18.500	18.800	19.000	19.300	19.600	19.800
32.5	17.000	17.200	17.500	17.800	18.000	18.300	18.500	18.800	19.100	19.300
33.0	16.400	16.700	17.000	17.200	17.500	17.800	18.000	18.300	18.600	18.800
33.5	16.000	16.300	16.500	16.800	17.000	17.300	17.600	17.800	18.100	18.300
34.0	15.600	15.800	16.100	16.300	16.600	16.800	17.100	17.300	17.600	17.800
34.5	15.200	15.400	15.600	15.900	16.100	16.400	16.600	16.900	17.100	17.400

Normalized to 1.5 cm	6FFF PDD Open									
	Landauer Cancer Institute - Jackson, WY									
	Varian TrueBeam #9999									
Depth (cm)	22x22 (cm ²)	24x24 (cm ²)	26x26 (cm ²)	28x28 (cm ²)	30x30 (cm ²)	32x32 (cm ²)	34x34 (cm ²)	36x36 (cm ²)	38x38 (cm ²)	40x40 (cm ²)
0.0	67.000	67.700	68.300	69.000	69.700	70.200	70.700	71.200	71.700	72.200
0.5	92.600	92.800	93.100	93.300	93.500	93.800	94.000	94.200	94.500	94.700
1.0	99.800	99.800	99.900	99.900	100.000	100.000	100.000	100.000	100.100	100.100
1.5	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
2.0	98.400	98.400	98.500	98.500	98.500	98.500	98.500	98.500	98.500	98.500
2.5	96.500	96.500	96.600	96.600	96.700	96.700	96.600	96.600	96.600	96.500
3.0	94.500	94.600	94.600	94.700	94.700	94.700	94.700	94.700	94.700	94.700
3.5	92.500	92.500	92.600	92.700	92.800	92.800	92.700	92.700	92.700	92.700
4.0	90.400	90.500	90.500	90.600	90.700	90.700	90.700	90.800	90.800	90.800
4.5	88.300	88.400	88.500	88.600	88.800	88.800	88.800	88.700	88.700	88.700
5.0	86.200	86.300	86.400	86.500	86.700	86.700	86.700	86.700	86.800	86.800
5.5	84.200	84.300	84.400	84.500	84.600	84.700	84.700	84.800	84.800	84.900
6.0	82.100	82.300	82.400	82.600	82.700	82.800	82.800	82.800	82.800	82.900
6.5	80.100	80.300	80.500	80.600	80.800	80.800	80.900	80.900	81.000	81.000
7.0	78.200	78.400	78.600	78.800	78.900	79.000	79.000	79.100	79.100	79.100
7.5	76.300	76.500	76.600	76.800	77.000	77.100	77.100	77.100	77.200	77.200
8.0	74.400	74.600	74.800	75.000	75.200	75.200	75.300	75.300	75.400	75.400
8.5	72.400	72.700	72.900	73.100	73.300	73.400	73.400	73.500	73.600	73.700
9.0	70.600	70.800	71.100	71.300	71.500	71.600	71.700	71.700	71.800	71.900
9.5	68.800	69.000	69.200	69.400	69.600	69.700	69.800	69.900	70.000	70.100
10.0	66.900	67.100	67.400	67.700	67.900	68.000	68.100	68.200	68.300	68.400
10.5	65.100	65.300	65.600	65.900	66.100	66.200	66.300	66.400	66.500	66.600
11.0	63.500	63.700	64.000	64.200	64.500	64.600	64.700	64.700	64.800	64.900
11.5	61.800	62.100	62.400	62.600	62.900	63.000	63.100	63.200	63.300	63.400
12.0	60.200	60.400	60.700	61.000	61.300	61.400	61.500	61.600	61.600	61.700
12.5	58.600	58.800	59.100	59.400	59.700	59.800	59.900	60.000	60.100	60.200
13.0	57.000	57.300	57.600	57.900	58.200	58.300	58.400	58.500	58.600	58.600
13.5	55.500	55.800	56.100	56.400	56.700	56.800	56.900	57.000	57.100	57.200
14.0	54.000	54.300	54.600	54.900	55.200	55.400	55.500	55.600	55.700	55.800
14.5	52.500	52.800	53.200	53.500	53.800	53.900	54.000	54.100	54.300	54.400
15.0	51.100	51.400	51.700	52.000	52.300	52.400	52.500	52.700	52.800	52.900
15.5	49.700	50.000	50.300	50.600	51.000	51.100	51.200	51.400	51.500	51.600
16.0	48.400	48.700	49.000	49.300	49.600	49.800	49.900	50.000	50.200	50.300
16.5	47.100	47.400	47.700	48.000	48.300	48.500	48.600	48.700	48.900	49.000
17.0	45.800	46.100	46.500	46.800	47.100	47.200	47.300	47.500	47.600	47.700
17.5	44.500	44.800	45.200	45.500	45.800	46.000	46.100	46.300	46.400	46.500
18.0	43.400	43.700	44.000	44.300	44.700	44.800	44.900	45.000	45.100	45.200
18.5	42.200	42.500	42.900	43.200	43.600	43.700	43.800	43.900	44.000	44.200
19.0	41.000	41.400	41.700	42.000	42.400	42.500	42.600	42.800	42.900	43.100
19.5	39.900	40.200	40.500	40.900	41.200	41.300	41.500	41.600	41.800	41.900
20.0	38.800	39.100	39.400	39.800	40.100	40.200	40.400	40.500	40.600	40.800

Normalized to 1.5 cm	6FFF PDD Open Landauer Cancer Institute - Jackson, WY Varian TrueBeam #9999									
Depth (cm)	22x22 (cm ²)	24x24 (cm ²)	26x26 (cm ²)	28x28 (cm ²)	30x30 (cm ²)	32x32 (cm ²)	34x34 (cm ²)	36x36 (cm ²)	38x38 (cm ²)	40x40 (cm ²)
20.5	37.700	38.000	38.400	38.700	39.000	39.200	39.300	39.500	39.600	39.800
21.0	36.700	37.000	37.400	37.700	38.000	38.200	38.300	38.400	38.600	38.700
21.5	35.700	36.100	36.400	36.700	37.100	37.200	37.300	37.400	37.600	37.700
22.0	34.800	35.100	35.400	35.700	36.000	36.200	36.300	36.400	36.600	36.700
22.5	33.800	34.100	34.400	34.800	35.100	35.200	35.400	35.500	35.700	35.800
23.0	32.900	33.200	33.500	33.800	34.200	34.300	34.400	34.600	34.700	34.800
23.5	32.000	32.300	32.600	33.000	33.300	33.400	33.600	33.700	33.900	34.000
24.0	31.200	31.500	31.800	32.100	32.400	32.600	32.700	32.800	33.000	33.100
24.5	30.300	30.600	30.900	31.200	31.500	31.700	31.800	32.000	32.100	32.300
25.0	29.500	29.800	30.100	30.400	30.700	30.800	31.000	31.100	31.300	31.400
25.5	28.600	28.900	29.200	29.600	29.900	30.000	30.200	30.300	30.400	30.600
26.0	27.900	28.200	28.500	28.800	29.100	29.300	29.400	29.500	29.700	29.800
26.5	27.200	27.500	27.800	28.100	28.400	28.500	28.600	28.800	28.900	29.000
27.0	26.400	26.700	27.000	27.300	27.600	27.700	27.900	28.000	28.100	28.300
27.5	25.700	26.000	26.300	26.600	26.900	27.000	27.200	27.300	27.400	27.600
28.0	25.000	25.300	25.600	25.900	26.200	26.300	26.500	26.600	26.700	26.900
28.5	24.400	24.600	24.900	25.200	25.500	25.600	25.800	25.900	26.000	26.200
29.0	23.700	24.000	24.300	24.600	24.800	25.000	25.100	25.200	25.400	25.500
29.5	23.000	23.300	23.600	23.900	24.200	24.300	24.500	24.600	24.700	24.800
30.0	22.400	22.700	23.000	23.300	23.600	23.700	23.800	23.900	24.000	24.200
30.5	21.800	22.100	22.400	22.600	22.900	23.100	23.200	23.300	23.500	23.600
31.0	21.200	21.500	21.700	22.000	22.300	22.400	22.600	22.700	22.800	23.000
31.5	20.700	21.000	21.200	21.500	21.800	21.900	22.000	22.200	22.300	22.400
32.0	20.100	20.400	20.700	20.900	21.200	21.300	21.400	21.500	21.700	21.800
32.5	19.600	19.900	20.100	20.400	20.600	20.800	20.900	21.000	21.100	21.300
33.0	19.100	19.300	19.600	19.800	20.100	20.200	20.300	20.400	20.500	20.700
33.5	18.600	18.800	19.100	19.300	19.600	19.700	19.800	19.900	20.000	20.200
34.0	18.100	18.300	18.600	18.900	19.100	19.200	19.300	19.400	19.600	19.700
34.5	17.600	17.800	18.100	18.300	18.600	18.700	18.800	18.900	19.000	19.200

6FFF PDD Open
Landauer Cancer Institute - Jackson, WY
Varian TrueBeam #9999

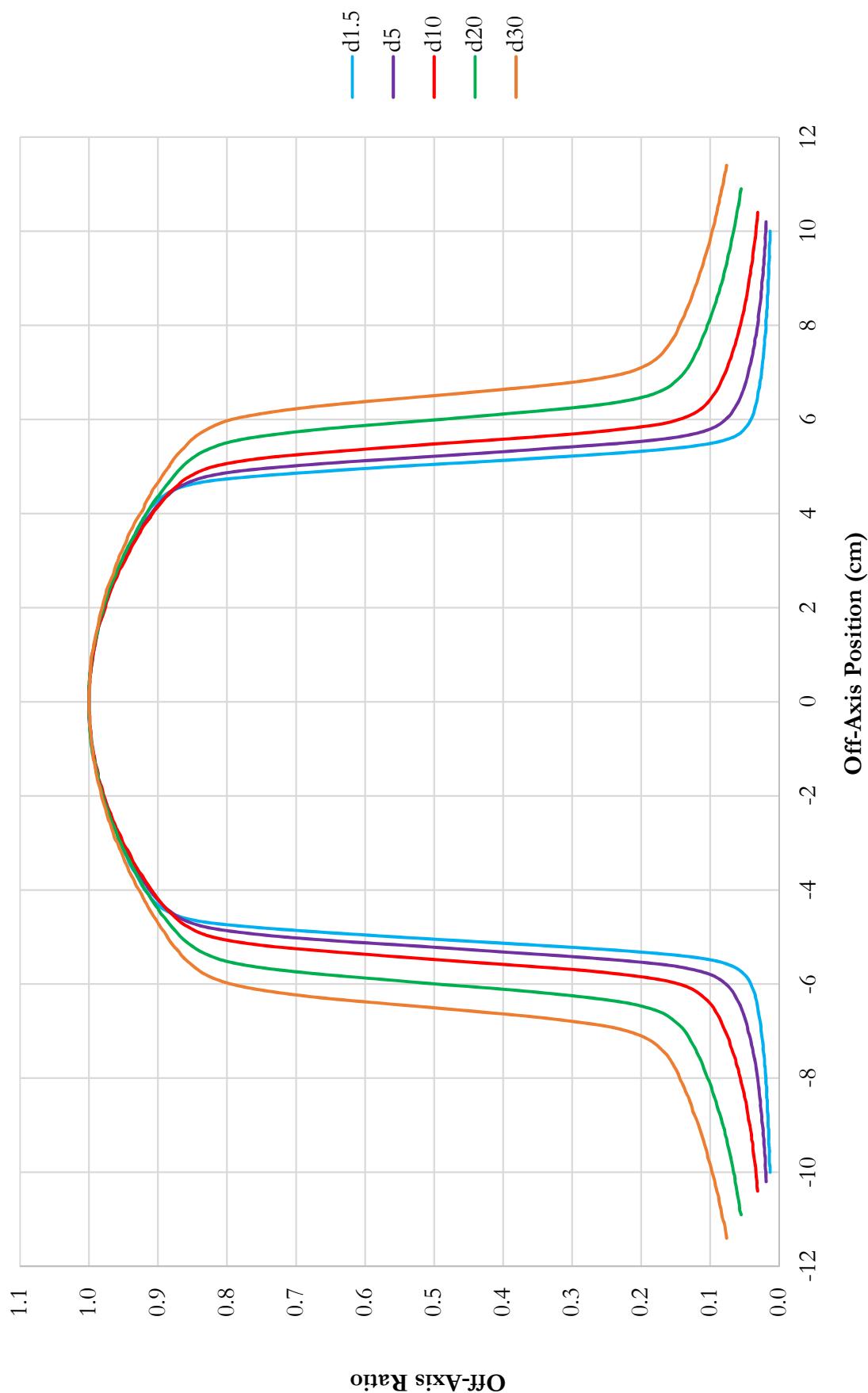


Photon Energies

6FFF Crossplane

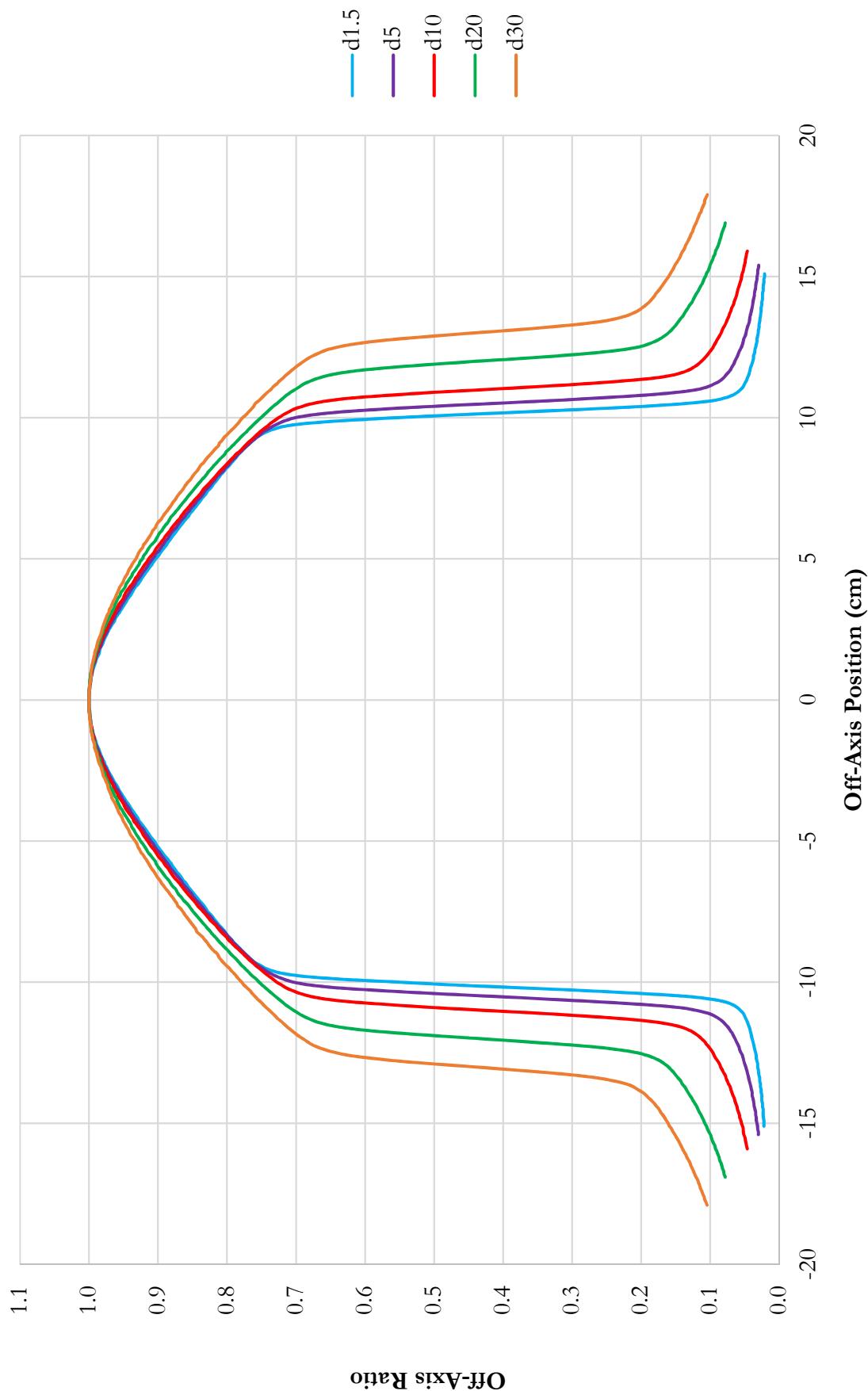
6FFF Crossplane Open 10x10 100 SSD Landauer Cancer Institute - Jackson, WY Varian TrueBeam #9999					
Off-Axis (cm)	d1.5	d5	d10	d20	d30
-7.0	0.026	0.045	0.078	0.136	0.220
-6.5	0.031	0.055	0.095	0.191	0.504
-6.0	0.041	0.077	0.145	0.496	0.794
-5.5	0.094	0.227	0.480	0.805	0.859
-5.0	0.552	0.716	0.821	0.867	0.886
-4.5	0.880	0.878	0.881	0.896	0.909
-4.0	0.919	0.912	0.910	0.918	0.928
-3.5	0.939	0.934	0.932	0.937	0.944
-3.0	0.954	0.952	0.951	0.954	0.959
-2.5	0.968	0.967	0.966	0.968	0.972
-2.0	0.979	0.979	0.978	0.980	0.982
-1.5	0.989	0.988	0.987	0.988	0.990
-1.0	0.994	0.995	0.995	0.996	0.995
-0.5	0.999	0.999	0.999	0.999	0.999
0.0	1.000	1.000	1.000	1.000	1.000
0.5	0.999	0.999	0.999	0.999	0.999
1.0	0.994	0.994	0.994	0.996	0.996
1.5	0.987	0.988	0.988	0.988	0.989
2.0	0.978	0.978	0.976	0.979	0.981
2.5	0.966	0.966	0.965	0.968	0.971
3.0	0.952	0.951	0.948	0.952	0.958
3.5	0.936	0.933	0.930	0.936	0.944
4.0	0.916	0.910	0.908	0.917	0.925
4.5	0.877	0.877	0.879	0.893	0.908
5.0	0.554	0.713	0.819	0.865	0.884
5.5	0.096	0.224	0.478	0.801	0.856
6.0	0.041	0.078	0.145	0.490	0.793
6.5	0.031	0.055	0.096	0.190	0.504
7.0	0.026	0.044	0.078	0.137	0.219

6FFF Crossplane Open 10x10 100 SSD
Landauer Cancer Institute - Jackson, WY
Varian TrueBeam #9999



6FFF Crossplane Open 20x20 100 SSD Landauer Cancer Institute - Jackson, WY					
Varian TrueBeam #9999					
Off-Axis (cm)	d1.5	d5	d10	d20	d30
-12.0	0.039	0.064	0.112	0.433	0.690
-11.5	0.045	0.078	0.157	0.656	0.717
-11.0	0.056	0.120	0.426	0.703	0.738
-10.5	0.135	0.416	0.679	0.730	0.760
-10.0	0.549	0.703	0.728	0.753	0.779
-9.5	0.745	0.749	0.754	0.774	0.797
-9.0	0.774	0.774	0.776	0.794	0.814
-8.5	0.793	0.794	0.798	0.814	0.832
-8.0	0.811	0.813	0.816	0.831	0.849
-7.5	0.828	0.831	0.835	0.849	0.864
-7.0	0.843	0.848	0.852	0.866	0.879
-6.5	0.859	0.864	0.869	0.882	0.895
-6.0	0.876	0.881	0.884	0.897	0.908
-5.5	0.891	0.895	0.901	0.911	0.921
-5.0	0.906	0.910	0.915	0.925	0.933
-4.5	0.921	0.925	0.929	0.938	0.946
-4.0	0.935	0.939	0.942	0.950	0.956
-3.5	0.948	0.952	0.955	0.960	0.966
-3.0	0.961	0.963	0.966	0.971	0.973
-2.5	0.973	0.974	0.976	0.980	0.981
-2.0	0.982	0.983	0.985	0.987	0.988
-1.5	0.990	0.991	0.992	0.992	0.993
-1.0	0.996	0.996	0.996	0.997	0.997
-0.5	0.999	0.999	0.999	0.999	1.000
0.0	1.000	1.000	1.000	1.000	1.000
0.5	0.999	0.999	0.999	0.999	0.999
1.0	0.995	0.996	0.996	0.997	0.997
1.5	0.989	0.990	0.991	0.992	0.993
2.0	0.980	0.982	0.984	0.986	0.988
2.5	0.971	0.973	0.975	0.979	0.981
3.0	0.959	0.962	0.964	0.970	0.974
3.5	0.946	0.949	0.953	0.960	0.965
4.0	0.933	0.936	0.941	0.948	0.956
4.5	0.918	0.922	0.928	0.936	0.944
5.0	0.903	0.908	0.914	0.922	0.932
5.5	0.888	0.893	0.898	0.909	0.921
6.0	0.873	0.878	0.882	0.894	0.908
6.5	0.856	0.861	0.867	0.881	0.893
7.0	0.841	0.845	0.850	0.863	0.878
7.5	0.824	0.828	0.833	0.847	0.863
8.0	0.808	0.811	0.814	0.829	0.848
8.5	0.790	0.792	0.795	0.812	0.831
9.0	0.772	0.771	0.774	0.792	0.813
9.5	0.743	0.747	0.752	0.772	0.796
10.0	0.554	0.701	0.725	0.751	0.778
10.5	0.136	0.418	0.676	0.728	0.759
11.0	0.056	0.118	0.423	0.701	0.736
11.5	0.044	0.077	0.156	0.653	0.715
12.0	0.038	0.064	0.112	0.438	0.689

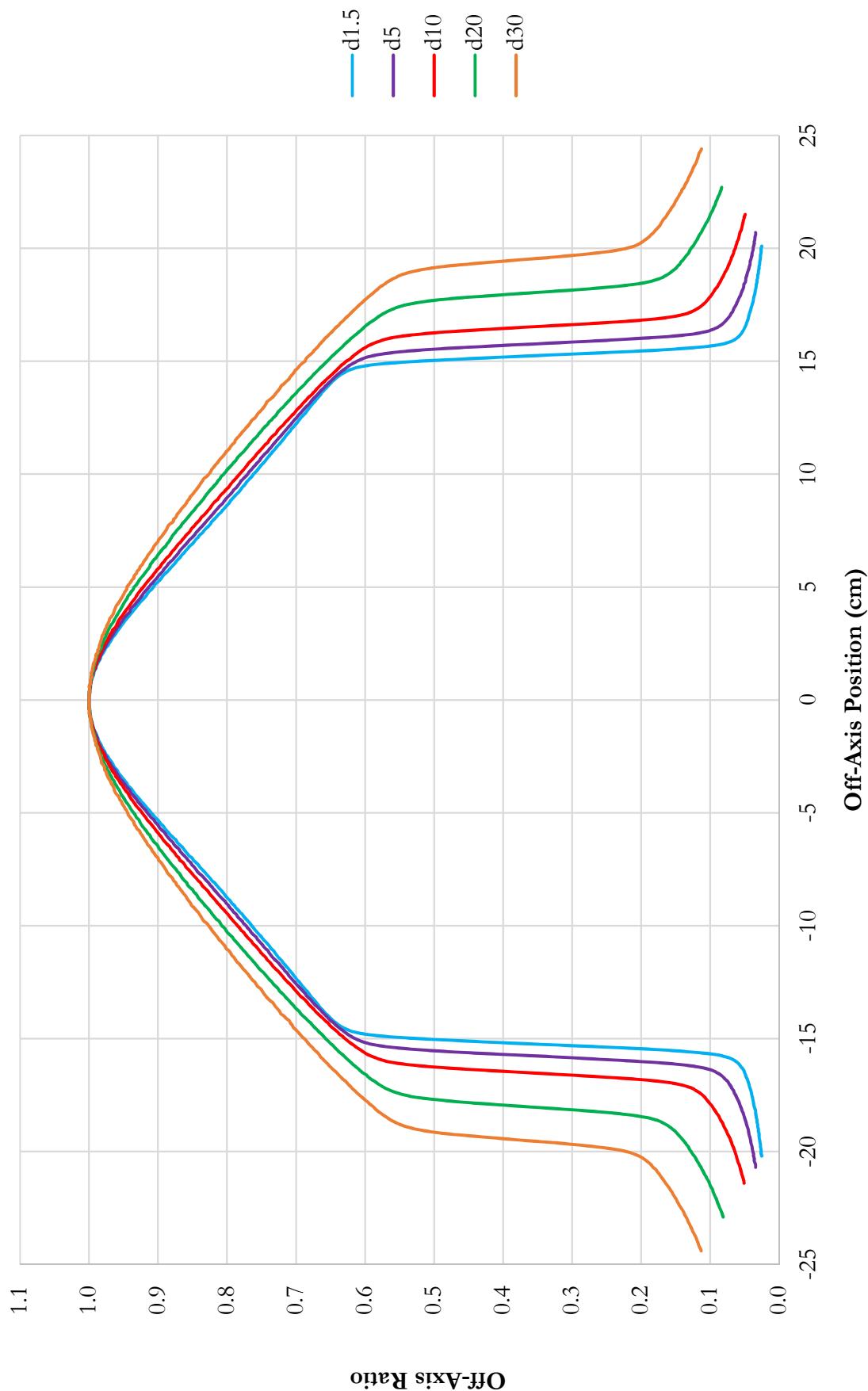
6FFF Crossplane Open 20x20 100 SSD
Landauer Cancer Institute - Jackson, WY
Varian TrueBeam #9999



6FFF Crossplane Open 30x30 100 SSD Landauer Cancer Institute - Jackson, WY Varian TrueBeam #9999					
Off-Axis (cm)	d1.5	d5	d10	d20	d30
-17.0	0.044	0.072	0.149	0.581	0.625
-16.5	0.050	0.090	0.369	0.604	0.642
-16.0	0.063	0.207	0.569	0.622	0.658
-15.5	0.168	0.517	0.607	0.640	0.673
-15.0	0.521	0.614	0.629	0.657	0.688
-14.5	0.632	0.638	0.648	0.673	0.704
-14.0	0.653	0.656	0.665	0.690	0.717
-13.5	0.668	0.673	0.681	0.705	0.732
-13.0	0.681	0.687	0.697	0.720	0.747
-12.5	0.695	0.702	0.712	0.735	0.760
-12.0	0.709	0.716	0.726	0.750	0.774
-11.5	0.722	0.731	0.742	0.764	0.788
-11.0	0.736	0.745	0.756	0.779	0.801
-10.5	0.750	0.758	0.771	0.792	0.814
-10.0	0.764	0.772	0.785	0.808	0.827
-9.5	0.778	0.786	0.798	0.821	0.840
-9.0	0.793	0.801	0.814	0.835	0.853
-8.5	0.807	0.816	0.827	0.848	0.865
-8.0	0.822	0.830	0.842	0.862	0.878
-7.5	0.836	0.845	0.856	0.874	0.889
-7.0	0.851	0.859	0.870	0.888	0.900
-6.5	0.865	0.874	0.883	0.900	0.912
-6.0	0.881	0.888	0.897	0.912	0.923
-5.5	0.896	0.901	0.910	0.925	0.934
-5.0	0.910	0.916	0.923	0.935	0.944
-4.5	0.924	0.929	0.936	0.947	0.953
-4.0	0.937	0.941	0.947	0.956	0.963
-3.5	0.950	0.955	0.958	0.966	0.971
-3.0	0.963	0.965	0.969	0.974	0.978
-2.5	0.973	0.975	0.978	0.982	0.984
-2.0	0.982	0.984	0.986	0.989	0.990
-1.5	0.990	0.991	0.992	0.993	0.994
-1.0	0.995	0.997	0.996	0.997	0.997
-0.5	0.999	0.999	0.999	0.999	1.000

6FFF Crossplane Open 30x30 100 SSD Landauer Cancer Institute - Jackson, WY Varian TrueBeam #9999					
Off-Axis (cm)	d1.5	d5	d10	d20	d30
0.0	1.000	1.000	1.000	1.000	1.000
0.5	0.998	0.999	0.999	0.999	0.999
1.0	0.995	0.996	0.996	0.997	0.996
1.5	0.989	0.990	0.990	0.993	0.994
2.0	0.981	0.983	0.984	0.988	0.990
2.5	0.971	0.974	0.976	0.980	0.984
3.0	0.960	0.963	0.967	0.973	0.978
3.5	0.948	0.952	0.957	0.964	0.971
4.0	0.934	0.940	0.946	0.955	0.963
4.5	0.920	0.926	0.933	0.945	0.953
5.0	0.907	0.913	0.921	0.935	0.945
5.5	0.893	0.899	0.908	0.922	0.934
6.0	0.877	0.886	0.895	0.911	0.923
6.5	0.863	0.871	0.881	0.898	0.912
7.0	0.848	0.857	0.867	0.884	0.900
7.5	0.833	0.842	0.853	0.873	0.889
8.0	0.819	0.827	0.839	0.859	0.877
8.5	0.803	0.813	0.825	0.846	0.865
9.0	0.790	0.799	0.811	0.832	0.853
9.5	0.775	0.784	0.796	0.818	0.840
10.0	0.762	0.770	0.782	0.805	0.826
10.5	0.747	0.756	0.768	0.791	0.814
11.0	0.734	0.741	0.753	0.776	0.801
11.5	0.720	0.728	0.739	0.762	0.788
12.0	0.707	0.713	0.725	0.748	0.774
12.5	0.693	0.699	0.709	0.733	0.759
13.0	0.679	0.685	0.694	0.718	0.746
13.5	0.665	0.670	0.678	0.703	0.731
14.0	0.651	0.654	0.663	0.687	0.718
14.5	0.630	0.636	0.645	0.672	0.703
15.0	0.522	0.612	0.627	0.655	0.687
15.5	0.171	0.517	0.605	0.638	0.673
16.0	0.062	0.209	0.567	0.621	0.658
16.5	0.050	0.090	0.373	0.602	0.642
17.0	0.044	0.072	0.150	0.580	0.625

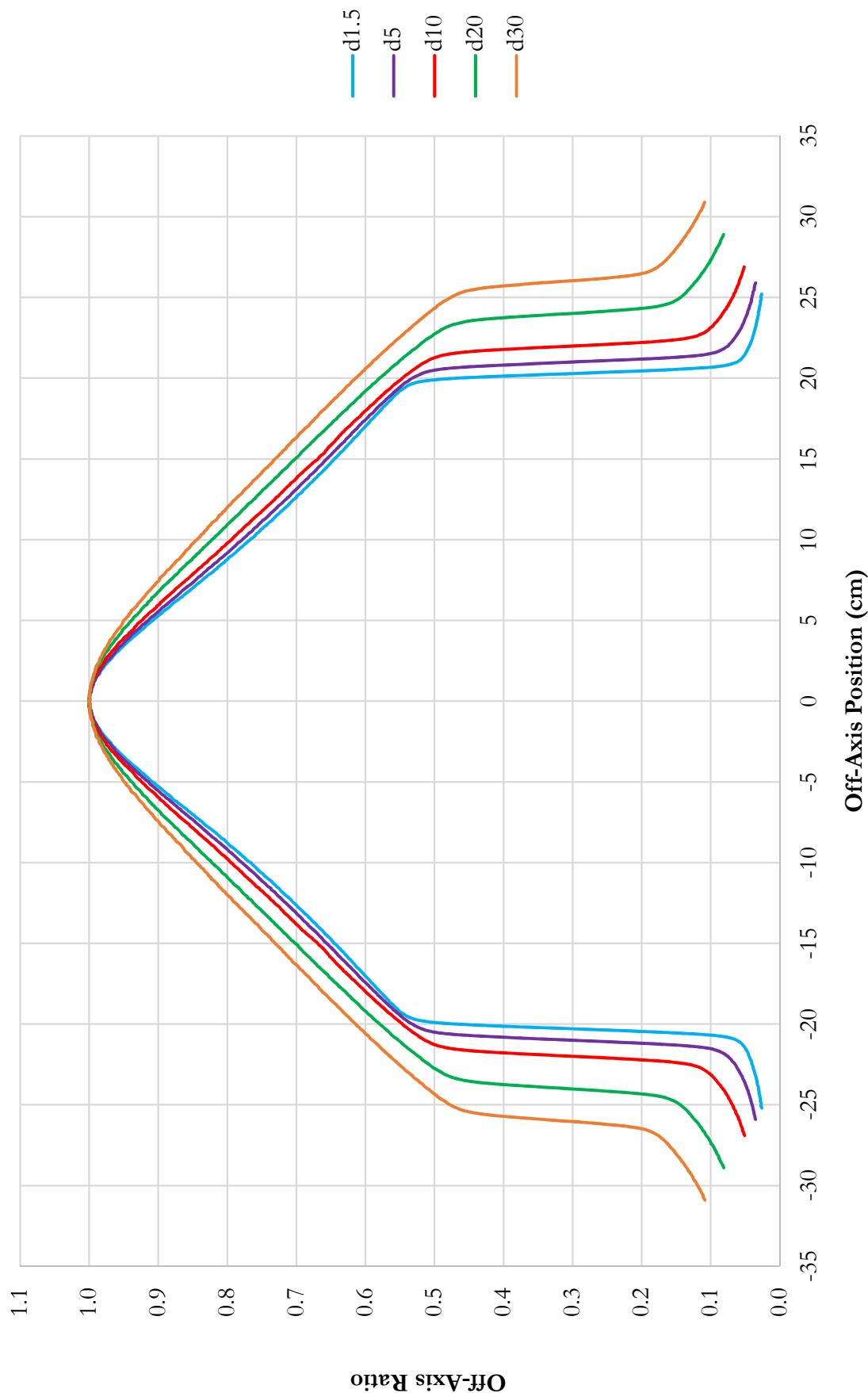
6FFF Crossplane Open 30x30 100 SSD
Landauer Cancer Institute - Jackson, WY
Varian TrueBeam #9999



6FFF Crossplane Open 40x40 100 SSD Landauer Cancer Institute - Jackson, WY Varian TrueBeam #9999					
Off-Axis (cm)	d1.5	d5	d10	d20	d30
-22.0	0.044	0.075	0.298	0.523	0.564
-21.5	0.050	0.103	0.478	0.539	0.577
-21.0	0.062	0.301	0.514	0.552	0.590
-20.5	0.176	0.500	0.532	0.566	0.602
-20.0	0.468	0.532	0.546	0.580	0.614
-19.5	0.540	0.549	0.560	0.592	0.626
-19.0	0.556	0.562	0.574	0.606	0.638
-18.5	0.567	0.574	0.587	0.618	0.650
-18.0	0.579	0.586	0.600	0.629	0.662
-17.5	0.589	0.598	0.611	0.642	0.674
-17.0	0.601	0.610	0.624	0.654	0.684
-16.5	0.612	0.621	0.636	0.666	0.696
-16.0	0.622	0.633	0.647	0.678	0.708
-15.5	0.633	0.644	0.658	0.690	0.720
-15.0	0.645	0.656	0.669	0.702	0.731
-14.5	0.656	0.668	0.683	0.714	0.742
-14.0	0.668	0.680	0.695	0.726	0.754
-13.5	0.679	0.692	0.708	0.738	0.765
-13.0	0.691	0.703	0.719	0.750	0.776
-12.5	0.704	0.715	0.732	0.762	0.788
-12.0	0.716	0.728	0.744	0.774	0.800
-11.5	0.728	0.740	0.757	0.786	0.812
-11.0	0.741	0.753	0.770	0.798	0.823
-10.5	0.754	0.766	0.782	0.810	0.833
-10.0	0.766	0.779	0.795	0.822	0.845
-9.5	0.780	0.792	0.808	0.834	0.855
-9.0	0.795	0.805	0.819	0.847	0.866
-8.5	0.808	0.819	0.833	0.859	0.877
-8.0	0.822	0.833	0.846	0.870	0.889
-7.5	0.836	0.846	0.860	0.882	0.899
-7.0	0.851	0.860	0.873	0.895	0.909
-6.5	0.865	0.874	0.886	0.906	0.920
-6.0	0.880	0.888	0.898	0.916	0.930
-5.5	0.894	0.901	0.912	0.927	0.940
-5.0	0.908	0.914	0.924	0.938	0.949
-4.5	0.921	0.928	0.935	0.949	0.957
-4.0	0.936	0.941	0.947	0.958	0.965
-3.5	0.948	0.953	0.958	0.968	0.972
-3.0	0.961	0.963	0.969	0.976	0.980
-2.5	0.971	0.974	0.977	0.983	0.986
-2.0	0.981	0.983	0.986	0.990	0.991
-1.5	0.989	0.989	0.991	0.994	0.995
-1.0	0.994	0.995	0.996	0.997	0.998
-0.5	0.998	0.998	0.999	0.999	0.999

6FFF Crossplane Open 40x40 100 SSD Landauer Cancer Institute - Jackson, WY Varian TrueBeam #9999					
Off-Axis (cm)	d1.5	d5	d10	d20	d30
0.0	1.000	1.000	1.000	1.000	1.000
0.5	0.998	0.998	0.999	0.999	0.999
1.0	0.994	0.994	0.996	0.997	0.998
1.5	0.989	0.989	0.992	0.994	0.995
2.0	0.981	0.983	0.986	0.990	0.991
2.5	0.971	0.974	0.978	0.983	0.985
3.0	0.961	0.962	0.968	0.976	0.980
3.5	0.949	0.952	0.959	0.968	0.973
4.0	0.935	0.941	0.948	0.958	0.965
4.5	0.921	0.928	0.935	0.950	0.957
5.0	0.908	0.914	0.924	0.938	0.950
5.5	0.894	0.901	0.912	0.928	0.939
6.0	0.880	0.888	0.898	0.916	0.930
6.5	0.865	0.873	0.886	0.906	0.920
7.0	0.850	0.860	0.873	0.895	0.909
7.5	0.836	0.846	0.860	0.882	0.898
8.0	0.821	0.833	0.846	0.870	0.889
8.5	0.808	0.819	0.834	0.859	0.877
9.0	0.794	0.805	0.820	0.846	0.866
9.5	0.780	0.792	0.808	0.835	0.855
10.0	0.767	0.778	0.794	0.822	0.844
10.5	0.754	0.765	0.782	0.810	0.833
11.0	0.741	0.753	0.769	0.798	0.823
11.5	0.729	0.740	0.757	0.786	0.812
12.0	0.716	0.728	0.744	0.774	0.800
12.5	0.704	0.715	0.731	0.762	0.789
13.0	0.691	0.703	0.719	0.750	0.777
13.5	0.680	0.692	0.708	0.738	0.765
14.0	0.668	0.680	0.696	0.726	0.753
14.5	0.656	0.668	0.683	0.713	0.742
15.0	0.645	0.656	0.669	0.702	0.731
15.5	0.633	0.644	0.658	0.690	0.720
16.0	0.622	0.633	0.647	0.679	0.708
16.5	0.611	0.621	0.636	0.666	0.697
17.0	0.600	0.610	0.624	0.654	0.684
17.5	0.590	0.598	0.612	0.641	0.673
18.0	0.578	0.586	0.600	0.630	0.662
18.5	0.568	0.574	0.587	0.617	0.650
19.0	0.556	0.562	0.574	0.605	0.638
19.5	0.540	0.549	0.561	0.592	0.627
20.0	0.469	0.532	0.547	0.580	0.614
20.5	0.174	0.500	0.531	0.566	0.602
21.0	0.062	0.303	0.513	0.552	0.590
21.5	0.050	0.104	0.478	0.539	0.577
22.0	0.044	0.075	0.296	0.523	0.565

6FFF Crossplane Open 40x40 100 SSD
Landauer Cancer Institute - Jackson, WY
Varian TrueBeam #9999



Photon Energies

6FFF Beam Match Verification

6FFF Eclipse Output Factors 95 SSD d5

Landauer Cancer Institute

Varian TrueBeam #9999

Verification Data Measured on TrueBeam #4285

Representative TrueBeam Data

% difference (Verification/Representative)

Open Field		Field size X [cm]									
Y (cm)	X (cm)	3	4	5	7	10	15	20	30	40	
3	0.894										
4	0.940										
5											
7											
10											
15											
20											
30											
40											

Open Field		Field size Y [cm]									
Y (cm)	X (cm)	3	4	5	7	10	15	20	30	40	
3	0.896	0.896	0.901	0.914	0.922	0.928	0.932	0.934	0.937	0.937	
4	0.907	0.907	0.921	0.929	0.940	0.941	0.953	0.956	0.958	0.959	
5	0.914	0.930	0.940	0.952	0.962	0.969	0.972	0.975	0.976	0.976	
7	0.925	0.943	0.955	0.970	0.982	0.991	0.996	1.000	1.001	1.001	
10	0.933	0.953	0.967	0.985	1.000	1.012	1.018	1.024	1.025	1.025	
15	0.938	0.960	0.975	0.996	1.013	1.029	1.038	1.046	1.048	1.048	
20	0.941	0.963	0.979	1.001	1.020	1.038	1.049	1.058	1.060	1.060	
30	0.944	0.967	0.983	1.006	1.028	1.048	1.061	1.072	1.075	1.075	
40	0.945	0.968	0.985	1.009	1.031	1.052	1.065	1.078	1.080	1.080	

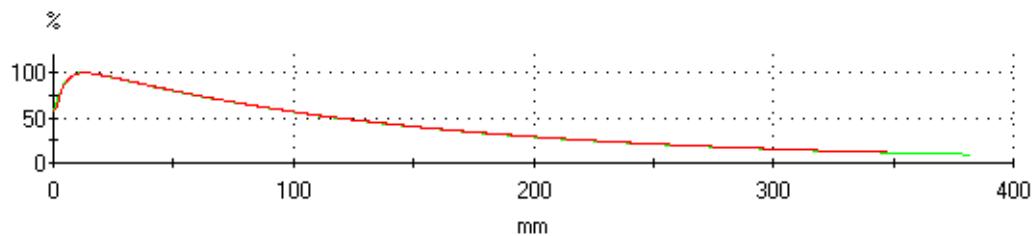
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-01-26 10:52

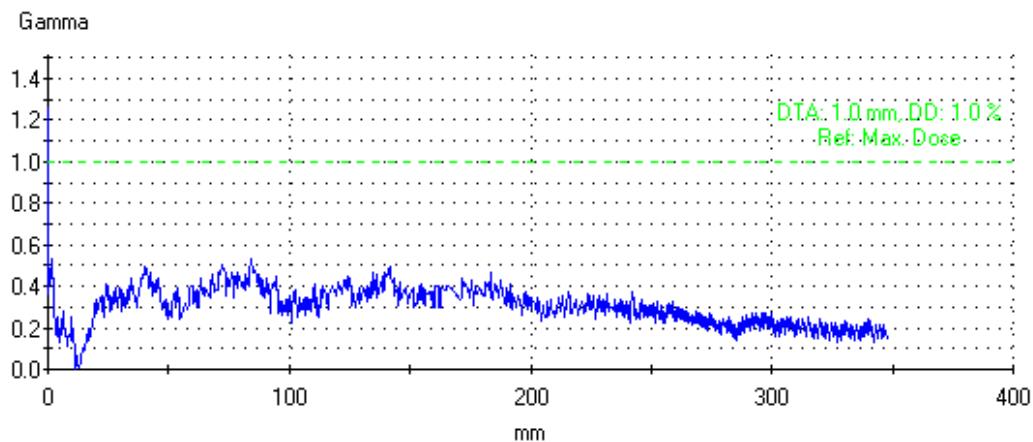
Setup

Measurement Parameters

Energy [MV]:	6.0
Field Size Inpla. x Cross. [cm x cm]:	3.0 x 3.0
Depth [mm]:	
Profile Type:	PDD



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



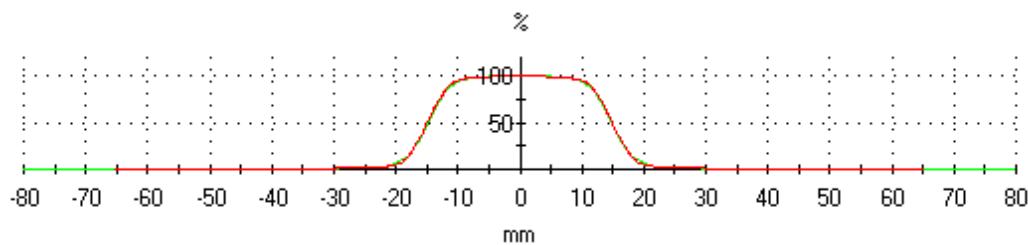
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-01-26 10:55

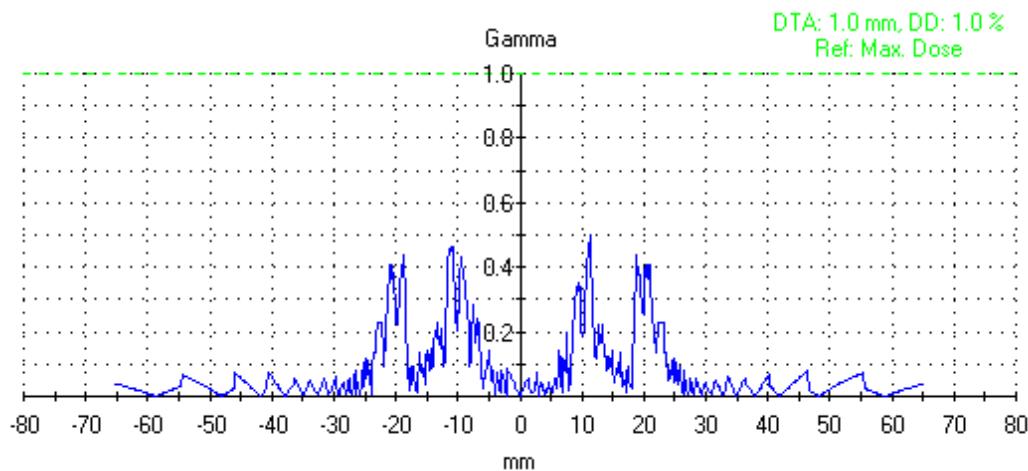
Setup

Measurement Parameters

Energy [MV]:	6.0
Field Size Impl. x Cross. [cm x cm]:	3.0 x 3.0
Depth [mm]:	15.0
Profile Type:	Crossplane Profile



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



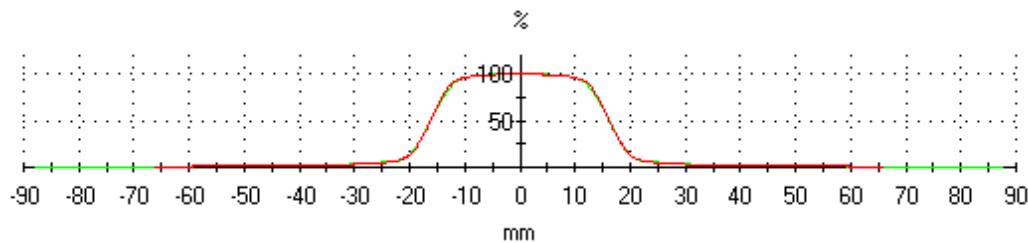
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-01-26 10:56

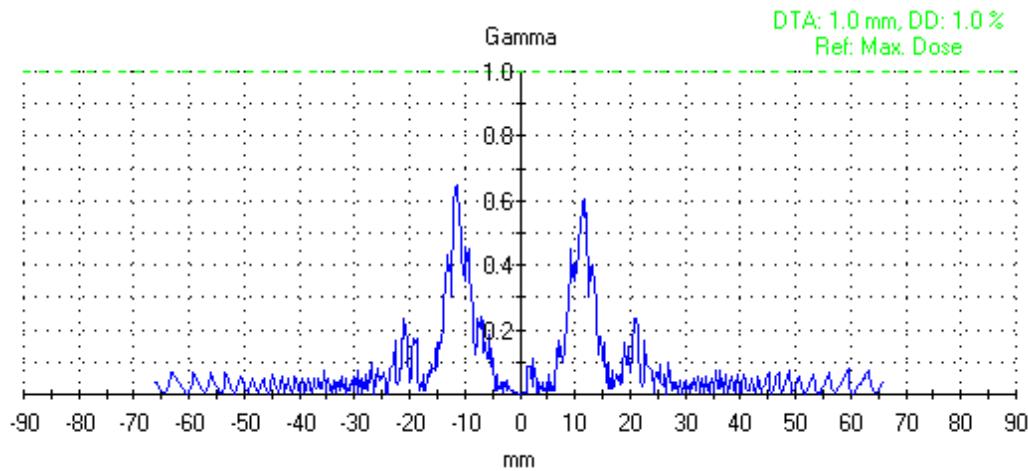
Setup

Measurement Parameters

Energy [MV]:	6.0
Field Size Inpla. x Cross. [cm x cm]:	3.0 x 3.0
Depth [mm]:	100.0
Profile Type:	Crossplane Profile



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



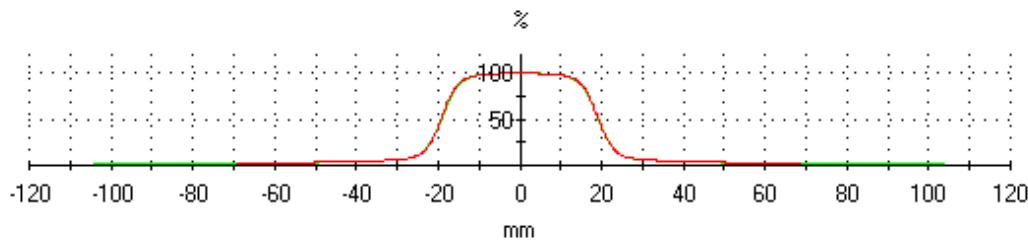
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-01-26 10:56

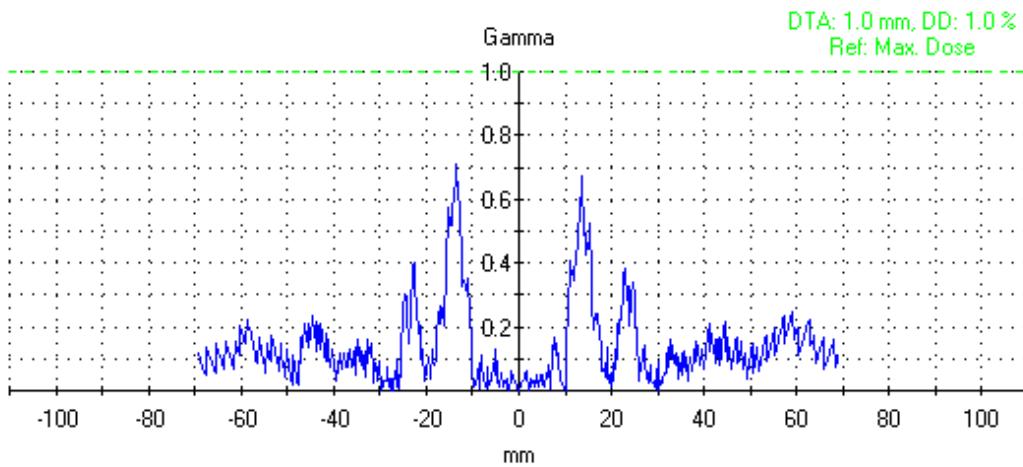
Setup

Measurement Parameters

Energy [MV]:	6.0
Field Size Inpla. x Cross. [cm x cm]:	3.0 x 3.0
Depth [mm]:	300.0
Profile Type:	Crossplane Profile



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



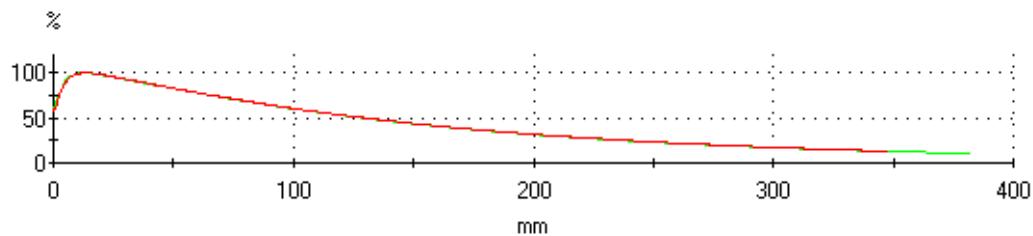
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-01-26 10:52

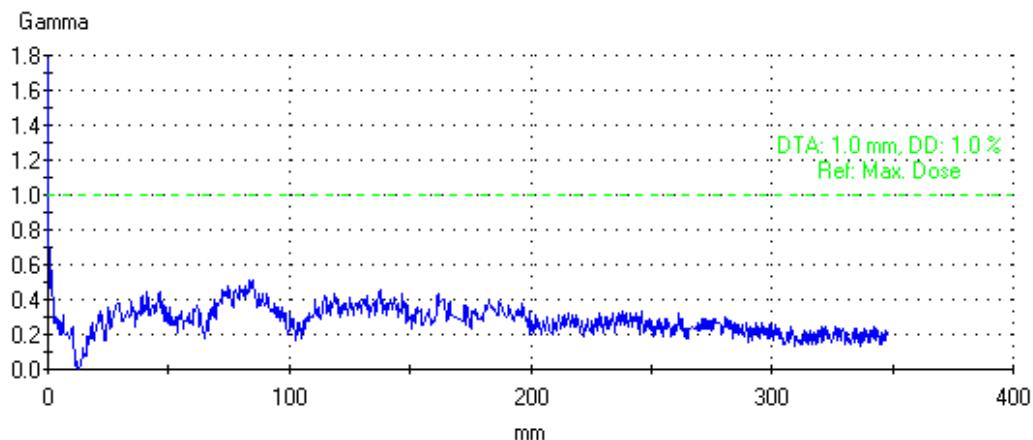
Setup

Measurement Parameters

Energy [MV]:	6.0
Field Size Inpla. x Cross. [cm x cm]:	6.0 x 6.0
Depth [mm]:	
Profile Type:	PDD



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



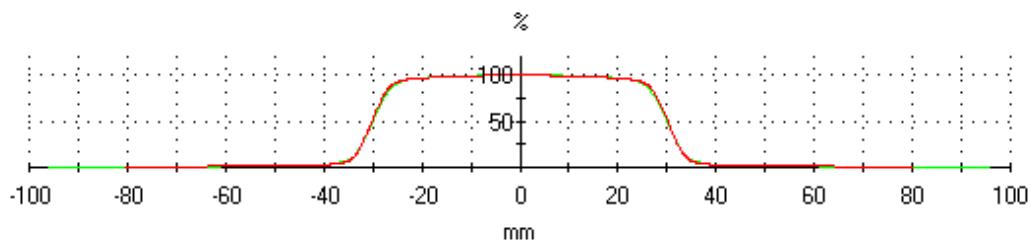
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-01-26 10:57

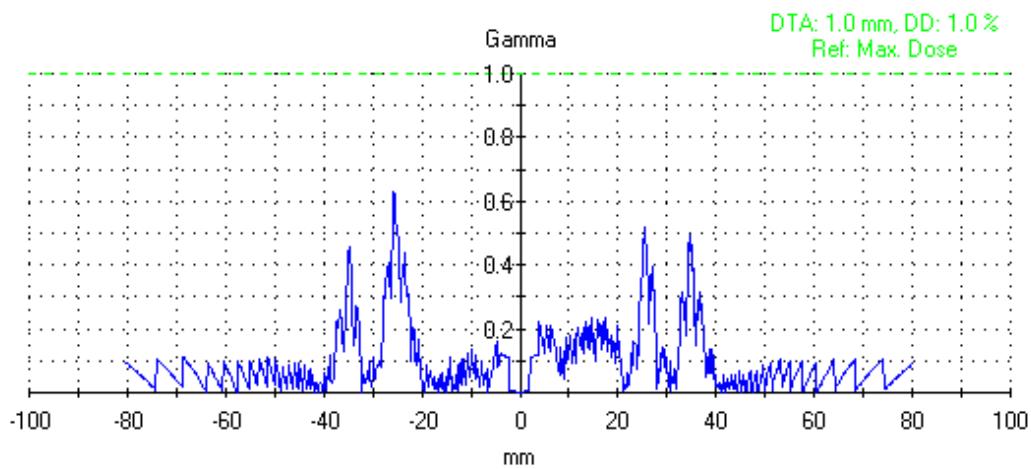
Setup

Measurement Parameters

Energy [MV]:	6.0
Field Size Inpla. x Cross. [cm x cm]:	6.0 x 6.0
Depth [mm]:	15.0
Profile Type:	Crossplane Profile



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



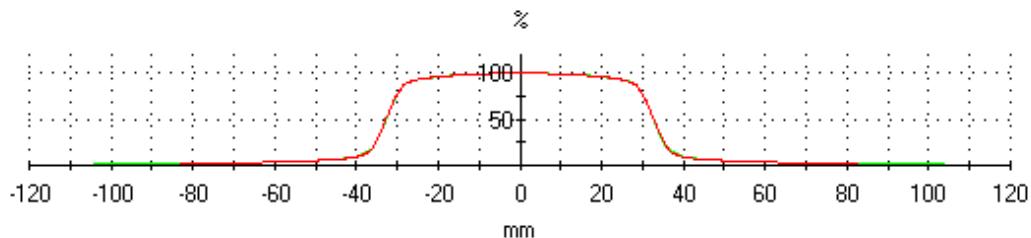
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-01-26 10:57

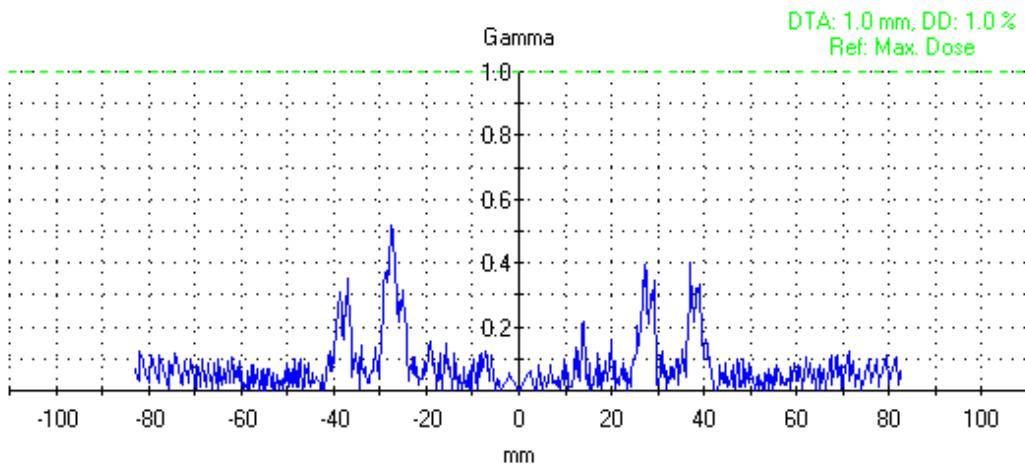
Setup

Measurement Parameters

Energy [MV]:	6.0
Field Size Inpla. x Cross. [cm x cm]:	6.0 x 6.0
Depth [mm]:	100.0
Profile Type:	Crossplane Profile



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



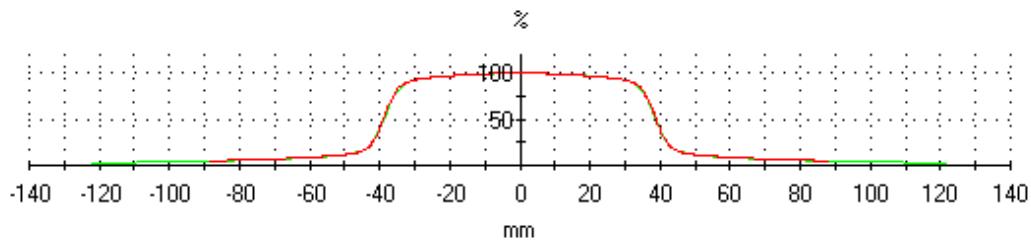
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-01-26 10:58

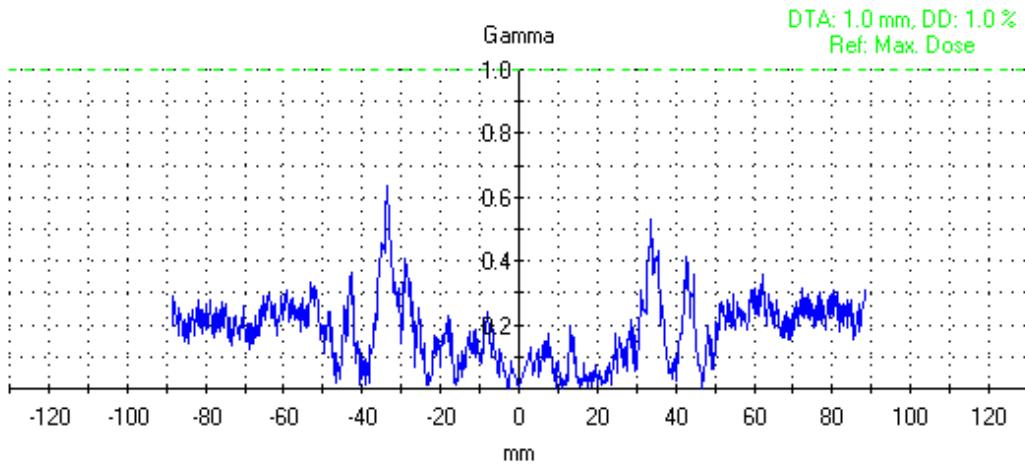
Setup

Measurement Parameters

Energy [MV]:	6.0
Field Size Inpla. x Cross. [cm x cm]:	6.0 x 6.0
Depth [mm]:	300.0
Profile Type:	Crossplane Profile



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



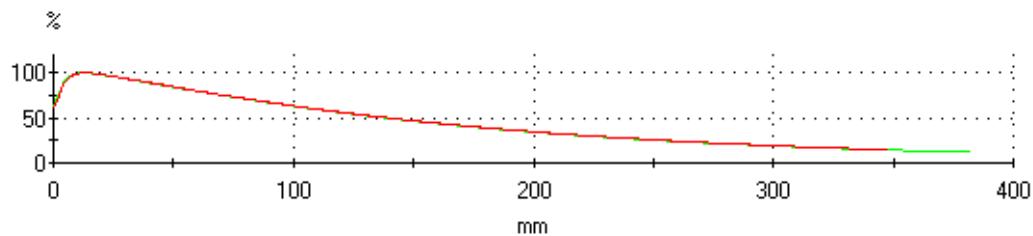
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-01-26 10:53

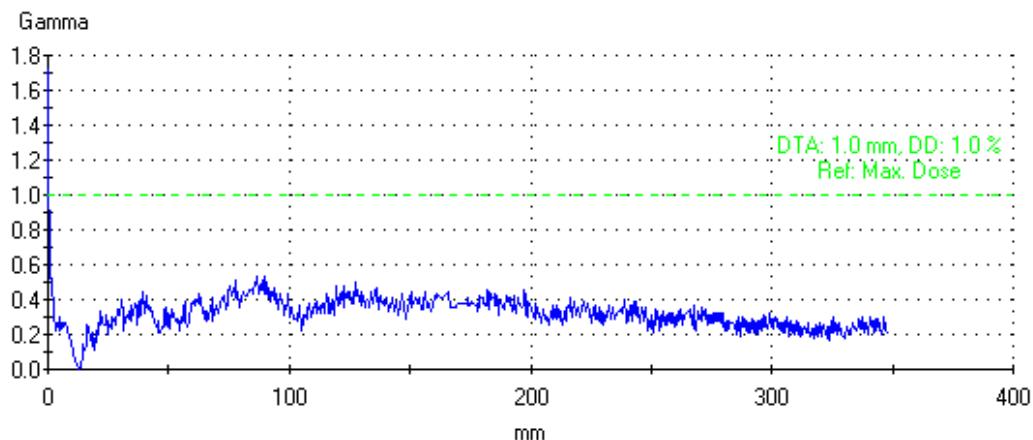
Setup

Measurement Parameters

Energy [MV]:	6.0
Field Size Inpla. x Cross. [cm x cm]:	10.0 x 10.0
Depth [mm]:	
Profile Type:	PDD



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



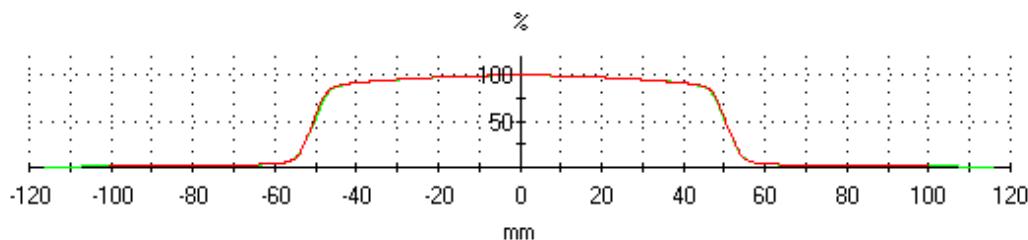
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-01-26 10:59

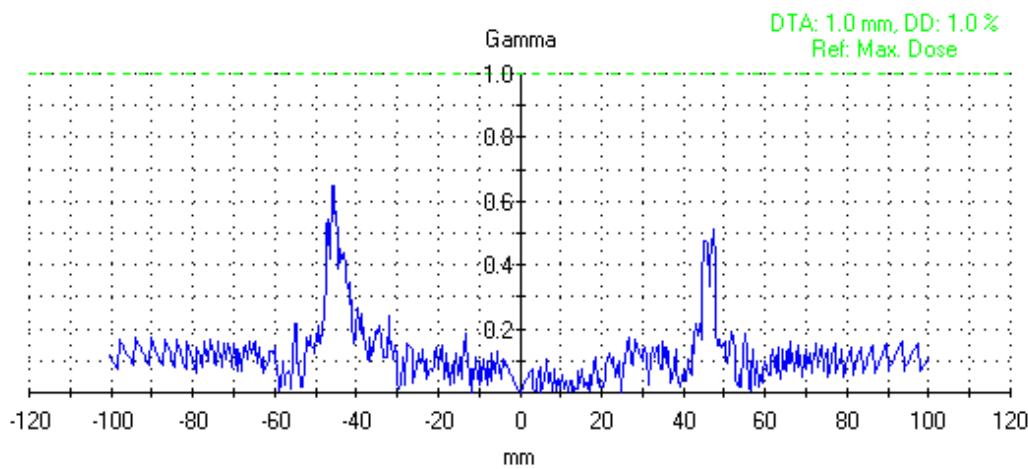
Setup

Measurement Parameters

Energy [MV]:	6.0
Field Size Inpla. x Cross. [cm x cm]:	10.0 x 10.0
Depth [mm]:	15.0
Profile Type:	Crossplane Profile



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



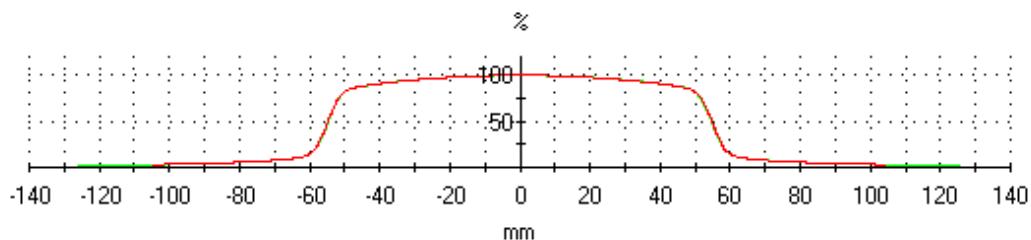
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-01-26 10:59

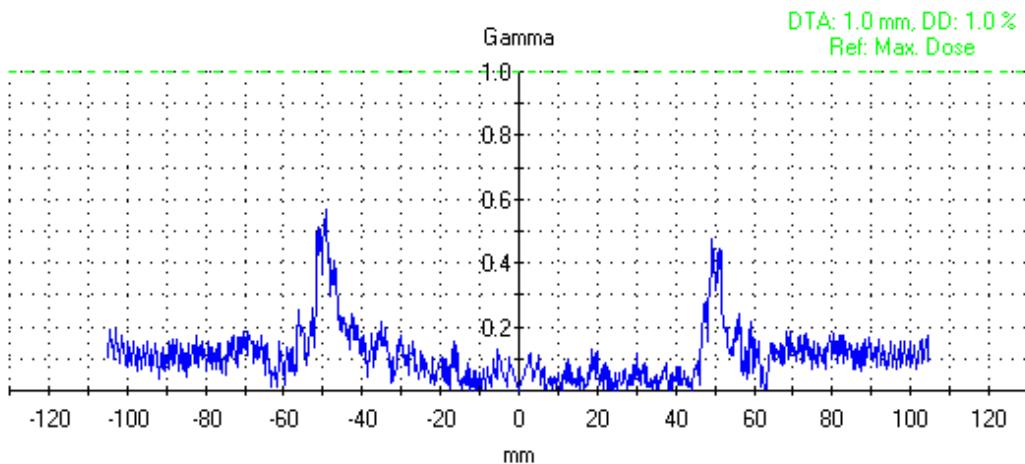
Setup

Measurement Parameters

Energy [MV]:	6.0
Field Size Inpla. x Cross. [cm x cm]:	10.0 x 10.0
Depth [mm]:	100.0
Profile Type:	Crossplane Profile



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



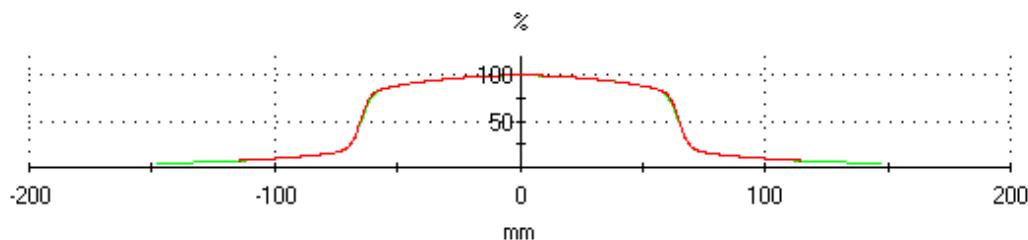
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-01-26 11:00

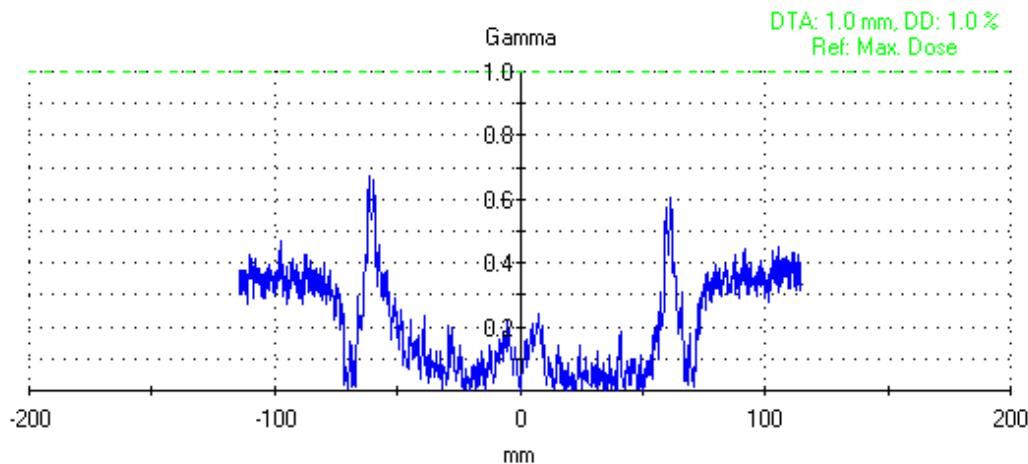
Setup

Measurement Parameters

Energy [MV]:	6.0
Field Size Inpla. x Cross. [cm x cm]:	10.0 x 10.0
Depth [mm]:	300.0
Profile Type:	Crossplane Profile



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



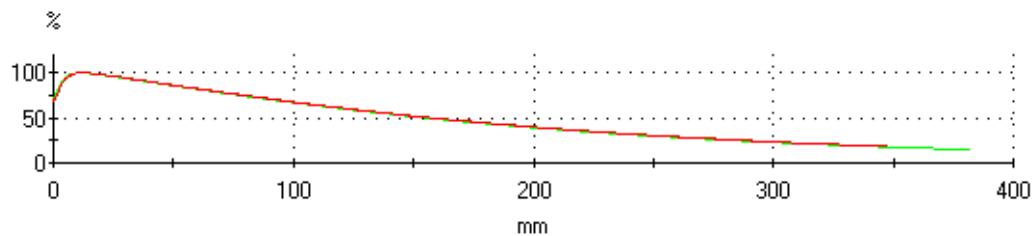
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-01-26 10:54

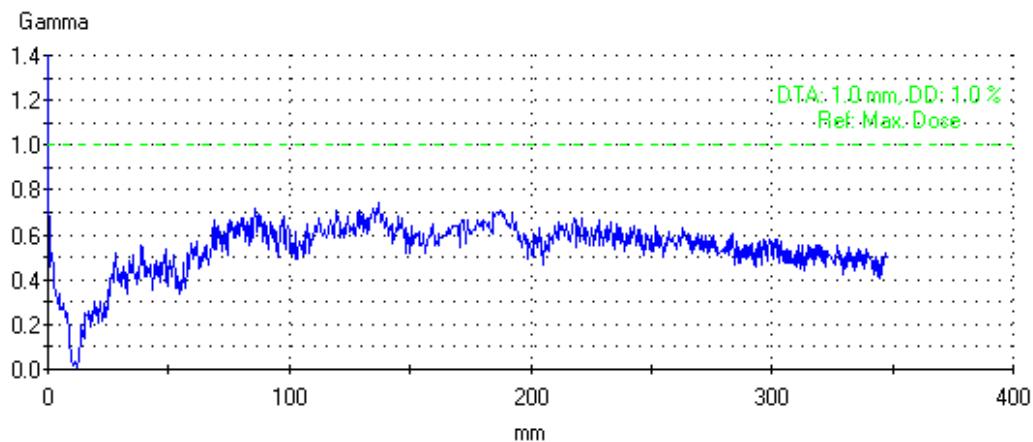
Setup

Measurement Parameters

Energy [MV]:	6.0
Field Size Inpla. x Cross. [cm x cm]:	30.0 x 30.0
Depth [mm]:	
Profile Type:	PDD



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



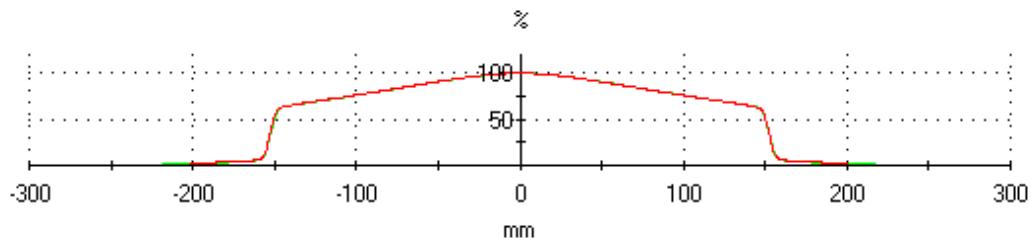
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-01-26 11:00

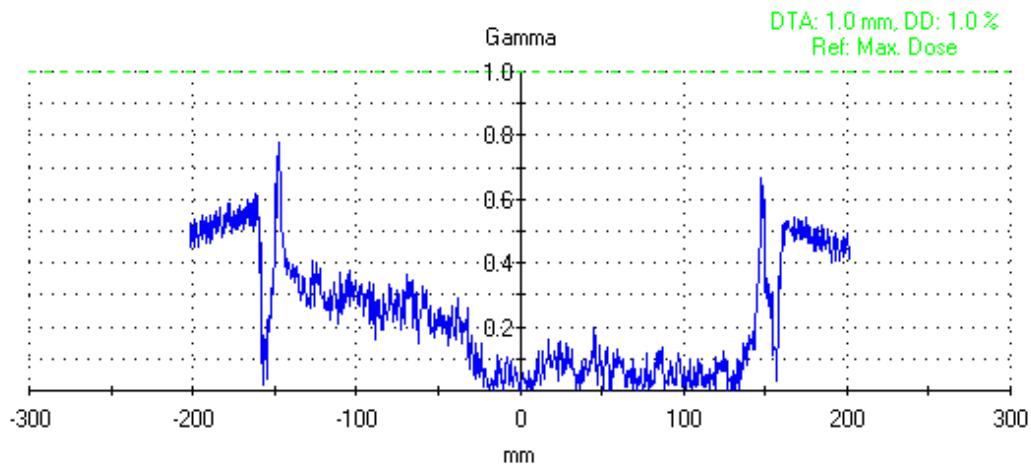
Setup

Measurement Parameters

Energy [MV]:	6.0
Field Size Inpla. x Cross. [cm x cm]:	30.0 x 30.0
Depth [mm]:	15.0
Profile Type:	Crossplane Profile



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



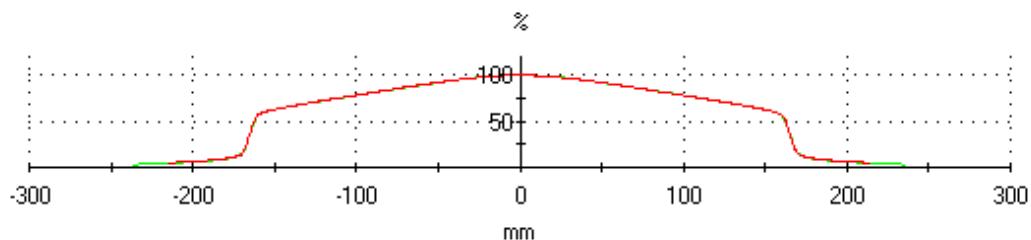
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-01-26 11:01

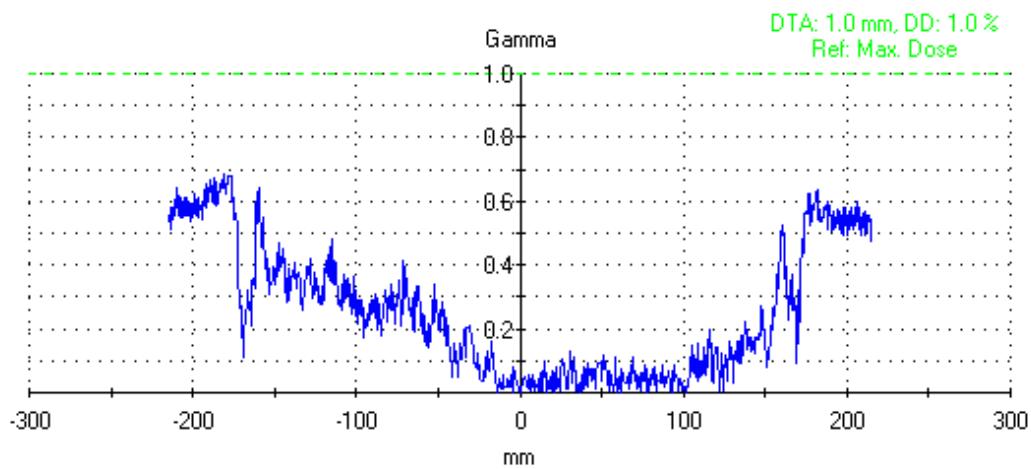
Setup

Measurement Parameters

Energy [MV]:	6.0
Field Size Inpla. x Cross. [cm x cm]:	30.0 x 30.0
Depth [mm]:	100.0
Profile Type:	Crossplane Profile



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



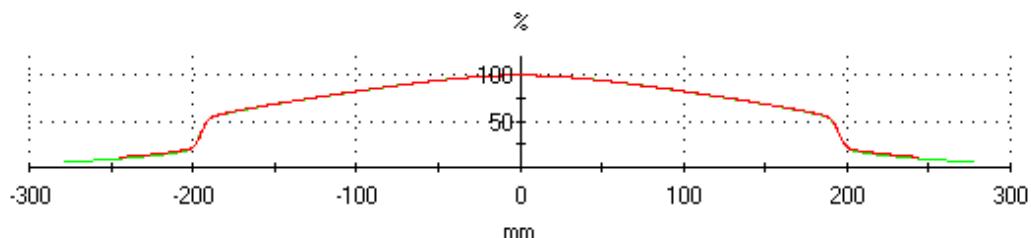
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-01-26 11:02

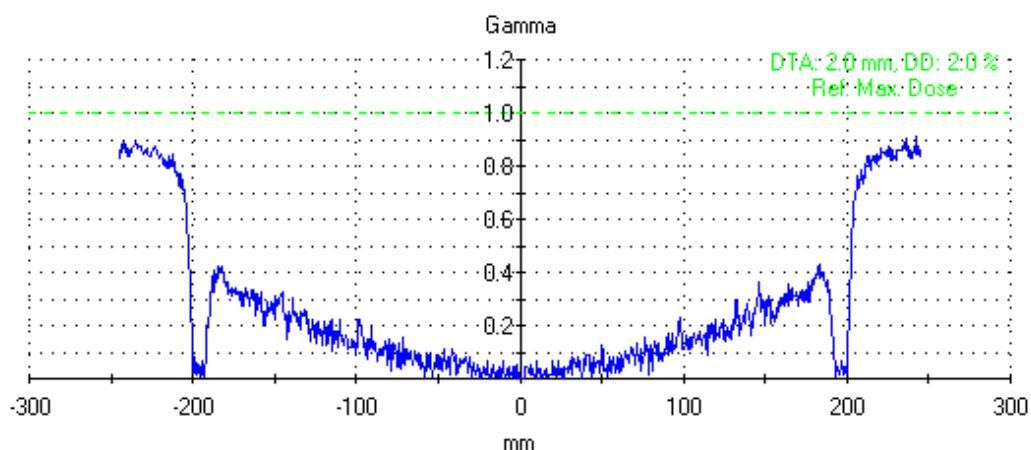
Setup

Measurement Parameters

Energy [MV]:	6.0
Field Size Inpla. x Cross. [cm x cm]:	30.0 x 30.0
Depth [mm]:	300.0
Profile Type:	Crossplane Profile



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



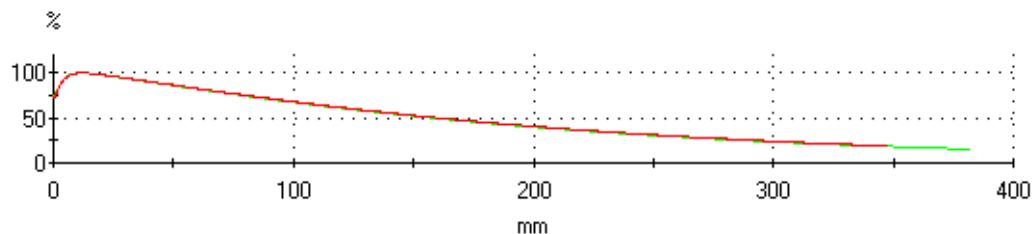
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-01-26 10:54

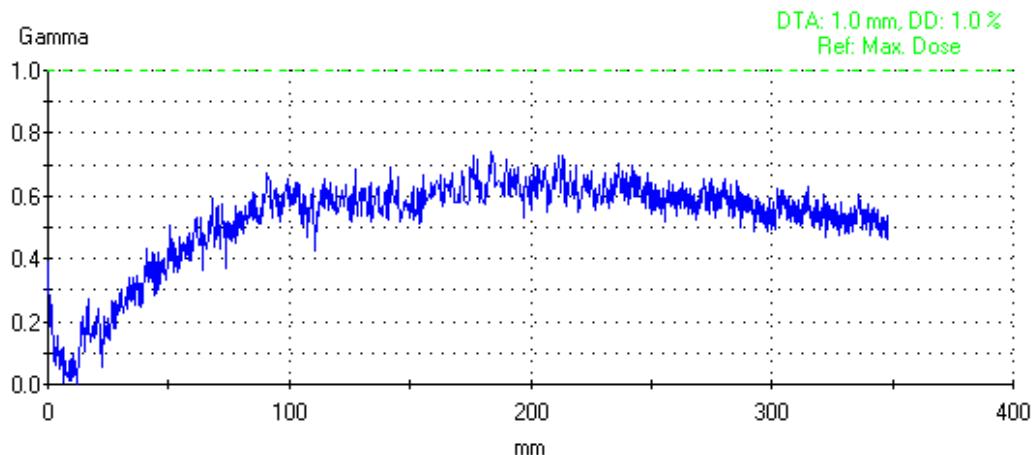
Setup

Measurement Parameters

Energy [MV]:	6.0
Field Size Inpla. x Cross. [cm x cm]:	40.0 x 40.0
Depth [mm]:	
Profile Type:	PDD



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



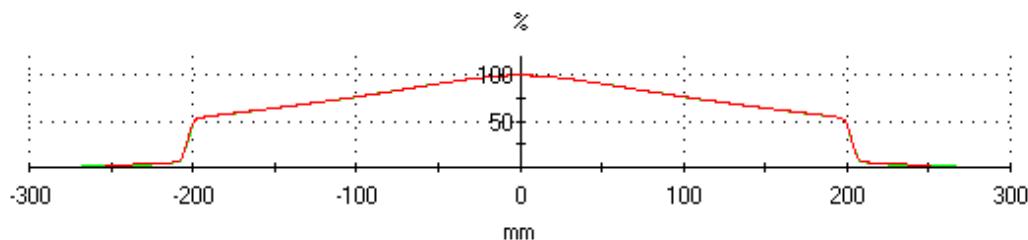
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-01-26 11:02

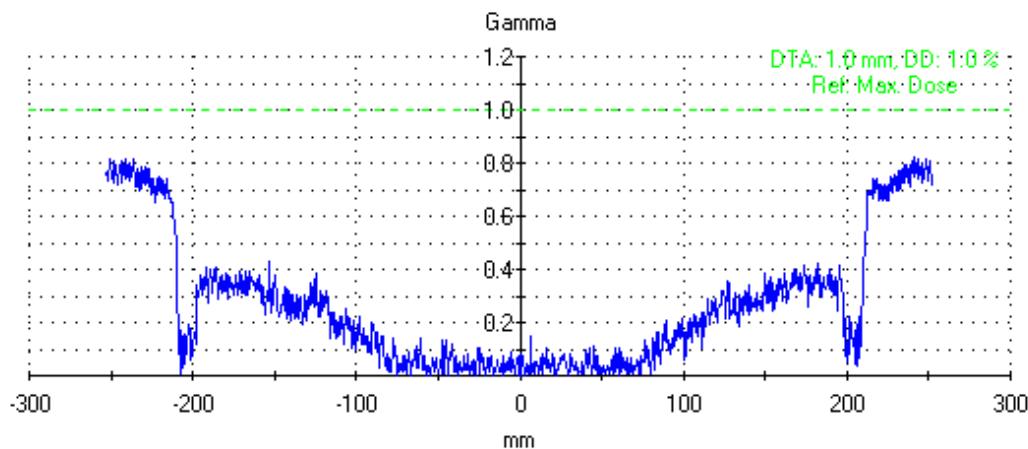
Setup

Measurement Parameters

Energy [MV]:	6.0
Field Size Impl. x Cross. [cm x cm]:	40.0 x 40.0
Depth [mm]:	15.0
Profile Type:	Crossplane Profile



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



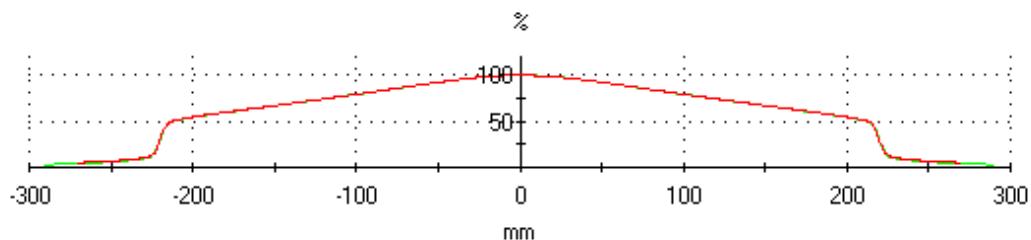
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-01-26 11:03

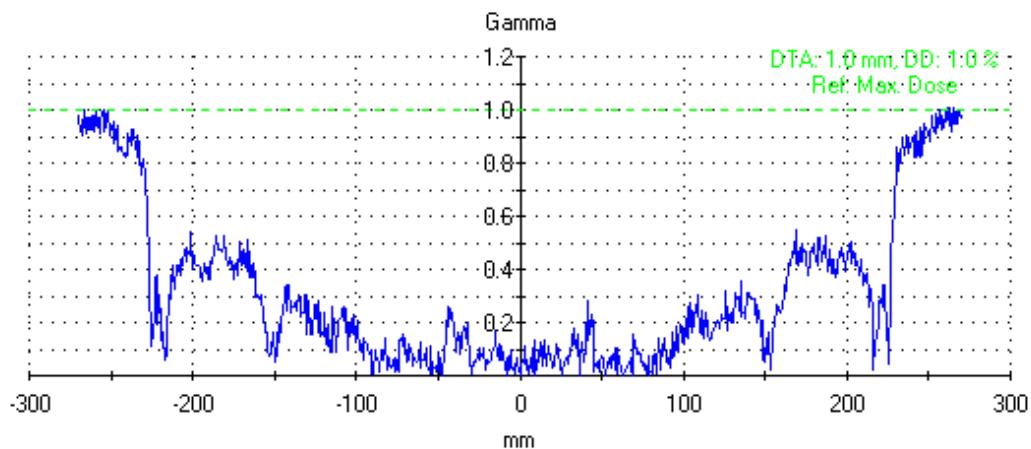
Setup

Measurement Parameters

Energy [MV]:	6.0
Field Size Impl. x Cross. [cm x cm]:	40.0 x 40.0
Depth [mm]:	100.0
Profile Type:	Crossplane Profile



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



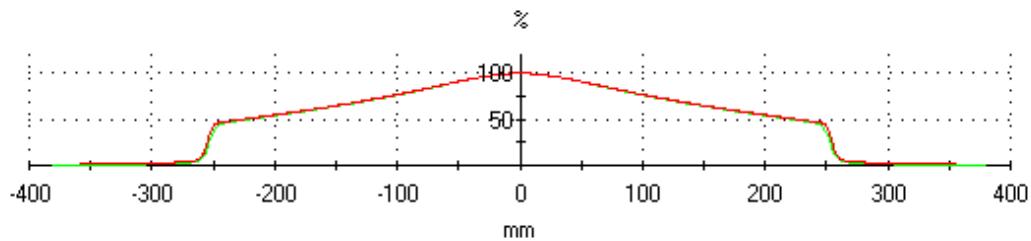
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF Diagonal
Print-Date: 2020-01-26 10:04

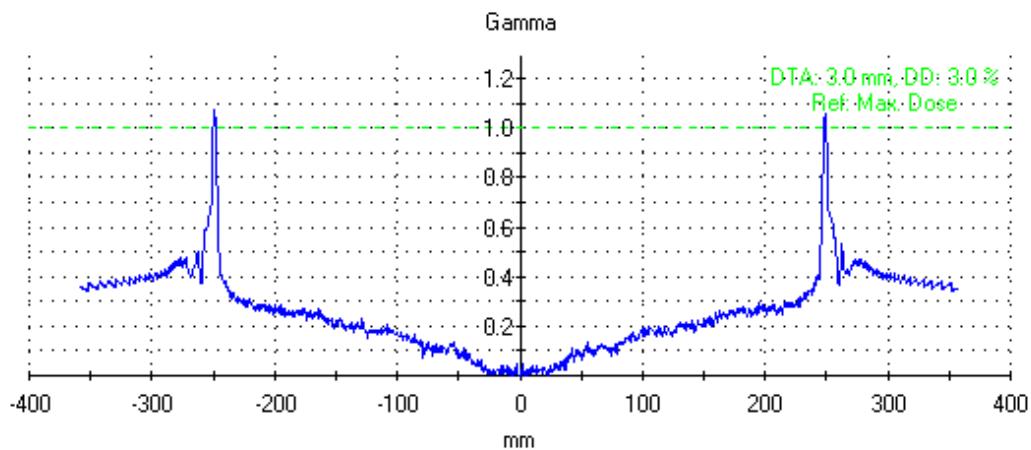
Setup

Measurement Parameters

Energy [MV]:	6.0
Field Size Inpla. x Cross. [cm x cm]:	40.0 x 40.0
Depth [mm]:	15.0
Profile Type:	Crossplane Profile
Wedge:	Open
Block:	None
Raw/Processed:	Processed



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



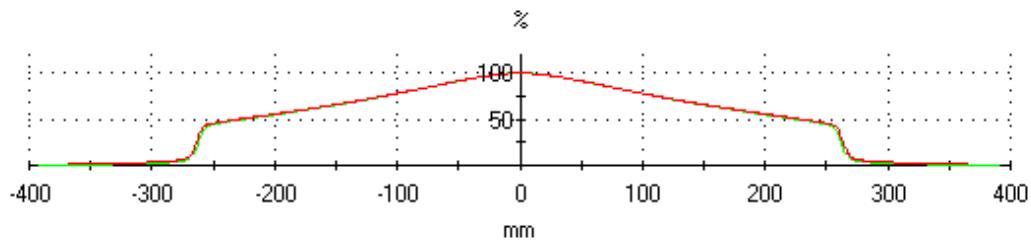
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF Diagonal
Print-Date: 2020-01-26 10:05

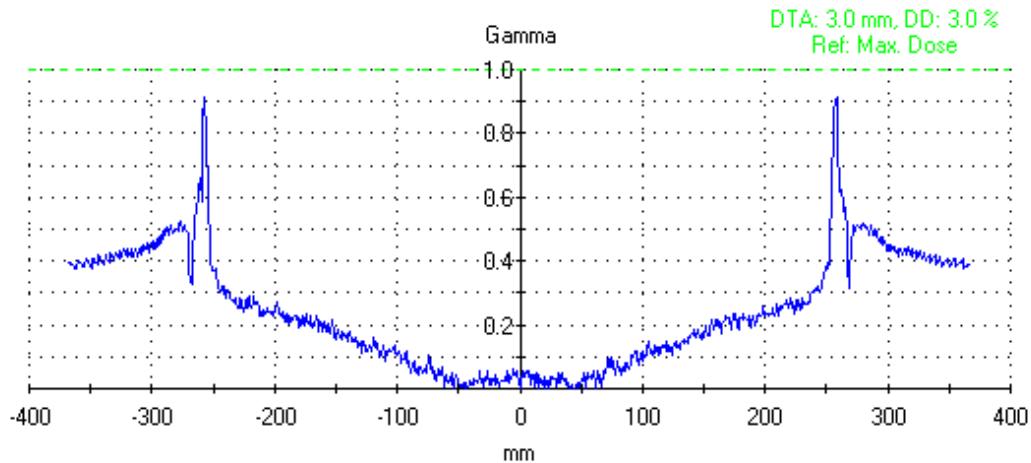
Setup

Measurement Parameters

Energy [MV]:	6.0
Field Size Inpla. x Cross. [cm x cm]:	40.0 x 40.0
Depth [mm]:	50.0
Profile Type:	Crossplane Profile
Wedge:	Open
Block:	None
Raw/Processed:	Processed



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



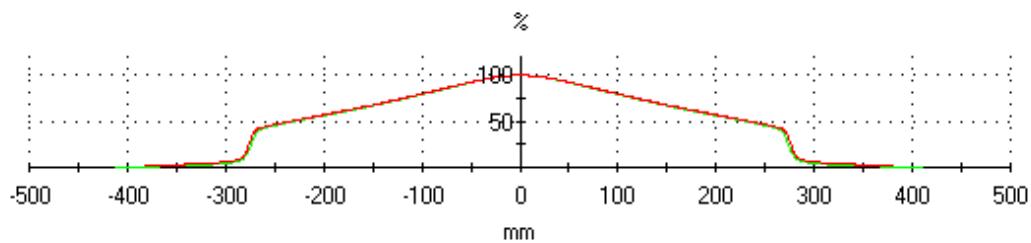
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF Diagonal
Print-Date: 2020-01-26 10:06

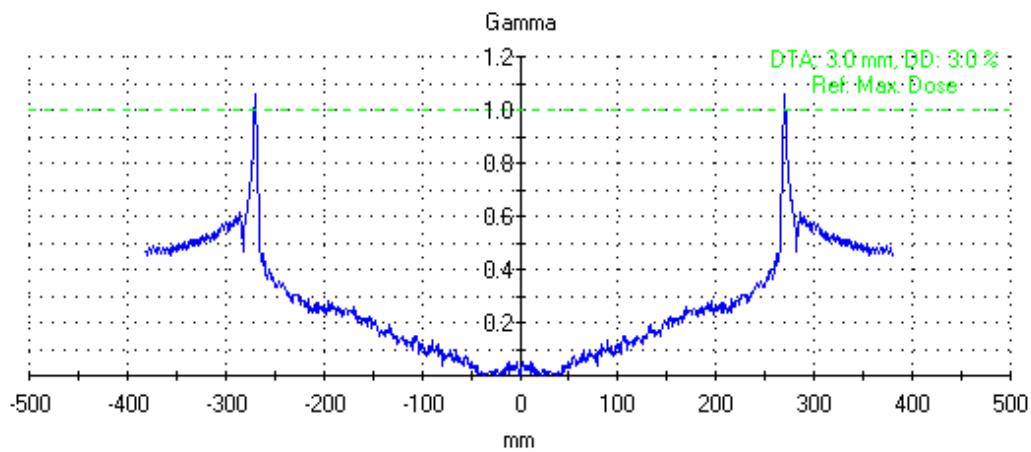
Setup

Measurement Parameters

Energy [MV]:	6.0
Field Size Inpla. x Cross. [cm x cm]:	40.0 x 40.0
Depth [mm]:	100.0
Profile Type:	Crossplane Profile
Wedge:	Open
Block:	None
Raw/Processed:	Processed



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



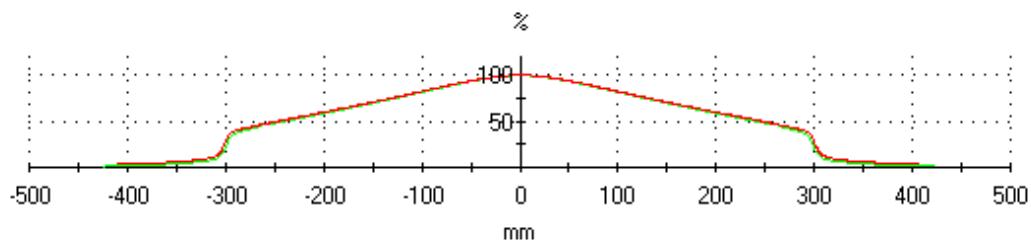
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF Diagonal
Print-Date: 2020-01-26 10:07

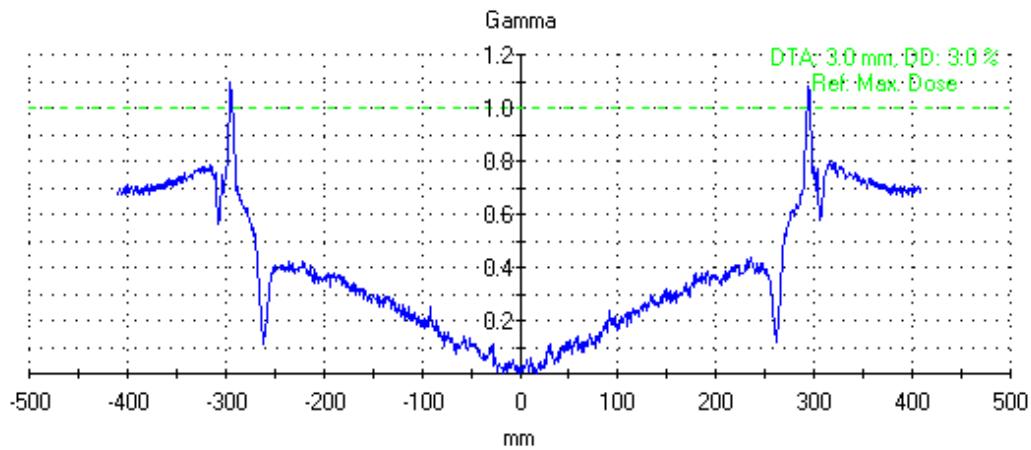
Setup

Measurement Parameters

Energy [MV]:	6.0
Field Size Inpla. x Cross. [cm x cm]:	40.0 x 40.0
Depth [mm]:	200.0
Profile Type:	Crossplane Profile
Wedge:	Open
Block:	None
Raw/Processed:	Processed



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



Data

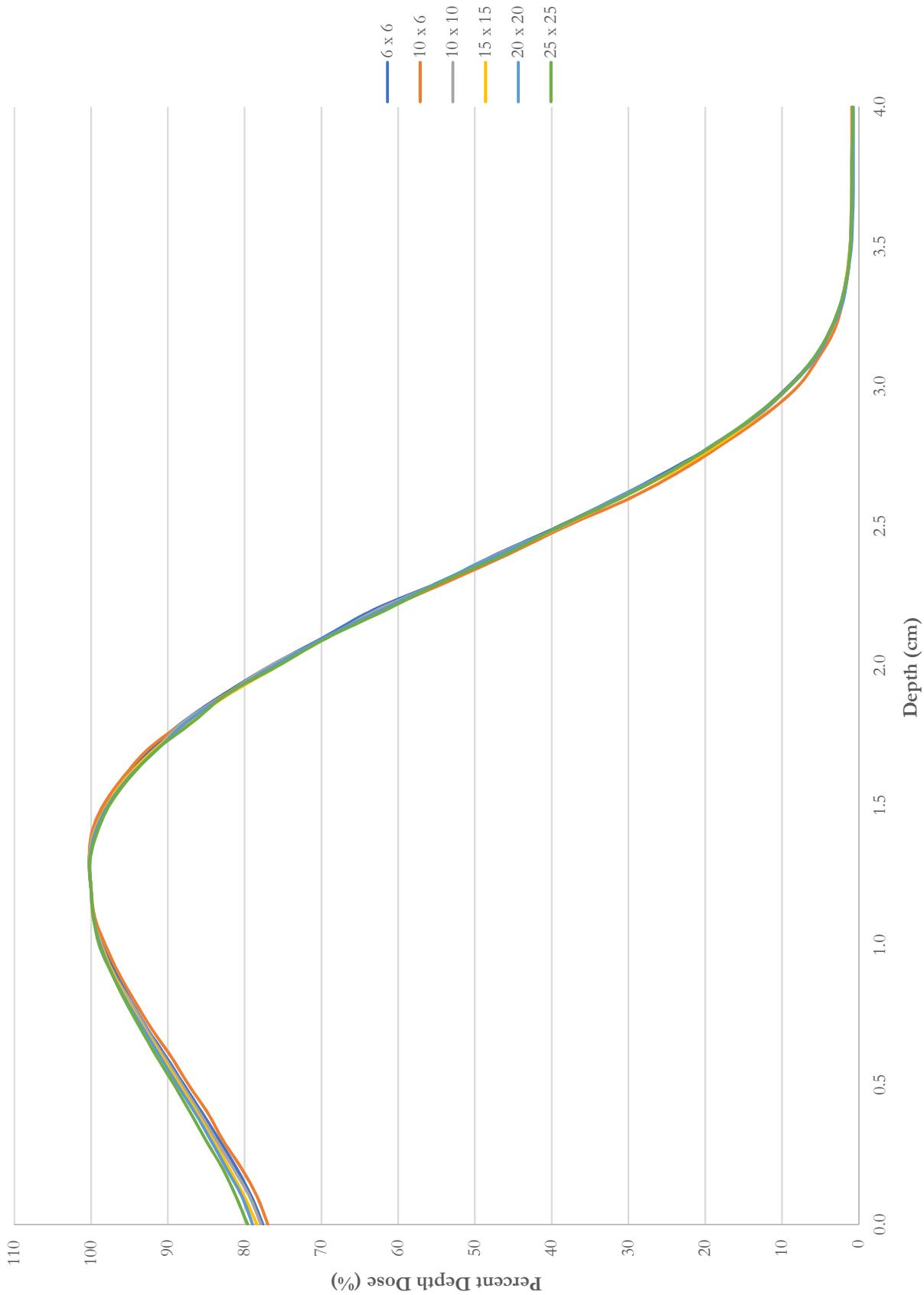
Electron Energies

Electron Energies

PDDs, Factors, & ESSD

Normalized to 1.2 cm	Electron PDD - 6 MeV					
	Landauer Cancer Institute - Jackson, WY					
	Varian TrueBeam #9999					
Depth (cm)	6 x 6	10 x 6	10 x 10	15 x 15	20 x 20	25 x 25
0.0	77.6	77.0	77.9	78.4	79.0	79.6
0.1	79.1	78.4	79.4	80.1	80.4	81.1
0.2	81.0	80.4	81.5	82.0	82.4	82.9
0.3	83.2	82.8	83.7	84.1	84.4	85.0
0.4	85.6	84.8	85.9	86.2	86.5	87.1
0.5	87.9	87.3	88.2	88.5	88.8	89.2
0.6	90.2	89.6	90.5	90.7	91.0	91.4
0.7	92.7	92.1	92.8	93.1	93.2	93.5
0.8	94.8	94.3	94.9	95.2	95.4	95.5
0.9	96.8	96.4	97.1	97.1	97.3	97.3
1.0	98.6	98.1	98.7	98.6	98.8	98.9
1.1	99.7	99.5	99.7	99.7	99.7	99.7
1.2	100.0	100.0	100.0	100.0	100.0	100.0
1.3	100.3	100.2	100.2	100.3	100.2	100.2
1.4	99.8	99.9	99.7	99.6	99.5	99.2
1.5	98.1	98.4	97.8	97.9	97.8	97.6
1.6	95.8	95.8	95.4	95.3	95.1	94.9
1.7	92.2	92.6	91.6	91.7	91.4	91.4
1.8	88.0	87.8	87.9	87.2	87.5	86.7
1.9	82.6	82.4	82.3	81.9	82.2	82.2
2.0	76.6	76.1	76.7	75.6	76.2	75.6
2.1	69.8	69.3	69.4	69.4	69.6	69.2
2.2	63.2	61.9	62.7	62.1	62.1	61.5
2.3	54.6	53.6	54.4	54.4	54.5	54.2
2.4	47.1	45.6	46.9	46.4	46.7	46.0
2.5	39.0	38.1	38.7	38.5	38.7	38.9
2.6	31.6	29.8	31.6	31.1	31.5	31.0
2.7	24.7	23.0	24.2	23.9	24.3	24.2
2.8	18.3	17.3	18.5	17.8	18.4	18.3
2.9	13.2	12.1	13.0	12.8	13.0	13.3
3.0	9.2	7.9	9.0	9.0	9.0	9.0
3.1	5.9	5.3	5.8	5.8	5.7	5.9
3.2	3.7	3.2	3.7	3.6	3.7	3.7
3.3	2.3	2.1	2.3	2.2	2.1	2.3
3.4	1.5	1.4	1.6	1.5	1.5	1.5
3.5	1.1	1.1	1.2	1.1	1.0	1.1
3.6	0.9	1.0	1.0	0.9	0.8	1.0
3.7	0.9	0.9	0.9	0.9	0.7	0.9
3.8	0.8	0.9	0.9	0.8	0.7	0.9
3.9	0.8	0.9	0.9	0.8	0.7	0.8
4.0	0.8	0.9	0.8	0.8	0.7	0.8

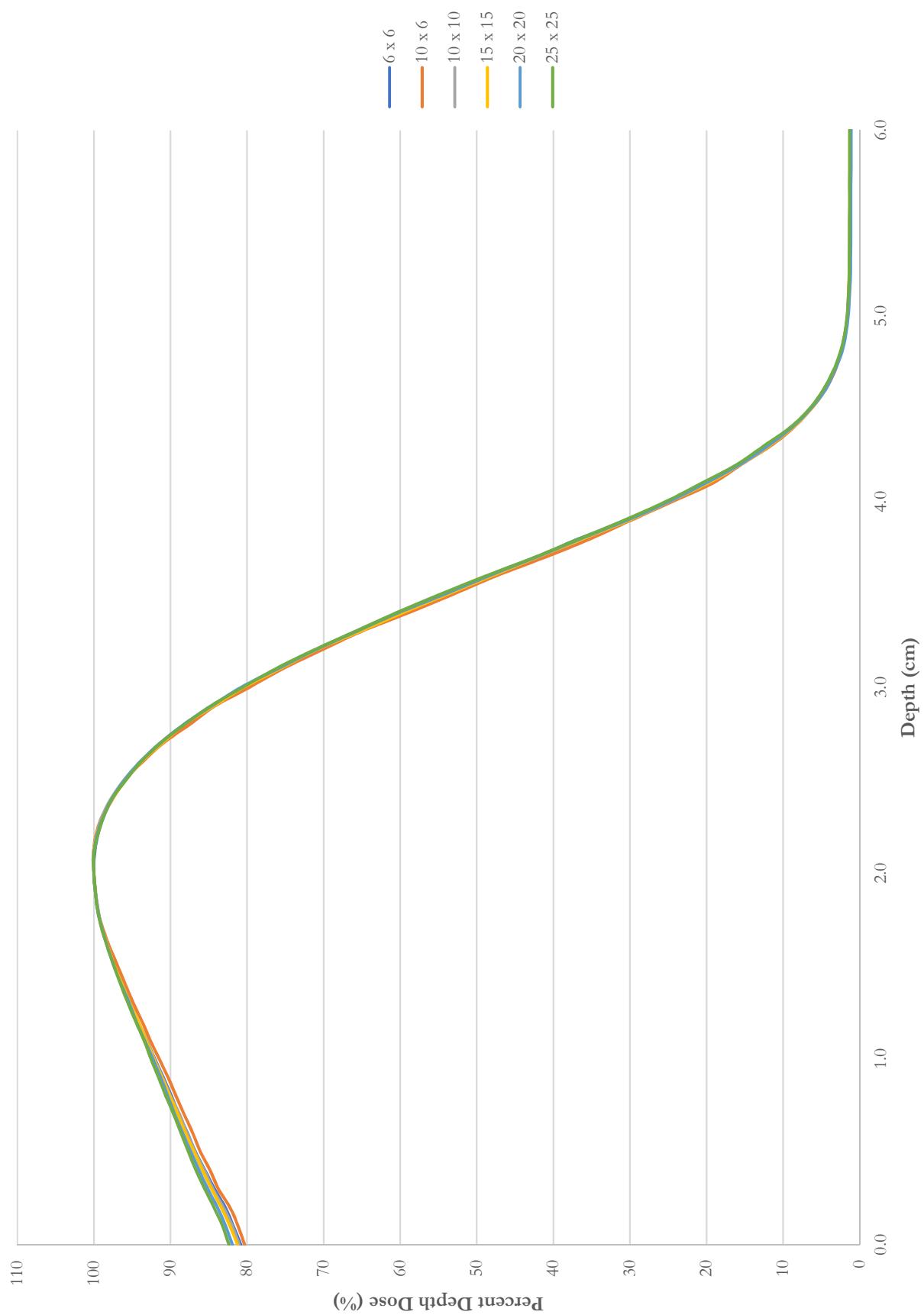
Electron PDD - 6 MeV



Normalized to 2.0 cm	Electron PDD - 9 MeV					
	Landauer Cancer Institute - Jackson, WY					
	Varian TrueBeam #9999					
Depth (cm)	6 x 6	10 x 6	10 x 10	15 x 15	20 x 20	25 x 25
0.0	80.8	80.3	81.0	81.3	81.9	82.4
0.1	81.8	81.2	81.9	82.2	82.8	83.2
0.2	82.8	82.2	83.1	83.4	83.9	84.3
0.3	84.3	83.8	84.4	84.6	85.1	85.5
0.4	85.5	84.8	85.6	85.8	86.3	86.7
0.5	86.8	86.1	86.8	86.9	87.4	87.7
0.6	87.8	87.1	87.8	88.0	88.4	88.6
0.7	88.9	88.2	88.8	89.0	89.4	89.6
0.8	89.9	89.3	90.0	90.1	90.3	90.6
0.9	90.9	90.3	91.0	91.1	91.3	91.6
1.0	92.1	91.5	92.1	92.2	92.3	92.6
1.1	93.1	92.7	93.1	93.2	93.4	93.5
1.2	94.2	93.7	94.3	94.2	94.5	94.5
1.3	95.2	94.8	95.3	95.3	95.4	95.6
1.4	96.2	95.9	96.3	96.3	96.4	96.5
1.5	97.2	96.9	97.3	97.3	97.4	97.4
1.6	98.1	97.9	98.2	98.1	98.2	98.2
1.7	98.9	98.8	99.0	98.9	98.9	98.9
1.8	99.5	99.5	99.4	99.5	99.5	99.5
1.9	99.8	99.8	99.8	99.8	99.8	99.8
2.0	100.0	100.0	100.0	100.0	100.0	100.0
2.1	99.9	100.1	100.1	100.1	100.0	100.0
2.2	99.5	99.8	99.7	99.7	99.6	99.5
2.3	98.8	99.0	99.0	98.9	98.8	98.8
2.4	97.6	97.6	97.8	97.6	97.7	97.6
2.5	95.9	95.9	96.1	95.9	96.0	95.9
2.6	93.9	93.6	94.0	93.8	94.0	93.9
2.7	91.3	91.0	91.4	91.1	91.3	91.3
2.8	88.1	87.5	88.2	88.2	88.3	88.2
2.9	84.5	84.2	84.8	84.3	84.6	84.7
3.0	80.6	79.7	80.6	80.5	80.8	80.6
3.1	75.8	75.4	76.0	75.8	76.0	76.3
3.2	71.1	70.4	71.1	71.1	71.2	71.3
3.3	65.8	65.2	65.7	65.4	65.8	66.0
3.4	60.3	59.1	60.1	59.8	60.4	60.6
3.5	54.4	53.2	54.3	54.0	54.3	54.9
3.6	48.4	47.5	48.2	48.1	48.5	48.9
3.7	42.1	41.2	42.2	42.3	42.4	42.5
3.8	36.8	35.2	36.2	36.2	36.5	36.7
3.9	30.0	29.9	30.2	30.2	30.4	30.8

Normalized to 2.0 cm	Electron PDD - 9 MeV					
	Landauer Cancer Institute - Jackson, WY					
	Varian TrueBeam #9999					
Depth (cm)	6 x 6	10 x 6	10 x 10	15 x 15	20 x 20	25 x 25
4.0	25.2	24.5	24.9	25.0	25.0	25.4
4.1	19.8	19.2	19.9	19.8	20.2	20.7
4.2	15.9	15.5	15.6	15.6	15.7	16.1
4.3	11.9	11.7	11.9	11.9	12.0	12.5
4.4	8.8	8.6	8.8	8.8	8.9	9.1
4.5	6.5	6.3	6.4	6.4	6.4	6.6
4.6	4.7	4.5	4.6	4.6	4.5	4.8
4.7	3.3	3.3	3.4	3.4	3.3	3.5
4.8	2.5	2.4	2.5	2.5	2.4	2.6
4.9	1.9	1.9	2.0	1.9	1.8	2.0
5.0	1.6	1.6	1.6	1.6	1.5	1.7
5.1	1.5	1.4	1.5	1.5	1.3	1.5
5.2	1.4	1.3	1.4	1.4	1.2	1.4
5.3	1.3	1.3	1.4	1.3	1.2	1.3
5.4	1.3	1.3	1.3	1.3	1.2	1.3
5.5	1.3	1.3	1.3	1.3	1.2	1.3
5.6	1.3	1.2	1.3	1.3	1.2	1.3
5.7	1.3	1.2	1.3	1.3	1.1	1.3
5.8	1.3	1.2	1.3	1.3	1.1	1.3
5.9	1.3	1.2	1.3	1.3	1.1	1.3
6.0	1.2	1.2	1.3	1.3	1.1	1.3

Electron PDD - 9 MeV

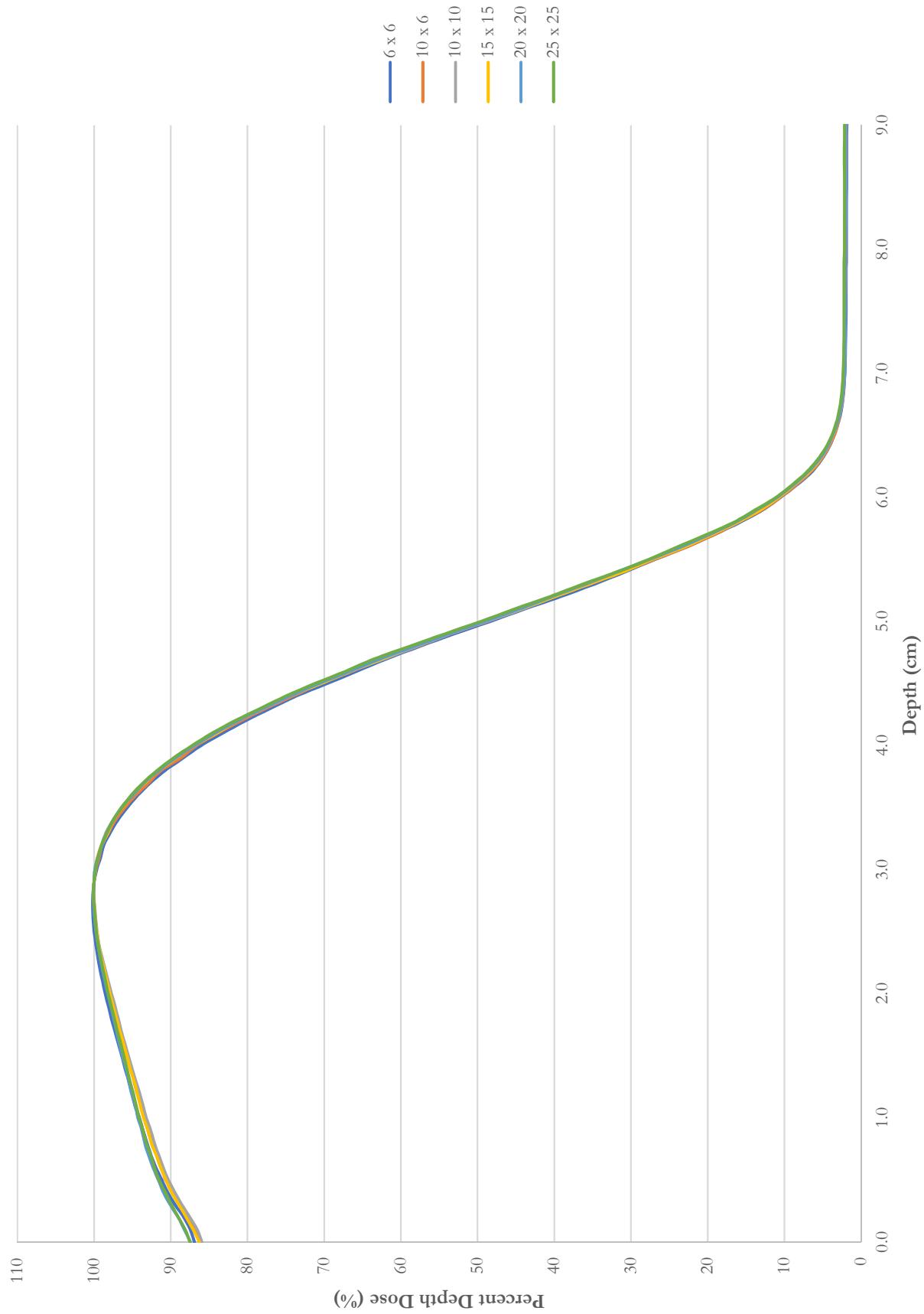


Normalized to 2.9 cm	Electron PDD - 12 MeV					
	Landauer Cancer Institute - Jackson, WY					
	Varian TrueBeam #9999					
Depth (cm)	6 x 6	10 x 6	10 x 10	15 x 15	20 x 20	25 x 25
0.0	86.9	86.2	85.9	86.3	87.4	87.5
0.1	87.5	86.9	86.6	87.1	88.2	88.1
0.2	88.3	87.8	87.5	88.0	89.1	89.0
0.3	89.5	88.9	88.6	88.9	90.1	89.9
0.4	90.4	89.8	89.5	89.9	91.0	90.7
0.5	91.2	90.7	90.3	90.6	91.6	91.5
0.6	92.0	91.2	91.0	91.3	92.3	92.1
0.7	92.6	91.8	91.6	91.9	92.9	92.6
0.8	93.1	92.4	92.2	92.5	93.4	93.2
0.9	93.6	93.0	92.6	93.0	93.8	93.6
1.0	94.1	93.4	93.2	93.5	94.3	94.1
1.1	94.7	93.9	93.6	94.0	94.6	94.5
1.2	95.1	94.4	94.1	94.4	95.1	94.9
1.3	95.5	94.8	94.6	94.8	95.5	95.3
1.4	96.0	95.2	95.1	95.3	95.9	95.7
1.5	96.4	95.8	95.5	95.7	96.3	96.1
1.6	96.9	96.2	96.0	96.2	96.7	96.5
1.7	97.3	96.7	96.5	96.6	97.1	97.0
1.8	97.7	97.2	96.9	97.1	97.4	97.3
1.9	98.1	97.6	97.3	97.5	97.8	97.8
2.0	98.5	98.0	97.7	97.9	98.2	98.2
2.1	98.9	98.4	98.1	98.3	98.6	98.5
2.2	99.2	98.8	98.6	98.7	98.9	98.9
2.3	99.5	99.1	99.0	99.1	99.2	99.2
2.4	99.8	99.5	99.4	99.4	99.5	99.5
2.5	100.0	99.7	99.6	99.6	99.7	99.7
2.6	100.1	99.9	99.8	99.8	99.9	99.9
2.7	100.2	100.0	99.9	100.0	100.0	100.0
2.8	100.1	100.1	100.0	100.1	100.1	100.1
2.9	100.0	100.0	100.0	100.0	100.0	100.0
3.0	99.7	99.8	99.9	99.8	99.9	99.8
3.1	99.2	99.3	99.5	99.5	99.5	99.5
3.2	98.7	98.9	99.0	99.0	99.0	99.0
3.3	97.9	98.1	98.4	98.2	98.3	98.3
3.4	96.9	97.2	97.5	97.5	97.5	97.5
3.5	95.7	96.0	96.4	96.3	96.4	96.4
3.6	94.3	94.6	95.1	95.0	95.0	95.1
3.7	92.7	92.9	93.5	93.4	93.5	93.6
3.8	90.8	91.3	91.7	91.6	91.6	91.8
3.9	88.4	88.7	89.4	89.3	89.4	89.6

Normalized to 2.9 cm	Electron PDD - 12 MeV					
	Landauer Cancer Institute - Jackson, WY					
	Varian TrueBeam #9999					
Depth (cm)	6 x 6	10 x 6	10 x 10	15 x 15	20 x 20	25 x 25
4.0	86.1	86.7	87.0	87.0	86.9	87.2
4.1	83.2	83.8	84.2	84.0	84.2	84.6
4.2	80.3	80.9	81.3	81.3	81.3	81.6
4.3	77.0	77.6	77.9	78.0	78.0	78.3
4.4	73.6	74.0	74.4	74.6	74.5	75.0
4.5	69.7	70.5	70.5	70.4	70.7	71.2
4.6	65.7	66.3	66.6	66.5	66.6	67.2
4.7	61.9	62.4	62.2	62.4	62.7	63.4
4.8	57.6	57.8	57.9	58.5	58.3	58.9
4.9	53.1	53.6	53.6	53.8	53.8	54.3
5.0	48.4	48.9	48.9	49.3	49.2	49.6
5.1	43.9	44.3	44.2	44.5	44.6	45.2
5.2	39.2	40.1	40.0	39.9	40.4	40.6
5.3	34.9	35.5	35.6	35.6	36.0	36.4
5.4	30.8	31.2	31.3	31.1	31.8	31.9
5.5	26.9	26.9	27.2	27.3	27.6	27.7
5.6	22.8	22.9	23.2	23.1	23.5	24.0
5.7	19.2	19.2	19.6	19.5	19.8	20.2
5.8	15.8	16.0	16.1	16.1	16.4	16.6
5.9	12.8	12.9	13.3	13.1	13.6	13.8
6.0	10.5	10.6	10.8	10.8	11.0	11.1
6.1	8.4	8.5	8.7	8.8	8.9	9.0
6.2	6.5	6.7	6.9	6.9	7.0	7.2
6.3	5.2	5.3	5.4	5.5	5.5	5.7
6.4	4.2	4.3	4.4	4.5	4.5	4.6
6.5	3.5	3.5	3.7	3.7	3.7	3.8
6.6	3.0	3.0	3.1	3.1	3.1	3.2
6.7	2.6	2.6	2.7	2.8	2.7	2.9
6.8	2.4	2.4	2.4	2.5	2.5	2.6
6.9	2.2	2.3	2.3	2.4	2.3	2.4
7.0	2.1	2.2	2.2	2.3	2.2	2.3
7.1	2.1	2.1	2.2	2.2	2.1	2.3
7.2	2.0	2.1	2.1	2.2	2.1	2.3
7.3	2.0	2.1	2.1	2.2	2.1	2.2
7.4	2.0	2.1	2.1	2.2	2.1	2.2
7.5	2.0	2.0	2.1	2.2	2.1	2.2
7.6	2.0	2.0	2.1	2.2	2.1	2.2
7.7	1.9	2.0	2.1	2.2	2.1	2.2
7.8	1.9	2.0	2.0	2.1	2.1	2.2
7.9	1.9	2.0	2.1	2.1	2.1	2.2

Normalized to 2.9 cm	Electron PDD - 12 MeV					
	Landauer Cancer Institute - Jackson, WY					
Depth (cm)	Varian TrueBeam #9999					
	6 x 6	10 x 6	10 x 10	15 x 15	20 x 20	25 x 25
8.0	1.9	2.0	2.1	2.1	2.0	2.2
8.1	1.9	2.0	2.0	2.1	2.0	2.2
8.2	1.9	2.0	2.0	2.1	2.0	2.2
8.3	1.9	2.0	2.0	2.1	2.0	2.2
8.4	1.9	2.0	2.0	2.1	2.0	2.2
8.5	1.9	2.0	2.0	2.1	2.0	2.2
8.6	1.9	2.0	2.0	2.1	2.0	2.2
8.7	1.9	2.0	2.0	2.1	2.0	2.2
8.8	1.9	2.0	2.0	2.1	2.0	2.2
8.9	1.9	2.0	2.0	2.1	2.0	2.2
9.0	1.9	2.0	2.0	2.1	2.0	2.2

Electron PDD - 12 MeV

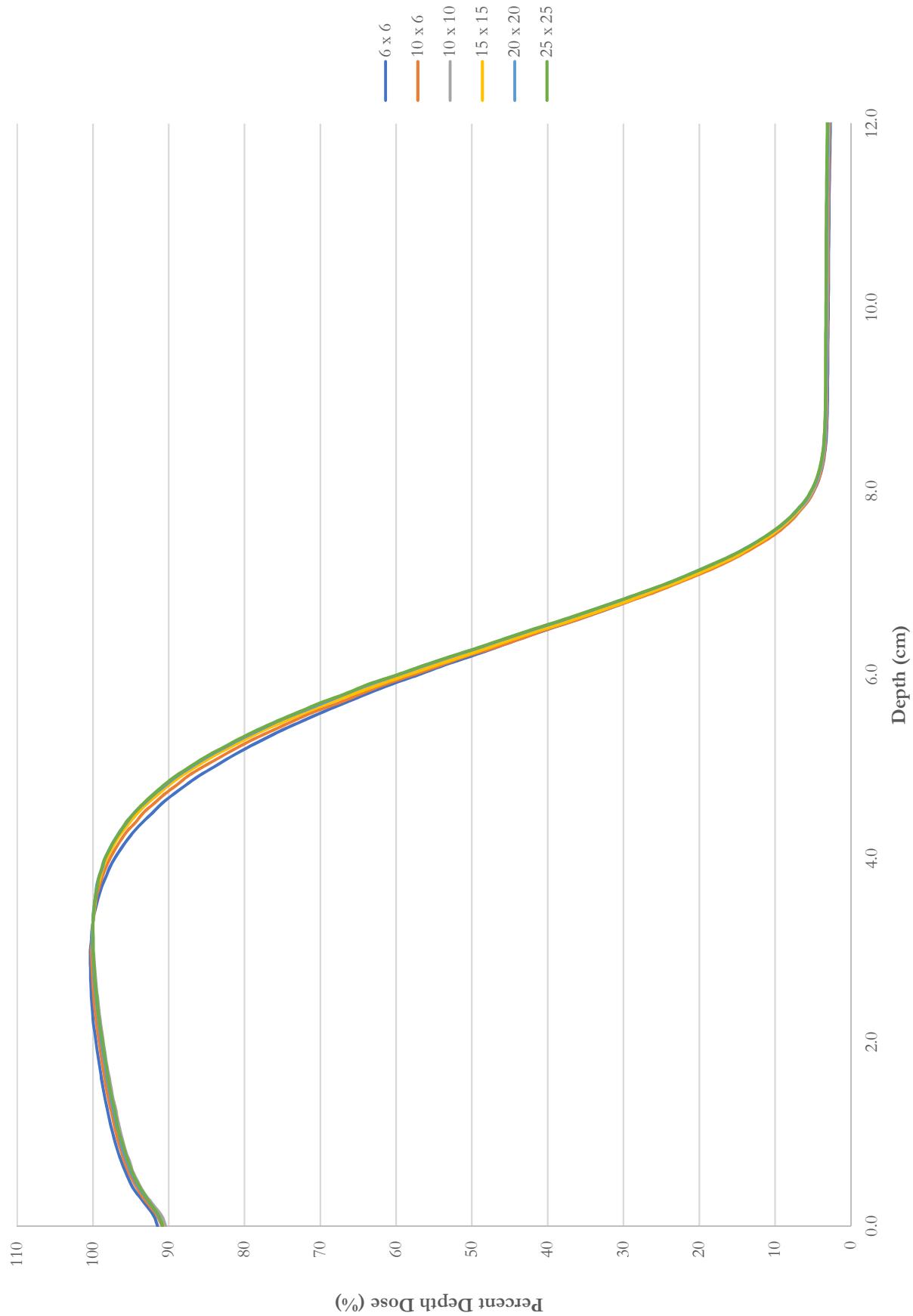


Normalized to 3.3 cm	Electron PDD - 15 MeV					
	Landauer Cancer Institute - Jackson, WY					
	Varian TrueBeam #9999					
Depth (cm)	6 x 6	10 x 6	10 x 10	15 x 15	20 x 20	25 x 25
0.0	91.5	90.9	90.4	90.7	90.8	90.8
0.1	91.9	91.5	90.9	91.3	91.3	91.2
0.2	92.7	92.3	91.8	92.1	92.1	92.0
0.3	93.7	93.3	92.7	93.0	93.0	92.9
0.4	94.6	94.1	93.6	93.7	93.8	93.7
0.5	95.2	94.8	94.2	94.4	94.5	94.3
0.6	95.8	95.3	94.8	94.9	95.1	94.9
0.7	96.2	95.8	95.2	95.4	95.5	95.3
0.8	96.7	96.2	95.6	95.8	96.0	95.7
0.9	97.0	96.6	96.0	96.2	96.3	96.1
1.0	97.4	96.9	96.3	96.5	96.5	96.5
1.1	97.7	97.2	96.6	96.8	96.9	96.8
1.2	97.9	97.4	96.8	97.1	97.2	97.0
1.3	98.2	97.7	97.1	97.3	97.4	97.2
1.4	98.4	98.0	97.4	97.6	97.7	97.5
1.5	98.7	98.2	97.6	97.8	97.9	97.8
1.6	98.9	98.4	97.8	98.0	98.1	98.0
1.7	99.0	98.6	98.1	98.3	98.3	98.1
1.8	99.2	98.8	98.3	98.5	98.5	98.3
1.9	99.4	99.0	98.4	98.7	98.7	98.5
2.0	99.6	99.2	98.6	98.8	98.9	98.7
2.1	99.8	99.3	98.8	99.0	99.0	98.9
2.2	99.9	99.5	99.0	99.2	99.2	99.1
2.3	100.0	99.7	99.1	99.3	99.3	99.3
2.4	100.1	99.8	99.3	99.5	99.5	99.4
2.5	100.2	99.9	99.4	99.6	99.6	99.5
2.6	100.3	100.0	99.6	99.7	99.7	99.6
2.7	100.3	100.1	99.7	99.8	99.8	99.7
2.8	100.3	100.1	99.8	99.9	99.9	99.8
2.9	100.4	100.2	99.9	100.0	100.0	99.9
3.0	100.3	100.2	99.9	100.0	100.0	100.0
3.1	100.2	100.1	99.9	100.1	100.1	100.0
3.2	100.1	100.1	100.0	100.0	100.1	100.0
3.3	100.0	100.0	100.0	100.0	100.0	100.0
3.4	99.8	99.9	99.9	99.9	99.9	99.9
3.5	99.5	99.7	99.8	99.7	99.8	99.8
3.6	99.2	99.5	99.7	99.6	99.6	99.6
3.7	98.8	99.1	99.5	99.4	99.5	99.4
3.8	98.3	98.8	99.1	99.0	99.2	99.2
3.9	97.8	98.3	98.7	98.7	98.7	98.8

Normalized to 3.3 cm	Electron PDD - 15 MeV					
	Landauer Cancer Institute - Jackson, WY					
	Varian TrueBeam #9999					
Depth (cm)	6 x 6	10 x 6	10 x 10	15 x 15	20 x 20	25 x 25
4.0	97.1	97.8	98.3	98.2	98.4	98.4
4.1	96.3	97.1	97.7	97.5	97.8	97.8
4.2	95.5	96.3	97.1	96.9	97.2	97.1
4.3	94.5	95.5	96.4	96.1	96.4	96.3
4.4	93.4	94.3	95.4	95.1	95.5	95.6
4.5	92.1	93.3	94.5	94.1	94.5	94.5
4.6	90.9	91.9	93.3	92.8	93.3	93.4
4.7	89.4	90.6	91.7	91.4	91.9	92.0
4.8	87.7	88.9	90.2	90.0	90.4	90.6
4.9	86.0	87.4	88.8	88.3	88.8	89.1
5.0	84.0	85.4	86.8	86.4	86.9	87.2
5.1	82.0	83.3	84.8	84.4	85.0	85.3
5.2	79.8	81.1	82.7	82.2	82.8	83.1
5.3	77.4	78.8	80.3	79.9	80.5	80.8
5.4	75.0	76.1	77.6	77.4	78.0	78.3
5.5	72.3	73.5	75.1	74.6	75.4	75.6
5.6	69.5	70.7	72.1	71.7	72.4	72.7
5.7	66.6	67.4	69.0	68.5	69.4	69.8
5.8	63.6	64.4	65.9	65.3	66.4	66.5
5.9	60.5	61.3	62.9	62.0	63.4	63.6
6.0	57.0	57.7	59.2	58.5	59.8	59.9
6.1	53.8	54.3	55.7	54.9	56.3	56.5
6.2	50.2	50.9	52.3	51.2	52.7	52.8
6.3	46.7	46.8	48.3	47.6	48.9	49.0
6.4	43.3	43.3	44.7	44.1	45.3	45.5
6.5	39.8	39.9	41.0	40.4	41.6	41.8
6.6	36.1	36.1	37.2	36.6	37.8	38.0
6.7	32.6	32.7	33.6	33.0	34.3	34.4
6.8	29.3	29.3	30.3	29.5	30.8	30.8
6.9	26.2	25.8	26.8	26.4	27.3	27.5
7.0	23.0	22.8	23.5	23.2	24.1	24.1
7.1	20.1	19.8	20.7	20.2	21.2	21.2
7.2	17.6	17.1	17.9	17.5	18.3	18.4
7.3	15.0	14.6	15.2	14.9	15.7	15.7
7.4	12.8	12.5	13.1	12.9	13.5	13.4
7.5	10.8	10.5	11.1	10.9	11.4	11.4
7.6	9.2	8.9	9.3	9.3	9.6	9.7
7.7	7.8	7.6	7.9	7.9	8.2	8.2
7.8	6.6	6.6	6.7	6.8	7.0	7.1
7.9	5.6	5.6	5.7	5.9	5.9	6.0

Normalized to 3.3 cm	Electron PDD - 15 MeV					
	Landauer Cancer Institute - Jackson, WY					
	Varian TrueBeam #9999					
Depth (cm)	6 x 6	10 x 6	10 x 10	15 x 15	20 x 20	25 x 25
8.0	4.9	4.9	5.0	5.1	5.2	5.3
8.1	4.3	4.3	4.5	4.6	4.6	4.7
8.2	4.0	4.0	4.1	4.2	4.2	4.3
8.3	3.7	3.7	3.8	3.9	3.9	4.0
8.4	3.5	3.5	3.6	3.7	3.7	3.7
8.5	3.3	3.4	3.5	3.5	3.5	3.6
8.6	3.2	3.3	3.4	3.5	3.4	3.5
8.7	3.2	3.2	3.3	3.4	3.4	3.4
8.8	3.1	3.2	3.3	3.4	3.4	3.4
8.9	3.1	3.2	3.2	3.4	3.3	3.4
9.0	3.1	3.2	3.2	3.3	3.3	3.4
9.1	3.1	3.1	3.2	3.3	3.3	3.4
9.2	3.1	3.1	3.2	3.3	3.3	3.3
9.3	3.0	3.1	3.2	3.3	3.3	3.3
9.4	3.0	3.1	3.2	3.3	3.3	3.3
9.5	3.0	3.1	3.2	3.3	3.3	3.3
9.6	3.0	3.1	3.2	3.3	3.3	3.3
9.7	3.0	3.1	3.2	3.3	3.3	3.3
9.8	3.0	3.1	3.2	3.3	3.2	3.3
9.9	3.0	3.1	3.1	3.2	3.2	3.3
10.0	3.0	3.1	3.1	3.2	3.2	3.3
10.1	3.0	3.0	3.1	3.2	3.2	3.3
10.2	3.0	3.0	3.1	3.2	3.2	3.3
10.3	2.9	3.0	3.1	3.2	3.2	3.3
10.4	2.9	3.0	3.1	3.2	3.2	3.3
10.5	2.9	3.0	3.1	3.2	3.2	3.3
10.6	2.9	3.0	3.1	3.2	3.2	3.3
10.7	2.9	3.0	3.1	3.2	3.2	3.3
10.8	2.9	3.0	3.1	3.2	3.2	3.3
10.9	2.9	3.0	3.1	3.2	3.2	3.3
11.0	2.9	3.0	3.1	3.2	3.2	3.2
11.1	2.9	3.0	3.0	3.2	3.2	3.2
11.2	2.9	2.9	3.0	3.2	3.2	3.2
11.3	2.8	2.9	3.0	3.2	3.1	3.2
11.4	2.8	2.9	3.0	3.1	3.1	3.2
11.5	2.8	2.9	3.0	3.1	3.1	3.2
11.6	2.8	2.9	3.0	3.1	3.1	3.2
11.7	2.8	2.9	3.0	3.1	3.1	3.2
11.8	2.7	2.8	2.9	3.1	3.1	3.1
11.9	2.7	2.8	2.9	3.0	3.1	3.1
12.0	2.7	2.8	2.9	3.0	3.0	3.1

Electron PDD - 15 MeV

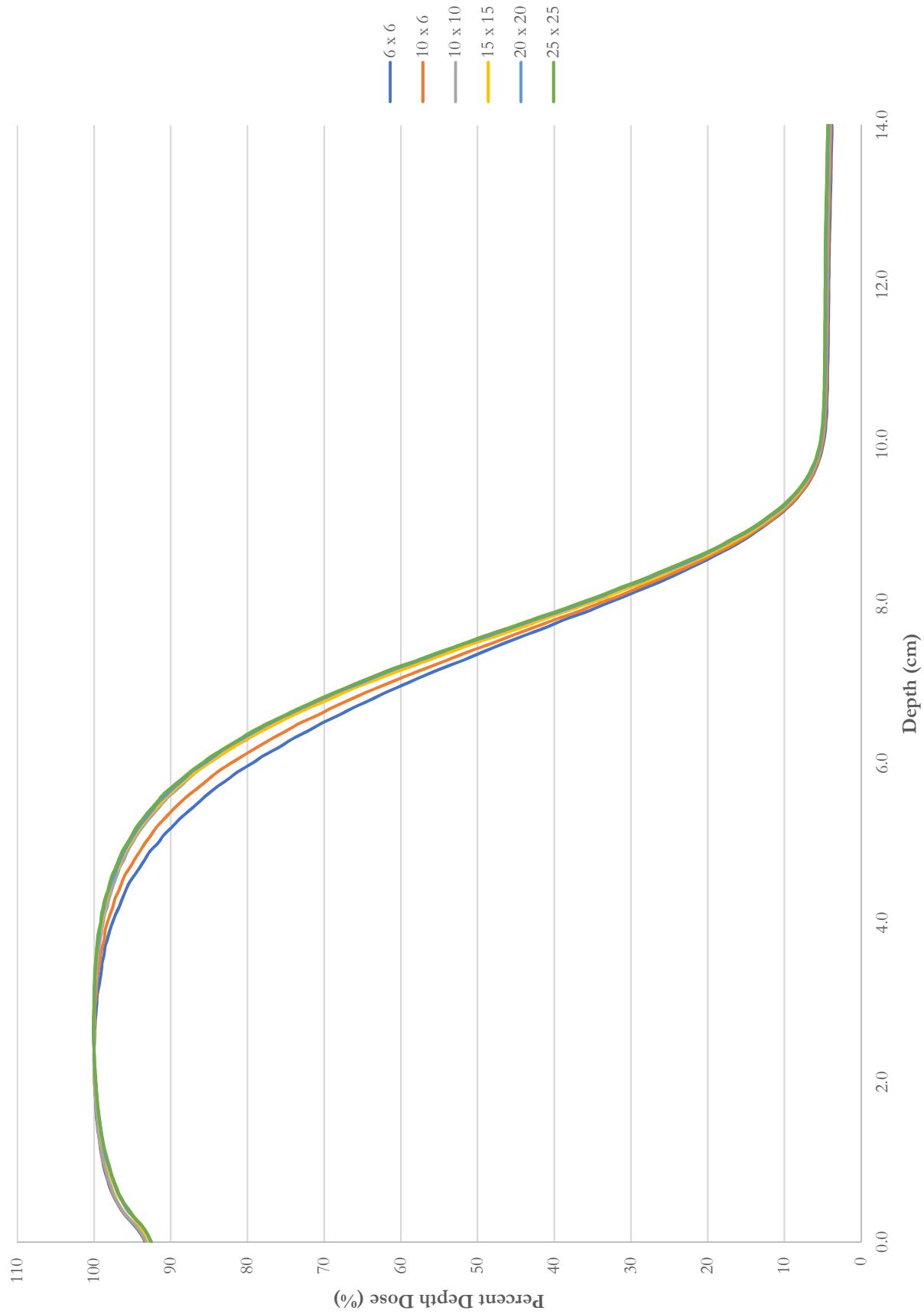


Normalized to 2.4 cm	Electron PDD - 18 MeV					
	Landauer Cancer Institute - Jackson, WY					
	Varian TrueBeam #9999					
Depth (cm)	6 x 6	10 x 6	10 x 10	15 x 15	20 x 20	25 x 25
0.0	93.3	93.3	93.2	92.7	92.6	92.5
0.1	93.9	93.8	93.7	93.3	93.1	93.0
0.2	94.7	94.5	94.5	94.1	93.8	93.7
0.3	95.6	95.6	95.5	94.9	94.7	94.7
0.4	96.5	96.4	96.3	95.7	95.6	95.4
0.5	97.0	97.0	97.0	96.3	96.2	96.1
0.6	97.6	97.5	97.5	96.9	96.8	96.7
0.7	98.0	97.9	97.8	97.3	97.2	97.1
0.8	98.3	98.2	98.2	97.7	97.6	97.6
0.9	98.6	98.5	98.5	98.1	97.9	97.9
1.0	98.9	98.8	98.7	98.3	98.3	98.1
1.1	99.0	99.0	98.9	98.5	98.6	98.5
1.2	99.2	99.2	99.2	98.8	98.8	98.7
1.3	99.3	99.3	99.3	99.0	98.9	98.9
1.4	99.5	99.4	99.4	99.2	99.1	99.1
1.5	99.6	99.6	99.5	99.3	99.3	99.3
1.6	99.7	99.7	99.6	99.4	99.4	99.4
1.7	99.8	99.7	99.7	99.5	99.5	99.5
1.8	99.8	99.8	99.8	99.6	99.6	99.6
1.9	99.9	99.9	99.9	99.7	99.7	99.7
2.0	99.9	99.9	99.9	99.8	99.8	99.8
2.1	100.0	100.0	99.9	99.9	99.9	99.8
2.2	100.0	100.0	100.0	99.9	99.9	99.9
2.3	100.0	100.0	100.0	100.0	100.0	100.0
2.4	100.0	100.0	100.0	100.0	100.0	100.0
2.5	99.9	100.0	100.0	100.0	100.0	100.0
2.6	99.9	100.0	100.0	100.0	100.1	100.1
2.7	99.9	100.0	100.0	100.0	100.1	100.0
2.8	99.8	99.9	100.0	100.0	100.0	100.1
2.9	99.7	99.9	100.0	100.0	100.0	100.1
3.0	99.6	99.8	99.9	100.0	100.0	100.0
3.1	99.6	99.7	99.9	100.0	99.9	100.0
3.2	99.4	99.7	99.8	99.9	99.9	100.0
3.3	99.2	99.6	99.7	99.8	99.9	99.9
3.4	99.0	99.4	99.7	99.8	99.8	99.9
3.5	98.9	99.3	99.6	99.7	99.7	99.8
3.6	98.7	99.1	99.4	99.6	99.7	99.7
3.7	98.6	98.9	99.3	99.5	99.6	99.6
3.8	98.2	98.7	99.2	99.4	99.4	99.5
3.9	98.0	98.6	99.0	99.2	99.3	99.4

Normalized to 2.4 cm	Electron PDD - 18 MeV					
	Landauer Cancer Institute - Jackson, WY					
	Varian TrueBeam #9999					
Depth (cm)	6 x 6	10 x 6	10 x 10	15 x 15	20 x 20	25 x 25
4.0	97.6	98.3	98.8	99.0	99.1	99.1
4.1	97.2	97.9	98.6	98.8	98.9	99.0
4.2	96.7	97.6	98.3	98.6	98.7	98.8
4.3	96.3	97.3	98.1	98.3	98.5	98.6
4.4	95.9	96.8	97.7	98.0	98.1	98.2
4.5	95.4	96.4	97.4	97.8	97.8	97.9
4.6	94.7	96.0	97.0	97.3	97.4	97.6
4.7	94.0	95.3	96.6	96.8	97.0	97.2
4.8	93.3	94.7	96.1	96.4	96.5	96.7
4.9	92.7	94.0	95.6	95.9	96.1	96.3
5.0	91.7	93.3	95.0	95.3	95.5	95.7
5.1	90.9	92.6	94.4	94.6	94.8	95.1
5.2	89.8	91.9	93.7	94.0	94.2	94.5
5.3	88.9	90.9	92.9	93.2	93.4	93.7
5.4	87.7	89.9	92.0	92.3	92.5	92.9
5.5	86.5	88.8	91.1	91.3	91.7	91.9
5.6	85.4	87.7	90.1	90.3	90.6	91.1
5.7	84.0	86.4	88.9	89.2	89.5	89.9
5.8	82.6	85.1	87.8	87.9	88.3	88.7
5.9	81.2	83.8	86.6	86.6	87.2	87.4
6.0	79.4	82.2	85.1	85.1	85.6	86.0
6.1	77.8	80.5	83.5	83.5	84.2	84.5
6.2	75.9	78.8	82.0	81.9	82.7	82.8
6.3	74.3	77.0	80.1	80.2	80.9	81.1
6.4	72.2	75.1	78.3	78.2	79.0	79.4
6.5	70.4	73.2	76.4	76.2	77.1	77.4
6.6	68.2	70.9	74.3	74.1	75.0	75.2
6.7	66.1	68.9	72.1	71.8	72.7	73.1
6.8	63.9	66.6	69.8	69.4	70.5	70.8
6.9	61.7	64.3	67.4	67.1	68.2	68.4
7.0	59.3	61.8	64.7	64.6	65.4	65.9
7.1	56.9	59.2	62.3	61.9	62.9	63.4
7.2	54.4	56.5	59.6	59.1	60.3	60.7
7.3	51.7	53.8	56.7	56.2	57.3	57.7
7.4	49.2	51.2	53.8	53.5	54.5	54.9
7.5	46.7	48.3	51.0	50.6	51.7	51.8
7.6	44.0	45.6	47.8	47.5	48.5	49.1
7.7	41.2	42.7	44.8	44.4	45.5	45.9
7.8	38.7	40.0	41.9	41.6	42.6	43.0
7.9	35.8	37.0	38.8	38.7	39.4	39.9

Normalized to 2.4 cm	Electron PDD - 18 MeV					
	Landauer Cancer Institute - Jackson, WY					
	Varian TrueBeam #9999					
Depth (cm)	6 x 6	10 x 6	10 x 10	15 x 15	20 x 20	25 x 25
8.0	33.3	34.3	36.0	35.7	36.5	37.0
8.1	30.7	31.5	33.0	32.9	33.7	34.1
8.2	28.2	29.1	30.6	30.3	31.2	31.5
8.3	25.6	26.5	27.7	27.5	28.3	28.7
8.4	23.4	24.1	25.3	25.2	25.8	26.2
8.5	21.2	21.8	22.7	22.8	23.2	23.7
8.6	19.2	19.7	20.4	20.3	20.8	21.2
8.7	17.1	17.6	18.3	18.2	18.8	19.0
8.8	15.3	15.7	16.4	16.2	16.8	17.1
8.9	13.8	14.1	14.5	14.4	14.9	15.2
9.0	12.3	12.4	12.9	12.9	13.2	13.4
9.1	10.9	11.0	11.5	11.5	11.8	12.0
9.2	9.7	9.8	10.1	10.2	10.4	10.6
9.3	8.6	8.7	9.0	9.1	9.3	9.5
9.4	7.7	7.8	8.1	8.1	8.3	8.5
9.5	7.0	7.1	7.3	7.4	7.5	7.6
9.6	6.4	6.4	6.7	6.7	6.8	7.0
9.7	5.9	6.0	6.1	6.2	6.3	6.4
9.8	5.5	5.6	5.7	5.8	5.8	6.0
9.9	5.2	5.3	5.4	5.5	5.5	5.7
10.0	4.9	5.0	5.2	5.3	5.3	5.4
10.1	4.8	4.9	5.0	5.1	5.1	5.2
10.2	4.6	4.8	4.9	5.0	5.0	5.1
10.3	4.6	4.7	4.8	4.9	4.9	5.0
10.4	4.5	4.6	4.8	4.8	4.8	4.9
10.5	4.5	4.6	4.7	4.8	4.8	4.9
10.6	4.4	4.5	4.7	4.7	4.7	4.9
10.7	4.4	4.5	4.7	4.7	4.7	4.8
10.8	4.4	4.5	4.6	4.7	4.7	4.8
10.9	4.4	4.5	4.6	4.7	4.7	4.8
11.0	4.3	4.5	4.6	4.7	4.7	4.8
11.1	4.3	4.4	4.6	4.7	4.6	4.8
11.2	4.3	4.4	4.6	4.6	4.6	4.8
11.3	4.3	4.4	4.6	4.6	4.6	4.7
11.4	4.3	4.4	4.5	4.6	4.6	4.7
11.5	4.3	4.4	4.5	4.6	4.6	4.7
11.6	4.3	4.4	4.5	4.6	4.6	4.7
11.7	4.2	4.4	4.5	4.6	4.6	4.7
11.8	4.2	4.3	4.5	4.6	4.6	4.7
11.9	4.2	4.3	4.5	4.6	4.6	4.7
12.0	4.2	4.3	4.5	4.6	4.6	4.7

Electron PDD - 18 MeV



Electron Applicator Output Factors 100 SSD
Landauer Cancer Institute - Jackson, WY
Varian TrueBeam #9999
Normalized to 10x10

Applicator	MeV				
	6	9	12	15	18
6 x 6 cm	0.947	0.986	0.956	0.971	0.986
10 x 6 cm	0.811	0.942	0.976	0.976	0.988
10 x 10 cm	1.000	1.000	1.000	1.000	1.000
15 x 15 cm	1.002	0.997	1.003	0.998	0.986
20 x 20 cm	1.044	1.010	1.003	0.986	0.972
25 x 25 cm	1.066	1.011	0.991	0.975	0.960
d _{max} (cm) nominal	1.2	2.0	2.9	3.3	2.4

Electron Applicator Output Factors 105 SSD
Normalized to 10x10 at 100 SSD

Applicator	MeV				
	6	9	12	15	18
6 x 6 cm	0.827	0.877	0.852	0.868	0.877
10 x 6 cm	0.711	0.838	0.873	0.875	0.880
10 x 10 cm	0.891	0.898	0.897	0.900	0.895
15 x 15 cm	0.898	0.897	0.905	0.901	0.888
20 x 20 cm	0.939	0.912	0.906	0.893	0.880
25 x 25 cm	0.960	0.911	0.897	0.882	0.869

Electron Applicator Output Factors 110 SSD
Normalized to 10x10 at 100 SSD

Applicator	MeV				
	6	9	12	15	18
6 x 6 cm	0.724	0.784	0.766	0.784	0.788
10 x 6 cm	0.628	0.752	0.785	0.789	0.791
10 x 10 cm	0.800	0.811	0.813	0.813	0.806
15 x 15 cm	0.809	0.812	0.819	0.816	0.803
20 x 20 cm	0.849	0.827	0.821	0.812	0.798
25 x 25 cm	0.869	0.829	0.813	0.803	0.789

Electron Effective SSD					
Landauer Cancer Institute - Jackson, WY					
Varian TrueBeam #9999					
Applicator	MeV				
	6	9	12	15	18
6 x 6 cm	68.4	80.2	82.3	85.7	81.7
10 x 6 cm	72.2	81.7	83.9	85.6	82.6
10 x 10 cm	83.4	88.6	88.5	88.7	85.2
15 x 15 cm	87.4	90.1	90.8	91.3	90.3
20 x 20 cm	90.9	93.7	92.3	94.5	94.2
25 x 25 cm	91.8	94.0	92.9	94.9	94.8

Effective SSD* calculated from Electron Applicator Output Factors at
100 SSD, 105 SSD, 110 SSD (cm)

* As defined by Kahn

Electron Energies

PDD Beam Data Match Verification

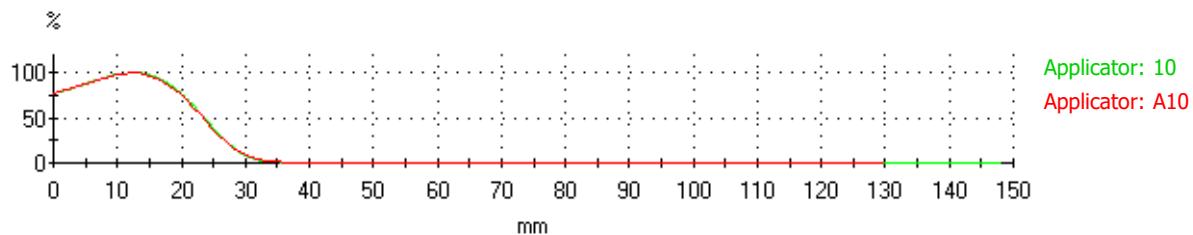
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6 MeV
Print-Date: 2020-01-26 09:55

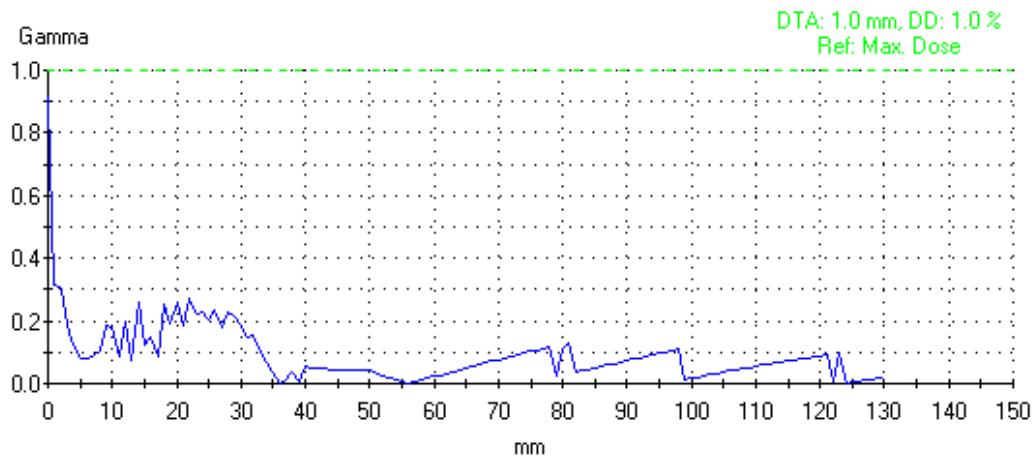
Setup

Measurement Parameters

Energy [MeV]:	6.0
Field Size TG x LR [cm x cm]:	10.0 x 10.0
Profile Type:	PDD
Applicator:	*
Block:	None
Raw/Processed:	Processed



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



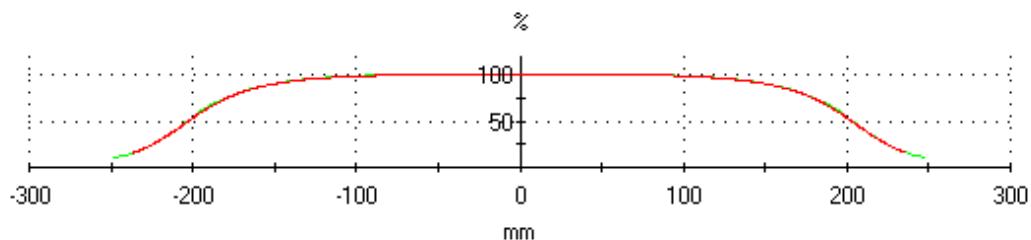
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-01-26 14:54

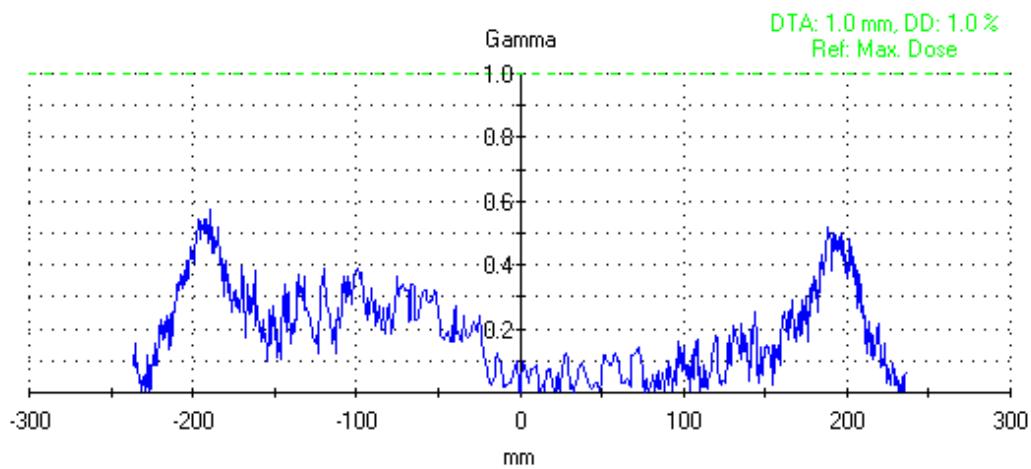
Setup

Measurement Parameters

Energy [MeV]:	6.0
Field Size Inpla. x Cross. [cm x cm]:	40.0 x 40.0
Depth [mm]:	0.0
Profile Type:	Crossplane Profile



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



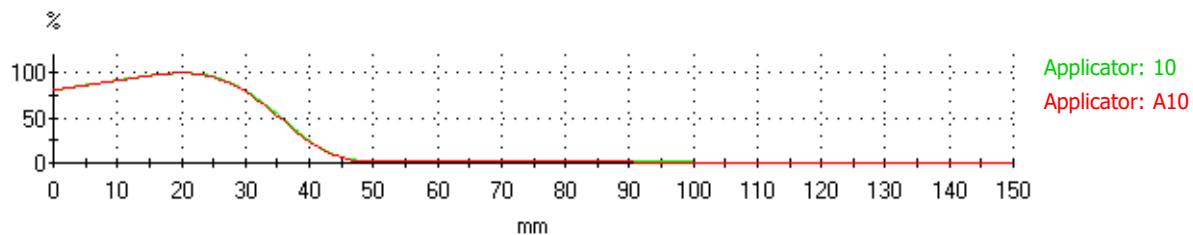
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 9 MeV
Print-Date: 2020-01-26 09:58

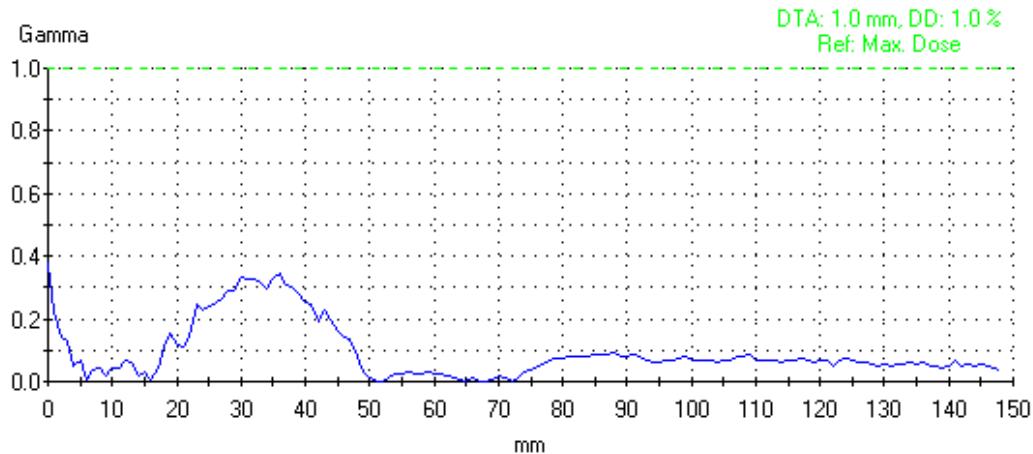
Setup

Measurement Parameters

Energy [MeV]:	9.0
Field Size TG x LR [cm x cm]:	10.0 x 10.0
Profile Type:	PDD
Applicator:	*
Block:	None
Raw/Processed:	Processed



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



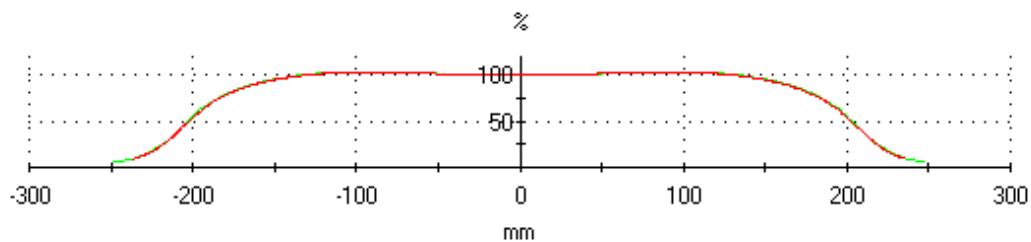
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-01-26 14:54

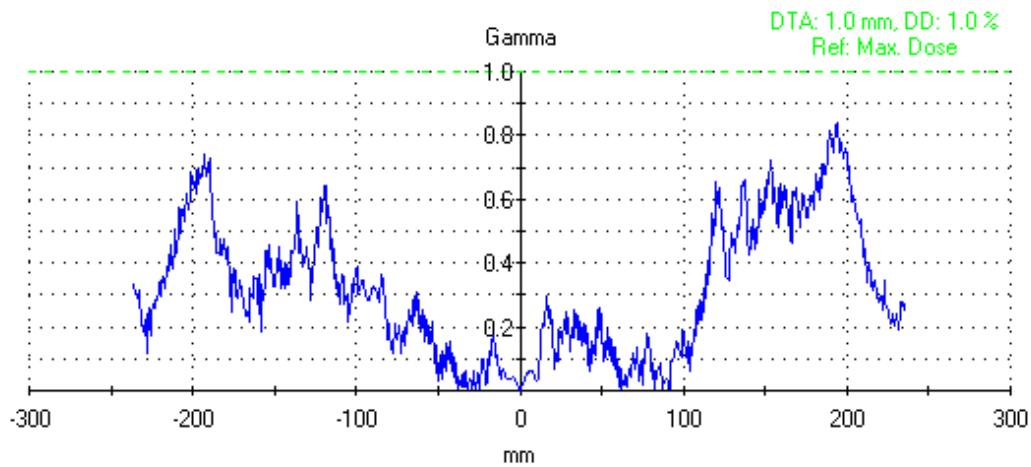
Setup

Measurement Parameters

Energy [MeV]:	9.0
Field Size Inpla. x Cross. [cm x cm]:	40.0 x 40.0
Depth [mm]:	0.0
Profile Type:	Crossplane Profile



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



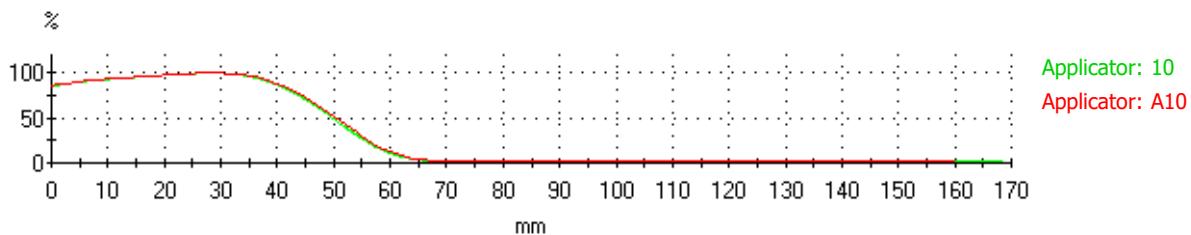
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 12 MeV
Print-Date: 2020-01-26 10:01

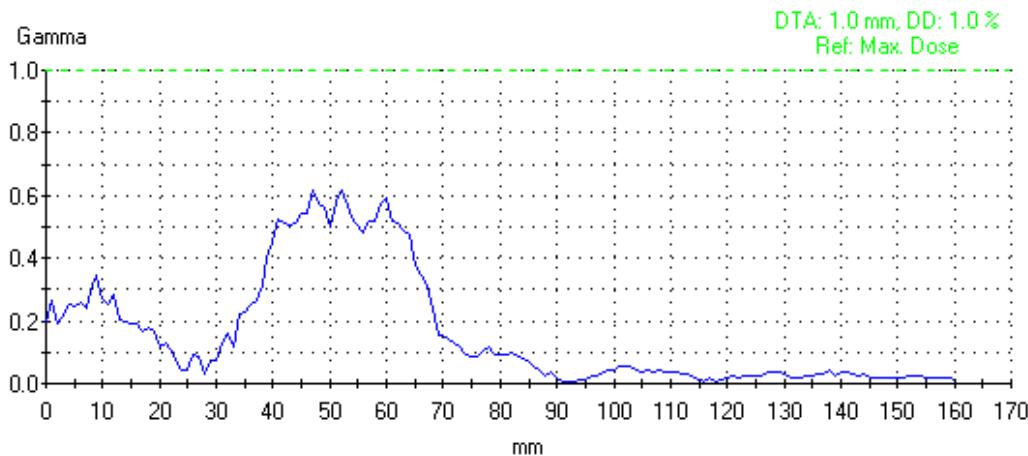
Setup

Measurement Parameters

Energy [MeV]:	12.0
Field Size TG x LR [cm x cm]:	10.0 x 10.0
Profile Type:	PDD
Applicator:	*
Block:	None
Raw/Processed:	Processed



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



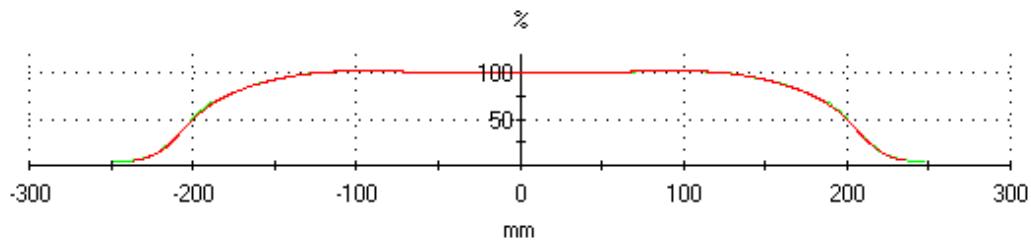
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-01-26 14:55

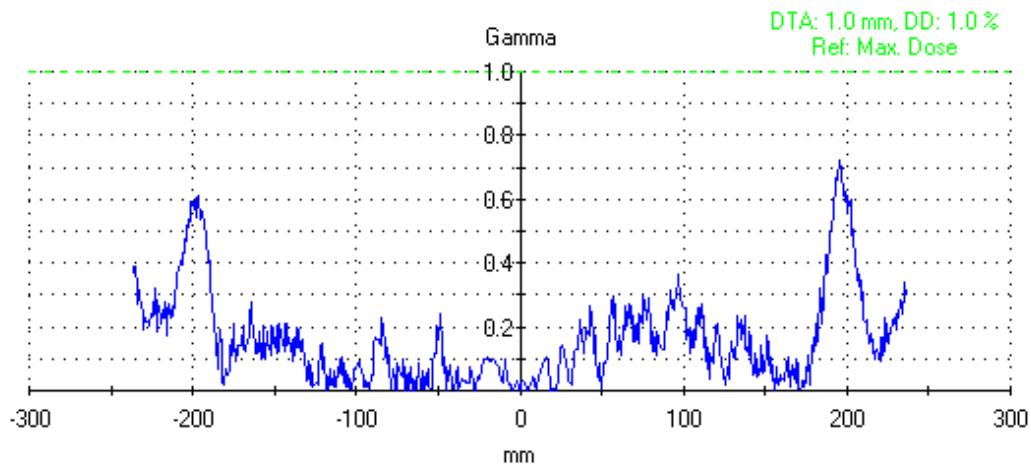
Setup

Measurement Parameters

Energy [MeV]:	12.0
Field Size Inpla. x Cross. [cm x cm]:	40.0 x 40.0
Depth [mm]:	0.0
Profile Type:	Crossplane Profile



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



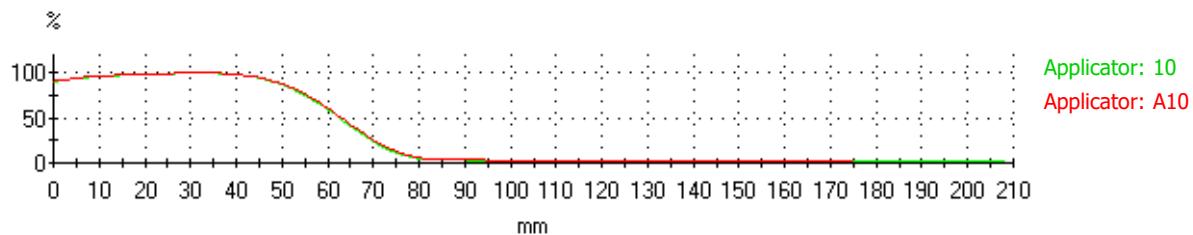
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 15 MeV
Print-Date: 2020-01-26 09:59

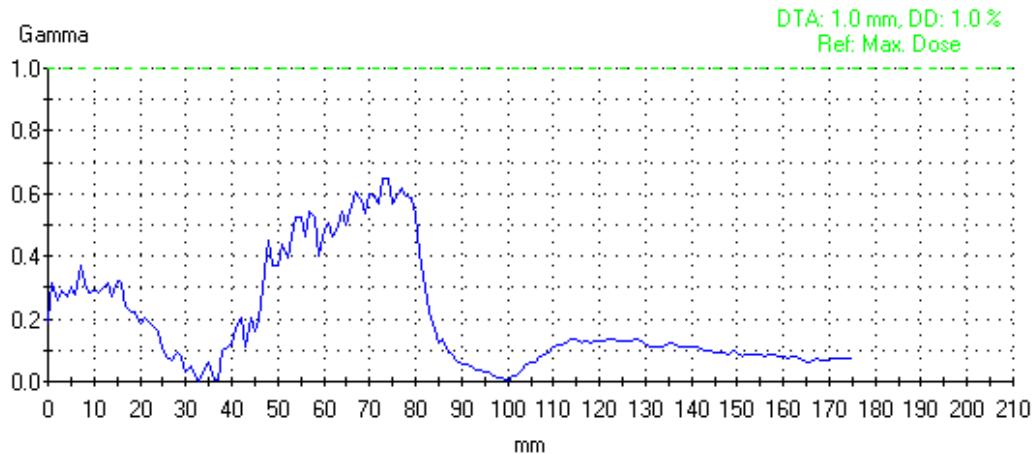
Setup

Measurement Parameters

Energy [MeV]:	15.0
Field Size TG x LR [cm x cm]:	10.0 x 10.0
Profile Type:	PDD
Applicator:	*
Block:	None
Raw/Processed:	Processed



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



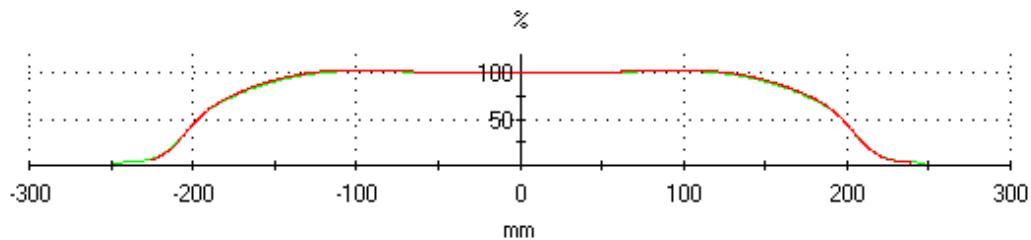
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-01-26 14:56

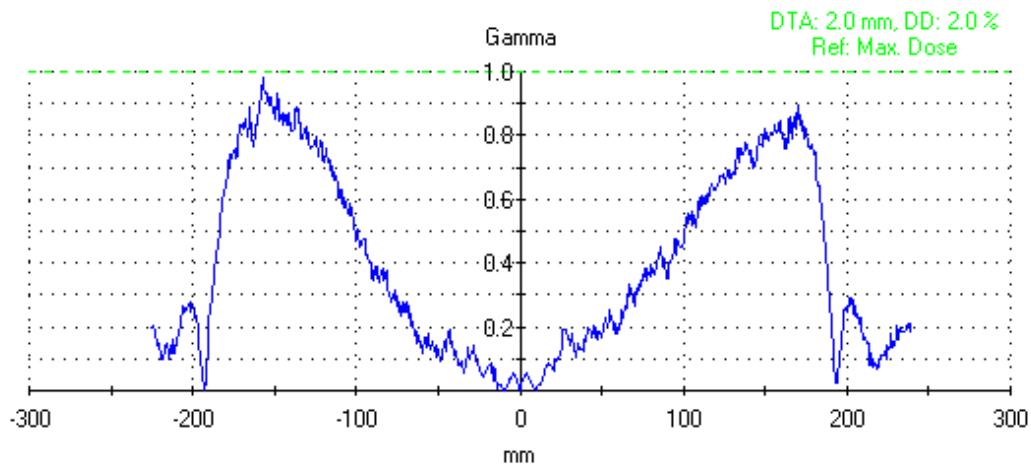
Setup

Measurement Parameters

Energy [MeV]:	15.0
Field Size Inpla. x Cross. [cm x cm]:	40.0 x 40.0
Depth [mm]:	0.0
Profile Type:	Crossplane Profile



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



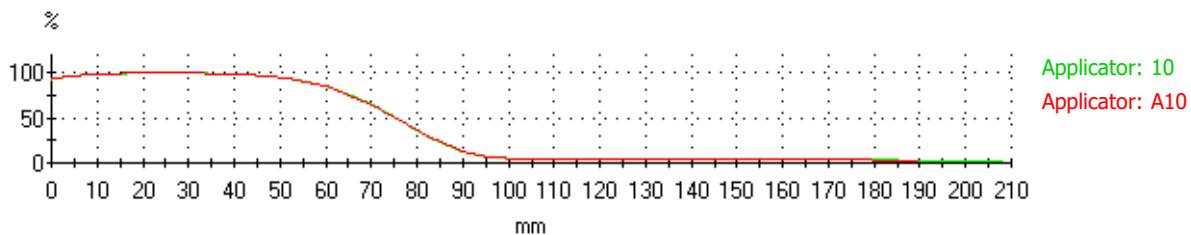
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 18 MeV
Print-Date: 2020-01-26 10:00

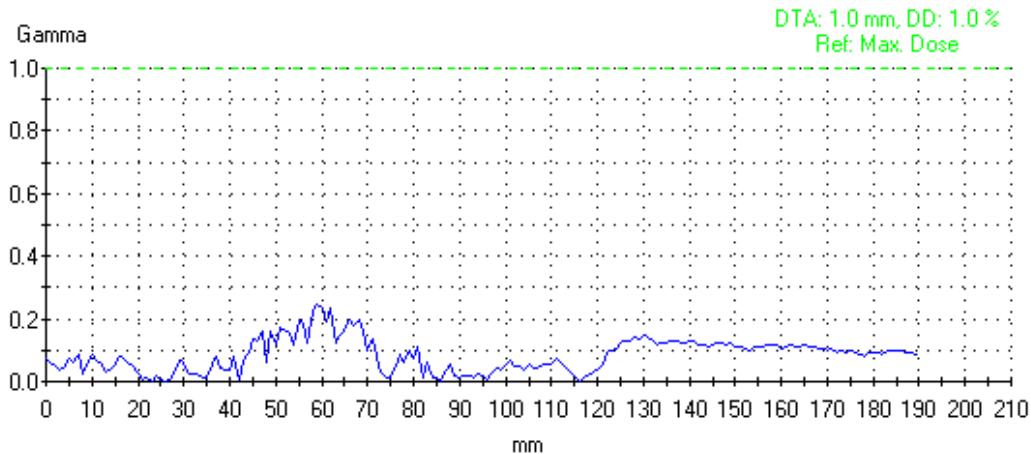
Setup

Measurement Parameters

Energy [MeV]:	18.0
Field Size TG x LR [cm x cm]:	10.0 x 10.0
Profile Type:	PDD
Applicator:	*
Block:	None
Raw/Processed:	Processed



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



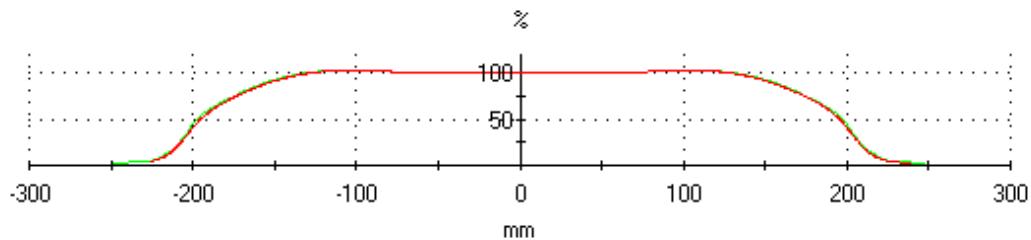
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-01-26 14:57

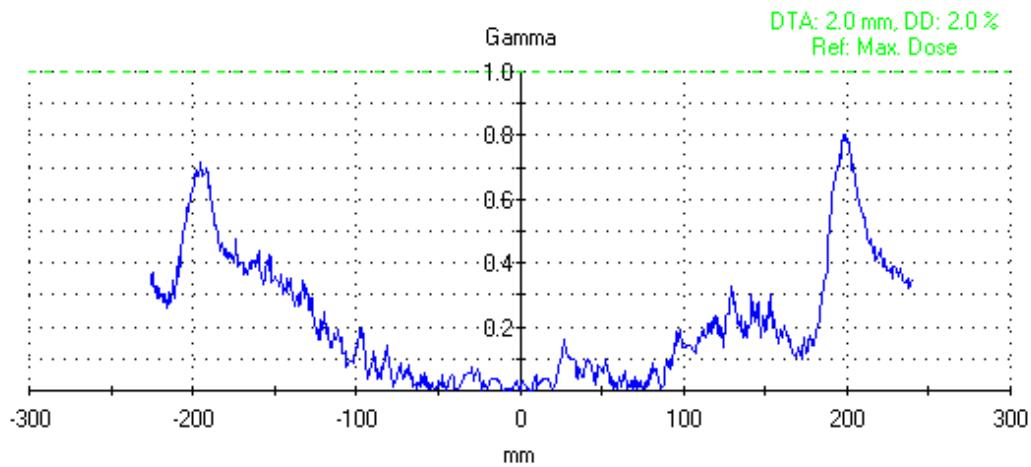
Setup

Measurement Parameters

Energy [MeV]:	18.0
Field Size Inpla. x Cross. [cm x cm]:	40.0 x 40.0
Depth [mm]:	0.0
Profile Type:	Crossplane Profile



1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



Data

Verification Testing

Verification Testing

TPS Summary

Varian Eclipse TPS Commissioning Report

The beam modeling validation testing included the following:

1. Configured new LINAC **TB4285** in RT Administration.
2. Beam models were configured using Varian gold beam data. Verified measured scans and output factors against Varian gold beam data prior to configuring beam models **AAA_11031, ACUROS_11031, DVO_11031, PRO_11031, and EMC_11031**.
3. Completed TPS validation of the AAA and AXB models against point dose measurements for selected beam configurations and all photon energies (patient **LMP, TPS Validation, ID: 99999999**).
4. Completed verification of selected EDW profiles against MapCHECK measurements.

Modeling Specifications

Energies Modeled	
Photons (MV)	6, 10, 6FFF
Electrons (MeV)	6, 9, 12, 15, 18
Calibration Specifications	
Photons	1 cGy/MU at 100 cm SAD, 10x10 cm ² field size at dmax depth
Electrons	1 cGy/MU at 100 cm SSD, 10x10 cm ² applicator at dmax depth

Absolute Dose Calibration for Photons

Energy (MV)	6	10	6FFF
Calibration depth (cm)	1.5	2.4	1.5
Output factor SSD (cm)	95	95	95
Output factor depth (cm)	5	5	5
Open Field Dose Cal (MU/1 Gy)	105.631	99.363	107.672

If you have any questions or comments, please do not hesitate to contact me.

Best regards,

Matthew Daniels, Ph.D., DABR
Medical Physicist – Commissioning Division
LANDAUER Medical Physics

Verification Testing

TPS Point Dose Calculations

Facility: Landauer Cancer Institute - Jackson, WY

Select "SAD" or "SSD" in green cell to define the calibration geometry

TPS Commissioning

Calibration geometry

SAD

Water Phantom

PTW 0.125cc chamber

Temperature (°C)	22.0
Pressure (mm Hg)	760.0

TMR(10x10,D10) 0.7743

Check of SSD/dmax and SAD/dmax readings vs. inverse square

0.0%

Enter TPS MU Here**Enter TPS MU Here**

Energy (MV)	X	Y	depth (cm)	Setup	Wedge	Rdg (pC)	Factor (cGy/MU)	MU to deliver 100cGy to point	TPS MU AAA	TPS Difference	TPS MU AXB	TPS Difference
6	10	10	1.5	SSD		3422	0.970	103.07	102.6	0.45%	104.0	-0.90%
6	10	10	1.5	SAD		3527	1.000	100.0	99.7	0.30%	101.1	-1.10%
6	5	5	5	SAD		3010	0.853	117.2	116.7	0.41%	117.8	-0.53%
6	10	10	5	SAD		3248	0.921	108.6	108.4	0.17%	109.2	-0.56%
6	20	20	5	SAD		3465	0.982	101.8	101.6	0.19%	102.2	-0.40%
6	5	5	10	SAD		2443	0.693	144.4	143.9	0.33%	145.1	-0.50%
6	10	10	10	SAD		2731	0.774	129.1	128.8	0.27%	129.6	-0.35%
6	20	20	10	SAD		3016	0.855	116.9	116.5	0.38%	117.3	-0.31%
6	5	20	10	SAD		2642	0.749	133.5	133.1	0.30%	134.1	-0.45%
6	20	5	10	SAD		2604	0.738	135.4	134.9	0.40%	136.0	-0.41%
6	20	20	10	SAD	Chamber oa 4cm Pat Left (+C)	3028	0.859	116.5	116.4	0.07%	117.1	-0.53%
6	20	20	10	SAD	30EDW toe In coll 90 - oa 4cm heel (+C)	1863	0.528	189.3	189.1	0.12%	189.8	-0.25%
6	5	5	20	SAD		1568	0.445	224.9	224.3	0.28%	223.0	0.86%
6	10	10	20	SAD		1827	0.518	193.0	191.1	1.01%	194.6	-0.80%
6	20	20	20	SAD		2148	0.609	164.2	163.4	0.49%	165.1	-0.55%

TMR(10x10,D10) 0.8459

Check of SSD/dmax and SAD/dmax readings vs. inverse square

-0.1%

Enter TPS MU Here**Enter TPS MU Here**

Energy (MV)	X	Y	depth (cm)	Setup	Wedge	Rdg (pC)	Factor (cGy/MU)	MU to deliver 100cGy to point	TPS MU AAA	TPS Difference	TPS MU AXB	TPS Difference
10	10	10	2.4	SSD		3435	0.952	105.01	104.5	0.48%	106.5	-1.42%
10	10	10	2.4	SAD		3607	1.000	100.0	99.8	0.20%	101.6	-1.60%
10	5	5	5	SAD		3241	0.899	111.3	111.1	0.17%	112.2	-0.82%
10	10	10	5	SAD		3468	0.961	104.0	103.8	0.20%	104.8	-0.76%
10	20	20	5	SAD		3666	1.016	98.4	98.4	-0.01%	99.2	-0.82%
10	5	5	10	SAD		2780	0.771	129.7	129.4	0.27%	130.9	-0.89%
10	10	10	10	SAD		3051	0.846	118.2	118.0	0.19%	119.1	-0.74%
10	20	20	10	SAD		3293	0.913	109.5	109.3	0.21%	110.4	-0.79%
10	5	20	10	SAD		2975	0.825	121.2	121.1	0.12%	122.3	-0.87%
10	20	5	10	SAD		2923	0.810	123.4	123.3	0.08%	124.6	-0.97%
10	20	20	10	SAD	Chamber oa 4cm Pat Left (+C)	3339	0.926	108.0	108.5	-0.44%	109.6	-1.46%
10	20	20	10	SAD	30EDW toe In coll 90 - oa 4cm heel (+C)	2223	0.616	162.3	163.1	-0.52%	164.3	-1.26%
10	5	5	20	SAD		1995	0.553	180.8	180.7	0.06%	181.0	-0.11%
10	10	10	20	SAD		2257	0.626	159.8	158.8	0.63%	161.8	-1.24%
10	20	20	20	SAD		2542	0.705	141.9	141.4	0.35%	143.3	-0.99%

TMR(10x10,D10) 0.7378

Check of SSD/dmax and SAD/dmax readings vs. inverse square

0.1%

Enter TPS MU Here**Enter TPS MU Here**

Energy (MV)	X	Y	depth (cm)	Setup	Wedge	Rdg (pC)	Factor (cGy/MU)	MU to deliver 100cGy to point	TPS MU AAA	TPS Difference	TPS MU AXB	TPS Difference
6FFF	10	10	1.5	SSD		3435	0.972	102.91	102.8	0.11%	104.3	-1.35%
6FFF	10	10	1.5	SAD		3535	1.000	100.0	100.1	-0.10%	101.4	-1.40%
6FFF	5	5	5	SAD		3004	0.850	117.7	117.5	0.15%	118.5	-0.70%
6FFF	10	10	5	SAD		3197	0.904	110.6	110.5	0.07%	111.3	-0.66%
6FFF	20	20	5	SAD		3356	0.949	105.3	105.4	-0.06%	106.1	-0.73%
6FFF	5	5	10	SAD		2361	0.668	149.7	149.7	0.02%	150.6	-0.58%
6FFF	10	10	10	SAD		2608	0.738	135.5	135.4	0.11%	136.2	-0.48%
6FFF	20	20	10	SAD		2826	0.799	125.1	125.0	0.07%	125.7	-0.49%
6FFF	5	20	10	SAD		2519	0.713	140.3	140.4	-0.05%	141.3	-0.69%
6FFF	20	5	10	SAD		2500	0.707	141.4	141.3	0.07%	142.3	-0.64%
6FFF	20	20	10	SAD	Chamber oa 4cm Pat Left (+C)	2632	0.745	134.3	134.2	0.08%	134.8	-0.37%
6FFF	5	5	20	SAD		1438	0.407	245.8	246.1	-0.11%	243.9	0.78%
6FFF	10	10	20	SAD		1649	0.466	214.4	212.8	0.73%	216.2	-0.85%
6FFF	20	20	20	SAD		1891	0.535	186.9	186.3	0.34%	188.0	-0.57%

Rev 6 31-Mar-14

Facility: Landauer Cancer Institute - Jackson, WY

LINAC: TrueBeam #9999

Measured MU/100cGy

Algorithm: eMC

TPS MU/100cGy

Applicator	MeV			
	6	9	12	15
6 x 6 cm	105.6	101.4	104.6	103.0
10x6 cm	123.3	106.1	102.4	101.2
10 x 10 cm	100.0	100.0	100.0	100.0
15 x 15 cm	99.8	100.3	99.7	100.2
20 x 20 cm	95.8	99.1	99.7	101.4
25 x 25 cm	93.8	98.9	100.9	102.6

100 SSD

Applicator	MeV			
	6	9	12	15
6 x 6 cm	121.0	114.0	117.4	115.2
10x6 cm	140.6	119.3	114.6	114.3
10 x 10 cm	112.2	111.3	111.4	111.2
15 x 15 cm	111.4	111.5	110.5	110.9
20 x 20 cm	106.5	109.7	110.3	112.0
25 x 25 cm	104.1	109.7	111.5	113.4

100 SSD

Applicator	MeV			
	6	9	12	15
6 x 6 cm	106.4	100.6	103.8	100.7
10x6 cm	124.6	106.6	102.5	101.6
10 x 10 cm	100.8	101.0	102.0	100.1
15 x 15 cm	100.4	100.1	100.0	98.5
20 x 20 cm	96.3	98.0	98.6	100.0
25 x 25 cm	93.0	98.5	100.1	99.8

Applicator	MeV			
	6	9	12	15
6 x 6 cm	118.5	111.0	116.0	114.4
10x6 cm	138.4	118.7	113.6	114.3
10 x 10 cm	112.5	112.3	113.3	112.8
15 x 15 cm	112.1	112.7	111.1	111.6
20 x 20 cm	107.2	109.2	111.1	112.7
25 x 25 cm	104.3	109.3	110.9	113.1

105 SSD

Applicator	MeV			
	6	9	12	15
6 x 6 cm	126.4	127.4	126.6	125.5
10x6 cm	132.9	125.7	126.5	125.5
10 x 10 cm	125.2	125.1	125.2	124.3
15 x 15 cm	125.4	125.1	122.9	123.8
20 x 20 cm	120.2	122.7	122.6	124.9
25 x 25 cm	116.4	121.7	122.6	125.4

100 SSD

Applicator	MeV			
	6	9	12	15
6 x 6 cm	135.6	126.4	127.4	126.6
10x6 cm	159.3	132.9	125.7	126.5
10 x 10 cm	125.2	125.1	125.2	124.3
15 x 15 cm	125.4	125.1	122.7	124.9
20 x 20 cm	120.2	122.7	122.6	124.9
25 x 25 cm	116.4	121.7	122.6	125.4

105 SSD

Applicator	MeV			
	6	9	12	15
6 x 6 cm	2.0%	2.6%	1.2%	0.7%
10x6 cm	1.5%	0.5%	0.9%	0.6%
10 x 10 cm	0.3%	-0.9%	-1.7%	-1.5%
15 x 15 cm	-0.6%	-1.1%	-0.5%	-0.6%
20 x 20 cm	-0.6%	-0.4%	-0.7%	-0.6%
25 x 25 cm	-0.2%	0.4%	0.6%	0.3%

110 SSD

Applicator	MeV			
	6	9	12	15
6 x 6 cm	1.8%	0.9%	2.5%	0.7%
10x6 cm	0.0%	0.1%	1.3%	0.2%
10 x 10 cm	-0.1%	-1.5%	-1.7%	-1.9%
15 x 15 cm	-1.4%	-1.5%	-0.7%	-1.0%
20 x 20 cm	-2.1%	-1.5%	-0.7%	-1.4%
25 x 25 cm	-1.2%	-0.9%	0.4%	-0.7%

110 SSD

Verification Testing

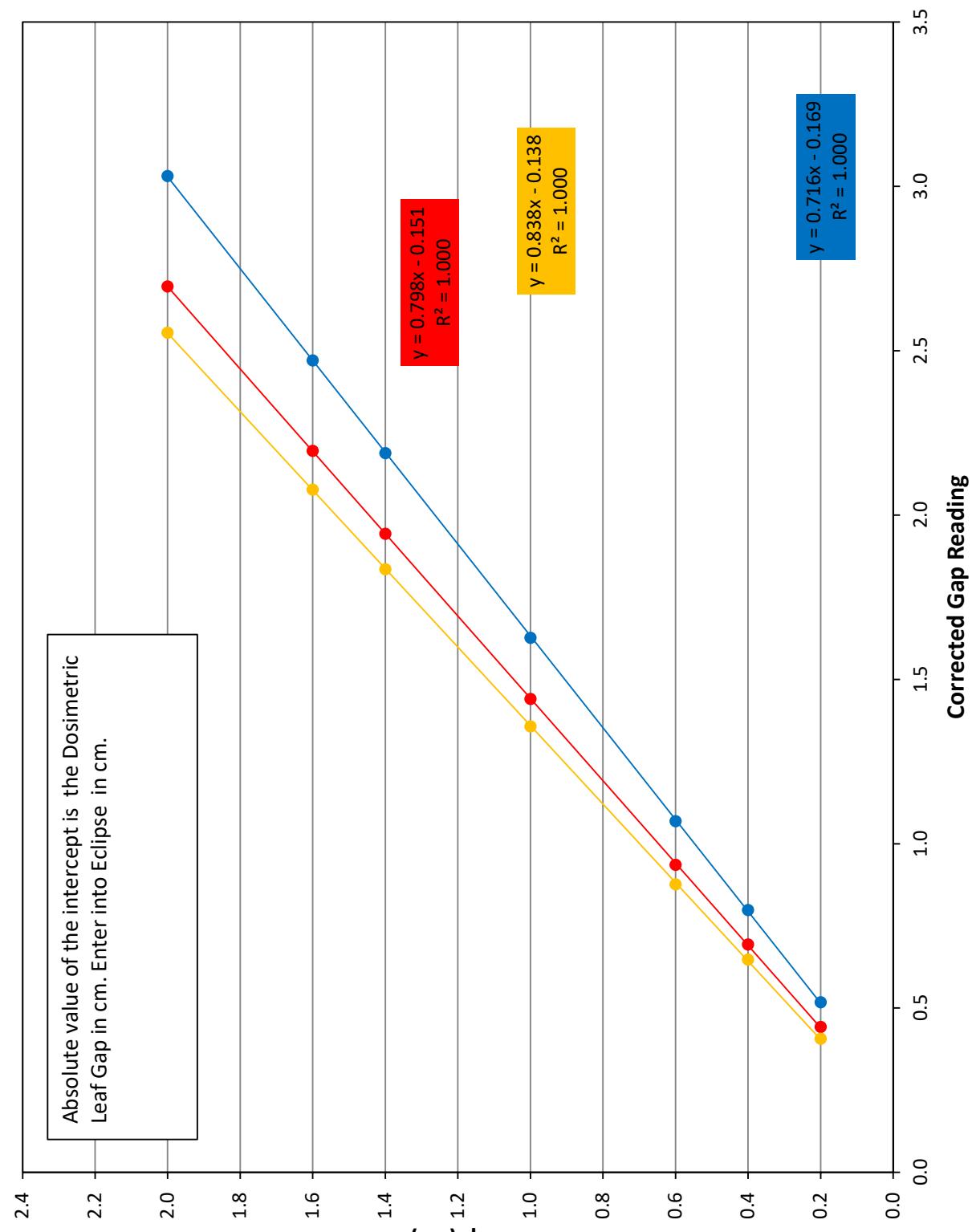
Dosimetric Leaf Gap

Facility: Landauer Cancer Institute - Jackson, WY

Varian TrueBeam S/N 9999 MLC Type: Millenium 120

SETUP: Water phantom, 0.6cc chamber
90cm SSD, d10cm
Continuous Mode

		6 MV	6 FFF	10 MV
R (Open)		15.120	14.380	16.870
$R_{T,A}$ (Transmission, Bank A)		0.209	0.165	0.264
$R_{T,B}$ (Transmission, Bank B)		0.213	0.170	0.276
R_T (Transmission, Average)		0.211	0.168	0.270
	Gap (mm)	Raw gap readings, R_g		
R_g (Gap=2mm)	2	0.650	0.571	0.783
R_g (Gap=4mm)	4	0.897	0.809	1.059
R_g (Gap=6mm)	6	1.136	1.035	1.325
R_g (Gap=10mm)	10	1.634	1.510	1.874
R_g (Gap=14mm)	14	2.129	1.983	2.427
R_g (Gap=16mm)	16	2.378	2.222	2.704
R_g (Gap=20mm)	20	2.871	2.694	3.256
	Gap (cm)	Corrected gap readings, R_g'		
R_g' (Gap=2mm)	0.2	0.443	0.406	0.518
R_g' (Gap=4mm)	0.4	0.693	0.647	0.798
R_g' (Gap=6mm)	0.6	0.936	0.876	1.069
R_g' (Gap=10mm)	1.0	1.441	1.356	1.627
R_g' (Gap=14mm)	1.4	1.943	1.835	2.189
R_g' (Gap=16mm)	1.6	2.195	2.077	2.470
R_g' (Gap=20mm)	2.0	2.695	2.554	3.031
MLC Transmission		0.014	0.012	0.016
Dosimetric Leaf Gap (cm)		0.151	0.138	0.169



Verification Testing

TG-51

TG-51 Dose to Water
Photon Beams

Landauer Cancer Institute - Jackson, WY			
Site Data			
Physicist:	Robert Stanton	Robert Stanton	Robert Stanton
Date:	26-Jan-20	26-Jan-20	26-Jan-20
Linac Make/Model:	TrueBeam	TrueBeam	TrueBeam
Linac Serial Number:	4285	4285	4285
Nominal Photon Energy (MV):	6 MV	10 MV	6FFF
Instrumentation Data			
Chamber Model:	PTW N30013	PTW N30013	PTW N30013
Chamber Serial Number:	009387	009387	009387
Cavity Inner Radius (cm):	0.305	0.305	0.305
$N_{D,W}({}^{60}\text{Co}) \times 10^7 \text{ Gy/C}$:	5.403	5.403	5.403
Date of Calibration:	26-Nov-19	26-Nov-19	26-Nov-19
Electrometer Model:	SuperMax P120032	SuperMax P120032	SuperMax P120032
Electrometer Serial Number:	0.999	0.999	0.999
P_{elec} :	10x10	10x10	10x10
Number of MU:	100	100	100
Measurement Conditions			
Setup (SSD or SAD):	SAD	SAD	SAD
Field Size (cm ²):	10x10	10x10	10x10
Number of MU:	100	100	100
Beam Quality			
Method to Determine %dd(10) _x :	%dd(10):	Equation	Pb foil 50 cm
	%dd(10) _{pp} :	66.2	73.4
	%dd(10) _{pol} :	66.2	73.4
	%dd(10) _{ion} :	0.992	0.981
	k_0 :	0.992	0.981
Operating Voltage (-300 or +300 V):	Temperature (°C):	22.2	22.2
	Pressure (mmHg):	755.5	755.5
	-300	-300	-300
	P_{pp} :	1.007	1.007
	P_{pol} :	1.001	1.000
	P_{ion} :	1.003	1.004
	P_{pp} :	1.000	0.999
	M_{raw} (nC):	15.14	16.89
	Corrected Ion Chamber Rdg, M (nC):	15.28	17.04
	Dose to Water at 10 cm depth (cGy):	81.92	90.33
	Clinical TMR(10, 10x10):	0.774	0.846
$Dose (cGy) / MU at d_{max} :$			
		1.058	1.068
Output Adjustment			
	M_{raw} (nC):	14.31	15.81
$Dose (cGy) / MU at d_{max} :$			
		1.000	1.000

$$M = P_{ion} * P_{pp} * P_{pol} * P_{raw} * M_{raw}$$

$$\text{Dose to Water at 10 cm depth} = M * k_Q * N_{DW}({}^{60}\text{Co})$$

14-Jul-14
Rev 3 (VS)

TG-51 Dose to Water
Electron Beams

Landauer Cancer Institute - Jackson, WY									
Site Data									
Physicist:	Robert Stanton	d _{ref} (mm)	13.0 mm	29.9 mm					
Date:	26-Jan-20	26-Jan-20	26-Jan-20	26-Jan-20	26-Jan-20	26-Jan-20	V _H (V)	-300	37.9 mm
Linac Make/Model:	TrueBeam	TrueBeam	TrueBeam	TrueBeam	TrueBeam	TrueBeam	M(High)	19.08	45.4 mm
Linac Serial Number:	4285	4285	4285	4285	4285	4285	V _L (V)	-150	-300
Nominal Electron Energy (MeV):	6 MeV	9 MeV	12 MeV	15 MeV	18 MeV	18 MeV	M(Low)	-150	-300
Instrumentation Data									
Chamber Model:	PTW N30013	d _{ref} (mm)	13.0 mm	29.9 mm					
Chamber Serial Number:	009387	009387	009387	009387	009387	009387	V _H (V)	-300	37.9 mm
Cavity Inner Radius (cm):	0.305	0.305	0.305	0.305	0.305	0.305	M(High)	19.08	45.4 mm
N _{D,W} (⁶⁰ Co) × 10 ⁷ Gy/C:	5.403	5.403	5.403	5.403	5.403	5.403	V _L (V)	-150	-300
Date of Calibration:	26-Nov-19	26-Nov-19	26-Nov-19	26-Nov-19	26-Nov-19	26-Nov-19	M(Low)	-150	-300
Electrometer Model:	SuperMax	SuperMax	SuperMax	SuperMax	SuperMax	SuperMax	d _{ref} (mm)	13.0 mm	29.9 mm
Electrometer Serial Number:	P120032	P120032	P120032	P120032	P120032	P120032	V _H (V)	-300	37.9 mm
P _{elec} :	0.999	0.999	0.999	0.999	0.999	0.999	M(High)	19.08	45.4 mm
Date of Calibration:	27-Feb-18	27-Feb-18	27-Feb-18	27-Feb-18	27-Feb-18	27-Feb-18	V _L (V)	-150	-300
Measurement Conditions									
Distance SSD (cm):	100	100	100	100	100	100	d _{ref} (mm)	13.0 mm	29.9 mm
Field Size on Surface (cm ²):	10x10	10x10	10x10	10x10	10x10	10x10	V _H (V)	-300	37.9 mm
Number of MU:	100	100	100	100	100	100	M(High)	19.08	45.4 mm
Beam Quality									
I ₀ (mm):	23.2 mm	35.5 mm	50.7 mm	63.7 mm	75.7 mm	75.7 mm	Output Adjustment		
R _{S0} (mm):	23.3 mm	35.9 mm	51.6 mm	64.9 mm	77.3 mm	77.3 mm	d _{ref} + 0.5 r _{cav} (mm)	14.5 mm	31.5 mm
Reference Depth, d _{ref} (mm):	13.0 mm	20.5 mm	29.9 mm	37.9 mm	45.4 mm	45.4 mm	M(d _{ref})	19.69	39.5 mm
k _{cat} :	0.897	0.897	0.897	0.897	0.897	0.897	M(d _{ref} + 0.5 r _{cav})	19.69	39.5 mm
k _{RS0} :	1.0282	1.0172	1.0079	1.0026	0.9991	0.9991	Average	19.70	39.5 mm
Temperature (°C):	22.2	22.2	22.2	22.2	22.2	22.2	d _{ref} (mm)	19.69	39.5 mm
Pressure (mmHg):	755.5	755.5	755.5	755.5	755.5	755.5	V _H (V)	-300	37.9 mm
Operating Voltage (-300 or +300 V):	-300	-300	-300	-300	-300	-300	M(A) (mm)	19.69	39.5 mm
P _{TP} :	1.007	1.007	1.007	1.007	1.007	1.007	M(A) (mm)	19.69	39.5 mm
P _{pol} :	1.001	1.001	1.001	1.001	1.001	1.001	M(A) (mm)	19.69	39.5 mm
P _{ion} :	1.012	1.013	1.012	1.012	1.012	1.012	M(A) (mm)	19.69	39.5 mm
P _{gr} (cyl):	0.999	0.999	0.997	0.995	0.995	0.993	M(A) (mm)	19.69	39.5 mm
M _{raw} (nC):	19.08	19.69	19.14	18.78	18.78	18.52	M(A) (mm)	19.69	39.5 mm
Corrected Chamber R _{eff} , M (nC):	19.46	20.08	19.51	19.13	18.86	18.86	M(A) (mm)	19.69	39.5 mm
Dose to Water at d _{ref} (cGy):	96.82	98.89	94.99	92.49	90.70	90.70	Dose to Water at d _{ref} = M * P _{elec} * P _{pol} * M _{raw}	19.69	39.5 mm
Clinical %dd(d _{ref}):	99.9	99.9	99.9	99.9	99.9	99.9	Dose to Water at d _{ref} = M * P _{elec} * P _{pol} * M _{raw}	19.69	39.5 mm
Dose (cGy) / MU at d _{max} :	0.969	0.990	0.951	0.932	0.934	0.934	Dose to Water at d _{ref} = M * P _{elec} * P _{pol} * M _{raw}	19.69	39.5 mm
Output Adjustment									
M _{raw} (nC):	19.70	19.90	20.14	20.16	20.16	20.16	M(A) (mm)	19.69	39.5 mm
Dose (cGy) / MU at d _{max} :	1.000	1.000	1.001	1.001	1.001	1.001	Dose to Water at d _{ref} = M * P _{elec} * P _{pol} * M _{raw}	19.69	39.5 mm

Verification Testing

RapidArc

RapidArc Commissioning

Location: Landauer Cancer Institute - Jackson, WY

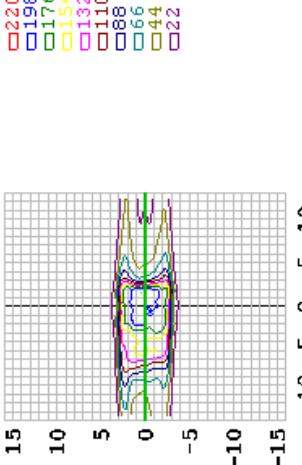
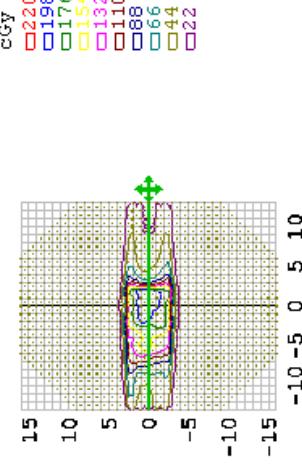
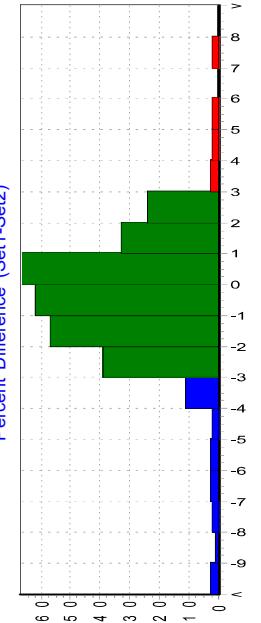
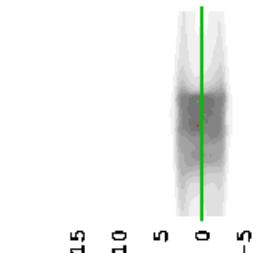
Machine Type: Varian TrueBeam 9999

Date: 1/26/2020

RapidArc Quality Assurance Plans

RapidArc plans were made in Eclipse to verify the functionality of the planning system and the TrueBeam. The plans were made on the RPC head and neck phantom with a two full-rotation RapidArc template. The plans can be found in patient **H/N Phantom, LMP**. The RapidArc plans were measured with a MapCHECK2 in a MapPHAN and analyzed using the gamma metric in the absolute dose mode. RapidArc QA plans had pass rates similar to what has been achieved at other institutions (>95% with 3%/2mm).

	AAA	Acuros XB
Energy (MV)	3%/2mm	3%/2mm
6	99.7%	98.7%
10	97.9%	97.9%
6FFF	98.7%	98.4%

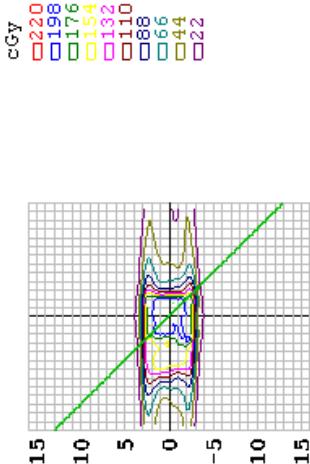
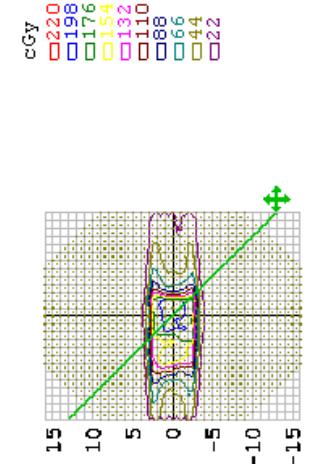
Date: 1/27/2020	MapCHECK 2 QA of Dose Distribution	Hospital Name:
QA File Parameter Patient Name : HN PHANTOM, LMP Patient ID : 9999999999999999 Plan Date : 1/27/2020 SSD : SDD : Depth : Energy : 6x Angle : Absolute Dose Comparison Difference (%) : 3.0 Distance (mm) : 2.0 Threshold (%) : 10.0 Meas Uncertainty : Yes Use Global % : Yes	  Summary (Gamma Analysis) Total Points : 316 Passed : 315 Failed : 1 % Passed : 99.7	 

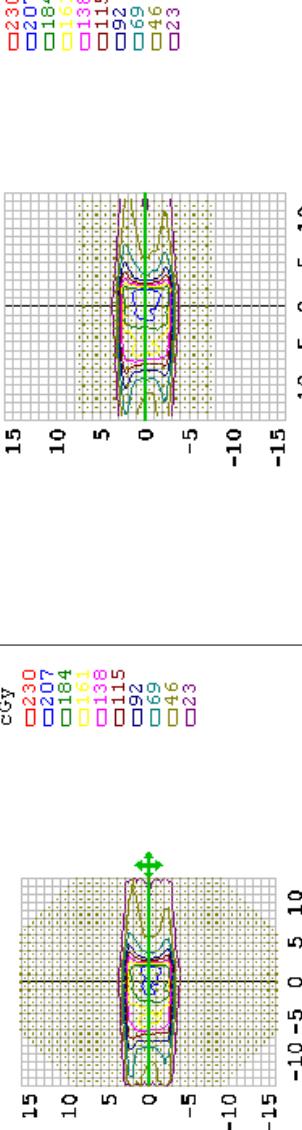
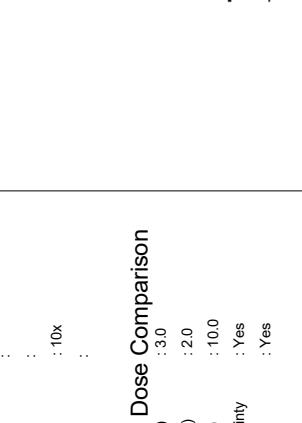
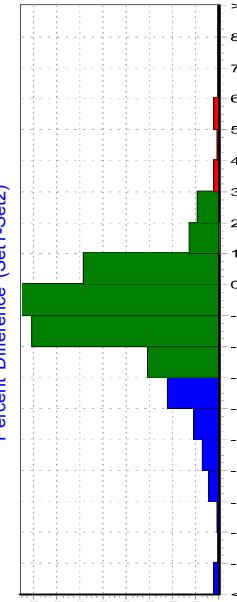
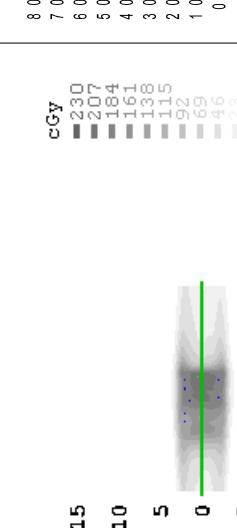
Date: 1/27/2020

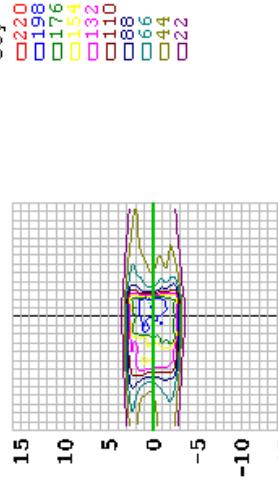
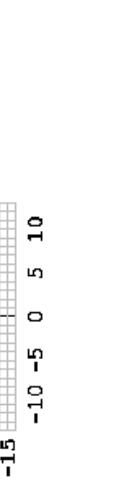
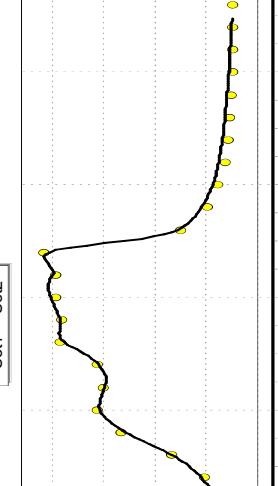
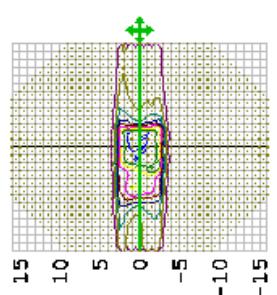
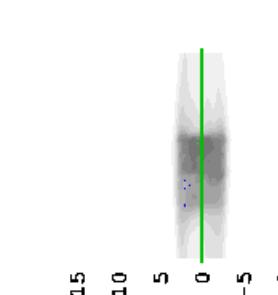
MapCHECK 2 QA of Dose Distribution

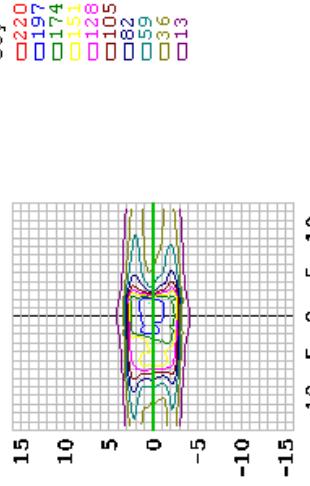
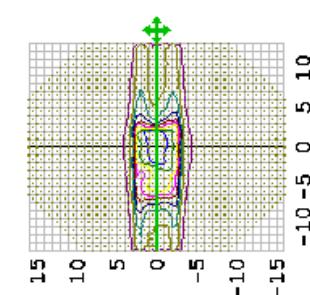
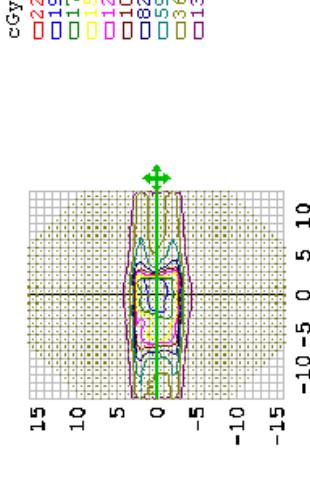
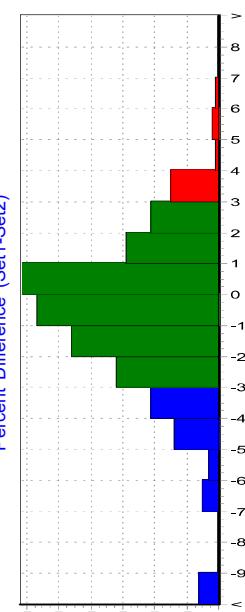
Hospital Name:

QA File Parameter	MapCHECK2	Plan
Patient Name	:HN PHANTOM, LMP	
Patient ID	:999999999999999999	
Plan Date	:1/27/2020	
SSD	:	
SDD	:	
Depth	:6x	
Energy	:	
Angle	:	
Absolute Dose Comparison		
Difference (%)	:3.0	
Distance (mm)	:2.0	
Threshold (%)	:10.0	
Meas Uncertainty	:Yes	
Use Global %	:Yes	
Summary (Gamma Analysis)		
Total Points	:318	
Passed	:314	
Failed	:4	
% Passed	:98.7	
Dose Values in cGy		
	CAX Norm Sel Max	
MapCHECK2	205.04 215.65 205.04 217.74	
Plan	205.05 208.09 205.05 214.99	
MapCHECK2 -0.01	7.56 -0.01 2.75	
-Plan		
% Diff	0.00 3.63 0.00 1.32	
DTA(mm)	0.00 0.00 NA	
Coords (y,x) cm	-15.1 5.0	
Notes	5	
6xAXB	0 -5 -10 -15	

Date: 1/26/2020	MapCHECK 2 QA of Dose Distribution	Hospital Name:
QA File Parameter Patient Name : HN PHANTOM, LMP Patient ID : 999999999999999999 Plan Date : 1/26/2020 SSD : SDD : Depth : Energy : 10x Angle : Absolute Dose Comparison Difference (%) : 3 Distance (mm) : 2.0 Threshold (%) : 10.0 Meas Uncertainty : Yes Use Global % : Yes	  Summary (Gamma Analysis) Total Points : 330 Passed : 323 Failed : 7 % Passed : 97.9	  ...\\10x AAA DLG edit ...

Date: 1/27/2020	MapCHECK 2 QA of Dose Distribution	Hospital Name:																																													
QA File Parameter Patient Name : HN PHANTOM, LMP Patient ID : 9999999999999999 Plan Date : 1/27/2020 SSD : SDD : Depth : Energy : 10x Angle : Absolute Dose Comparison Difference (%) : 3.0 Distance (mm) : 2.0 Threshold (%) : 10.0 Meas Uncertainty : Yes Use Global % : Yes	  Dose Values in cGy <table border="1"> <thead> <tr> <th></th> <th>CAX</th> <th>Norm</th> <th>Sel</th> <th>Max</th> </tr> </thead> <tbody> <tr> <td>MapCHECK2</td> <td>208.28</td> <td>219.56</td> <td>208.28</td> <td>220.77</td> </tr> <tr> <td>Plan</td> <td>211.58</td> <td>220.72</td> <td>211.58</td> <td>221.34</td> </tr> <tr> <td>MapCHECK2 - Plan</td> <td>-3.29</td> <td>-1.15</td> <td>-3.29</td> <td>-0.57</td> </tr> <tr> <td>% Diff</td> <td>-1.49</td> <td>-0.52</td> <td>-1.49</td> <td>-0.26</td> </tr> <tr> <td>DTA(mm)</td> <td>0.00</td> <td>0.00</td> <td>NA</td> <td></td> </tr> <tr> <td>Coords (y,x) cm</td> <td>0.0</td> <td>0.5,1.5</td> <td>0.0</td> <td></td> </tr> <tr> <td>Notes</td> <td>5</td> <td></td> <td></td> <td></td> </tr> <tr> <td>10x AXB</td> <td>0</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		CAX	Norm	Sel	Max	MapCHECK2	208.28	219.56	208.28	220.77	Plan	211.58	220.72	211.58	221.34	MapCHECK2 - Plan	-3.29	-1.15	-3.29	-0.57	% Diff	-1.49	-0.52	-1.49	-0.26	DTA(mm)	0.00	0.00	NA		Coords (y,x) cm	0.0	0.5,1.5	0.0		Notes	5				10x AXB	0				  ...\\10x AXB DLG edit...
	CAX	Norm	Sel	Max																																											
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Notes	5																																														
10x AXB	0																																														
		Reviewed By :																																													

Date: 1/26/2020	MapCHECK 2 QA of Dose Distribution	Hospital Name:																				
QA File Parameter	MapCHECK2	Plan																				
Patient Name : HN PHANTOM, LMP Patient ID : 9999999999999999 Plan Date : 1/26/2020 SSD : SDD : Depth : Energy : 6FFF Angle : Absolute Dose Comparison Difference (%) : 3 Distance (mm) : 2.0 Threshold (%) : 10.0 Meas Uncertainty : Yes Use Global % : Yes	 	 																				
Total Points : 318 Passed : 314 Failed : 4 % Passed : 98.7	Summary (Gamma Analysis) 	C:\Use...\\6FFF AAA.txt																				
	Dose Values in cGy <table border="1"> <thead> <tr> <th></th> <th>CAX</th> <th>Norm</th> <th>Sel</th> <th>Max</th> </tr> </thead> <tbody> <tr> <td>MapCHECK2</td> <td>196.65</td> <td>213.27</td> <td>196.65</td> <td>213.27</td> </tr> <tr> <td>Plan</td> <td>201.66</td> <td>210.19</td> <td>201.66</td> <td>213.26</td> </tr> <tr> <td>MapCHECK2 - Plan</td> <td>-5.01</td> <td>3.07</td> <td>-5.01</td> <td>0.00</td> </tr> </tbody> </table> <p>% Diff : -2.38 DTA(mm) : 0.00 Coords (y,x) cm : 0.5,1.5 Notes : 5 6FFF AAA</p>		CAX	Norm	Sel	Max	MapCHECK2	196.65	213.27	196.65	213.27	Plan	201.66	210.19	201.66	213.26	MapCHECK2 - Plan	-5.01	3.07	-5.01	0.00	MapCHECK2-Plan 
	CAX	Norm	Sel	Max																		
MapCHECK2	196.65	213.27	196.65	213.27																		
Plan	201.66	210.19	201.66	213.26																		
MapCHECK2 - Plan	-5.01	3.07	-5.01	0.00																		

Date: 1/26/2020	MapCHECK 2 QA of Dose Distribution	Hospital Name:																				
QA File Parameter	MapCHECK2	Plan																				
Patient Name : HN PHANTOM, LMP Patient ID : 9999999999999999 Plan Date : 1/26/2020 SSD : SDD : Depth : Energy : 6FFF Angle : Absolute Dose Comparison Difference (%) : 3 Distance (mm) : 2.0 Threshold (%) : 10.0 Meas Uncertainty : Yes Use Global % : Yes	 <p>cGy</p> <p>-10 -5 0 5 10</p>  <p>Total Points : 315 Passed : 310 Failed : 5 % Passed : 98.4</p> <p>c:use...\6FFF AXB.txt</p>	 <p>cGy</p> <p>-10 -5 0 5 10</p>																				
	<p>Dose Values in cGy</p> <table border="1"> <thead> <tr> <th>CAX</th> <th>Norm</th> <th>Sel</th> <th>Max</th> </tr> </thead> <tbody> <tr> <td>MapCHECK2</td> <td>205.56</td> <td>214.69</td> <td>205.56</td> </tr> <tr> <td>Plan</td> <td>204.33</td> <td>217.24</td> <td>204.33</td> </tr> <tr> <td>MapCHECK2</td> <td>1.22</td> <td>-2.55</td> <td>1.22</td> </tr> <tr> <td>-Plan</td> <td></td> <td></td> <td>-0.45</td> </tr> </tbody> </table> <p>% Diff DTA(mm) Coords (y,x) cm</p> <p>Notes 6FFF AXB</p>	CAX	Norm	Sel	Max	MapCHECK2	205.56	214.69	205.56	Plan	204.33	217.24	204.33	MapCHECK2	1.22	-2.55	1.22	-Plan			-0.45	 <p>Percent Difference (Set1-Set2)</p> <p>c:\u00d1...\6FFF AXB.dcm</p>
CAX	Norm	Sel	Max																			
MapCHECK2	205.56	214.69	205.56																			
Plan	204.33	217.24	204.33																			
MapCHECK2	1.22	-2.55	1.22																			
-Plan			-0.45																			

Reviewed By :

Verification Testing

Portal Dosimetry

Portal Dosimetry Configuration

Portal Dosimetry configuration for Varian TrueBeam #9999 at Landauer Cancer Institute for energies 6 and 10MV has been performed. The installation included calibrating the MV Detector for dosimetry and configuring the Portal Dosimetry (PDIP) algorithm using a Varian provided preconfigured model for AS1200 Varian portal imagers. The data was imported into the PDIP_11301 model. After configuring the PDIP algorithm, a Portal Dosimetry verification plan for each energy was created from the same highly modulated head and neck plans used for RapidArc verification with a MapCheck. The Portal Dosimetry verification plans were delivered to the MV imager, and the results were compared to VMAT verification plans measured with a MapCheck2 for the same HN plans. The Portal Dosimetry results are presented below (3%/2mm Gamma Analysis) for each field in the plan.

Portal Dosimetry Test Results

Portal Dosimetry Pass % for H/N VMAT Plan	
	2 Arc
Energy (MV)	3%/2mm
6 AAA	98.9%, 99.3%
6 AXB	100%, 100%
10 AAA	96.6%, 98.3%
10 AXB	99.2%, 99.5%

Plan: 6x_AAA

Patient: H/N PHANTOM, LMP ID: 9999999999999999

Session: Monday, January 27, 2020 9:01 AM

Plan Summary Result: **Passed**

Field

Analysis done by

LMP

Analysis Date

Monday, January 27, 2020 10:07 AM

Portal Dose ID

MV_179_0a

Reference Dose ID

Field 1

Analysis Result

Passed

Detailed test results:

Test	Value	Tol.	Test	Value	Tol.
<input checked="" type="checkbox"/> Area Gamma < 1.0	98.9 %	95.0 %	Max. Dose Difference	0.25 CU	
Maximum Gamma	1.86		Avg. Dose Difference	0.02 CU	
Average Gamma	0.18		Area Dose Diff > 1.00 CU	0.0 %	
Area Gamma > 1.5	0.1 %		Area Dose Diff > 2.00 CU	0.0 %	
Area Gamma > 1.2	0.5 %				

[Gamma DTA : 2.0 mm Tol. : 3.0 %]

Field

Analysis done by

LMP

Analysis Date

Monday, January 27, 2020 10:07 AM

Portal Dose ID

MV_181_0a

Reference Dose ID

Field 2

Analysis Result

Passed

Detailed test results:

Test	Value	Tol.	Test	Value	Tol.
<input checked="" type="checkbox"/> Area Gamma < 1.0	99.3 %	95.0 %	Max. Dose Difference	0.32 CU	
Maximum Gamma	1.74		Avg. Dose Difference	0.02 CU	
Average Gamma	0.20		Area Dose Diff > 1.00 CU	0.0 %	
Area Gamma > 1.5	0.0 %		Area Dose Diff > 2.00 CU	0.0 %	
Area Gamma > 1.2	0.3 %				

[Gamma DTA : 2.0 mm Tol. : 3.0 %]

Plan: 6x_AXB

Patient: H/N PHANTOM, LMP ID: 9999999999999999

Session: Monday, January 27, 2020 9:53 AM

Plan Summary Result: **Passed**

Field

Analysis done by

LMP

Analysis Date

Monday, January 27, 2020 10:06 AM

Portal Dose ID

MV_179_0a

Reference Dose ID

Field 1

Analysis Result

Passed

Detailed test results:

Test	Value	Tol.	Test	Value	Tol.
<input checked="" type="checkbox"/> Area Gamma < 1.0	100.0 %	95.0 %	Max. Dose Difference	0.32 CU	
Maximum Gamma	0.95		Avg. Dose Difference	0.02 CU	
Average Gamma	0.14		Area Dose Diff > 1.00 CU	0.0 %	
Area Gamma > 1.5	0.0 %		Area Dose Diff > 2.00 CU	0.0 %	
Area Gamma > 1.2	0.0 %				

[Gamma DTA : 2.0 mm Tol. : 3.0 %]

Field

Analysis done by

LMP

Analysis Date

Monday, January 27, 2020 10:06 AM

Portal Dose ID

MV_181_0a

Reference Dose ID

Field 2

Analysis Result

Passed

Detailed test results:

Test	Value	Tol.	Test	Value	Tol.
<input checked="" type="checkbox"/> Area Gamma < 1.0	100.0 %	95.0 %	Max. Dose Difference	0.43 CU	
Maximum Gamma	1.09		Avg. Dose Difference	0.02 CU	
Average Gamma	0.16		Area Dose Diff > 1.00 CU	0.0 %	
Area Gamma > 1.5	0.0 %		Area Dose Diff > 2.00 CU	0.0 %	
Area Gamma > 1.2	0.0 %				

[Gamma DTA : 2.0 mm Tol. : 3.0 %]

Plan: 10x_AAA

Patient: H/N PHANTOM, LMP ID: 9999999999999999

Session: Sunday, January 26, 2020 6:21 PM

Plan Summary Result: **Passed**

Field 1

Analysis done by LMP
Analysis Date Sunday, January 26, 2020 6:24 PM
Portal Dose ID MV_179_0a
Reference Dose ID Field 1
Analysis Result **Passed**

Detailed test results:

Test	Value	Tol.	Test	Value	Tol.
<input checked="" type="checkbox"/> Area Gamma < 1.0	96.6 %	95.0 %	Max. Dose Difference	0.25 CU	
Maximum Gamma	2.33		Avg. Dose Difference	0.03 CU	
Average Gamma	0.28		Area Dose Diff > 1.00 CU	0.0 %	
Area Gamma > 1.5	0.4 %		Area Dose Diff > 2.00 CU	0.0 %	
Area Gamma > 1.2	1.6 %				

[Gamma DTA : 2.0 mm Tol. : 3.0 %]

Field 2

Analysis done by LMP
Analysis Date Sunday, January 26, 2020 6:24 PM
Portal Dose ID MV_181_0a
Reference Dose ID Field 2
Analysis Result **Passed**

Detailed test results:

Test	Value	Tol.	Test	Value	Tol.
<input checked="" type="checkbox"/> Area Gamma < 1.0	98.3 %	95.0 %	Max. Dose Difference	0.30 CU	
Maximum Gamma	2.56		Avg. Dose Difference	0.03 CU	
Average Gamma	0.23		Area Dose Diff > 1.00 CU	0.0 %	
Area Gamma > 1.5	0.3 %		Area Dose Diff > 2.00 CU	0.0 %	
Area Gamma > 1.2	0.9 %				

[Gamma DTA : 2.0 mm Tol. : 3.0 %]

Plan: 10x_AXB

Patient: H/N PHANTOM, LMP ID: 9999999999999999

Session: Monday, January 27, 2020 8:58 AM

Plan Summary Result: **Passed**

Field

Analysis done by

LMP

Analysis Date

Monday, January 27, 2020 10:09 AM

Portal Dose ID

MV_179_0a

Reference Dose ID

Field 1

Analysis Result

Passed

Detailed test results:

Test	Value	Tol.	Test	Value	Tol.
<input checked="" type="checkbox"/> Area Gamma < 1.0	99.2 %	95.0 %	Max. Dose Difference	0.33 CU	
Maximum Gamma	1.64		Avg. Dose Difference	0.03 CU	
Average Gamma	0.24		Area Dose Diff > 1.00 CU	0.0 %	
Area Gamma > 1.5	0.0 %		Area Dose Diff > 2.00 CU	0.0 %	
Area Gamma > 1.2	0.1 %				

[Gamma DTA : 2.0 mm Tol. : 3.0 %]

Field

Analysis done by

LMP

Analysis Date

Monday, January 27, 2020 10:09 AM

Portal Dose ID

MV_181_0a

Reference Dose ID

Field 2

Analysis Result

Passed

Detailed test results:

Test	Value	Tol.	Test	Value	Tol.
<input checked="" type="checkbox"/> Area Gamma < 1.0	99.5 %	95.0 %	Max. Dose Difference	0.40 CU	
Maximum Gamma	1.70		Avg. Dose Difference	0.03 CU	
Average Gamma	0.21		Area Dose Diff > 1.00 CU	0.0 %	
Area Gamma > 1.5	0.0 %		Area Dose Diff > 2.00 CU	0.0 %	
Area Gamma > 1.2	0.2 %				

[Gamma DTA : 2.0 mm Tol. : 3.0 %]

Verification Testing

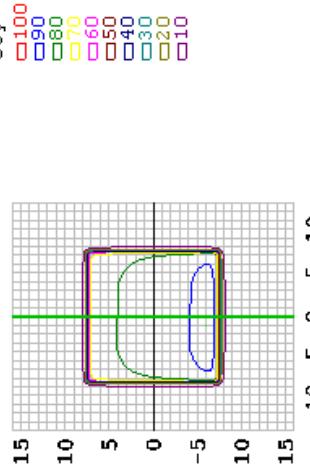
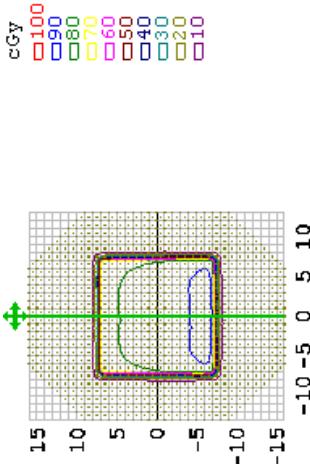
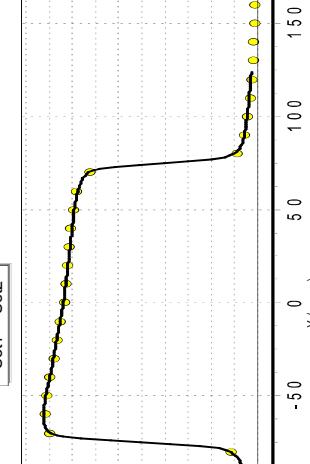
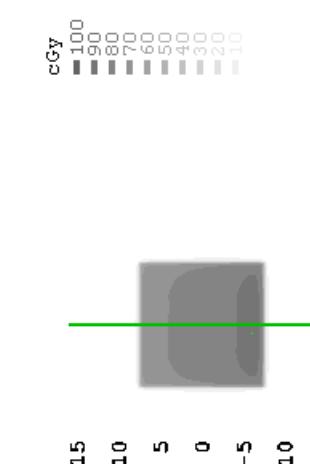
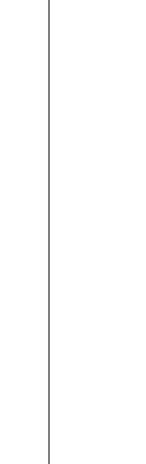
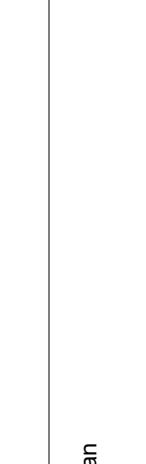
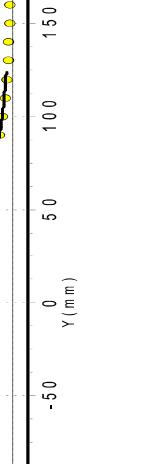
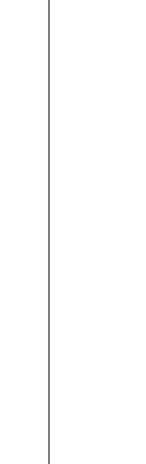
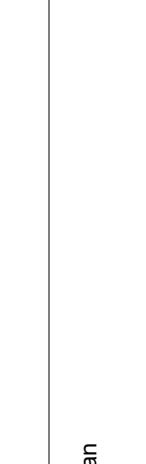
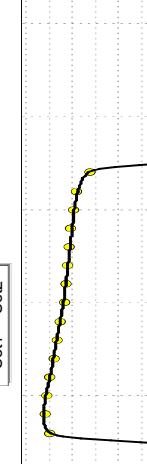
EDW Verification

Varian Eclipse EDW Calculation Verification

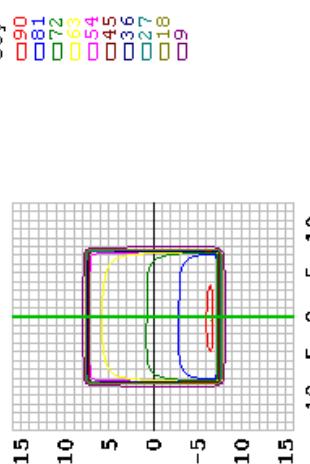
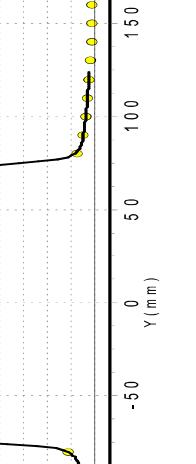
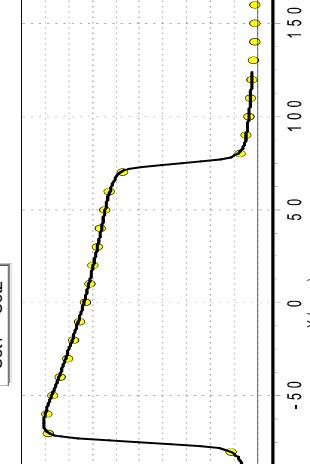
EDW plans were created in Eclipse on Patient: MapCHECK 2 Phantom, LMP ID: 999999999. The plans consisted of a 15x15 field with gantry, collimator, and couch angles set to 0°. The EDW orientation was set to “OUT” for all plans. The MU setting was fixed at 100, and the SSD was set to 95 cm. The dose distribution at depth 5 cm was exported and compared to a SNC MapCheck measurement with Gamma analysis (Absolute dose, 2 mm/2% criteria). A summary of the results follows.

Eclipse EDW Plan MapCheck Verification Results

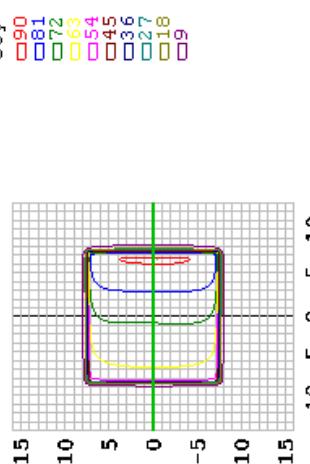
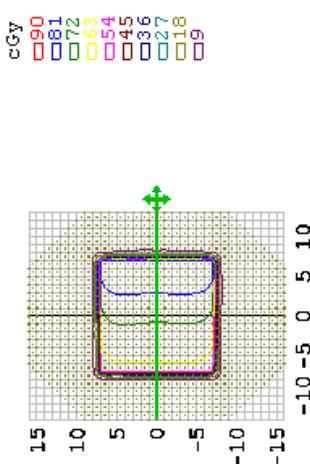
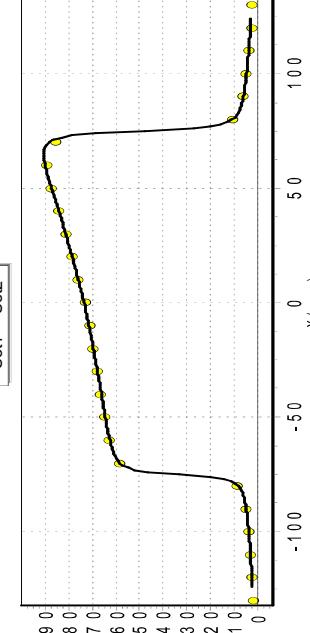
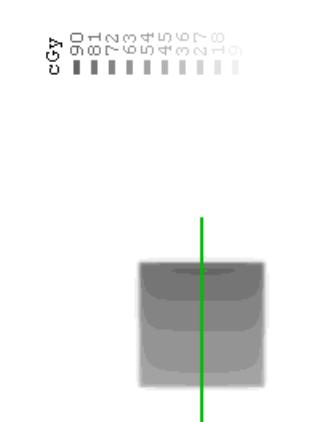
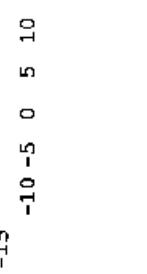
Plan	Pass Percentage
6MV EDW 15°	100%
6MV EDW 30°	100%
6MV EDW 45°	100%
6MV EDW 60°	100%
6MV EDW 30° Collimator 90°	100%
6MV EDW 30° Couch 270°	100%
10MV EDW 15°	100%
10MV EDW 30°	100%
10MV EDW 45°	100%
10MV EDW 60°	100%

Date: 1/26/2020	MapCHECK 2 QA of Dose Distribution	Hospital Name:
QA File Parameter	MapCHECK2	Plan
Patient Name : MapCHECK 2 Phantom_LMP Patient ID : 999999999 Plan Date : 1/26/2020 SSD : SDD : Depth : 6 Energy : Angle : Absolute Dose Comparison Difference (%) : 2 Distance (mm) : 2.0 Threshold (%) : 10.0 Meas Uncertainty : Yes Use Global % : Yes	 	 
 Summary (Gamma Analysis) Total Points : 526 Passed : 526 Failed : 0 % Passed : 100	 	 
 Dose Values in cGy CAX Norm Sel Max MapCHECK2 83.53 91.79 83.53 91.97 Plan 83.86 92.34 83.86 92.34 MapCHECK2 -0.34 -0.55 -0.34 -0.38 +Plan % Diff -0.36 -0.59 -0.36 -0.41 DTA(mm) 0.00 0.00 NA Coords 0.0 -6.-1 0.0 (y,x) cm Notes 5 6x 15out 0 -5 -10 -15 0 5 10	MapCHECK2-Plan  	 

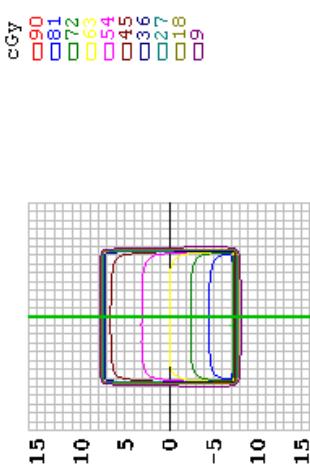
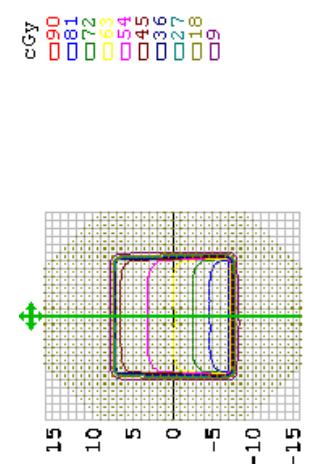
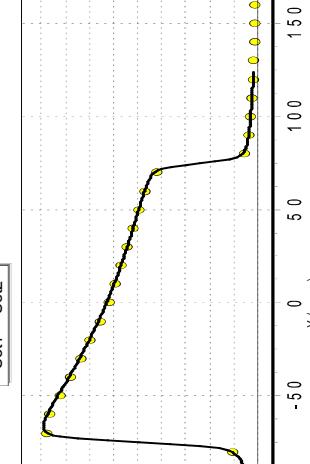
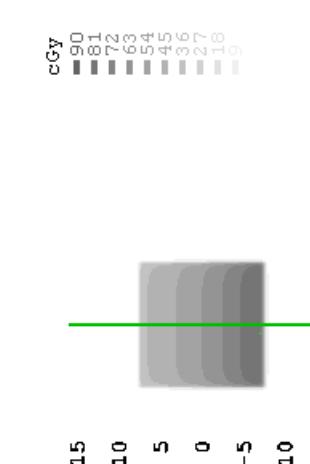
Reviewed By :

Date: 1/26/2020	MapCHECK 2 QA of Dose Distribution	Hospital Name:																																																								
QA File Parameter	MapCHECK2	Plan																																																								
Patient Name : MapCHECK 2 Phantom_LMP Patient ID : 999999999 Plan Date : 1/26/2020 SSD : SDD : Depth : 6x Energy : Angle : Absolute Dose Comparison Difference (%) : 2 Distance (mm) : 2.0 Threshold (%) : 10.0 Meas Uncertainty : Yes Use Global % : Yes	 <p>Dose Values in cGy</p> <table border="1"> <thead> <tr> <th>CAx</th> <th>Norm</th> <th>Sel</th> <th>Max</th> </tr> </thead> <tbody> <tr> <td>MapCHECK2</td> <td>72.82</td> <td>89.64</td> <td>72.82</td> </tr> <tr> <td>Plan</td> <td>73.44</td> <td>90.52</td> <td>73.44</td> </tr> <tr> <td>MapCHECK2 - Plan</td> <td>-0.62</td> <td>-0.88</td> <td>-0.62</td> </tr> <tr> <td>% Diff</td> <td>-0.68</td> <td>-0.97</td> <td>-0.68</td> </tr> <tr> <td>DTA(mm)</td> <td>0.00</td> <td>0.00</td> <td>NA</td> </tr> <tr> <td>Coords (y,x) cm</td> <td>0.0</td> <td>-6.5,-0.5</td> <td>0.0</td> </tr> </tbody> </table> <p>Notes</p> <p>6x 30out</p>	CAx	Norm	Sel	Max	MapCHECK2	72.82	89.64	72.82	Plan	73.44	90.52	73.44	MapCHECK2 - Plan	-0.62	-0.88	-0.62	% Diff	-0.68	-0.97	-0.68	DTA(mm)	0.00	0.00	NA	Coords (y,x) cm	0.0	-6.5,-0.5	0.0	 <p>C:\...\EDW6x 30out.txt</p> <p>Dose Values in cGy</p> <table border="1"> <thead> <tr> <th>CAx</th> <th>Norm</th> <th>Sel</th> <th>Max</th> </tr> </thead> <tbody> <tr> <td>MapCHECK2</td> <td>72.82</td> <td>89.64</td> <td>72.82</td> </tr> <tr> <td>Plan</td> <td>73.44</td> <td>90.52</td> <td>73.44</td> </tr> <tr> <td>MapCHECK2 - Plan</td> <td>-0.62</td> <td>-0.88</td> <td>-0.62</td> </tr> <tr> <td>% Diff</td> <td>-0.68</td> <td>-0.97</td> <td>-0.68</td> </tr> <tr> <td>DTA(mm)</td> <td>0.00</td> <td>0.00</td> <td>NA</td> </tr> <tr> <td>Coords (y,x) cm</td> <td>0.0</td> <td>-6.5,-0.5</td> <td>0.0</td> </tr> </tbody> </table> <p>Notes</p> <p>6x 30out</p>	CAx	Norm	Sel	Max	MapCHECK2	72.82	89.64	72.82	Plan	73.44	90.52	73.44	MapCHECK2 - Plan	-0.62	-0.88	-0.62	% Diff	-0.68	-0.97	-0.68	DTA(mm)	0.00	0.00	NA	Coords (y,x) cm	0.0	-6.5,-0.5	0.0
CAx	Norm	Sel	Max																																																							
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Coords (y,x) cm	0.0	-6.5,-0.5	0.0																																																							
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DTA(mm)	0.00	0.00	NA																																																							
Coords (y,x) cm	0.0	-6.5,-0.5	0.0																																																							
	 <p>Set1 - Set2</p> <p>C:\...\6MV 30out.txt</p>																																																									

Reviewed By :

Date: 1/26/2020	MapCHECK 2 QA of Dose Distribution	Hospital Name:	
QA File Parameter	MapCHECK2	Plan	
Patient Name : MapCHECK 2 Phantom_LMP Patient ID : 999999999 Plan Date : 1/26/2020 SSD : SDD : Depth : 6x Energy : Angle : Absolute Dose Comparison Difference (%) : 2 Distance (mm) : 2.0 Threshold (%) : 10.0 Meas Uncertainty : Yes Use Global % : Yes	 	  	
Summary (Gamma Analysis) Total Points : 507 Passed : 507 Failed : 0 % Passed : 100		...\\EDW 6x 30out col... Dose Values in cGy CAX Norm Sel Max MapCHECK2 73.12 89.69 73.12 89.69 Plan 73.46 90.54 73.46 90.56 MapCHECK2 -0.35 -0.85 -0.35 -0.89 +Plan % Diff -0.38 -0.94 -0.38 -0.98 DTA(mm) Coords 0.0 0.00 NA (y,x) cm -0.5,6.5 0.0 Notes 6x 30out Coll 90	...\\6MV 30out Coll90.... MapCHECK2-Plan cGY -90 -81 -72 -63 -54 -45 -36 -27 -18 -9 Reviewed By :

Date: 1/26/2020	MapCHECK 2 QA of Dose Distribution	Hospital Name:																																
QA File Parameter	MapCHECK2	Plan																																
Patient Name : MapCHECK 2 Phantom_LMP Patient ID : 999999999 Plan Date : 1/26/2020 SSD : SDD : Depth : 6x Energy : Angle : Absolute Dose Comparison Difference (%) : 2.0 Distance (mm) : 2.0 Threshold (%) : 10.0 Meas Uncertainty : Yes Use Global % : Yes	<p>MapCHECK2</p>	<p>Plan</p>																																
Total Points : 508 Passed : 508 Failed : 0 % Passed : 100	<p>Summary (Gamma Analysis)</p> <p>...\\EDW 6x 30out co...</p>	<p>...\\6MV 30out Couch...</p>																																
Dose Values in cGy	<p>MapCHECK2-Plan</p> <table border="1"> <thead> <tr> <th>CAX</th> <th>Norm</th> <th>Sel</th> <th>Max</th> </tr> </thead> <tbody> <tr> <td>MapCHECK2</td> <td>73.01</td> <td>89.25</td> <td>73.01</td> </tr> <tr> <td>Plan</td> <td>73.43</td> <td>90.54</td> <td>73.43</td> </tr> <tr> <td>MapCHECK2</td> <td>-0.42</td> <td>-1.29</td> <td>-0.42</td> </tr> <tr> <td>% Plan</td> <td>-0.47</td> <td>-1.42</td> <td>-0.47</td> </tr> <tr> <td>% Diff</td> <td>-0.47</td> <td>-1.42</td> <td>-1.00</td> </tr> <tr> <td>DTA(mm)</td> <td>0.00</td> <td>0.00</td> <td>NA</td> </tr> <tr> <td>Coords (y,x) cm</td> <td>0.0</td> <td>0.5-6.5 0.0</td> <td></td> </tr> </tbody> </table> <p>Notes</p> <p>6x 30out Couch 270</p>	CAX	Norm	Sel	Max	MapCHECK2	73.01	89.25	73.01	Plan	73.43	90.54	73.43	MapCHECK2	-0.42	-1.29	-0.42	% Plan	-0.47	-1.42	-0.47	% Diff	-0.47	-1.42	-1.00	DTA(mm)	0.00	0.00	NA	Coords (y,x) cm	0.0	0.5-6.5 0.0		<p>cGy</p>
CAX	Norm	Sel	Max																															
MapCHECK2	73.01	89.25	73.01																															
Plan	73.43	90.54	73.43																															
MapCHECK2	-0.42	-1.29	-0.42																															
% Plan	-0.47	-1.42	-0.47																															
% Diff	-0.47	-1.42	-1.00																															
DTA(mm)	0.00	0.00	NA																															
Coords (y,x) cm	0.0	0.5-6.5 0.0																																

Date: 1/26/2020	MapCHECK 2 QA of Dose Distribution	Hospital Name:
QA File Parameter	MapCHECK2	Plan
Patient Name : MapCHECK 2 Phantom_LMP Patient ID : 999999999 Plan Date : 1/26/2020 SSD : SDD : Depth : 6x Energy : Angle : Absolute Dose Comparison Difference (%) : 2 Distance (mm) : 2.0 Threshold (%) : 10.0 Meas Uncertainty : Yes Use Global % : Yes	  <p>Absolute Dose Comparison</p> <p>Difference (%) : 2 Distance (mm) : 2.0 Threshold (%) : 10.0 Meas Uncertainty : Yes Use Global % : Yes</p>	  <p>Absolute Dose Comparison</p> <p>Difference (%) : 2 Distance (mm) : 2.0 Threshold (%) : 10.0 Meas Uncertainty : Yes Use Global % : Yes</p>
Summary (Gamma Analysis)		
Total Points : 500 Passed : 500 Failed : 0 % Passed : 100	C:\...\EDW\6x 45out.txt	C:\...\6MV 45out.txt
Dose Values in cGy		
MapCHECK2 CAX Norm Sel Max Plan 62.07 87.45 62.07 88.39 MapCHECK2 -0.69 0.15 -0.69 -0.62 +Plan % Diff -0.79 0.17 -0.79 -0.71 DTA(mm) 0.00 0.00 NA Coords 0.0 0.0 (y,x) cm -7.1 0.0	MapCHECK2-Plan  <p>MapCHECK2-Plan</p> <p>MapCHECK2 CAX Norm Sel Max Plan 62.07 87.45 62.07 88.39 MapCHECK2 -0.69 0.15 -0.69 -0.62 +Plan % Diff -0.79 0.17 -0.79 -0.71 DTA(mm) 0.00 0.00 NA Coords 0.0 0.0 (y,x) cm -7.1 0.0</p>	 <p>Notes 6x 45out 0 0 -5 -5 -10 -10 -15 -15</p>

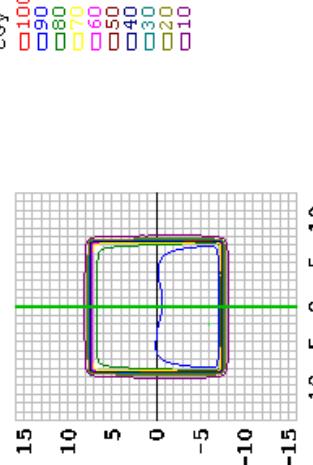
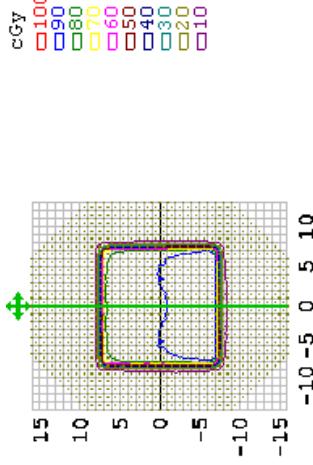
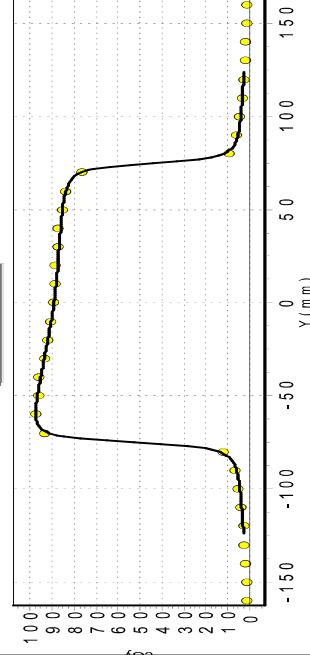
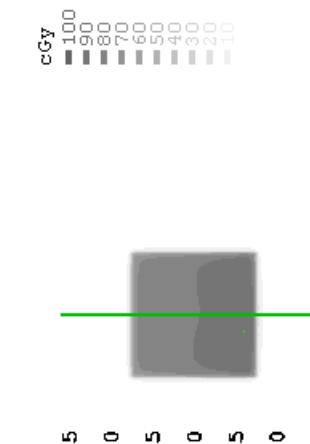
Reviewed By :

Date: 1/26/2020

MapCHECK 2 QA of Dose Distribution

Hospital Name:

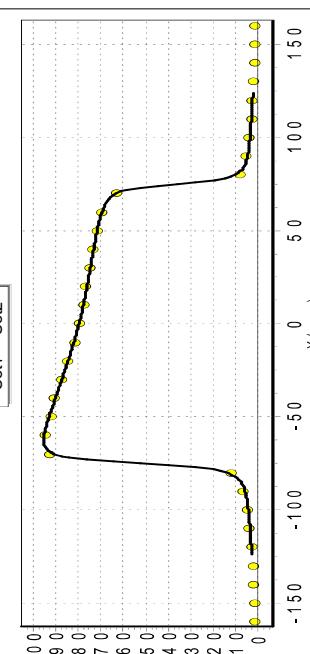
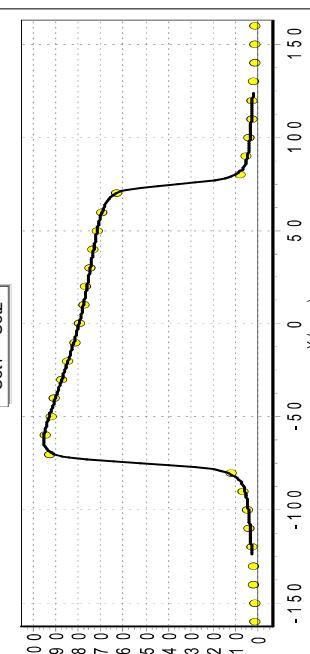
QA File Parameter	MapCHECK 2	Plan
Patient Name	: MapCHECK 2 Phantom_LMP	
Patient ID	: 999999999	
Plan Date	: 1/26/2020	
SSD	:	
SDS	:	
Depth	:	
Energy	: 6x	
Angle	:	
Absolute Dose Comparison		
Difference (%)	: 2	
Distance (mm)	: 2.0	
Threshold (%)	: 10.0	
Meas Uncertainty	: Yes	
Use Global %	: Yes	
Summary (Gamma Analysis)		
Total Points	: 491	
Passed	: 491	
Failed	: 0	
% Passed	: 100	
Dose Values in cGy		
CAX	Norm	Sel
MapCHECK2	49.48	86.43
Plan	50.14	86.23
MapCHECK2 -0.65	0.20	-0.65
+Plan		-0.62
% Diff	-0.76	0.23
DTA(mm)	-0.76	-0.76
Coords (y,x) cm	0.00	0.00
Notes	5	
6x 60out	0	
	-5	
	-10	
	-15	

Date: 1/26/2020	MapCHECK 2 QA of Dose Distribution	Hospital Name:																																																																																									
QA File Parameter Patient Name : MapCHECK 2 Phantom_LMP Patient ID : 999999999 Plan Date : 1/26/2020 SSD : SDD : Depth : Energy : 10x Angle : Absolute Dose Comparison Difference (%) : 2 Distance (mm) : 2.0 Threshold (%) : 10.0 Meas Uncertainty : Yes Use Global % : Yes	  <p>Summary (Gamma Analysis)</p> <table border="1"> <thead> <tr> <th>Total Points</th> <th>:536</th> </tr> </thead> <tbody> <tr> <td>Passed</td> <td>:536</td> </tr> <tr> <td>Failed</td> <td>:0</td> </tr> <tr> <td>% Passed</td> <td>:100</td> </tr> </tbody> </table> <p>...\\EDW 10x 15out.txt</p> <p>Dose Values in cGy</p> <table border="1"> <thead> <tr> <th></th> <th>CAX</th> <th>Norm</th> <th>Sel</th> <th>Max</th> </tr> </thead> <tbody> <tr> <td>MapCHECK2</td> <td>89.08</td> <td>97.16</td> <td>89.08</td> <td>97.80</td> </tr> <tr> <td>Plan</td> <td>89.10</td> <td>97.58</td> <td>89.10</td> <td>97.58</td> </tr> <tr> <td>MapCHECK2</td> <td>-0.02</td> <td>-0.41</td> <td>-0.02</td> <td>0.22</td> </tr> <tr> <td>+Plan</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>% Diff</td> <td>-0.03</td> <td>-0.42</td> <td>-0.03</td> <td>0.22</td> </tr> <tr> <td>DTA(mm)</td> <td>0.00</td> <td>0.00</td> <td>NA</td> <td></td> </tr> <tr> <td>Coords (y,x) cm</td> <td>0.0</td> <td>-6.-2</td> <td>0.0</td> <td></td> </tr> </tbody> </table> <p>Notes</p> <ul style="list-style-type: none"> 10x 15out 0 5 -5 -10 -15 	Total Points	:536	Passed	:536	Failed	:0	% Passed	:100		CAX	Norm	Sel	Max	MapCHECK2	89.08	97.16	89.08	97.80	Plan	89.10	97.58	89.10	97.58	MapCHECK2	-0.02	-0.41	-0.02	0.22	+Plan					% Diff	-0.03	-0.42	-0.03	0.22	DTA(mm)	0.00	0.00	NA		Coords (y,x) cm	0.0	-6.-2	0.0		  <p>C:\\10MV 15out.dcm</p> <p>MapCHECK2-Plan</p> <table border="1"> <thead> <tr> <th></th> <th>CAX</th> <th>Norm</th> <th>Sel</th> <th>Max</th> </tr> </thead> <tbody> <tr> <td>MapCHECK2</td> <td>89.08</td> <td>97.16</td> <td>89.08</td> <td>97.80</td> </tr> <tr> <td>Plan</td> <td>89.10</td> <td>97.58</td> <td>89.10</td> <td>97.58</td> </tr> <tr> <td>MapCHECK2</td> <td>-0.02</td> <td>-0.41</td> <td>-0.02</td> <td>0.22</td> </tr> <tr> <td>+Plan</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>% Diff</td> <td>-0.03</td> <td>-0.42</td> <td>-0.03</td> <td>0.22</td> </tr> <tr> <td>DTA(mm)</td> <td>0.00</td> <td>0.00</td> <td>NA</td> <td></td> </tr> <tr> <td>Coords (y,x) cm</td> <td>0.0</td> <td>-6.-2</td> <td>0.0</td> <td></td> </tr> </tbody> </table> <p>Notes</p> <ul style="list-style-type: none"> 5 10 15 0 -5 -10 -15 		CAX	Norm	Sel	Max	MapCHECK2	89.08	97.16	89.08	97.80	Plan	89.10	97.58	89.10	97.58	MapCHECK2	-0.02	-0.41	-0.02	0.22	+Plan					% Diff	-0.03	-0.42	-0.03	0.22	DTA(mm)	0.00	0.00	NA		Coords (y,x) cm	0.0	-6.-2	0.0		<p>Reviewed By :</p>
Total Points	:536																																																																																										
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Coords (y,x) cm	0.0	-6.-2	0.0																																																																																								

Date: 1/26/2020

MapCHECK 2 QA of Dose Distribution

Hospital Name:

QA File Parameter	MapCHECK 2	MapCHECK 2	Plan
Patient Name	: MapCHECK 2 Phantom_LMP		
Patient ID	: 999999999		
Plan Date	: 1/26/2020		
SSD	:		
SDD	:		
Depth	:		
Energy	: 10x		
Angle	:		
Absolute Dose Comparison			
Difference (%)	: 2		
Distance (mm)	: 2.0		
Threshold (%)	: 10.0		
Meas Uncertainty	: Yes		
Use Global %	: Yes		
Summary (Gamma Analysis)			
Total Points	: 522		
Passed	: 522		
Failed	: 0		
% Passed	: 100		
...\\EDW 10x_30out.txt			
Dose Values in cGy			
CAX	Norm	Sel	Max
MapCHECK2	79.34	94.81	79.34
Plan	79.68	95.44	79.68
MapCHECK2	-0.34	-0.63	-0.34
-Plan			-0.08
% Diff	-0.35	-0.66	-0.35
DTA(mm)	0.00	0.00	NA
Coords (y,x) cm	0.0	-6.-2	0.0
Notes	5		
10x_30out	0		
	-5		
	-10		
	-15		
			
			
			
Reviewed By :			

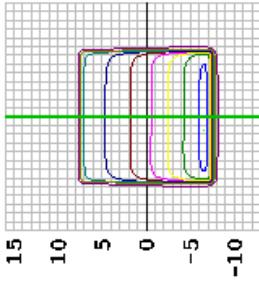
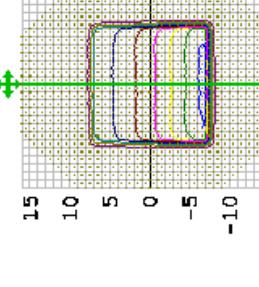
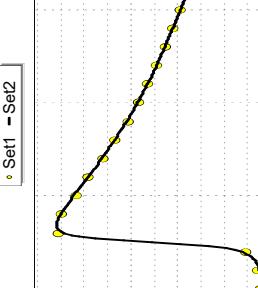
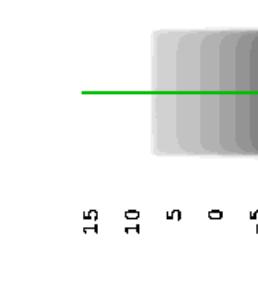
Date: 1/26/2020

MapCHECK 2 QA of Dose Distribution

Hospital Name:

QA File Parameter	MapCHECK 2	Plan
Patient Name	:MapCHECK 2 Phantom_LMP	
Patient ID	:999999999	
Plan Date	:1/26/2020	
SSD	:	
SDS	:	
Depth	:	
Energy	:10x	
Angle	:	
Absolute Dose Comparison		
Difference (%)	:2	
Distance (mm)	:2.0	
Threshold (%)	:10.0	
Meas Uncertainty	:Yes	
Use Global %	:Yes	
Summary (Gamma Analysis)		
Total Points	:508	
Passed	:508	
Failed	:0	
% Passed	:100	
Dose Values in cGy		
CAX	Norm Sel Max	
MapCHECK2 69.15	92.72 69.15 93.18	
Plan	69.60 93.75 69.60 93.75	
MapCHECK2 -0.45	-1.03 -0.45 -0.57	
+Plan		
% Diff	-0.48 -1.09 -0.48 -0.61	
DTA(mm)	0.00 0.00 NA	
Coords (y,x) cm	0.0 -6.5 -1.5 0.0	
Notes	10x 45out	
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	1000	

Reviewed By :

Date: 1/26/2020	Hospital Name:	
QA File Parameter Patient Name : MapCHECK 2 Phantom Patient ID : 9999999999 Plan Date : 1/26/2020 SSD : SDD : Depth : 10x Energy : Angle : Absolute Dose Comparison Difference (%) : 2 Distance (mm) : 2.0 Threshold (%) : 10.0 Meas Uncertainty : Yes Use Global % : Yes	MapCHECK2 LMP   Summary (Gamma Analysis) Total Points : 500 Passed : 500 Failed : 0 % Passed : 100 Dose Values in cGy CAX Norm Sel Max MapCHECK2 56.68 90.79 56.68 91.33 Plan 57.06 91.88 57.06 91.38 MapCHECK2 -0.38 -1.09 -0.38 -0.55 -Plan % Diff -0.41 -1.19 -0.41 -0.60 DTA(mm) 0.00 0.00 NA Coords 0.0 -6.5,-1.5,0.0 (y,x) cm Notes 5 0 -5 -10 -15 ...\\EDW 10x 60out.txt	Plan   MapCHECK2-Plan cGy 100 90 80 70 60 50 40 30 20 10 ...\\EDW 10MV 60out.dcm