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Landauer Commissioning dedicates this databook to you, our future customer. We are proud of the hundreds of commissionings performed by Landauer that have led to this databook. We welcome your feedback as our processes and this databook continue to evolve as part of our commitment to continuous improvement. We promise that we will work with you to meet your exact needs and ensure your data is measured with the utmost care using the optimal setup and detector. We will review with you before, after and during a commissioning to ensure your unique needs are met.



Who we are

- A dedicated on-site team
- Part of the largest practice group in the US
- Ability to pull expertise from 168 other professionals
- What can we do to earn your business?



We hope this sample of our work reflects our commitment to quality. If you have any questions or comments, please don't hesitate to contact us.

Sample Clinical Databook

Landauer Cancer Institute - Jackson, WY

LINAC Commissioning

Varian TrueBeam #9999

9/01/2020

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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 Beamscan version 4.4 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,

Robert Staton, 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 31010 0.125cc ion chamber at 95 cm SSD, d5 cm for 6 MV, 10 MV, 15 MV, 6FFF, and 10FFF for comparison with the Varian TrueBeam Representative beam 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 31021 Semiflex 3D 0.070cc ion chamber. All scans extend to 39.7 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 10, 30, and 40cm were collected at depths d_{max}, 10, and 30 cm. All profiles collected with a PTW 31021 Semiflex 3D 0.070cc ion chamber.

Diagonal profiles: True diagonal profiles were collected for field size 40x40 cm² at depths d_{max}, 10cm, and 30 cm with a PTW 31021 Semiflex 3D 0.070cc ion chamber.

All 40x40 open and diagonal profiles were collected at 80cm SSD and converted to 100cm SSD in the PTW Beamscan software.

SRS (6FFF)

Percent depth dose scans on central axis were measured for each cone with a Sun Nuclear Edge detector at 100cm SSD (for reference only, not entered into Eclipse).

TPR scans were measured for the 5mm, 10mm, and 15mm SRS cones using the PTW tank TPR option. The scans were measured with a PTW 60023 Microsilicon diode fixed at a distance of 100cm (isocenter). Scans were acquired in the drain direction. TPRs were smoothed once and interpolated to 1mm equidistant spacing.

Crossline and inline profiles were measured using a Sun Nuclear Edge detector on the PTW tank. The profiles were measured at 5cm depth with SSDs of 100cm for all cones. Inline profiles are for reference only and are not entered into Eclipse.

Relative output factors were measured for each cone using a Sun Nuclear Edge detector with 95cm SSD and the detector at 5cm depth. The cone readings were normalized to the reading for a 10x10cm² field measured at the same SSD and depth.

Note: Truebeam collimator jaws were set to a 5cm x 5cm field size for all Eclipse cone measurements.

Electrons

CAX depth dose scans at 100 cm SSD: Depth dose scans were collected for all energies for the six standard applicators (6x6, 10x6, 10x10, 15x15, 20x20, 25x25) with a PTW 31021 Semiflex 3D 0.070cc ion chamber. All scans extend to a depth $R_p + 10\text{cm}$ or greater.

Profiles at 100 cm SSD: Profiles were collected for the 10x10, 15x15, and 25x25 applicators with a PTW 31021 Semiflex 3D 0.070cc ion chamber. Inplane and crossplane profiles were collected with the chamber at Varian representative Dmax depths of: 6e: 1.3cm, 9e: 2.1cm, 12e: 2.8cm, and 16e: 3.1cm, and 20e: 2.2cm.

Profiles in Air: Air crossplane profiles were collected for a $40 \times 40 \text{ cm}^2$ open field with a PTW 31021 Semiflex 3D 0.070cc ion chamber at 95 cm source-to-detector distance for comparison with Varian eMC Representative data for all electron energies.

Output factors for the 6 standard applicators (6x6, 10x6, 10x10, 15x15, 20x20, 25x25) were measured at 100, 105, and 110 cm SSD with a PTW 31021 Semiflex 3D 0.070cc ion chamber at the following depths: 6e: 1.3cm, 9e: 2.1cm, 12e: 2.8cm, 16e: 3.1cm, and 20e: 2.2cm.

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

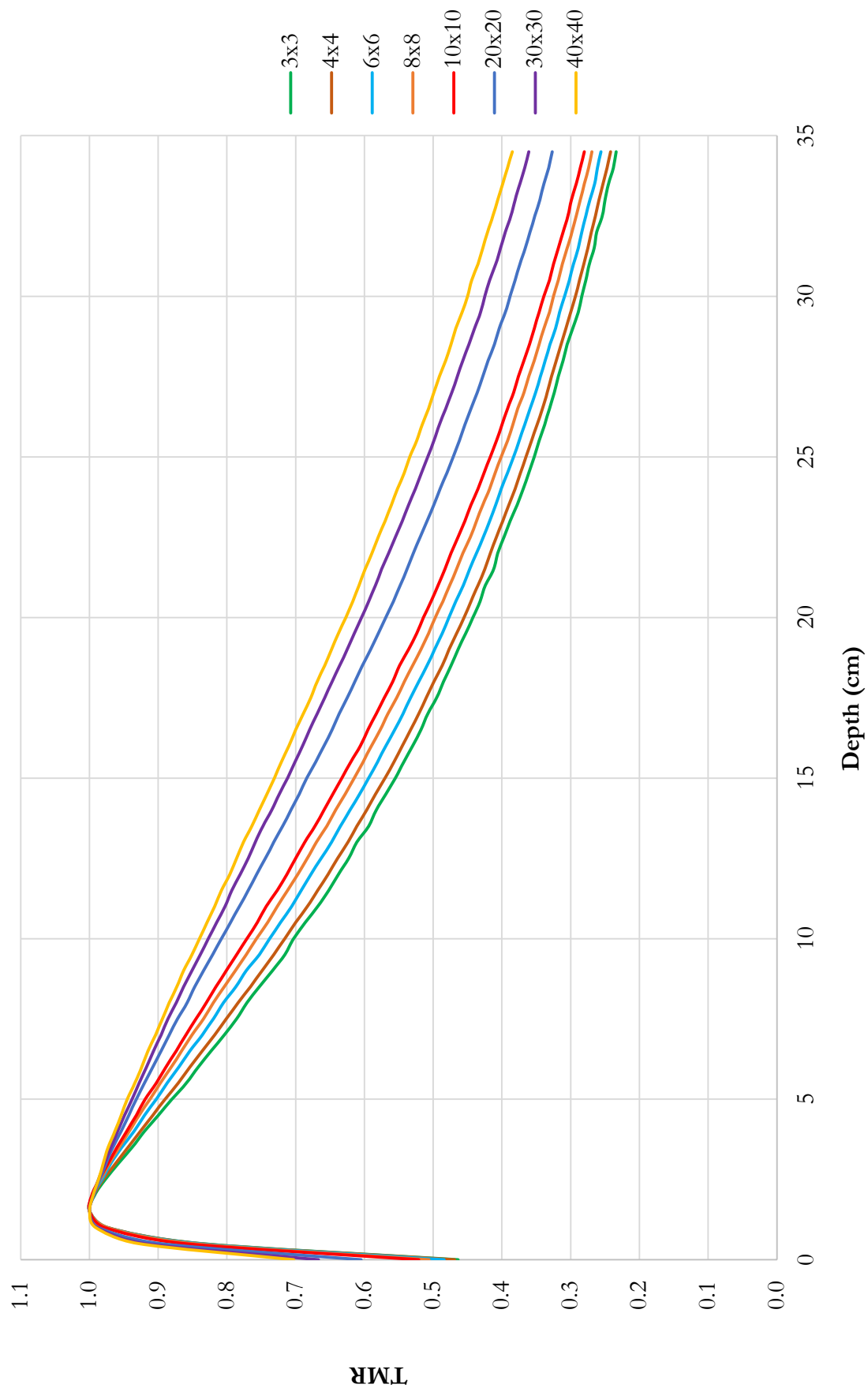
Normalized to 1.5 cm	6X TMR Open									
	Landauer Cancer Institute - Jackson, WY									
	Varian TrueBeam #9999									
Depth (cm)	11x11 (cm ²)	12x12 (cm ²)	13x13 (cm ²)	14x14 (cm ²)	15x15 (cm ²)	16x16 (cm ²)	17x17 (cm ²)	18x18 (cm ²)	19x19 (cm ²)	20x20 (cm ²)
0.0	0.529	0.537	0.546	0.554	0.563	0.571	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)	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	47.3	47.8	48.3	49.0	49.8	51.0	52.1	52.9	53.6
0.5	85.1	85.4	85.7	85.9	86.1	86.4	86.8	87.4	88.0
1.0	98.4	98.3	98.2	98.3	98.4	98.5	98.5	98.7	98.8
1.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2.0	98.2	98.4	98.5	98.6	98.7	98.6	98.6	98.7	98.7
2.5	95.7	95.9	96.2	96.3	96.3	96.4	96.5	96.6	96.8
3.0	92.9	93.2	93.5	93.9	94.2	94.3	94.3	94.4	94.5
3.5	89.8	90.4	91.0	91.4	91.8	92.0	92.2	92.3	92.5
4.0	87.2	87.8	88.4	88.8	89.3	89.6	90.0	90.1	90.3
4.5	84.4	85.1	85.9	86.5	87.0	87.4	87.8	88.0	88.1
5.0	81.7	82.6	83.5	84.1	84.7	85.1	85.5	85.8	86.1
5.5	78.8	79.9	81.0	81.7	82.5	82.9	83.3	83.6	83.9
6.0	76.5	77.6	78.7	79.4	80.1	80.6	81.1	81.5	81.8
6.5	74.0	75.2	76.4	77.2	77.9	78.5	79.0	79.4	79.8
7.0	71.7	72.9	74.0	74.9	75.7	76.4	77.0	77.4	77.8
7.5	69.3	70.6	72.0	72.8	73.6	74.2	74.9	75.3	75.8
8.0	67.5	68.6	69.7	70.7	71.7	72.3	73.0	73.4	73.8
8.5	65.3	66.4	67.6	68.5	69.5	70.2	71.0	71.5	72.0
9.0	63.0	64.2	65.5	66.6	67.6	68.3	69.0	69.6	70.2
9.5	60.9	62.2	63.5	64.5	65.4	66.2	67.0	67.7	68.3
10.0	59.4	60.5	61.5	62.6	63.6	64.4	65.2	65.8	66.4
10.5	57.4	58.5	59.7	60.7	61.7	62.5	63.3	64.0	64.7
11.0	55.3	56.6	57.9	58.9	59.9	60.8	61.6	62.3	63.0
11.5	53.4	54.8	56.1	57.2	58.2	59.0	59.8	60.5	61.1
12.0	51.9	53.1	54.4	55.5	56.6	57.3	58.1	58.8	59.5
12.5	50.2	51.5	52.8	53.8	54.9	55.7	56.5	57.3	58.0
13.0	48.9	50.0	51.1	52.2	53.2	54.1	55.0	55.7	56.4
13.5	47.0	48.4	49.7	50.7	51.6	52.5	53.4	54.1	54.8
14.0	45.9	47.0	48.1	49.2	50.2	51.0	51.9	52.6	53.3
14.5	44.4	45.5	46.6	47.6	48.6	49.5	50.5	51.2	51.9
15.0	42.9	44.0	45.2	46.2	47.3	48.2	49.0	49.7	50.4
15.5	41.6	42.7	43.9	44.9	45.9	46.8	47.7	48.3	49.0
16.0	40.2	41.4	42.5	43.6	44.6	45.4	46.2	46.9	47.6
16.5	39.0	40.1	41.3	42.3	43.3	44.1	45.0	45.7	46.3
17.0	38.0	39.0	40.0	41.0	42.0	42.9	43.8	44.5	45.2
17.5	36.7	37.8	38.9	39.8	40.8	41.6	42.5	43.2	43.9
18.0	35.7	36.7	37.8	38.7	39.6	40.5	41.3	42.0	42.7
18.5	34.6	35.6	36.6	37.5	38.4	39.3	40.2	40.8	41.5
19.0	33.6	34.5	35.5	36.4	37.3	38.1	38.9	39.6	40.3
19.5	32.6	33.5	34.4	35.3	36.2	37.0	37.8	38.5	39.2
20.0	31.5	32.5	33.4	34.3	35.2	36.0	36.8	37.5	38.1

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	30.5	31.5	32.5	33.3	34.2	35.0	35.7	36.4	37.1
21.0	29.8	30.6	31.4	32.3	33.3	34.0	34.8	35.4	36.1
21.5	28.7	29.6	30.6	31.4	32.3	33.0	33.8	34.5	35.1
22.0	28.1	28.9	29.6	30.5	31.4	32.1	32.9	33.5	34.2
22.5	27.3	28.0	28.8	29.6	30.4	31.2	31.9	32.6	33.3
23.0	26.4	27.2	27.9	28.8	29.6	30.3	31.0	31.7	32.4
23.5	25.5	26.3	27.1	27.9	28.8	29.5	30.2	30.8	31.5
24.0	24.7	25.5	26.4	27.1	27.9	28.6	29.3	30.0	30.6
24.5	24.0	24.8	25.6	26.4	27.2	27.8	28.5	29.1	29.8
25.0	23.3	24.1	24.9	25.6	26.3	27.0	27.7	28.3	28.9
25.5	22.7	23.4	24.1	24.9	25.6	26.2	26.9	27.5	28.1
26.0	21.9	22.7	23.5	24.2	24.9	25.6	26.2	26.8	27.4
26.5	21.3	22.0	22.7	23.5	24.2	24.9	25.5	26.1	26.6
27.0	20.8	21.4	22.1	22.8	23.5	24.1	24.7	25.3	25.9
27.5	20.2	20.9	21.5	22.2	22.8	23.5	24.1	24.7	25.2
28.0	19.6	20.2	20.9	21.5	22.2	22.8	23.5	24.0	24.6
28.5	19.1	19.7	20.3	21.0	21.6	22.2	22.8	23.3	23.9
29.0	18.5	19.1	19.7	20.4	21.0	21.6	22.2	22.7	23.3
29.5	17.8	18.5	19.2	19.8	20.4	21.0	21.6	22.1	22.6
30.0	17.4	18.0	18.6	19.2	19.9	20.4	21.0	21.5	22.0
30.5	16.9	17.5	18.1	18.7	19.3	19.9	20.4	20.9	21.4
31.0	16.5	17.0	17.5	18.2	18.8	19.3	19.9	20.4	20.9
31.5	16.0	16.5	17.0	17.7	18.3	18.8	19.3	19.8	20.3
32.0	15.6	16.1	16.6	17.2	17.8	18.3	18.8	19.3	19.7
32.5	15.0	15.6	16.2	16.7	17.2	17.8	18.3	18.7	19.2
33.0	14.7	15.2	15.7	16.3	16.8	17.3	17.8	18.2	18.7
33.5	14.3	14.8	15.2	15.8	16.3	16.8	17.3	17.8	18.2
34.0	13.7	14.3	14.9	15.4	15.9	16.4	16.8	17.3	17.8
34.5	13.4	14.0	14.5	15.0	15.5	15.9	16.4	16.9	17.3

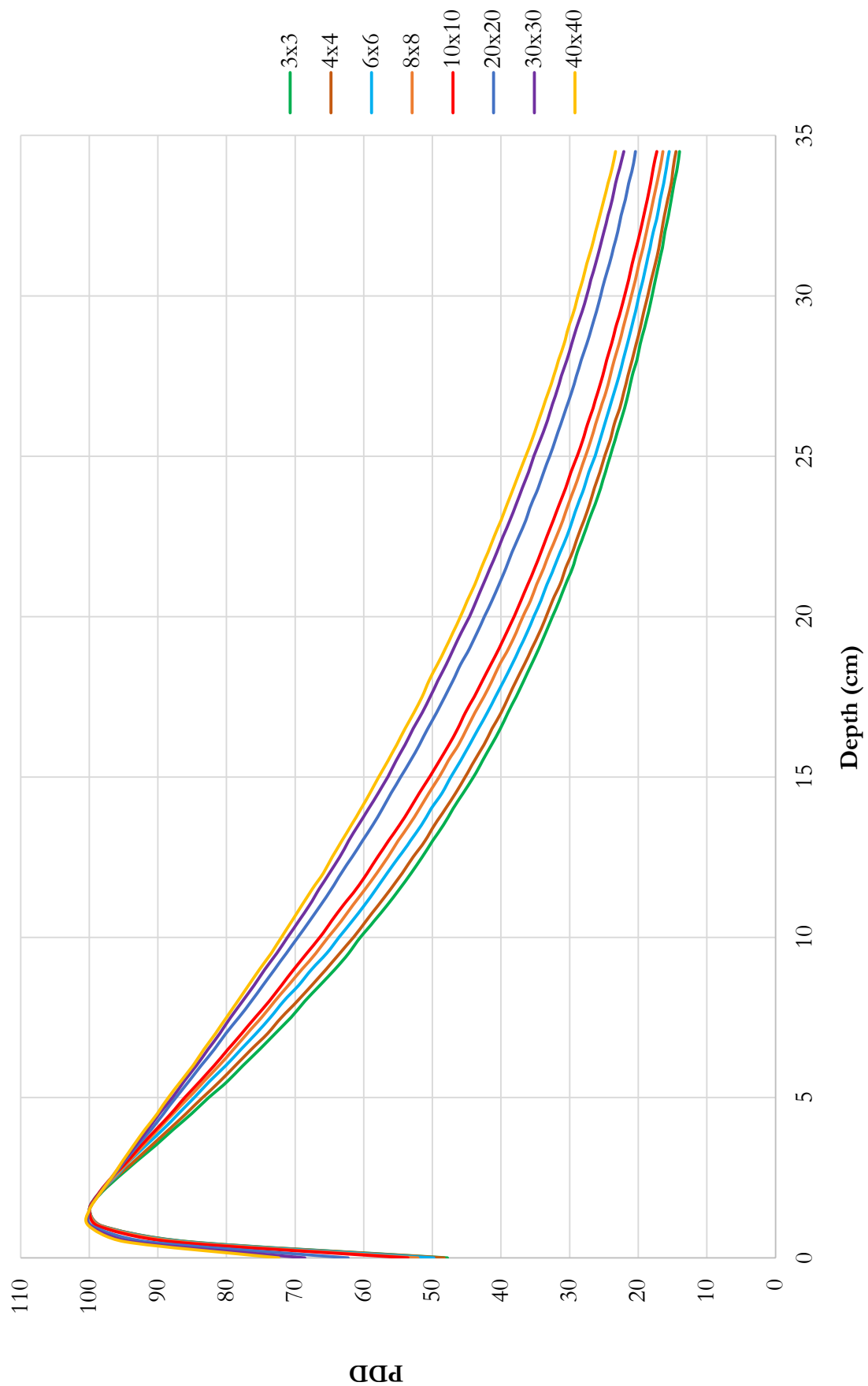
Normalized to 1.5 cm	6X PDD Open									
	Landauer Cancer Institute - Jackson, WY									
	Varian TrueBeam #9999									
Depth (cm)	11x11 (cm ²)	12x12 (cm ²)	13x13 (cm ²)	14x14 (cm ²)	15x15 (cm ²)	16x16 (cm ²)	17x17 (cm ²)	18x18 (cm ²)	19x19 (cm ²)	20x20 (cm ²)
0.0	54.5	55.3	56.2	57.1	57.9	58.8	59.7	60.5	61.4	62.3
0.5	88.3	88.7	89.0	89.4	89.7	90.1	90.4	90.8	91.1	91.5
1.0	98.9	99.0	99.0	99.1	99.2	99.3	99.4	99.5	99.5	99.6
1.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2.0	98.7	98.7	98.7	98.6	98.6	98.6	98.6	98.5	98.5	98.5
2.5	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7
3.0	94.6	94.6	94.7	94.7	94.7	94.8	94.8	94.8	94.9	94.9
3.5	92.6	92.6	92.7	92.7	92.8	92.8	92.9	92.9	93.0	93.0
4.0	90.3	90.4	90.5	90.6	90.7	90.7	90.8	90.9	91.0	91.0
4.5	88.2	88.3	88.4	88.5	88.6	88.7	88.8	88.9	89.1	89.2
5.0	86.2	86.4	86.5	86.6	86.7	86.9	87.0	87.1	87.2	87.4
5.5	84.1	84.2	84.4	84.5	84.7	84.8	85.0	85.1	85.3	85.5
6.0	82.0	82.2	82.4	82.6	82.8	82.9	83.1	83.3	83.5	83.7
6.5	80.0	80.2	80.4	80.6	80.8	81.0	81.2	81.4	81.6	81.8
7.0	78.1	78.3	78.5	78.7	78.9	79.2	79.4	79.6	79.8	80.1
7.5	76.0	76.3	76.5	76.8	77.0	77.3	77.5	77.7	78.0	78.2
8.0	74.1	74.4	74.6	74.9	75.1	75.4	75.6	75.9	76.1	76.4
8.5	72.3	72.6	72.9	73.1	73.4	73.7	73.9	74.2	74.5	74.7
9.0	70.5	70.8	71.0	71.3	71.6	71.9	72.2	72.5	72.7	73.0
9.5	68.6	68.9	69.2	69.5	69.8	70.1	70.4	70.7	71.0	71.3
10.0	66.7	67.0	67.4	67.7	68.0	68.3	68.6	69.0	69.3	69.6
10.5	65.0	65.3	65.7	66.0	66.3	66.6	66.9	67.3	67.6	67.9
11.0	63.3	63.6	64.0	64.3	64.6	65.0	65.3	65.6	66.0	66.3
11.5	61.5	61.9	62.2	62.6	62.9	63.3	63.6	64.0	64.3	64.7
12.0	59.9	60.3	60.6	61.0	61.4	61.8	62.1	62.5	62.9	63.3
12.5	58.3	58.7	59.1	59.5	59.8	60.2	60.6	60.9	61.3	61.7
13.0	56.8	57.2	57.6	57.9	58.3	58.7	59.1	59.5	59.9	60.2
13.5	55.2	55.6	56.0	56.4	56.8	57.2	57.5	57.9	58.3	58.7
14.0	53.7	54.1	54.5	54.9	55.3	55.7	56.1	56.5	56.9	57.3
14.5	52.3	52.7	53.1	53.5	53.9	54.3	54.7	55.1	55.6	56.0
15.0	50.8	51.3	51.7	52.1	52.5	52.9	53.4	53.8	54.2	54.6
15.5	49.4	49.9	50.3	50.7	51.1	51.5	51.9	52.4	52.8	53.2
16.0	48.0	48.5	48.9	49.3	49.8	50.2	50.6	51.1	51.5	51.9
16.5	46.7	47.2	47.6	48.0	48.5	48.9	49.3	49.8	50.2	50.7
17.0	45.6	46.0	46.4	46.9	47.3	47.7	48.1	48.6	49.0	49.4
17.5	44.3	44.7	45.2	45.6	46.0	46.5	46.9	47.3	47.8	48.2
18.0	43.2	43.6	44.0	44.4	44.9	45.3	45.7	46.1	46.6	47.0
18.5	41.9	42.4	42.8	43.2	43.7	44.1	44.6	45.0	45.4	45.9
19.0	40.8	41.2	41.6	42.1	42.5	42.9	43.3	43.8	44.2	44.6
19.5	39.7	40.1	40.5	41.0	41.4	41.8	42.3	42.7	43.1	43.5
20.0	38.5	39.0	39.4	39.8	40.3	40.7	41.1	41.6	42.0	42.4

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	37.5	37.9	38.4	38.8	39.2	39.6	40.0	40.5	40.9	41.3
21.0	36.5	36.9	37.4	37.8	38.2	38.6	39.1	39.5	39.9	40.3
21.5	35.5	35.9	36.4	36.8	37.2	37.6	38.0	38.5	38.9	39.3
22.0	34.6	35.0	35.5	35.9	36.3	36.7	37.1	37.6	38.0	38.4
22.5	33.7	34.1	34.5	34.9	35.4	35.8	36.2	36.6	37.0	37.4
23.0	32.8	33.2	33.6	34.0	34.4	34.8	35.2	35.6	36.0	36.4
23.5	31.9	32.3	32.7	33.1	33.5	33.9	34.3	34.7	35.2	35.6
24.0	31.0	31.4	31.8	32.2	32.6	33.0	33.4	33.8	34.2	34.6
24.5	30.2	30.6	31.0	31.4	31.8	32.2	32.6	33.0	33.4	33.8
25.0	29.3	29.7	30.1	30.5	30.9	31.3	31.7	32.1	32.5	32.9
25.5	28.5	28.9	29.3	29.7	30.1	30.5	30.9	31.3	31.7	32.1
26.0	27.8	28.2	28.6	29.0	29.4	29.8	30.2	30.6	30.9	31.3
26.5	27.0	27.4	27.8	28.2	28.6	29.0	29.4	29.7	30.1	30.5
27.0	26.3	26.7	27.0	27.4	27.8	28.2	28.6	29.0	29.3	29.7
27.5	25.6	26.0	26.4	26.8	27.1	27.5	27.9	28.3	28.6	29.0
28.0	24.9	25.3	25.7	26.1	26.4	26.8	27.2	27.5	27.9	28.3
28.5	24.2	24.6	25.0	25.3	25.7	26.1	26.4	26.8	27.2	27.5
29.0	23.6	24.0	24.3	24.7	25.0	25.4	25.8	26.1	26.5	26.8
29.5	23.0	23.3	23.7	24.0	24.4	24.7	25.1	25.4	25.8	26.1
30.0	22.3	22.7	23.0	23.4	23.8	24.1	24.5	24.8	25.2	25.5
30.5	21.8	22.1	22.5	22.8	23.2	23.5	23.9	24.2	24.6	24.9
31.0	21.2	21.6	21.9	22.2	22.6	22.9	23.2	23.6	23.9	24.2
31.5	20.6	21.0	21.3	21.6	22.0	22.3	22.6	23.0	23.3	23.6
32.0	20.1	20.4	20.7	21.1	21.4	21.7	22.1	22.4	22.7	23.0
32.5	19.5	19.9	20.2	20.5	20.8	21.2	21.5	21.8	22.1	22.5
33.0	19.0	19.3	19.7	20.0	20.3	20.6	21.0	21.3	21.6	21.9
33.5	18.5	18.8	19.2	19.5	19.8	20.1	20.4	20.7	21.1	21.4
34.0	18.1	18.4	18.7	19.0	19.3	19.6	19.9	20.2	20.5	20.8
34.5	17.6	17.9	18.2	18.5	18.9	19.2	19.5	19.8	20.1	20.4

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	63.5	64.8	66.1	67.3	68.6	69.4	70.1	70.9	71.7	72.4
0.5	91.9	92.4	92.8	93.3	93.7	93.9	94.1	94.4	94.6	94.8
1.0	99.7	99.7	99.8	99.8	99.9	99.9	100.0	100.0	100.1	100.1
1.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2.0	98.5	98.5	98.5	98.6	98.6	98.6	98.6	98.5	98.5	98.5
2.5	96.7	96.7	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8
3.0	94.9	95.0	95.0	95.1	95.1	95.1	95.1	95.2	95.2	95.2
3.5	93.1	93.1	93.2	93.2	93.3	93.4	93.4	93.5	93.6	93.6
4.0	91.1	91.2	91.3	91.4	91.5	91.6	91.7	91.7	91.8	91.9
4.5	89.3	89.4	89.5	89.6	89.8	89.8	89.9	90.0	90.1	90.1
5.0	87.5	87.6	87.7	87.8	87.9	88.0	88.1	88.2	88.4	88.5
5.5	85.6	85.8	85.9	86.1	86.2	86.3	86.4	86.5	86.6	86.7
6.0	83.8	84.0	84.1	84.3	84.4	84.5	84.6	84.7	84.8	84.9
6.5	82.0	82.2	82.4	82.6	82.7	82.9	83.0	83.1	83.2	83.3
7.0	80.2	80.4	80.6	80.8	81.0	81.1	81.2	81.4	81.5	81.6
7.5	78.5	78.7	78.9	79.2	79.4	79.5	79.6	79.8	79.9	80.0
8.0	76.6	76.9	77.2	77.4	77.7	77.8	78.0	78.1	78.3	78.4
8.5	75.0	75.2	75.5	75.8	76.0	76.2	76.3	76.5	76.6	76.8
9.0	73.3	73.6	73.8	74.1	74.4	74.5	74.7	74.9	75.1	75.2
9.5	71.6	71.9	72.2	72.4	72.7	72.9	73.0	73.2	73.4	73.5
10.0	69.9	70.2	70.5	70.8	71.1	71.3	71.5	71.6	71.8	72.0
10.5	68.2	68.5	68.9	69.2	69.5	69.7	69.9	70.1	70.3	70.5
11.0	66.6	67.0	67.3	67.6	67.9	68.1	68.3	68.5	68.7	69.0
11.5	65.0	65.4	65.8	66.2	66.5	66.7	66.9	67.1	67.3	67.5
12.0	63.6	64.0	64.3	64.7	65.0	65.2	65.4	65.6	65.8	65.9
12.5	62.1	62.4	62.8	63.1	63.5	63.7	63.9	64.2	64.4	64.6
13.0	60.6	61.0	61.4	61.8	62.2	62.4	62.6	62.8	63.0	63.2
13.5	59.1	59.6	60.0	60.4	60.8	61.0	61.2	61.4	61.6	61.8
14.0	57.7	58.1	58.5	58.9	59.3	59.5	59.8	60.0	60.2	60.4
14.5	56.3	56.7	57.1	57.5	57.9	58.1	58.4	58.6	58.8	59.1
15.0	55.0	55.4	55.8	56.1	56.5	56.8	57.0	57.3	57.5	57.8
15.5	53.6	54.0	54.5	54.9	55.3	55.5	55.8	56.0	56.3	56.5
16.0	52.3	52.7	53.2	53.6	54.0	54.2	54.5	54.7	55.0	55.2
16.5	51.1	51.5	51.9	52.4	52.8	53.0	53.3	53.5	53.8	54.0
17.0	49.8	50.3	50.7	51.1	51.5	51.8	52.0	52.3	52.5	52.7
17.5	48.6	49.1	49.5	49.9	50.3	50.6	50.8	51.0	51.3	51.5
18.0	47.4	47.9	48.3	48.7	49.2	49.4	49.7	50.0	50.2	50.5
18.5	46.3	46.7	47.1	47.6	48.0	48.2	48.5	48.8	49.0	49.3
19.0	45.1	45.5	46.0	46.4	46.9	47.1	47.4	47.6	47.8	48.1
19.5	44.0	44.4	44.9	45.3	45.8	46.0	46.3	46.5	46.8	47.0
20.0	42.9	43.3	43.7	44.2	44.6	44.9	45.1	45.4	45.6	45.9

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	41.7	42.2	42.7	43.1	43.6	43.8	44.1	44.4	44.6	44.9
21.0	40.8	41.2	41.7	42.2	42.6	42.9	43.1	43.3	43.6	43.8
21.5	39.8	40.2	40.7	41.2	41.6	41.9	42.1	42.4	42.6	42.9
22.0	38.8	39.3	39.7	40.2	40.6	40.9	41.1	41.4	41.6	41.9
22.5	37.9	38.3	38.8	39.2	39.7	39.9	40.2	40.5	40.7	41.0
23.0	36.9	37.3	37.8	38.2	38.7	38.9	39.2	39.5	39.7	40.0
23.5	36.0	36.4	36.9	37.3	37.8	38.0	38.3	38.6	38.8	39.1
24.0	35.1	35.5	36.0	36.4	36.9	37.1	37.4	37.7	37.9	38.2
24.5	34.2	34.6	35.1	35.5	36.0	36.2	36.5	36.8	37.0	37.3
25.0	33.3	33.8	34.3	34.7	35.2	35.4	35.7	35.9	36.2	36.4
25.5	32.5	33.0	33.4	33.8	34.3	34.5	34.8	35.0	35.3	35.5
26.0	31.8	32.2	32.6	33.0	33.4	33.7	33.9	34.2	34.4	34.7
26.5	31.0	31.4	31.8	32.2	32.7	32.9	33.2	33.4	33.7	33.9
27.0	30.2	30.6	31.0	31.5	31.9	32.1	32.4	32.6	32.9	33.1
27.5	29.4	29.9	30.3	30.7	31.2	31.4	31.6	31.9	32.1	32.3
28.0	28.7	29.1	29.5	29.9	30.4	30.6	30.8	31.1	31.3	31.6
28.5	28.0	28.4	28.8	29.2	29.7	29.9	30.1	30.4	30.6	30.8
29.0	27.3	27.7	28.1	28.5	29.0	29.2	29.4	29.7	29.9	30.2
29.5	26.5	26.9	27.4	27.8	28.2	28.4	28.7	28.9	29.2	29.4
30.0	25.9	26.3	26.7	27.1	27.5	27.8	28.0	28.3	28.5	28.8
30.5	25.3	25.7	26.1	26.5	26.9	27.2	27.4	27.6	27.9	28.1
31.0	24.6	25.0	25.4	25.8	26.2	26.5	26.7	27.0	27.2	27.5
31.5	24.0	24.4	24.8	25.2	25.6	25.9	26.1	26.3	26.6	26.8
32.0	23.4	23.8	24.2	24.6	25.0	25.3	25.5	25.7	26.0	26.2
32.5	22.9	23.3	23.6	24.0	24.4	24.6	24.9	25.1	25.3	25.6
33.0	22.3	22.7	23.1	23.5	23.8	24.1	24.3	24.5	24.7	25.0
33.5	21.8	22.1	22.5	22.9	23.3	23.5	23.7	23.9	24.1	24.4
34.0	21.2	21.6	21.9	22.3	22.7	22.9	23.1	23.4	23.6	23.8
34.5	20.8	21.1	21.5	21.8	22.1	22.4	22.6	22.8	23.1	23.3

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

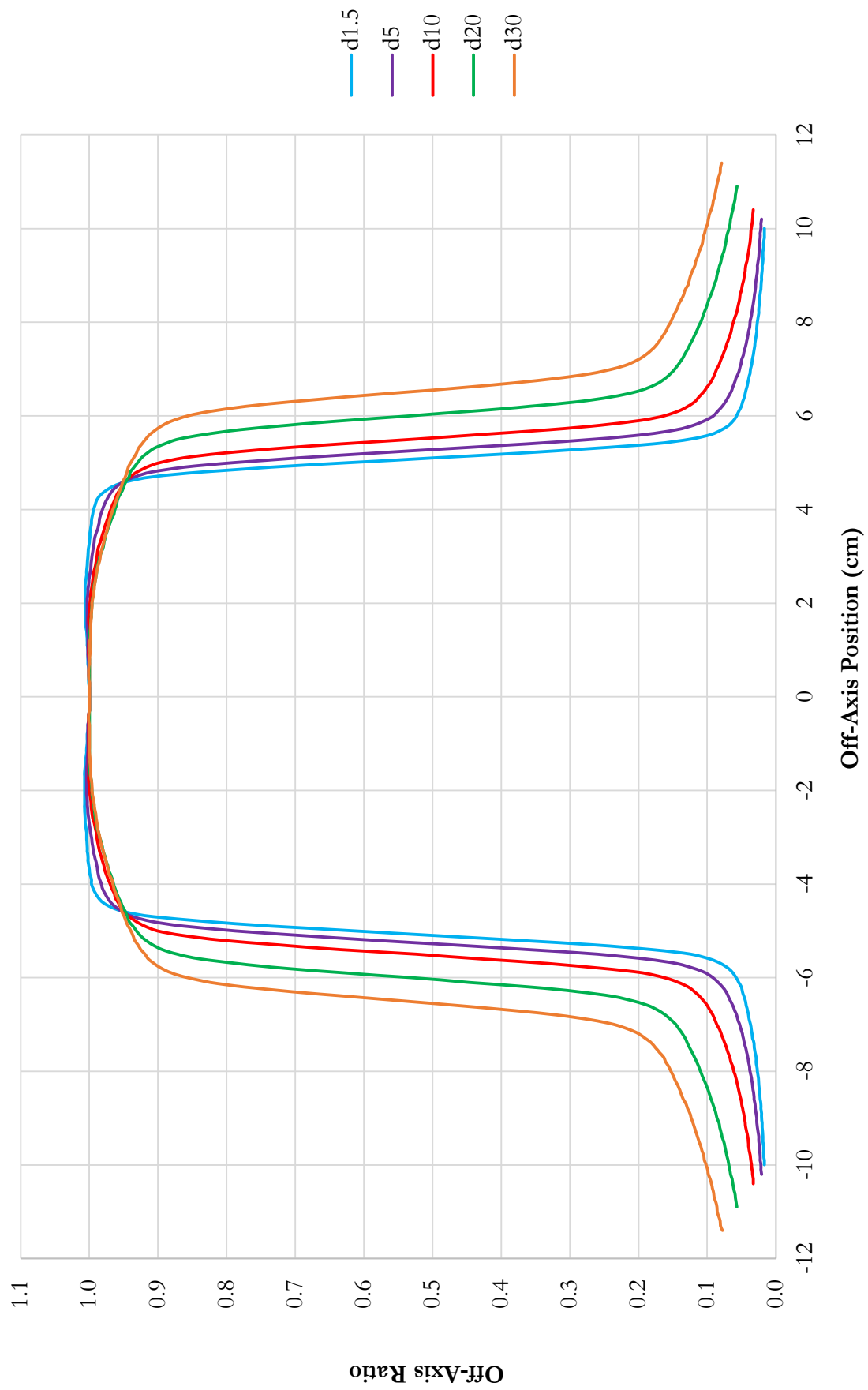


Photon Energies

6X Crossplane

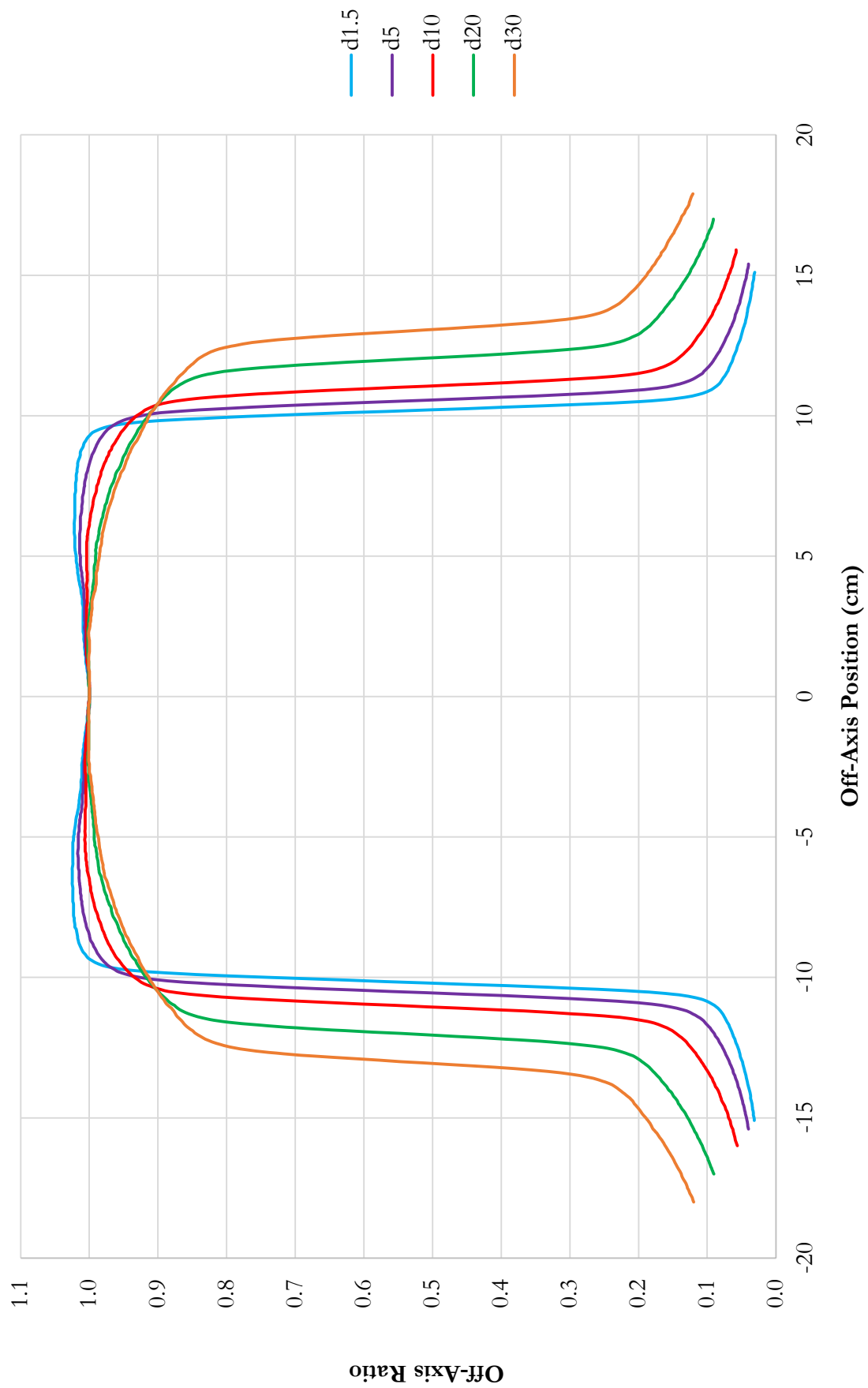
6X Crossplane Open 10x10 100 SSD Landauer Cancer Institute - Jackson, WY Varian TrueBeam #9999					
Off-Axis (cm)	d1.5	d5	d10	d20	d30
-7.0	0.037	0.053	0.086	0.146	0.236
-6.5	0.044	0.066	0.105	0.207	0.541
-6.0	0.058	0.092	0.163	0.532	0.857
-5.5	0.124	0.260	0.524	0.872	0.919
-5.0	0.614	0.787	0.901	0.932	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 Varian TrueBeam #9999					
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

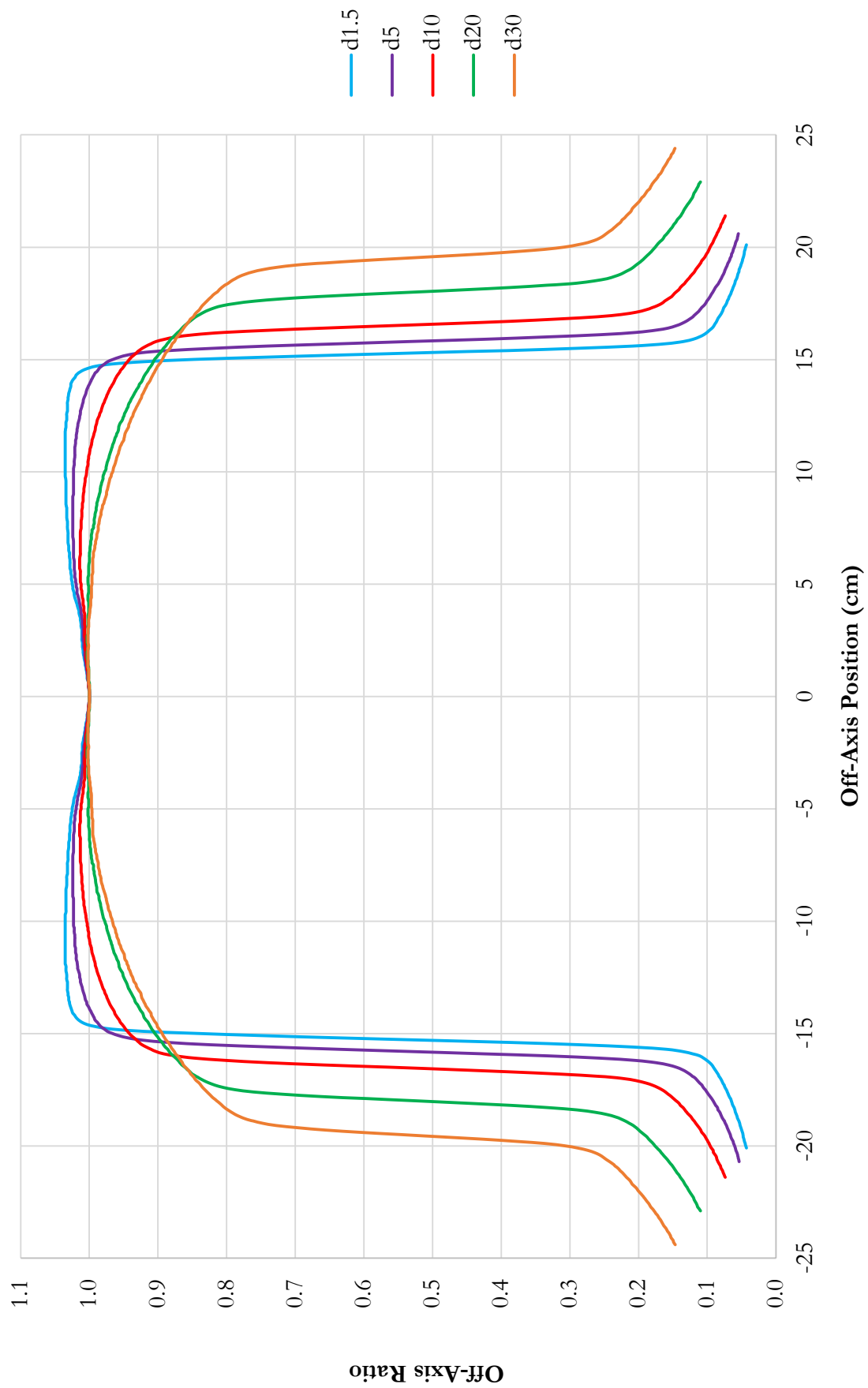
6X Crossplane Open 20x20 100 SSD
 Landauer Cancer Institute - Jackson, WY
 Varian TrueBeam #9999



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

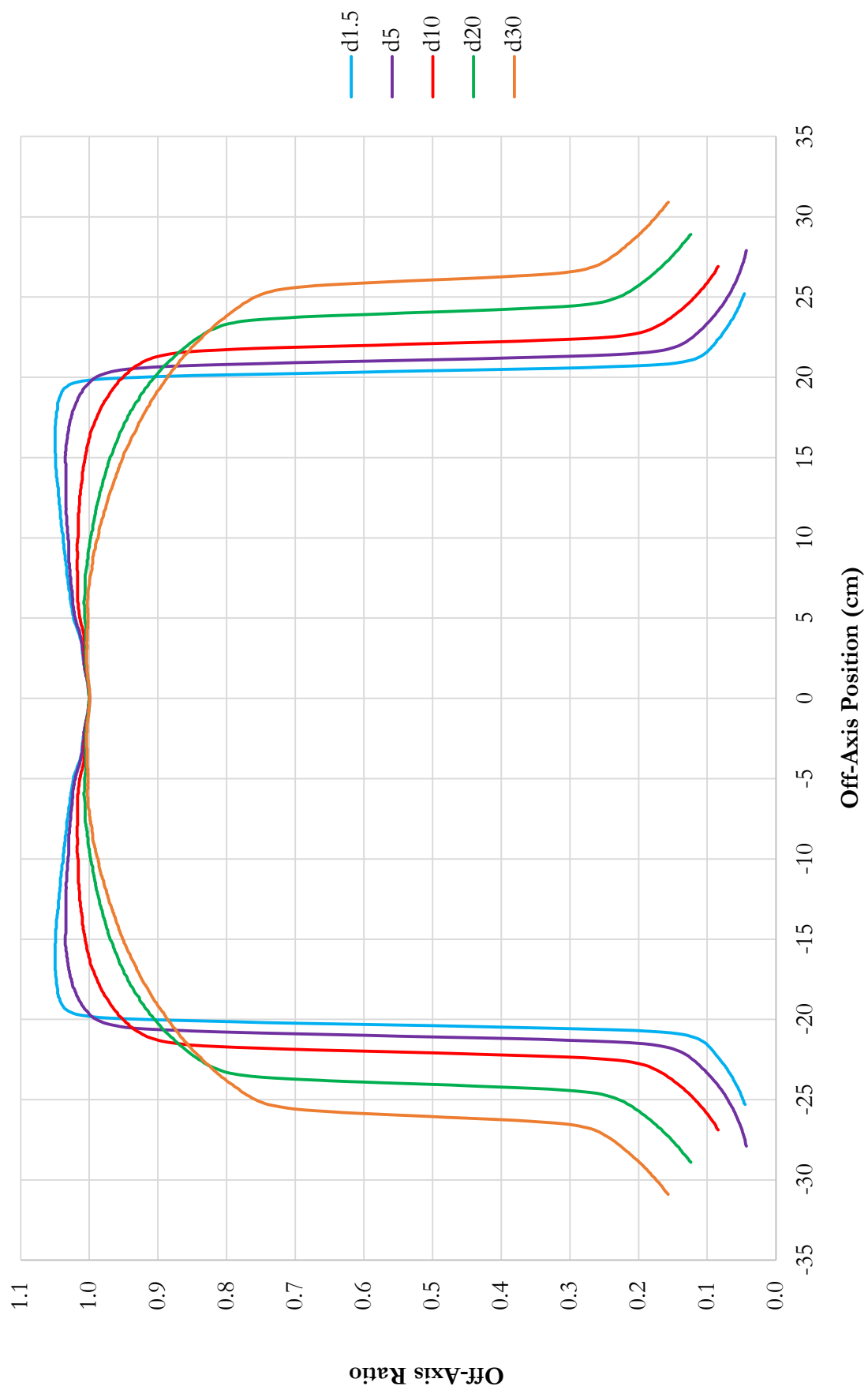
6X Crossplane Open 30x30 100 SSD
 Landauer Cancer Institute - Jackson, WY
 Varian TrueBeam #9999



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 Factors

6X Scatter Factors dmax 100 SAD Landauer Cancer Institute - Jackson, WY Varian Truebeam #9999			
Field (cm x cm)	Scp	Sp	Sc
2x2	0.894	0.943	0.948
3x3	0.916	0.959	0.955
4x4	0.931	0.970	0.960
5x5	0.947	0.977	0.969
6x6	0.960	0.983	0.978
7x7	0.972	0.987	0.984
8x8	0.983	0.992	0.991
9x9	0.991	0.996	0.996
10x10	1.000	1.000	1.000
11x11	1.007	1.003	1.003
12x12	1.013	1.007	1.007
13x13	1.019	1.010	1.009
14x14	1.024	1.013	1.011
15x15	1.029	1.016	1.013
16x16	1.033	1.018	1.015
17x17	1.037	1.021	1.017
18x18	1.042	1.023	1.018
19x19	1.046	1.025	1.020
20x20	1.050	1.027	1.022
21x21	1.053	1.029	1.023
22x22	1.056	1.031	1.025
23x23	1.059	1.032	1.026
24x24	1.062	1.034	1.027
25x25	1.065	1.036	1.028
26x26	1.067	1.037	1.029
27x27	1.070	1.039	1.030
28x28	1.072	1.040	1.031
29x29	1.075	1.041	1.032
30x30	1.077	1.043	1.033
31x31	1.078	1.043	1.033
32x32	1.080	1.044	1.034
33x33	1.081	1.045	1.035
34x34	1.082	1.046	1.035
35x35	1.084	1.046	1.036
36x36	1.084	1.047	1.035
37x37	1.084	1.048	1.035
38x38	1.085	1.048	1.035
39x39	1.085	1.049	1.034
40x40	1.085	1.049	1.034

Photon Energies

6X Beam Match Verification

6X Eclipse Output Factors 95 SSD d5
Landauer Cancer Institute - Jackson, WY
Varian TrueBeam #9999

Verification Data Measured on TrueBeam #9999

Open Field										
Y (cm)	3	4	5	7	10	15	20	30	40	
3	0.877							0.924		
4			0.926							
5										
7										
10				1.000					1.035	
15										
20	0.935						1.067			
30								1.104		
40					1.049				1.121	

Representative TrueBeam Data

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

% difference (Verification/Representative)

Open Field										
Y (cm)	3	4	5	7	10	15	20	30	40	
3	-0.4%							-0.2%		
4			-0.3%							
5										
7					0.0%				0.0%	
10										
15										
20	-0.1%					0.0%		0.0%		
30					0.1%				0.2%	
40										

Mephysto mcc - Report

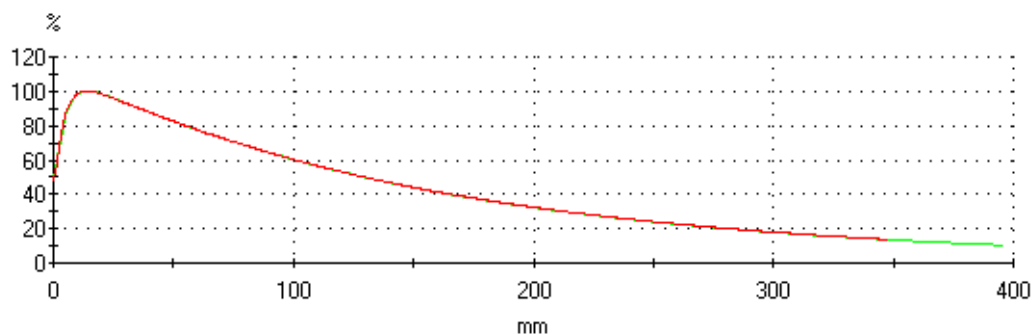
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Operator:
Comment:
Print-Date: 2020-09-01 15:33

Setup

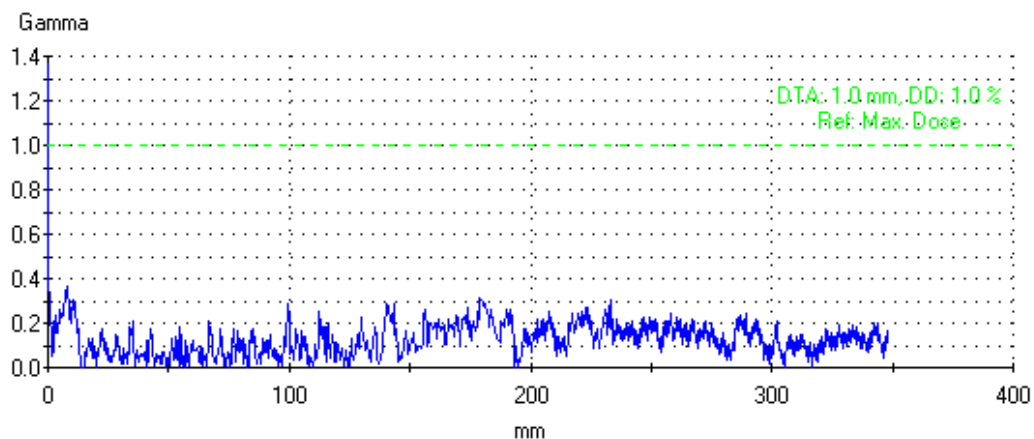
Modality: Photons
Measurement Date: *

Measurement Parameters

Energy [MV]: 6.0
Field Size Y x X [cm x cm]: 3.00 x 3.00
Depth [mm]:
Profile Type: PDD
Wedge: Open
Raw/Processed: Processed



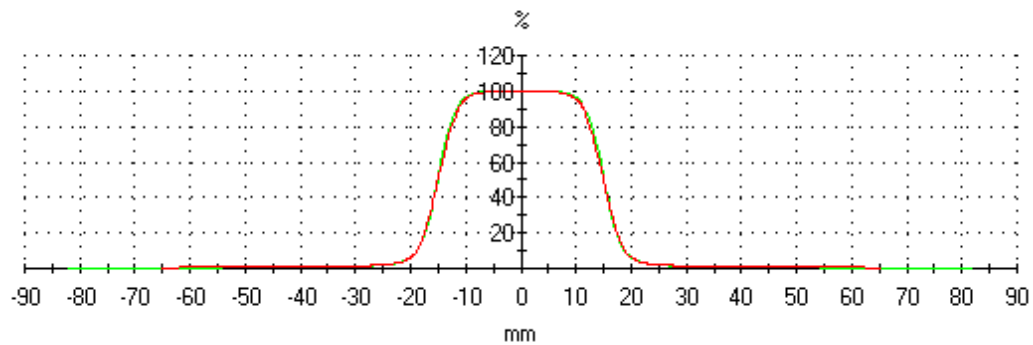
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



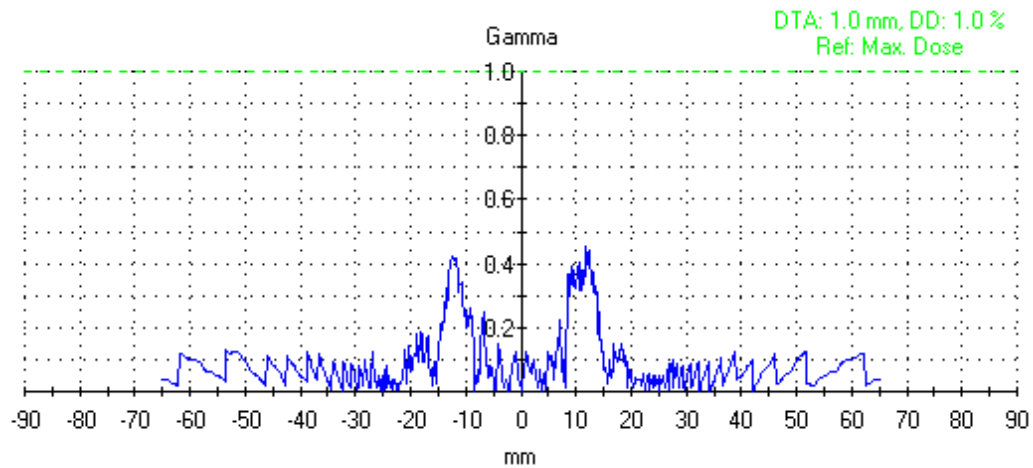
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 17:01

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	6.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	3.00 x 3.00
		Depth [mm]:	15.0
		Profile Type:	X Profile
		Wedge:	Open
		Raw/Processed:	Processed



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



Mephysto mcc - Report

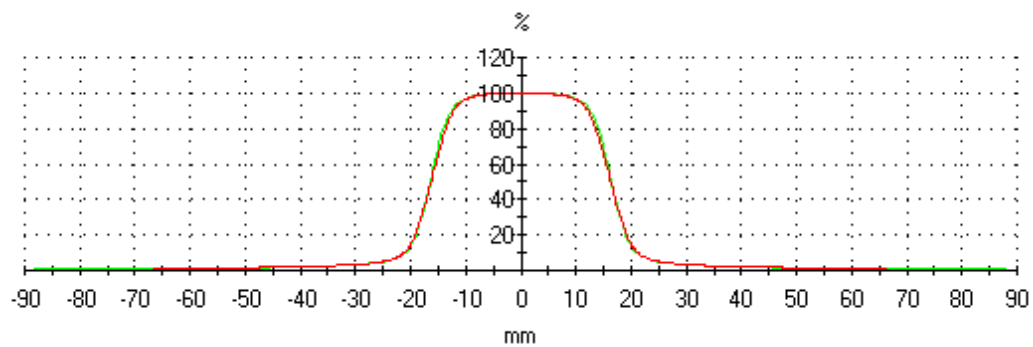
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Setup

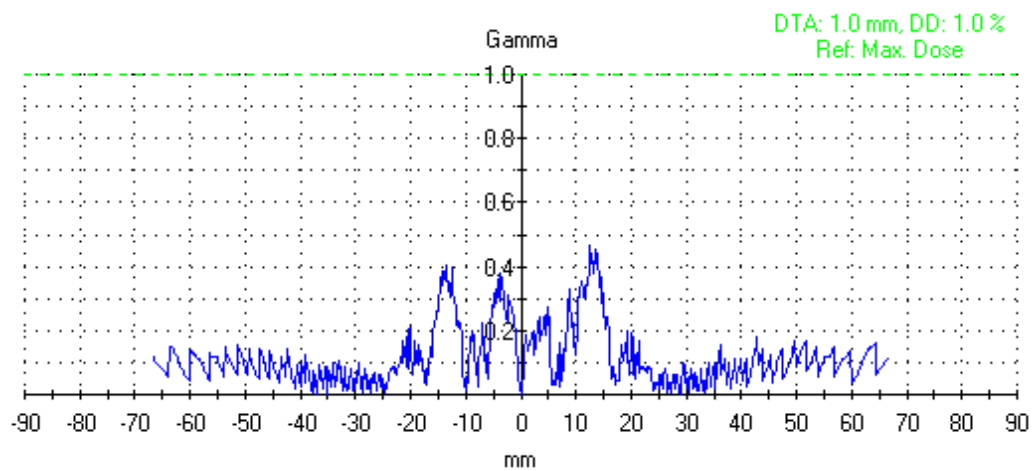
Modality: Photons
Measurement Date: *

Measurement Parameters

Energy [MV]: 6.0
Field Size Y x X [cm x cm]: 3.00 x 3.00
Depth [mm]: 100.0
Profile Type: X Profile
Wedge: Open
Raw/Processed: Processed



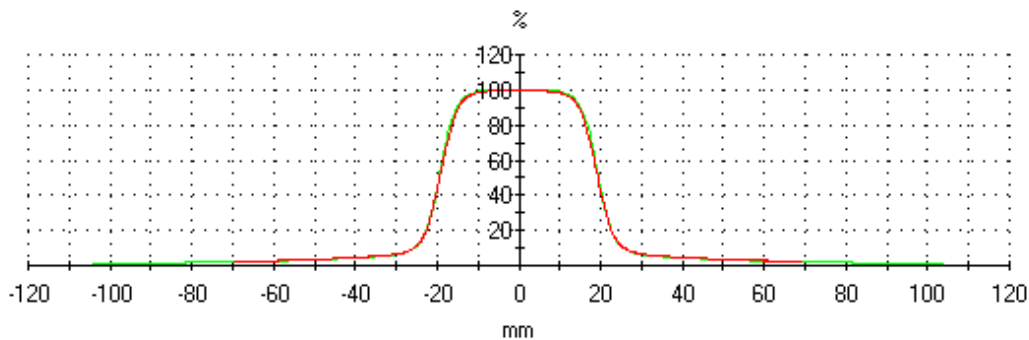
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



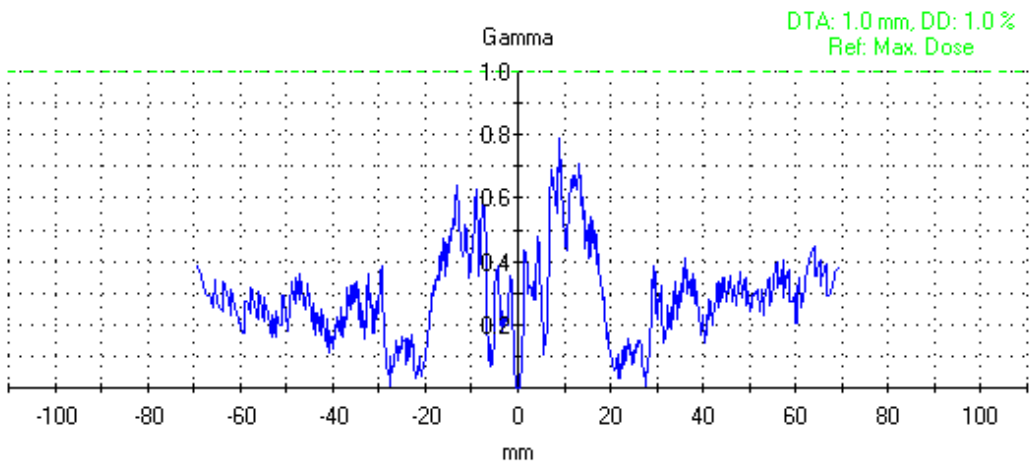
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 17:01

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	6.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	3.00 x 3.00
		Depth [mm]:	300.0
		Profile Type:	X Profile
		Wedge:	Open
		Raw/Processed:	Processed



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



Mephysto mcc - Report

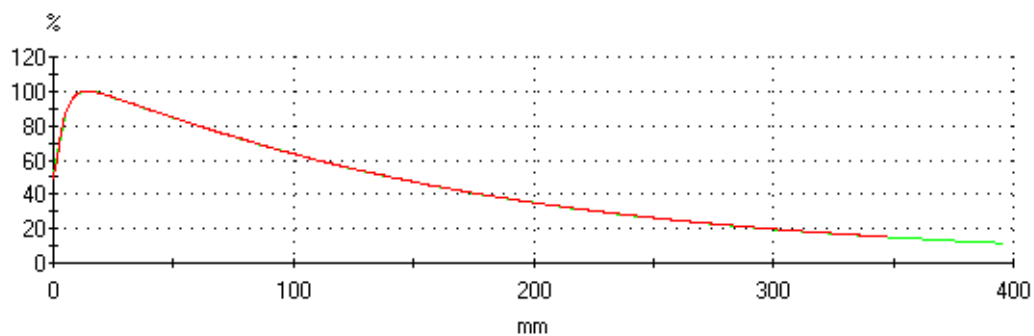
Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 15:36

Setup

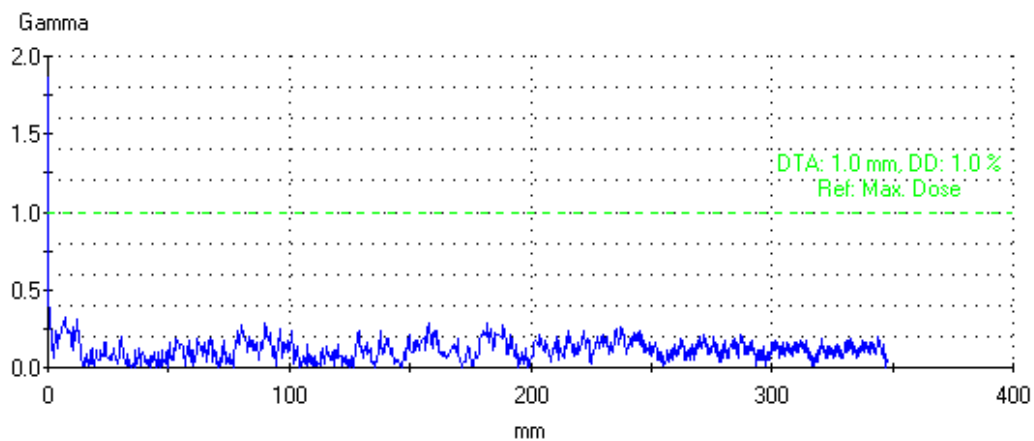
Modality: Photons
Measurement Date: *

Measurement Parameters

Energy [MV]: 6.0
Field Size Y x X [cm x cm]: 6.00 x 6.00
Depth [mm]:
Profile Type: PDD
Wedge: Open
Raw/Processed: Processed



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



Mephysto mcc - Report

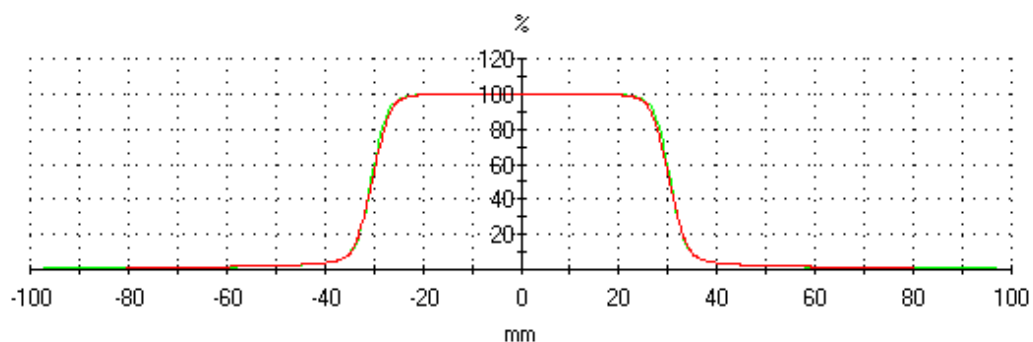
Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 17:02

Setup

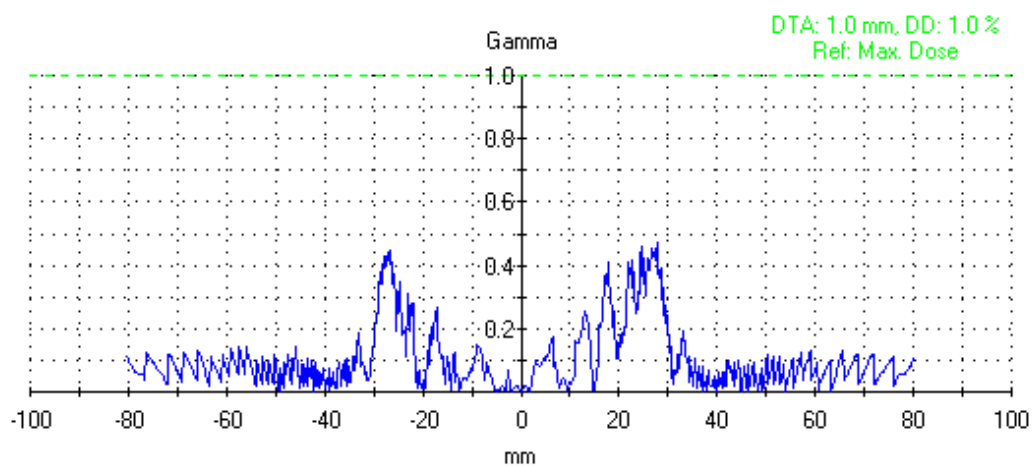
Modality: Photons
Measurement Date: *

Measurement Parameters

Energy [MV]: 6.0
Field Size Y x X [cm x cm]: 6.00 x 6.00
Depth [mm]: 15.0
Profile Type: X Profile
Wedge: Open
Raw/Processed: Processed



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



Mephysto mcc - Report

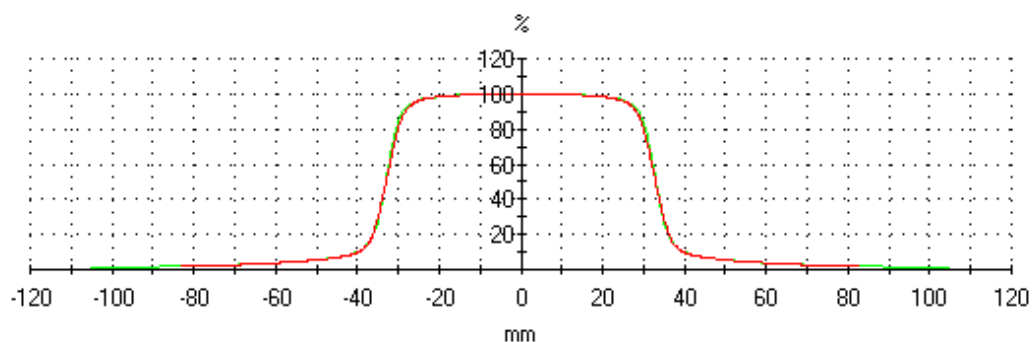
Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 17:02

Setup

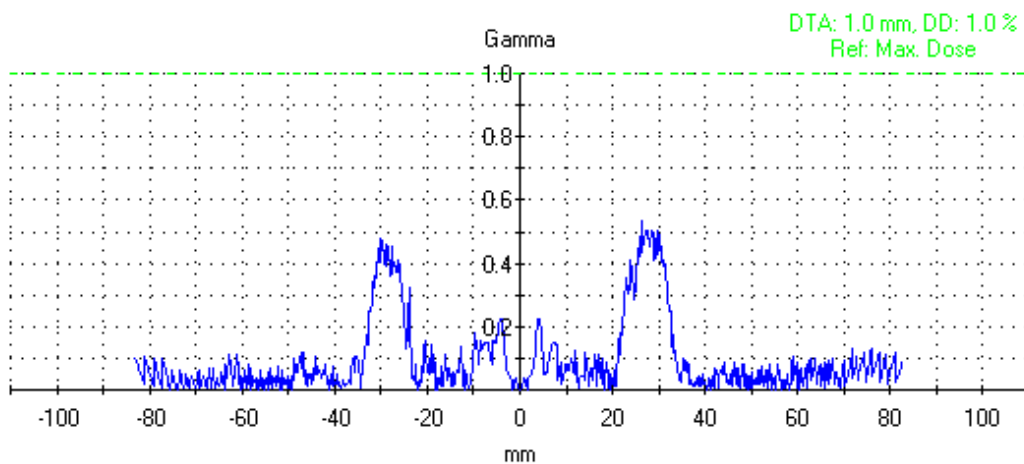
Modality: Photons
Measurement Date: *

Measurement Parameters

Energy [MV]: 6.0
Field Size Y x X [cm x cm]: 6.00 x 6.00
Depth [mm]: 100.0
Profile Type: X Profile
Wedge: Open
Raw/Processed: Processed



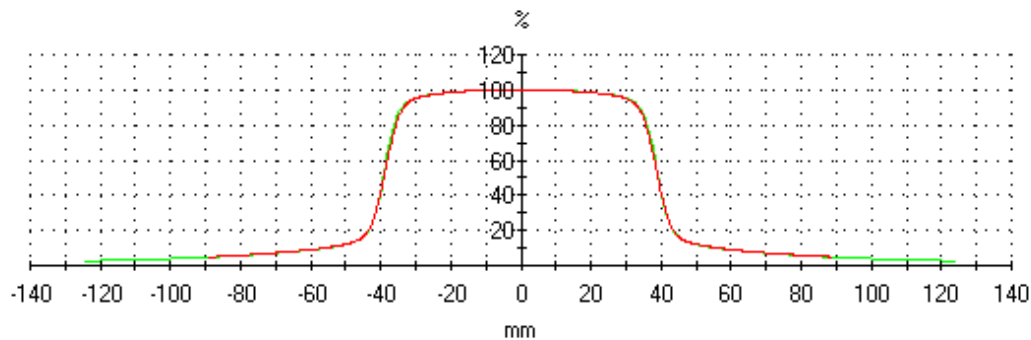
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



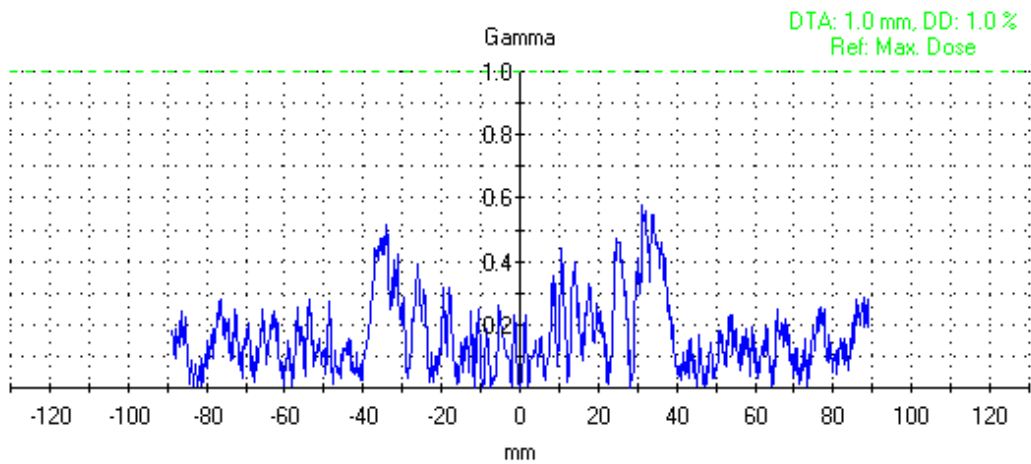
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 17:02

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	6.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	6.00 x 6.00
		Depth [mm]:	300.0
		Profile Type:	X Profile
		Wedge:	Open
		Raw/Processed:	Processed



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



Mephysto mcc - Report

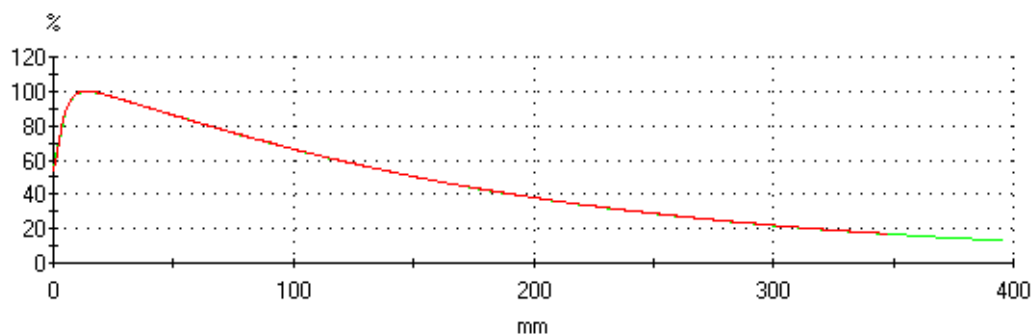
Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 15:37

Setup

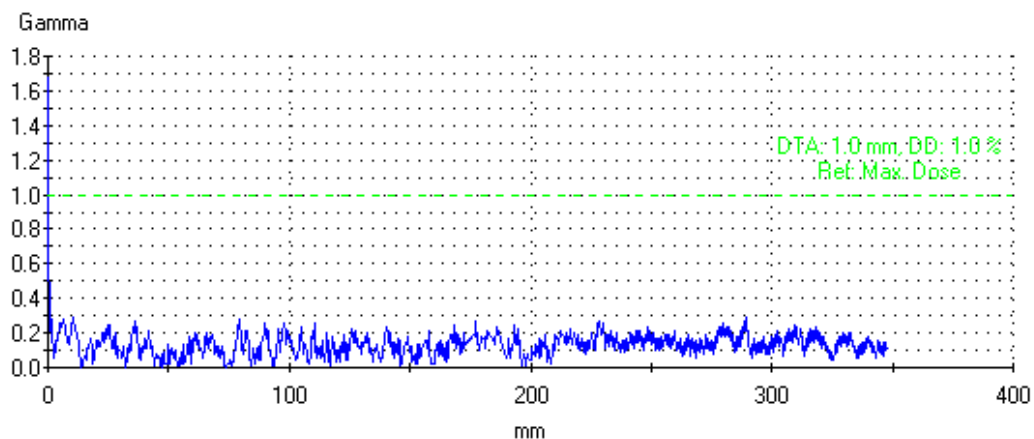
Modality: Photons
Measurement Date: *

Measurement Parameters

Energy [MV]: 6.0
Field Size Y x X [cm x cm]: 10.00 x 10.00
Depth [mm]:
Profile Type: PDD
Wedge: Open
Raw/Processed: Processed



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



Mephysto mcc - Report

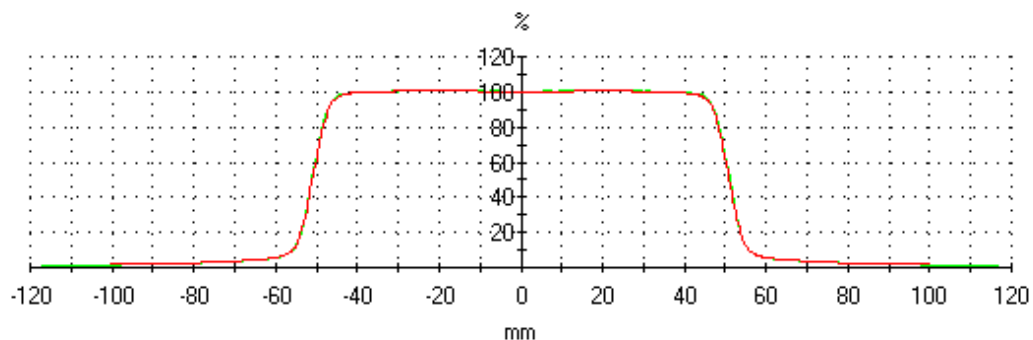
Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 17:03

Setup

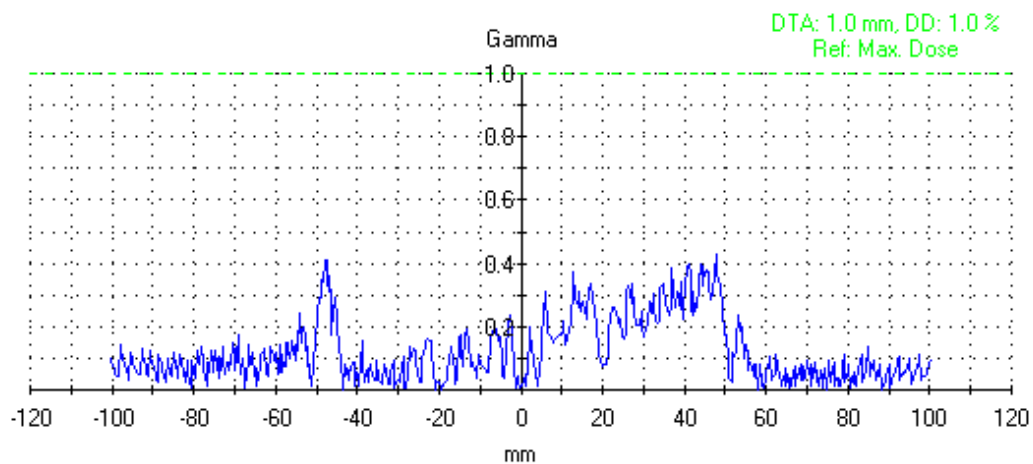
Modality: Photons
Measurement Date: *

Measurement Parameters

Energy [MV]: 6.0
Field Size Y x X [cm x cm]: 10.00 x 10.00
Depth [mm]: 15.0
Profile Type: X Profile
Wedge: Open
Raw/Processed: Processed



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



Mephysto mcc - Report

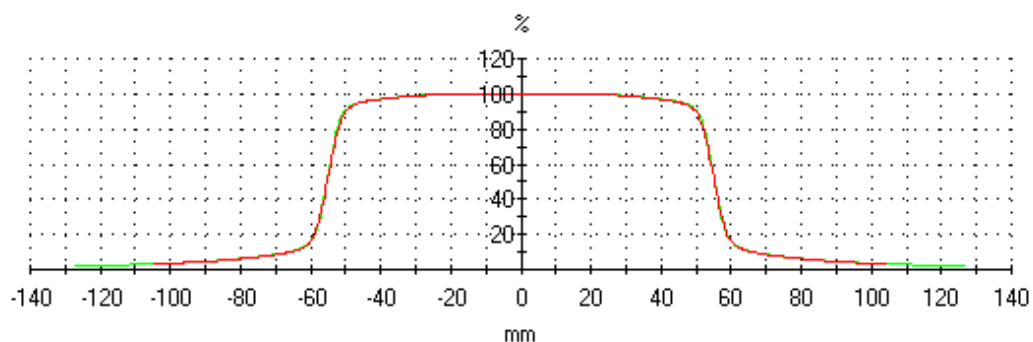
Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 17:03

Setup

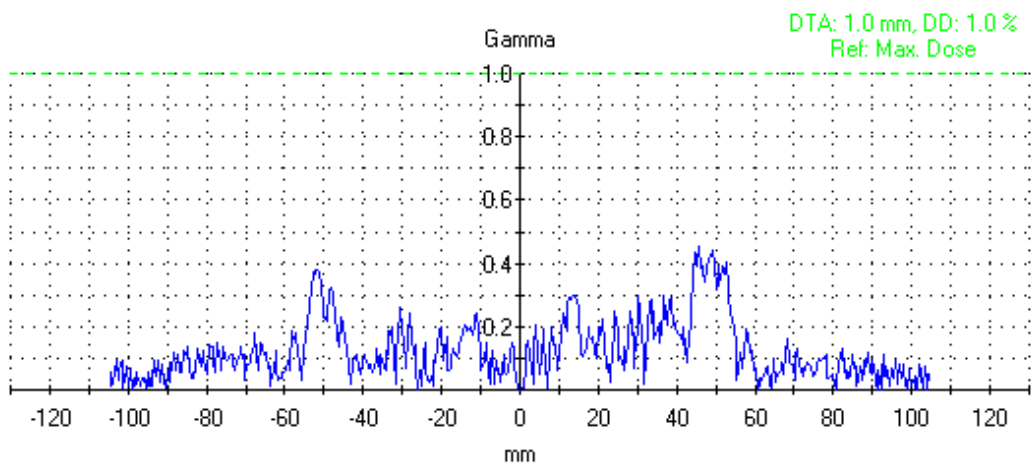
Modality: Photons
Measurement Date: *

Measurement Parameters

Energy [MV]: 6.0
Field Size Y x X [cm x cm]: 10.00 x 10.00
Depth [mm]: 100.0
Profile Type: X Profile
Wedge: Open
Raw/Processed: Processed



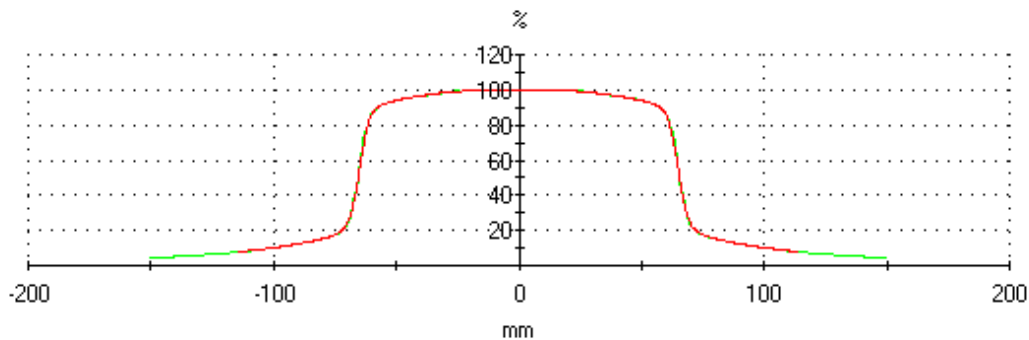
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



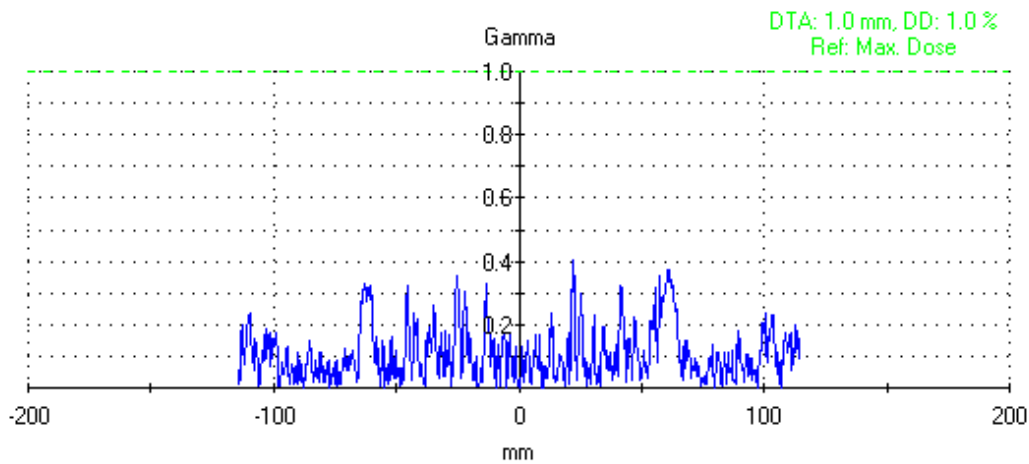
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 17:03

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	6.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	10.00 x 10.00
		Depth [mm]:	300.0
		Profile Type:	X Profile
		Wedge:	Open
		Raw/Processed:	Processed



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



Mephysto mcc - Report

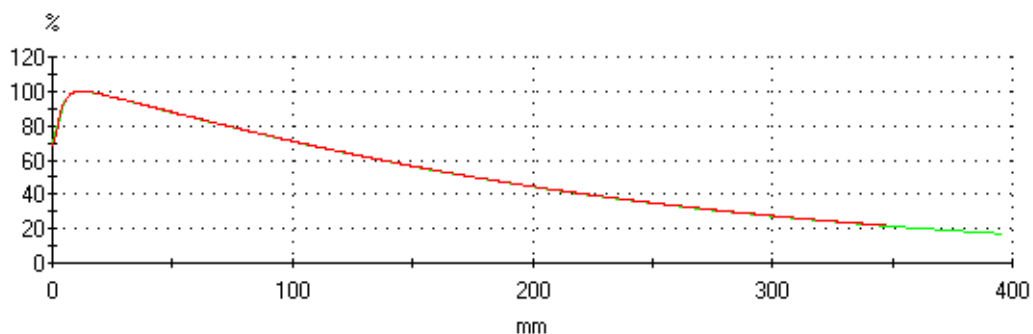
Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 15:37

Setup

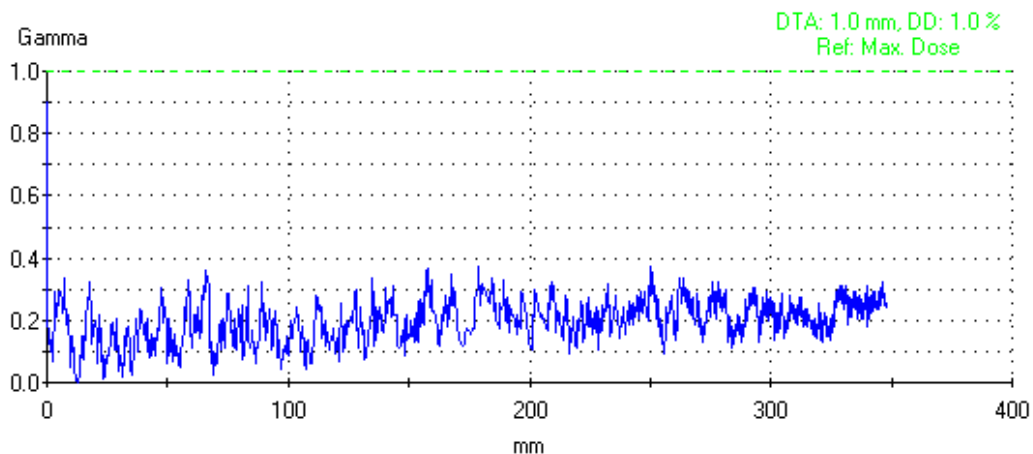
Modality: Photons
Measurement Date: *

Measurement Parameters

Energy [MV]: 6.0
Field Size Y x X [cm x cm]: 30.00 x 30.00
Depth [mm]:
Profile Type: PDD
Wedge: Open
Raw/Processed: Processed



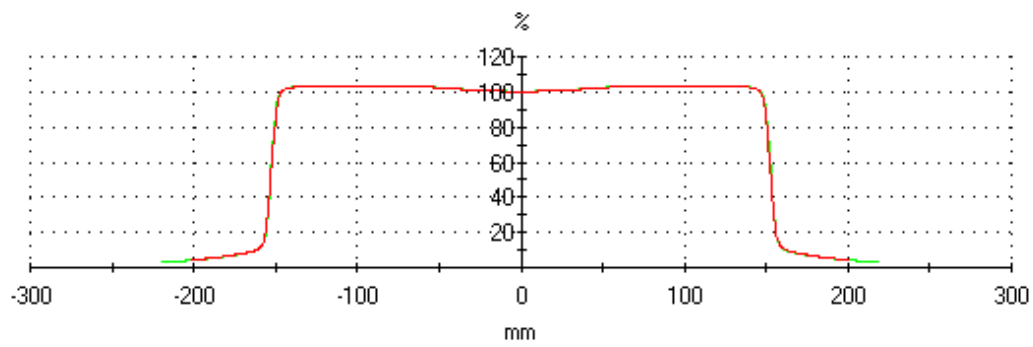
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



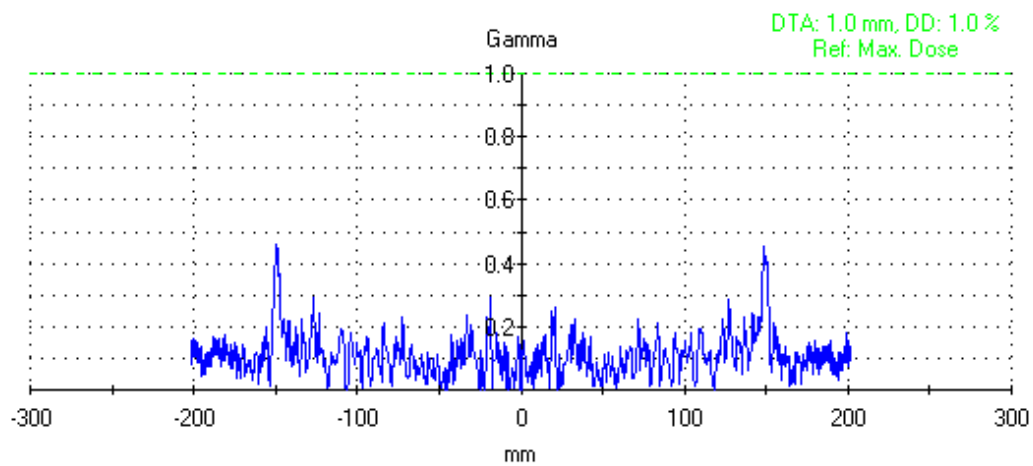
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 17:04

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	6.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	30.00 x 30.00
		Depth [mm]:	15.0
		Profile Type:	X Profile
		Wedge:	Open
		Raw/Processed:	Processed



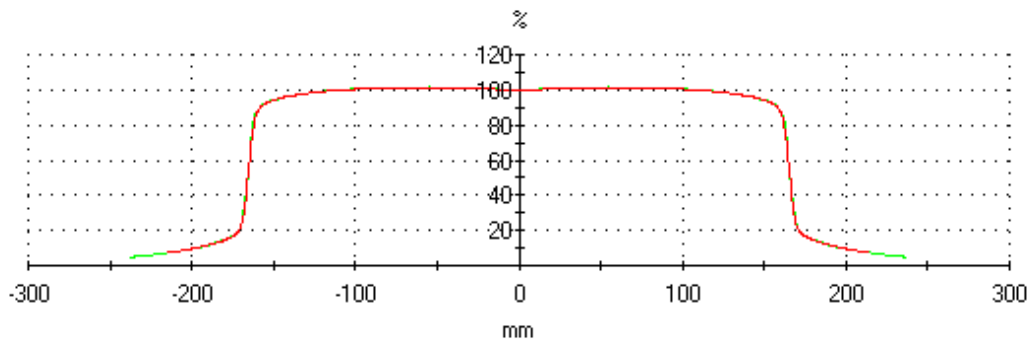
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



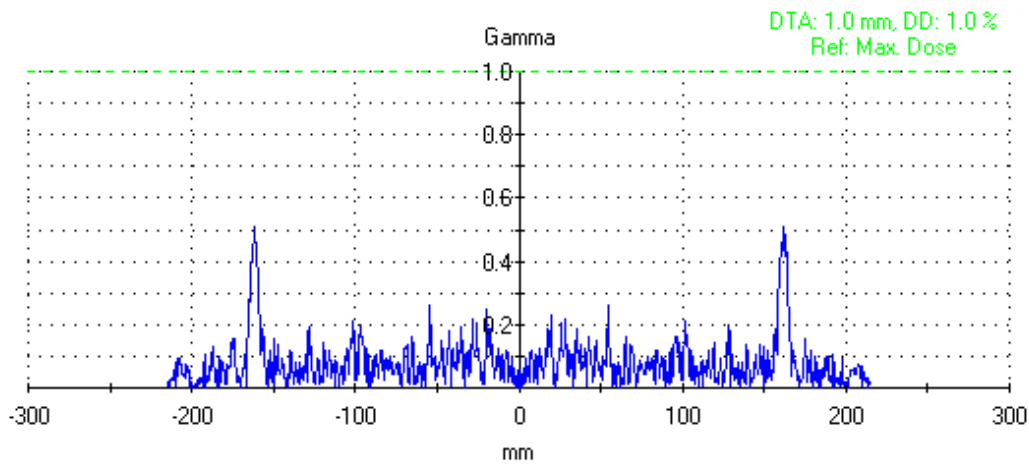
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 17:04

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	6.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	30.00 x 30.00
		Depth [mm]:	100.0
		Profile Type:	X Profile
		Wedge:	Open
		Raw/Processed:	Processed



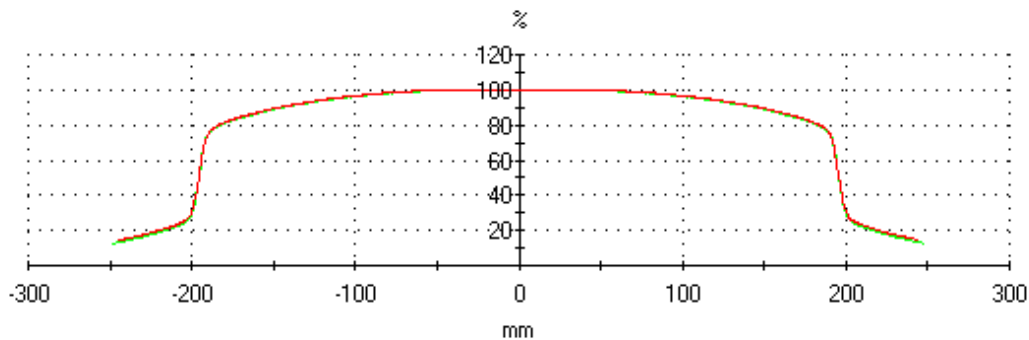
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



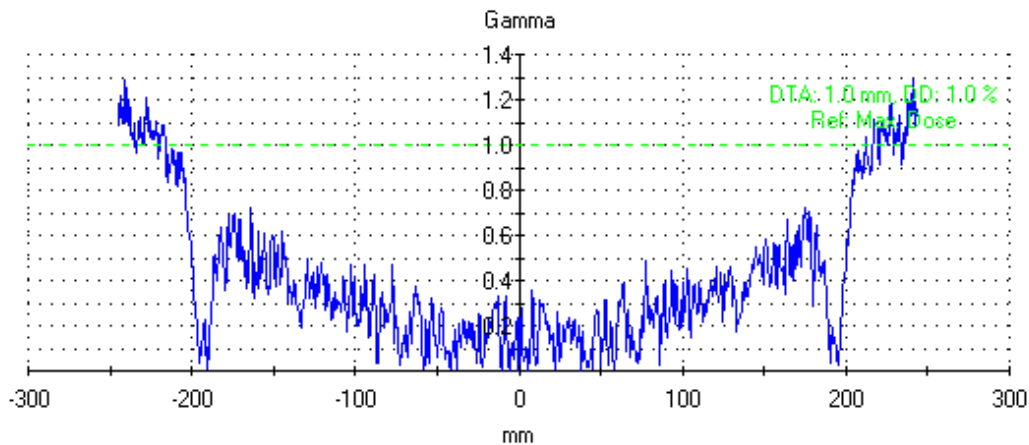
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 17:05

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	6.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	30.00 x 30.00
		Depth [mm]:	300.0
		Profile Type:	X Profile
		Wedge:	Open
		Raw/Processed:	Processed



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



Mephysto mcc - Report

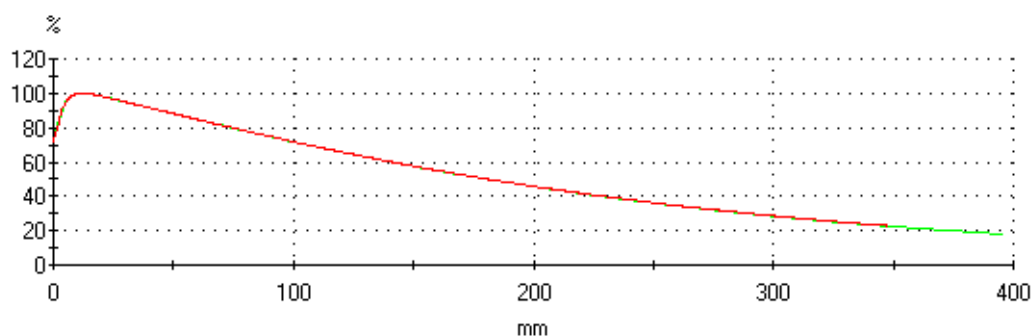
Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 15:38

Setup

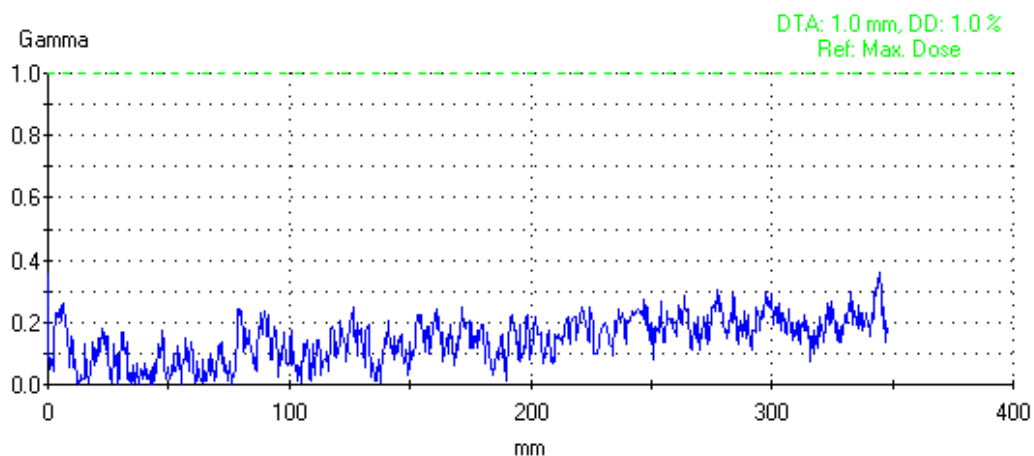
Modality: Photons
Measurement Date: *

Measurement Parameters

Energy [MV]: 6.0
Field Size Y x X [cm x cm]: 40.00 x 40.00
Depth [mm]:
Profile Type: PDD
Wedge: Open
Raw/Processed: Processed



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



Mephysto mcc - Report

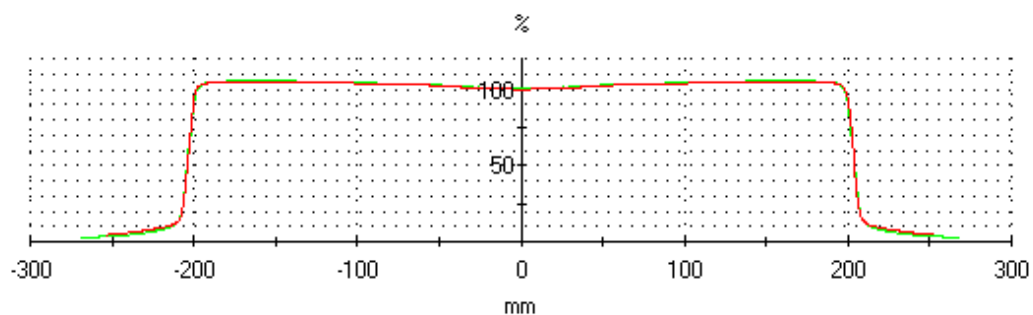
Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-03 13:04

Setup

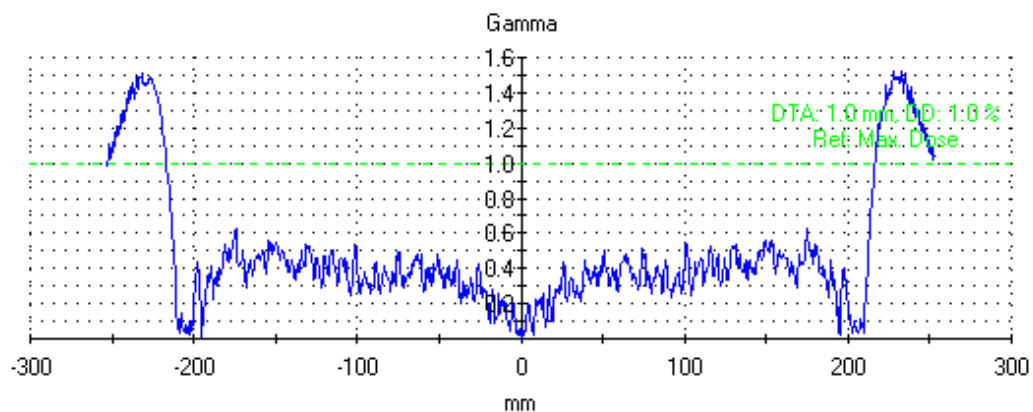
Modality: Photons

Measurement Parameters

Energy [MV]: 6.0
Field Size Y x X [cm x cm]: 40.00 x 40.00
Depth [mm]: 15.0
Profile Type: X Profile
Meas.Angle [°]: 0.00
SSD [cm]: 100.0



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



Mephysto mcc - Report

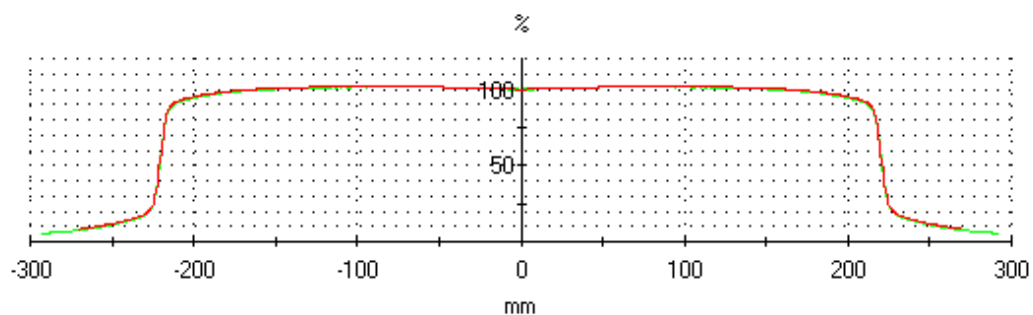
Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-03 13:06

Setup

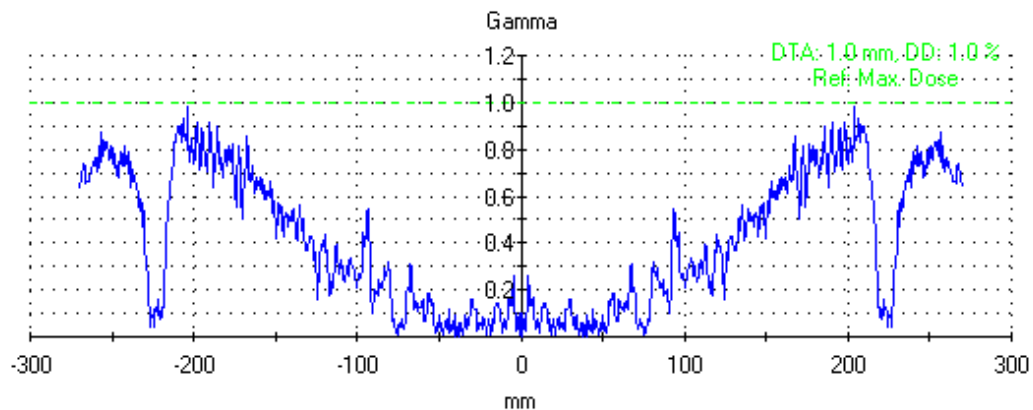
Modality: Photons

Measurement Parameters

Energy [MV]: 6.0
Field Size Y x X [cm x cm]: 40.00 x 40.00
Depth [mm]: 100.0
Profile Type: X Profile
Meas.Angle [°]: 0.00
SSD [cm]: 100.0



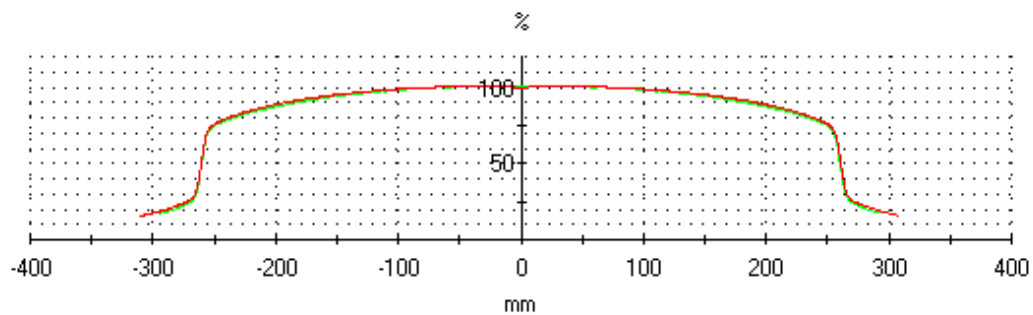
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



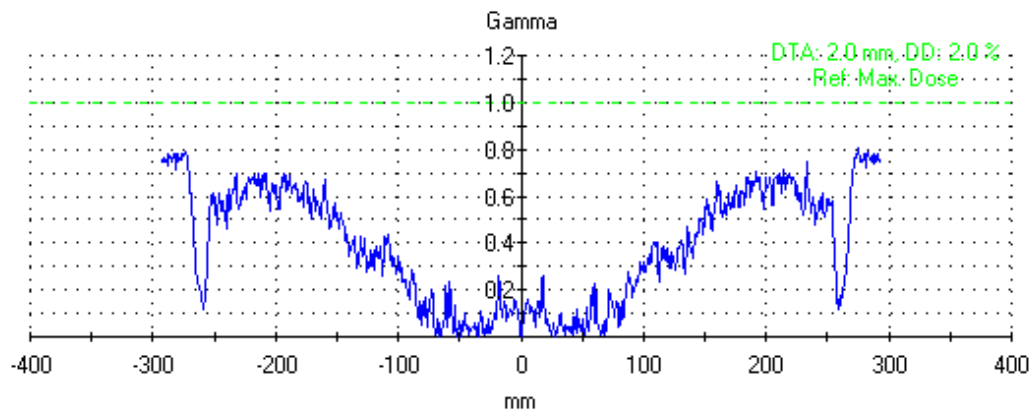
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-03 13:08

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	6.0
		Field Size Y x X [cm x cm]:	40.00 x 40.00
		Depth [mm]:	300.0
		Profile Type:	X Profile
		Meas.Angle [°]:	0.00
		SSD [cm]:	100.0



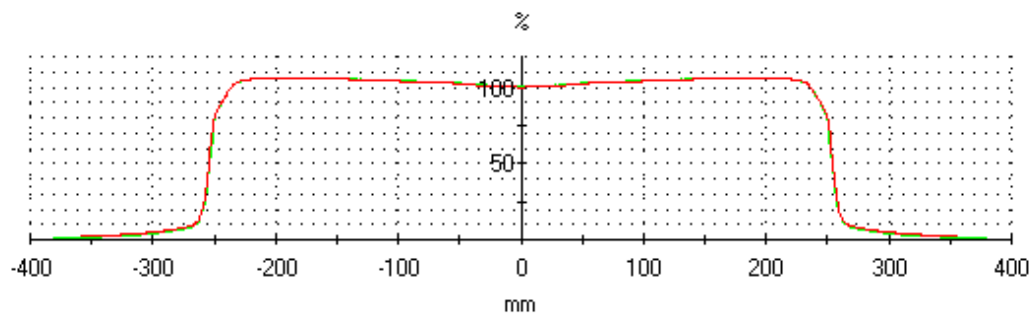
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



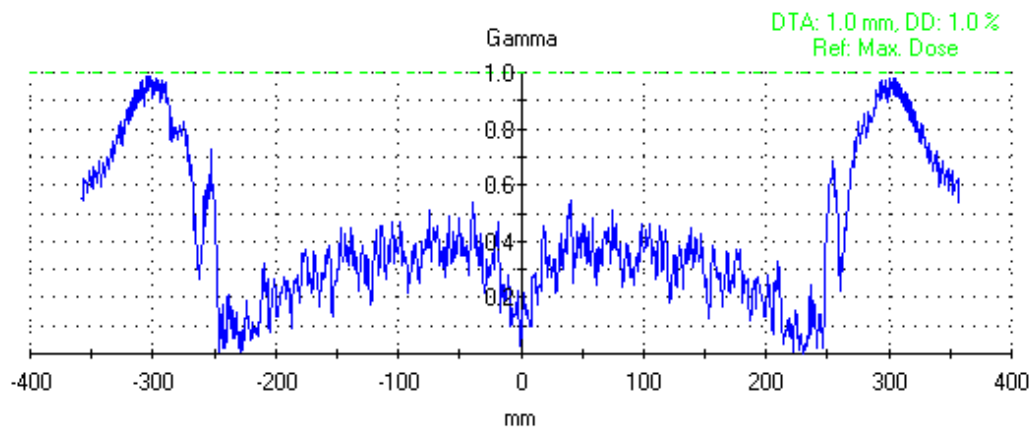
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-03 12:58

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	6.0
		Field Size Y x X [cm x cm]:	40.00 x 40.00
		Depth [mm]:	15.0
		Profile Type:	X Profile
		Meas.Angle [°]:	Diagonal
		SSD [cm]:	100.0



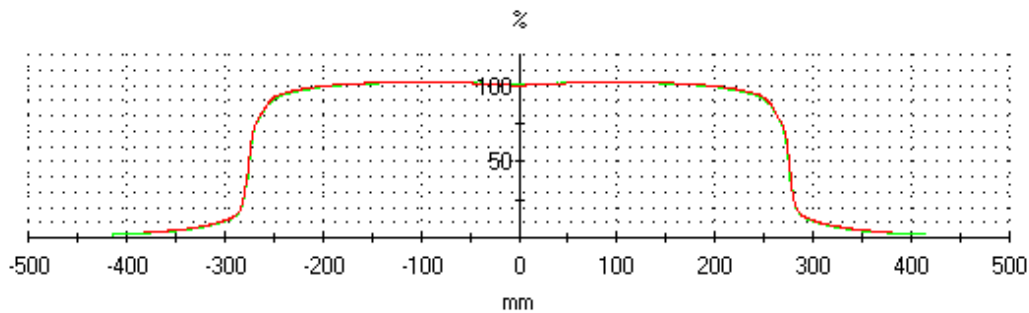
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



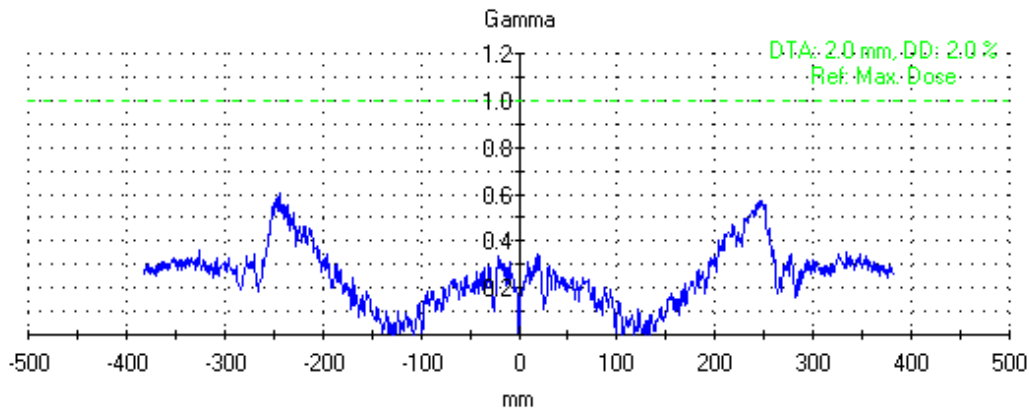
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-03 13:00

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	6.0
		Field Size Y x X [cm x cm]:	40.00 x 40.00
		Depth [mm]:	100.0
		Profile Type:	X Profile
		Meas.Angle [°]:	Diagonal
		SSD [cm]:	100.0



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



Mephysto mcc - Report

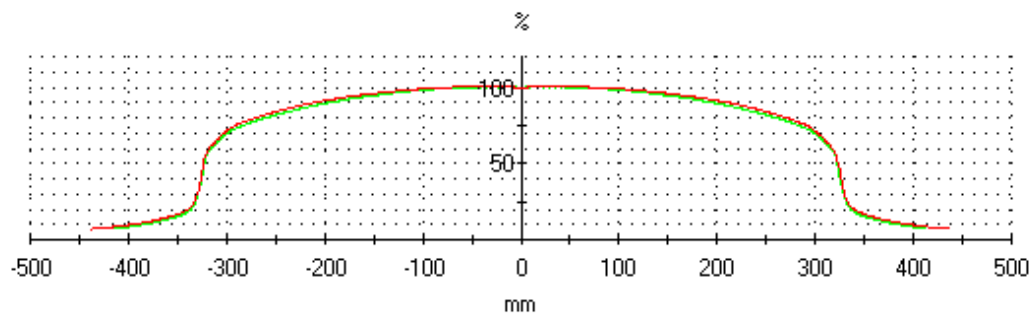
Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-03 13:02

Setup

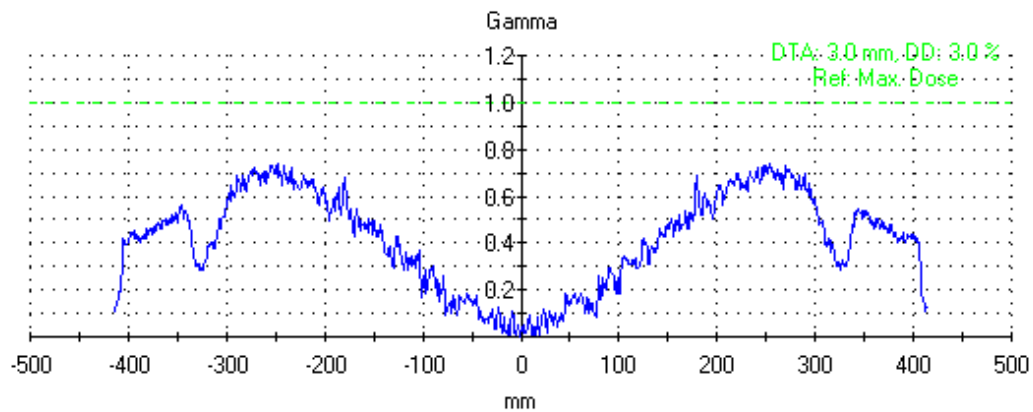
Modality: Photons

Measurement Parameters

Energy [MV]: 6.0
Field Size Y x X [cm x cm]: 40.00 x 40.00
Depth [mm]: 300.0
Profile Type: X Profile
Meas.Angle [°]: Diagonal
SSD [cm]: 100.0



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

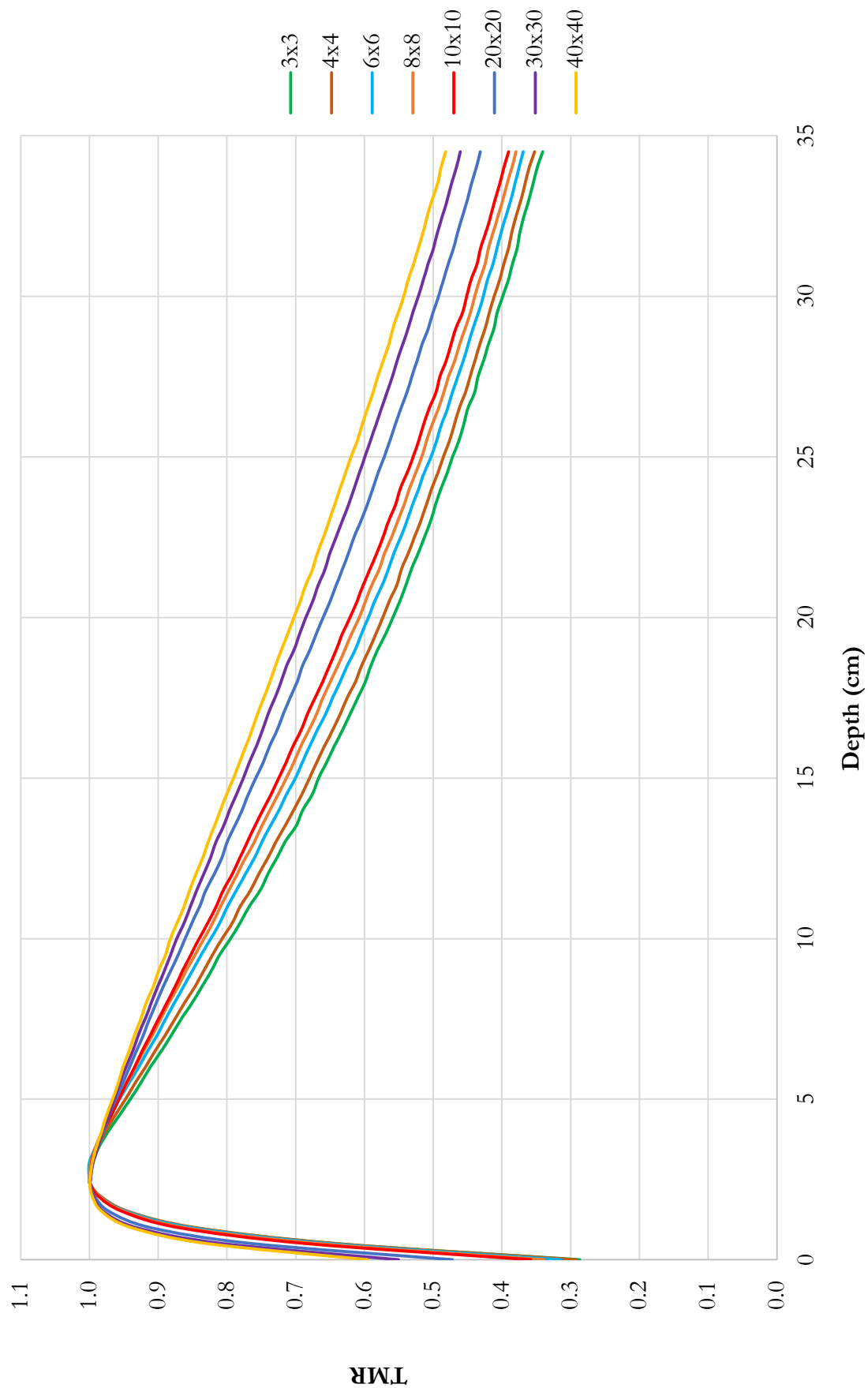
Normalized to 2.4 cm	10X TMR Open									
	Landauer Cancer Institute- Jackson, WY									
	Varian TrueBeam #9999									
Depth (cm)	11x11 (cm ²)	12x12 (cm ²)	13x13 (cm ²)	14x14 (cm ²)	15x15 (cm ²)	16x16 (cm ²)	17x17 (cm ²)	18x18 (cm ²)	19x19 (cm ²)	20x20 (cm ²)
0.0	0.369	0.382	0.393	0.403	0.415	0.426	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	

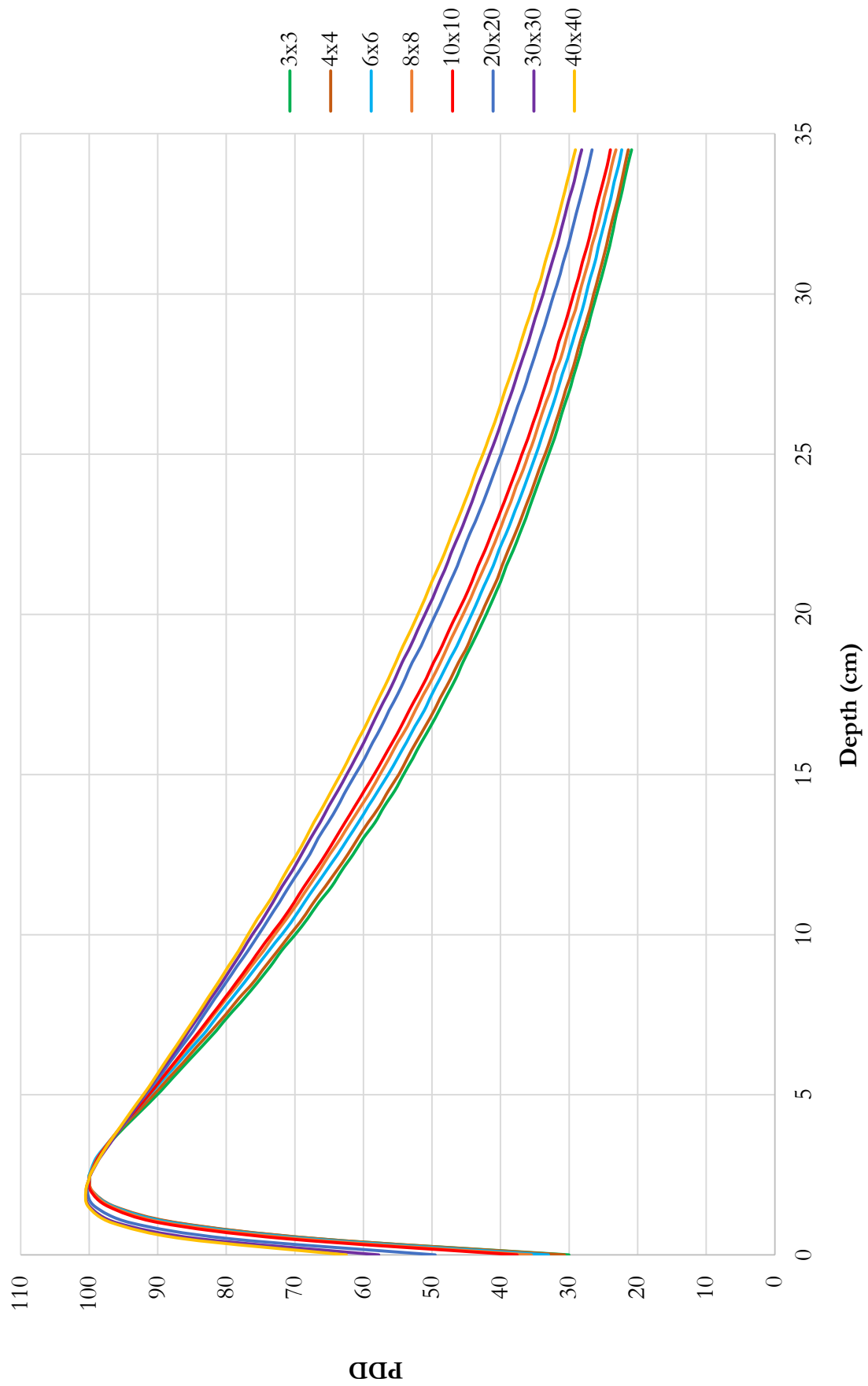
Normalized to 2.4 cm	10X PDD Open									
	Landauer Cancer Institute- Jackson, WY									
	Varian TrueBeam #9999									
Depth (cm)	11x11 (cm ²)	12x12 (cm ²)	13x13 (cm ²)	14x14 (cm ²)	15x15 (cm ²)	16x16 (cm ²)	17x17 (cm ²)	18x18 (cm ²)	19x19 (cm ²)	20x20 (cm ²)
0.0	38.8	40.0	41.2	42.4	43.6	44.8	46.0	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

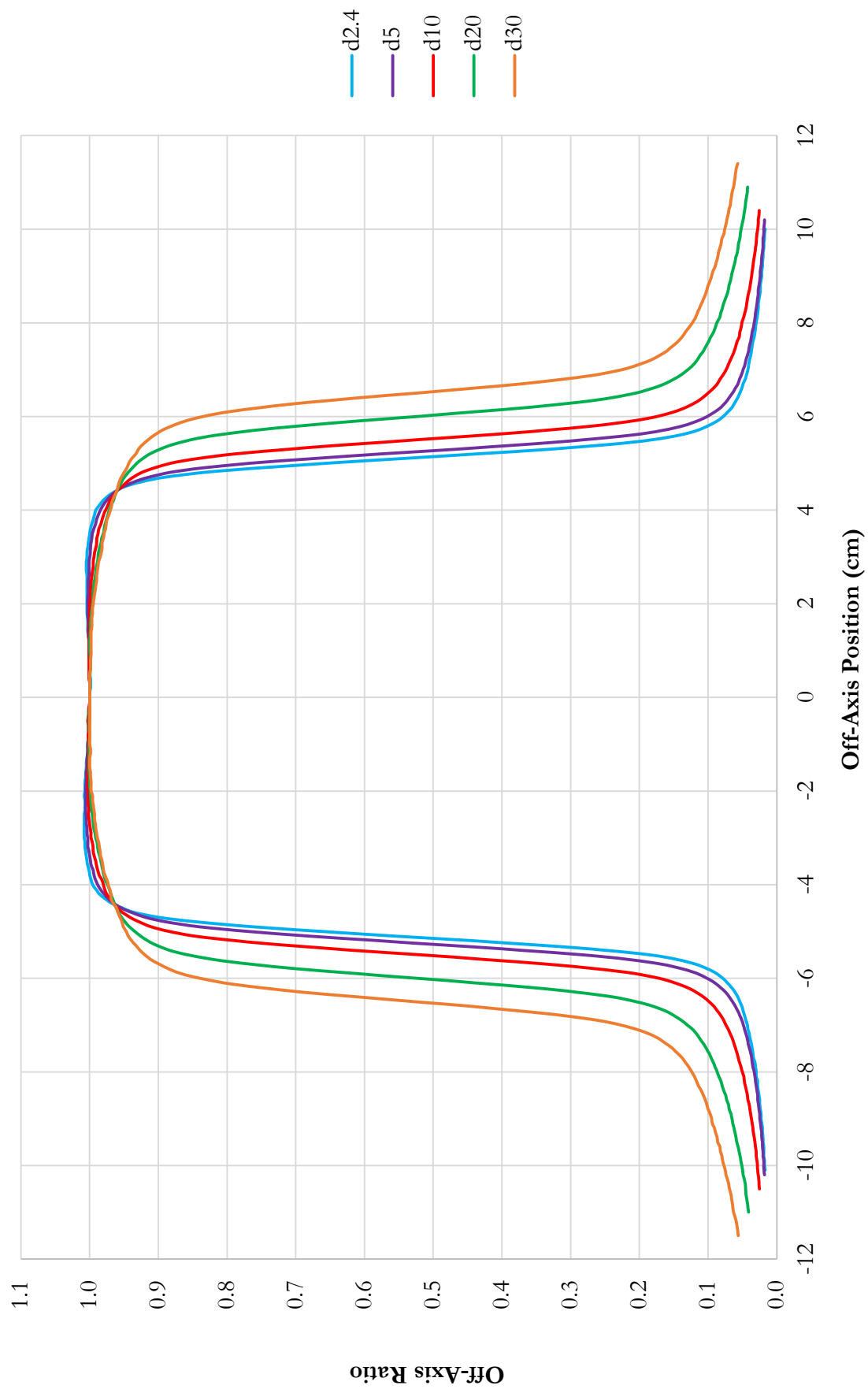


Photon Energies

10X Crossplane

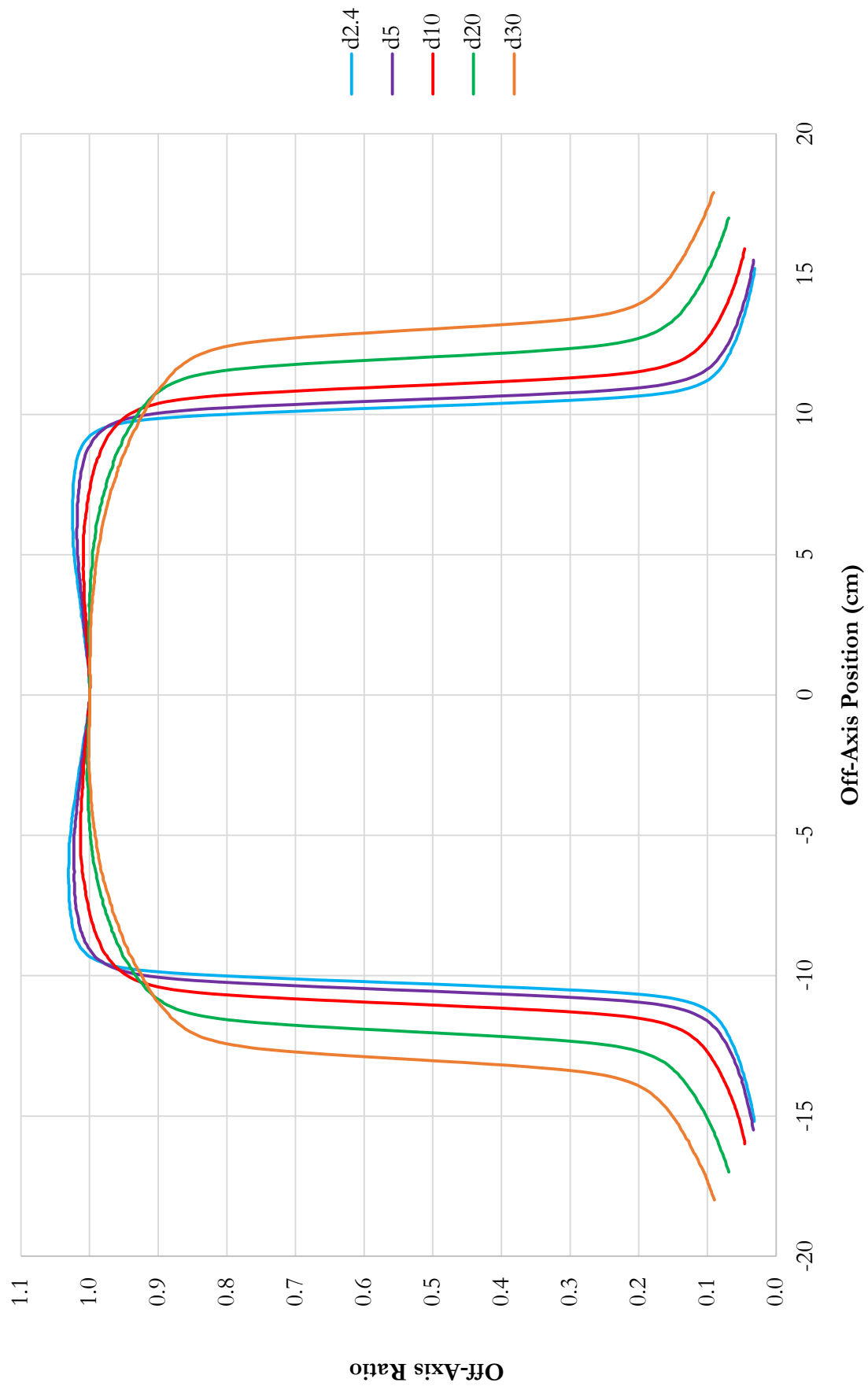
10X Crossplane Open 10x10 100 SSD Landauer Cancer Institute- Jackson, WY Varian TrueBeam #9999					
Off-Axis (cm)	d2.4	d5	d10	d20	d30
-7.0	0.043	0.049	0.074	0.130	0.227
-6.5	0.054	0.065	0.099	0.205	0.528
-6.0	0.079	0.102	0.172	0.525	0.840
-5.5	0.186	0.284	0.520	0.858	0.920
-5.0	0.665	0.772	0.885	0.935	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

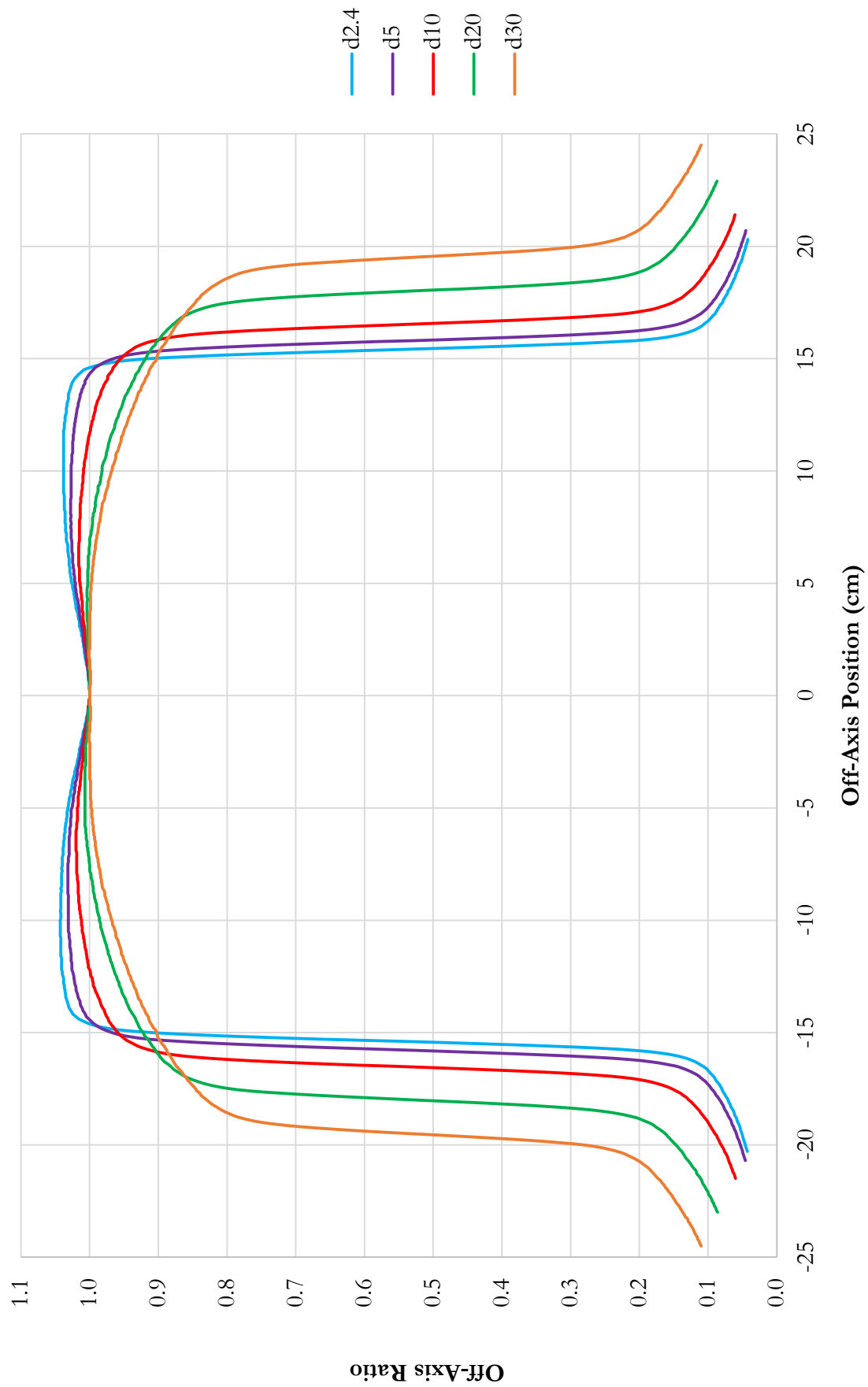
10X Crossplane Open 20x20 100 SSD
 Landauer Cancer Institute- Jackson, WY
 Varian TrueBeam #99999



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

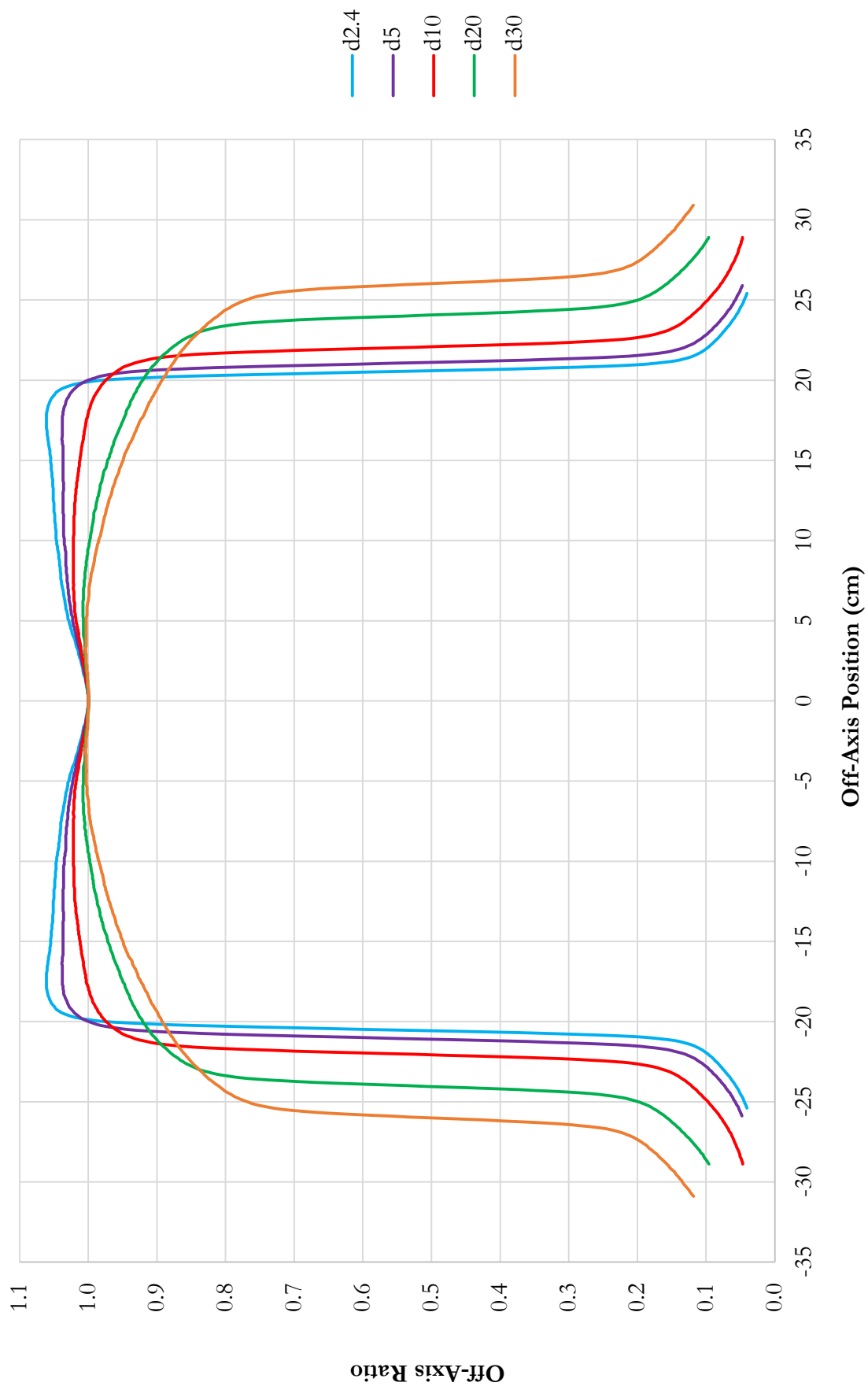
10X Crossplane Open 30x30 100 SSD
 Landauer Cancer Institute- Jackson, WY
 Varian TrueBeam #99999



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 #99999



Photon Energies

10X Factors

10X Scatter Factors dmax 100 SAD Landauer Cancer Institute - Jackson, WY Varian Truebeam #9999			
Field (cm x cm)	Scp	Sp	Sc
2x2	0.860	0.915	0.940
3x3	0.901	0.952	0.946
4x4	0.922	0.968	0.952
5x5	0.939	0.976	0.962
6x6	0.954	0.982	0.972
7x7	0.967	0.987	0.980
8x8	0.980	0.991	0.989
9x9	0.990	0.996	0.994
10x10	1.000	1.000	1.000
11x11	1.008	1.004	1.004
12x12	1.015	1.007	1.008
13x13	1.021	1.010	1.010
14x14	1.026	1.013	1.013
15x15	1.032	1.016	1.016
16x16	1.036	1.018	1.018
17x17	1.040	1.020	1.020
18x18	1.045	1.022	1.022
19x19	1.049	1.024	1.024
20x20	1.053	1.026	1.026
21x21	1.056	1.028	1.027
22x22	1.059	1.030	1.028
23x23	1.062	1.031	1.030
24x24	1.065	1.033	1.031
25x25	1.068	1.035	1.032
26x26	1.070	1.036	1.033
27x27	1.073	1.037	1.034
28x28	1.075	1.038	1.035
29x29	1.077	1.039	1.037
30x30	1.080	1.040	1.038
31x31	1.081	1.041	1.038
32x32	1.082	1.042	1.039
33x33	1.084	1.043	1.039
34x34	1.085	1.043	1.040
35x35	1.086	1.044	1.040
36x36	1.086	1.045	1.040
37x37	1.087	1.045	1.040
38x38	1.087	1.045	1.040
39x39	1.087	1.046	1.039
40x40	1.087	1.046	1.039

Photon Energies

10X Beam Match Verification

10X Eclipse Output Factors 95 SSD d5 Landauer Cancer Institute - Jackson, WY Varian TrueBeam #9999

Verification Data Measured on TrueBeam #9999

Open Field												
Y (cm)	3	4	5	7	10	15	20	30	40			
3	0.881							0.925				
4												
5			0.934									
7												
10					1.000						1.027	
15												
20	0.940						1.056					
30								1.085				
40					1.044				1.098			

Representative TrueBeam Data

Open Field												
Field Size Y [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	0.888	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	1.051	1.054			
20	0.940	0.967	0.984	1.008	1.028	1.045	1.056	1.067	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			

% difference (Verification/Representative)

Open Field												
Y (cm)	3	4	5	7	10	15	20	30	40			
3	-0.2%							-0.1%				
4												
5			-0.1%									
7												
10					0.0%						0.1%	
15												
20	0.0%						0.0%					
30								0.0%				
40					0.1%				0.1%			

Mephysto mcc - Report

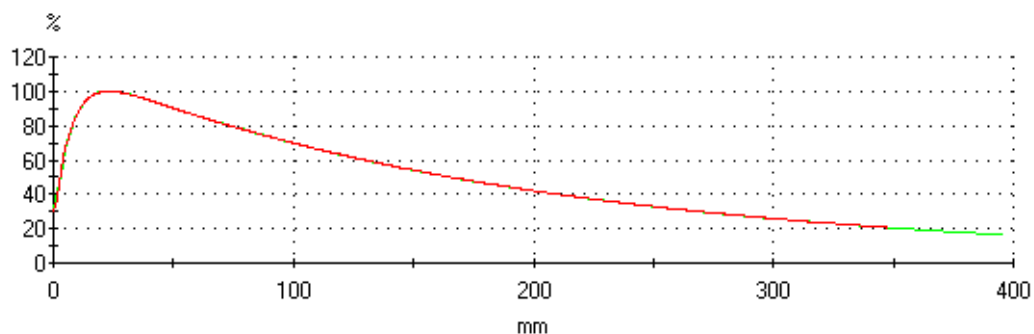
Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 15:48

Setup

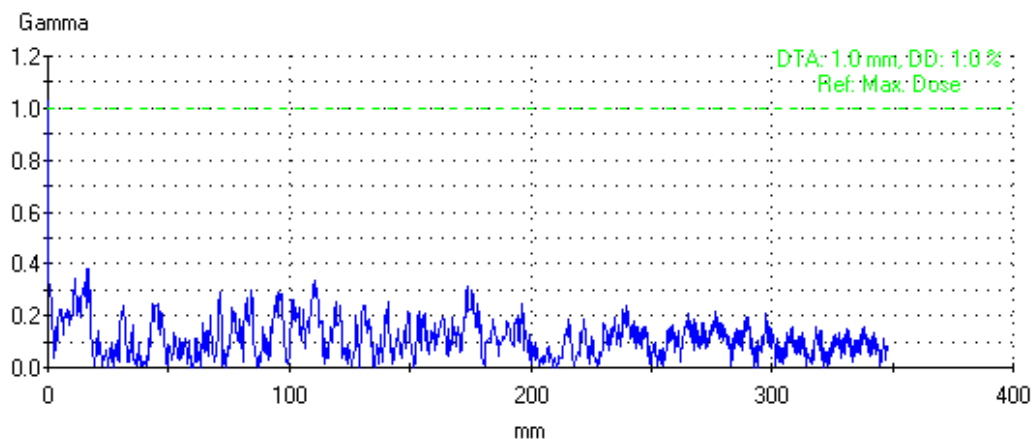
Modality: Photons
Measurement Date: *

Measurement Parameters

Energy [MV]: 10.0
Field Size Y x X [cm x cm]: 3.00 x 3.00
Depth [mm]:
Profile Type: PDD
Wedge: Open
Raw/Processed: Processed



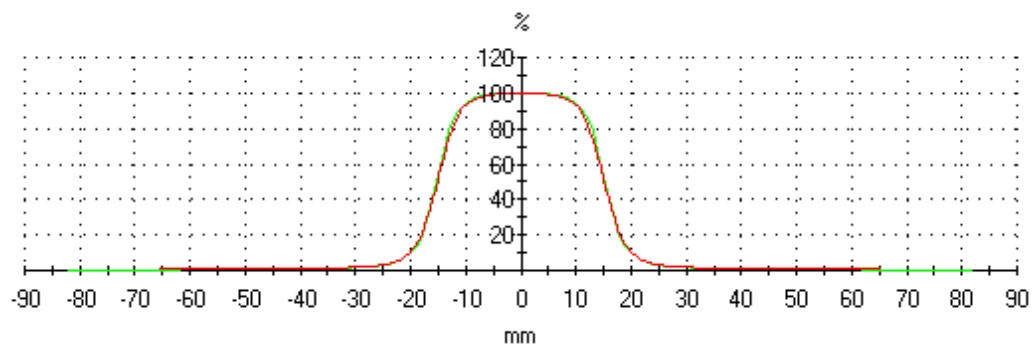
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



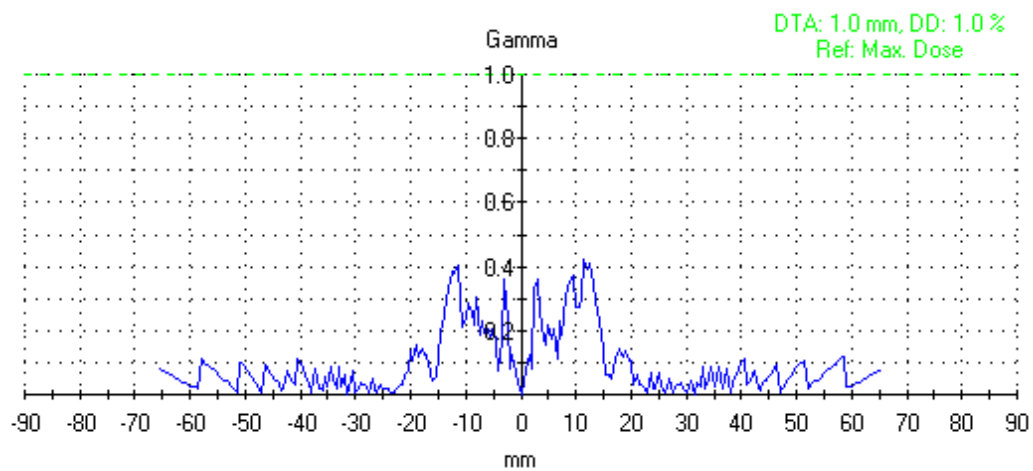
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 16:56

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	10.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	3.00 x 3.00
		Depth [mm]:	24.0
		Profile Type:	X Profile
		Wedge:	Open
		Raw/Processed:	Processed



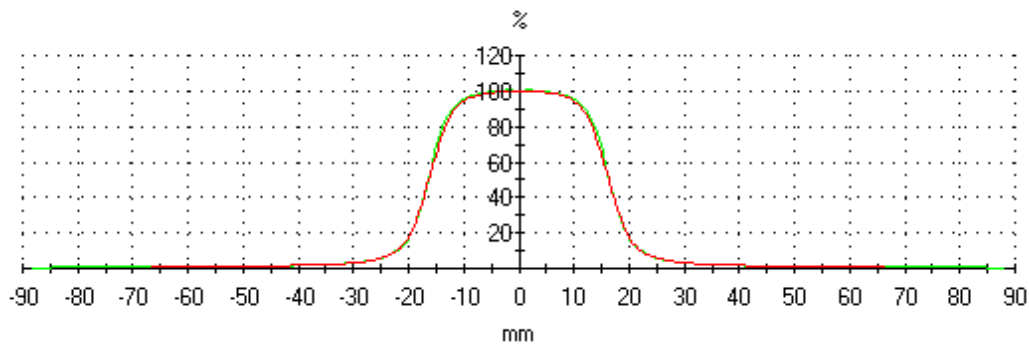
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



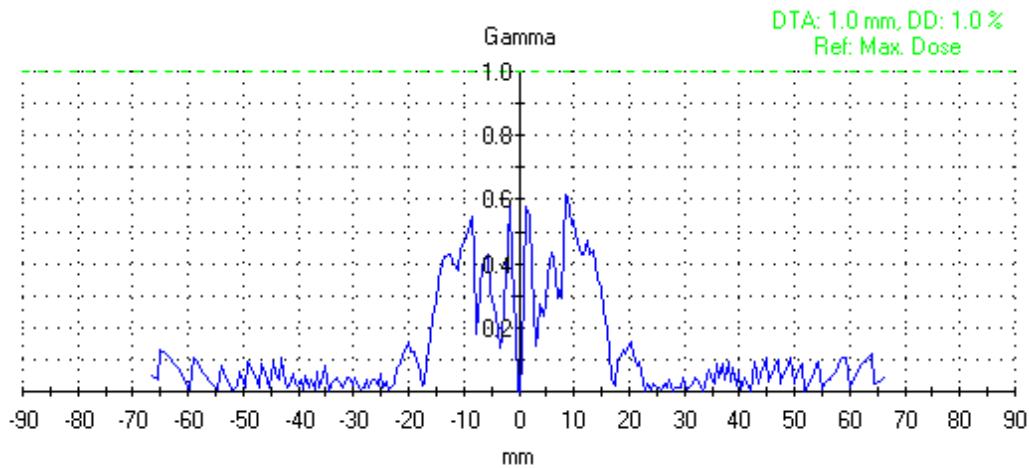
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 16:56

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	10.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	3.00 x 3.00
		Depth [mm]:	100.0
		Profile Type:	X Profile
		Wedge:	Open
		Raw/Processed:	Processed



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



Mephysto mcc - Report

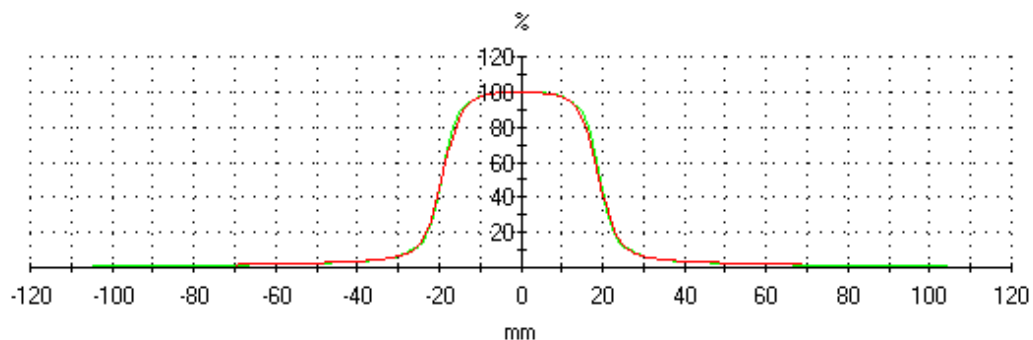
Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 16:57

Setup

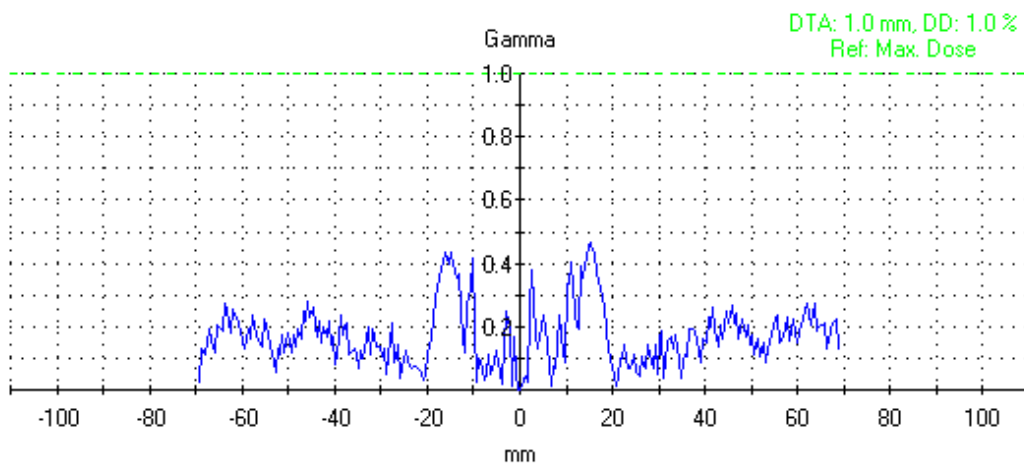
Modality: Photons
Measurement Date: *

Measurement Parameters

Energy [MV]: 10.0
Field Size Y x X [cm x cm]: 3.00 x 3.00
Depth [mm]: 300.0
Profile Type: X Profile
Wedge: Open
Raw/Processed: Processed



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



Mephysto mcc - Report

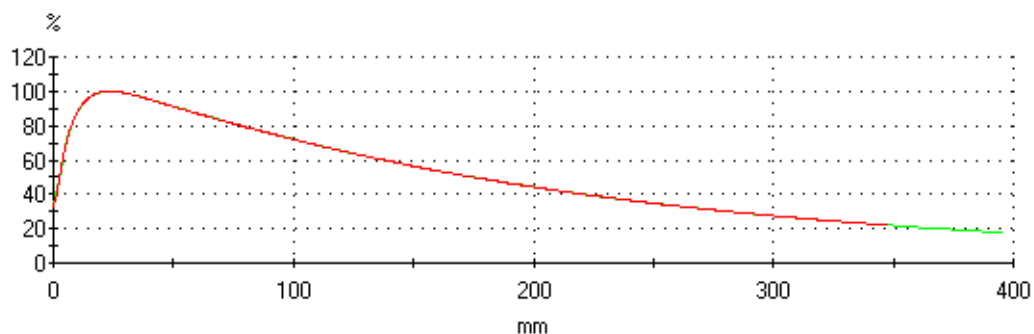
Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 15:48

Setup

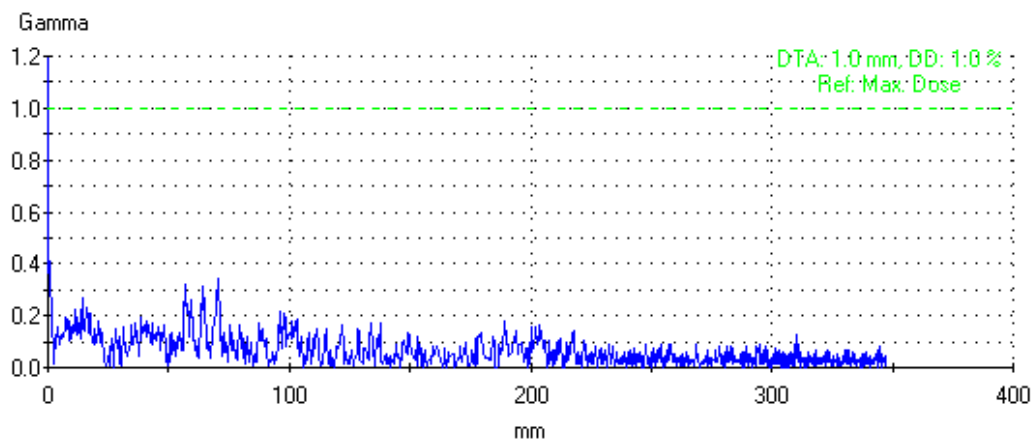
Modality: Photons
Measurement Date: *

Measurement Parameters

Energy [MV]: 10.0
Field Size Y x X [cm x cm]: 6.00 x 6.00
Depth [mm]:
Profile Type: PDD
Wedge: Open
Raw/Processed: Processed



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



Mephysto mcc - Report

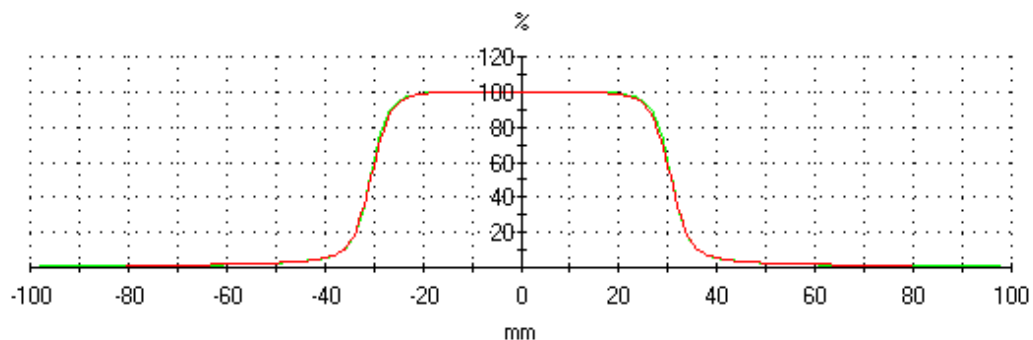
Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 16:57

Setup

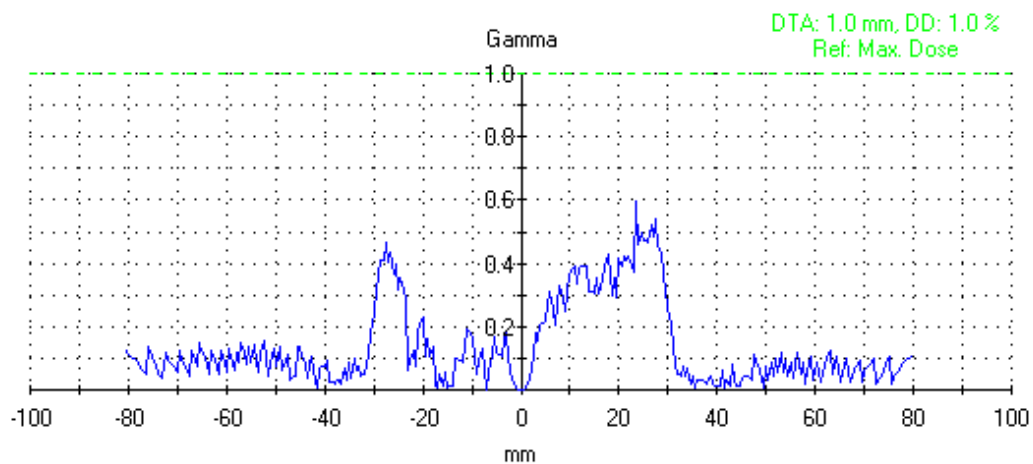
Modality: Photons
Measurement Date: *

Measurement Parameters

Energy [MV]: 10.0
Field Size Y x X [cm x cm]: 6.00 x 6.00
Depth [mm]: 24.0
Profile Type: X Profile
Wedge: Open
Raw/Processed: Processed



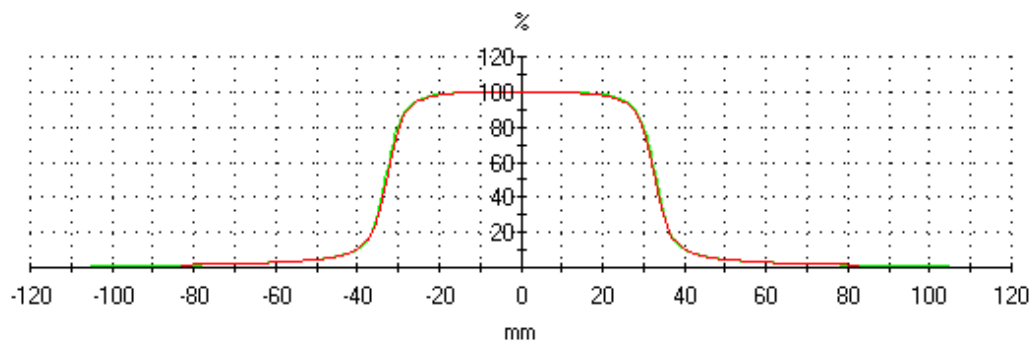
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



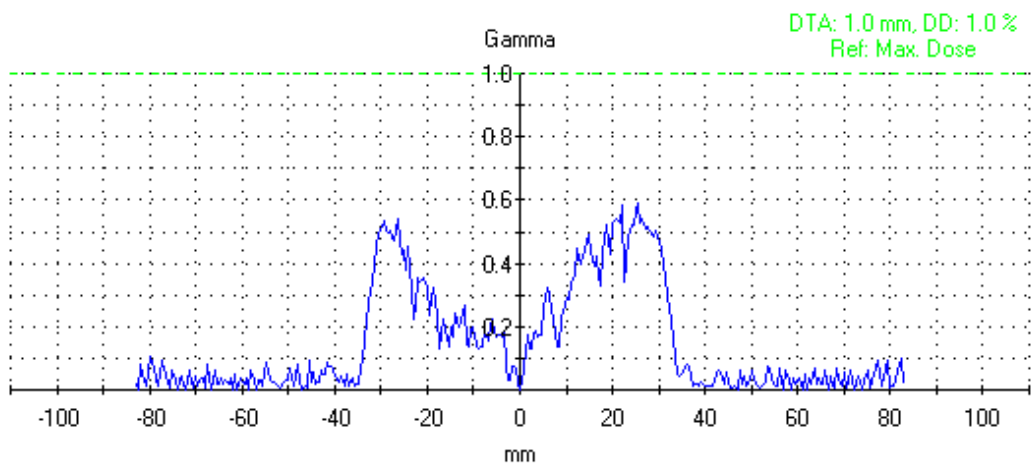
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 16:57

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	10.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	6.00 x 6.00
		Depth [mm]:	100.0
		Profile Type:	X Profile
		Wedge:	Open
		Raw/Processed:	Processed



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



Mephysto mcc - Report

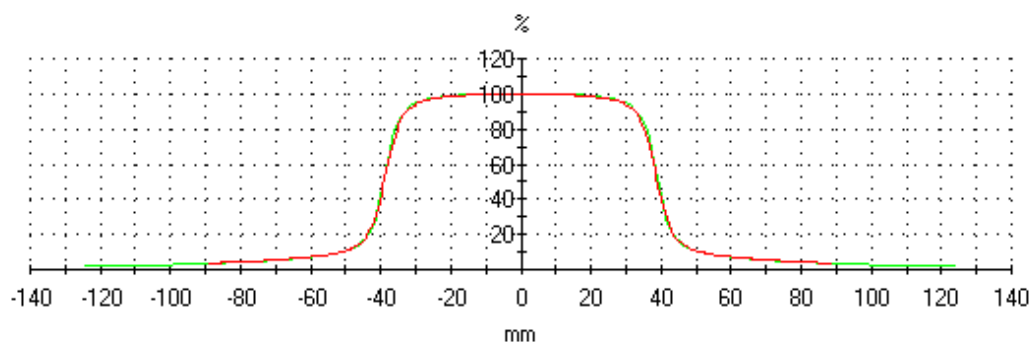
Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 16:57

Setup

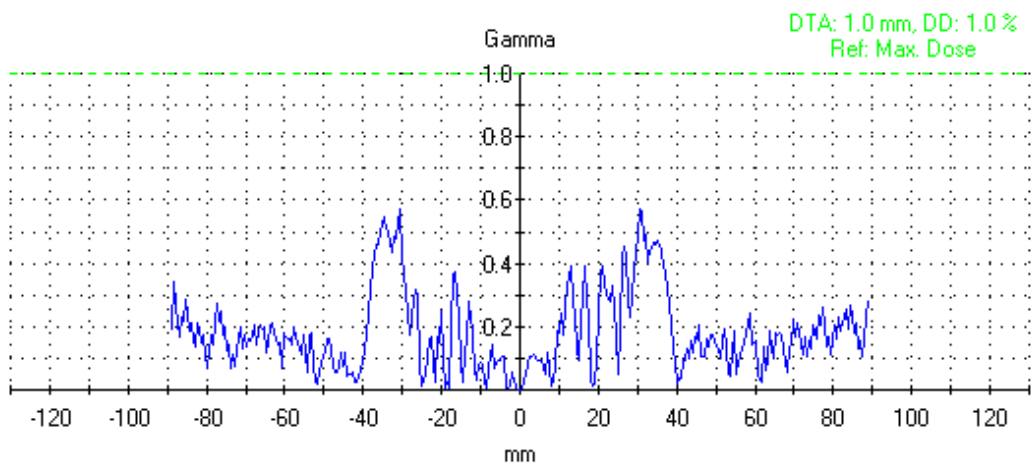
Modality: Photons
Measurement Date: *

Measurement Parameters

Energy [MV]: 10.0
Field Size Y x X [cm x cm]: 6.00 x 6.00
Depth [mm]: 300.0
Profile Type: X Profile
Wedge: Open
Raw/Processed: Processed



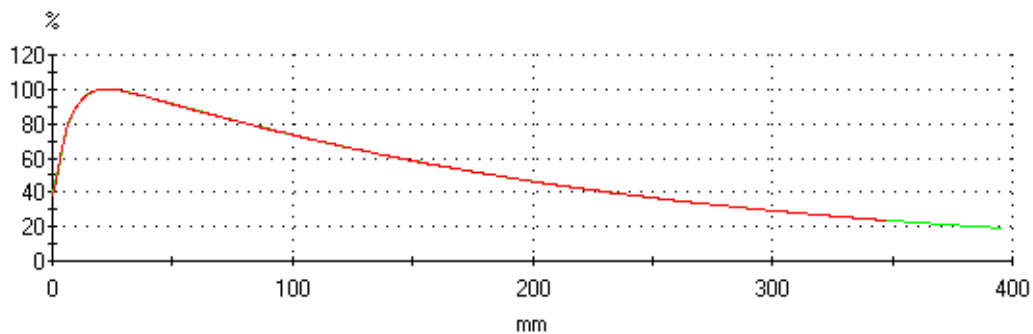
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



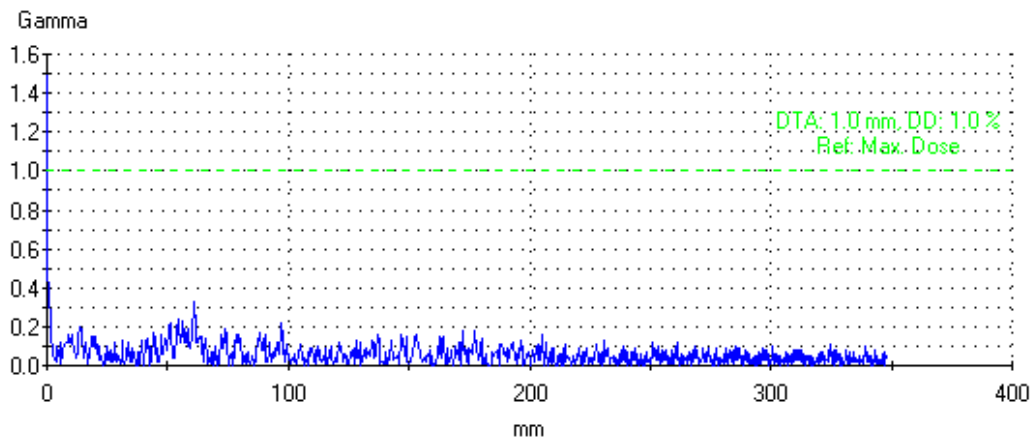
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 15:49

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	10.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	10.00 x 10.00
		Depth [mm]:	
		Profile Type:	PDD
		Wedge:	Open
		Raw/Processed:	Processed



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



Mephysto mcc - Report

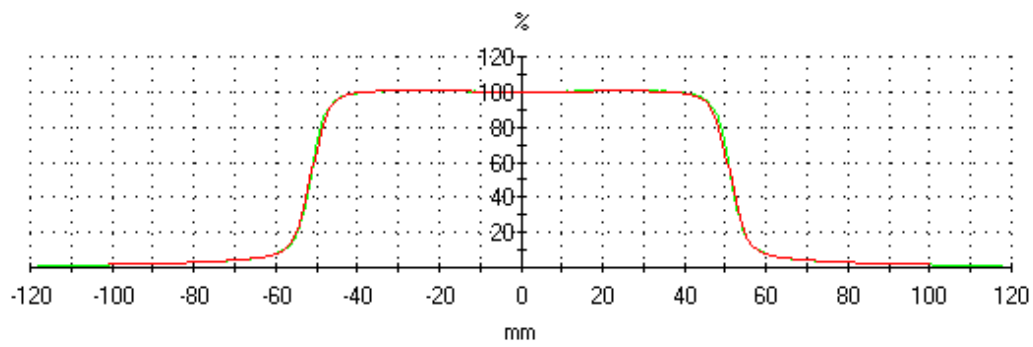
Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 16:58

Setup

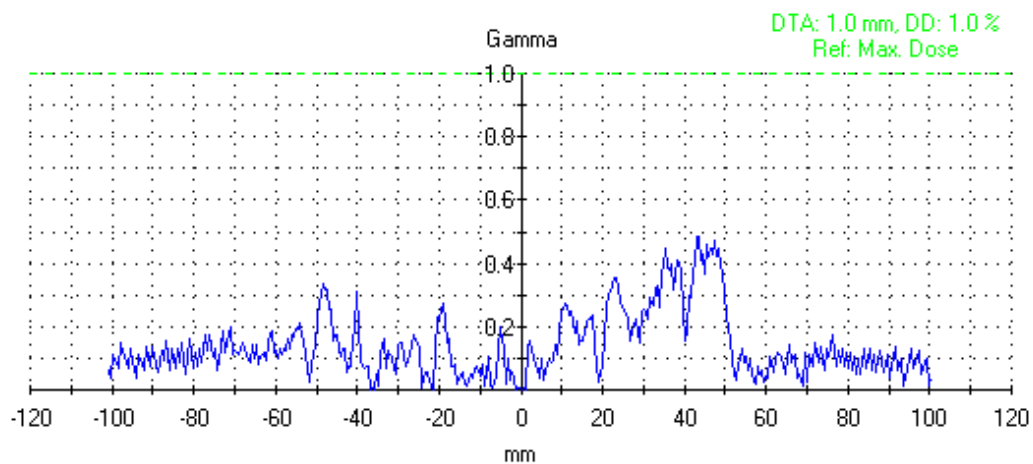
Modality: Photons
Measurement Date: *

Measurement Parameters

Energy [MV]: 10.0
Field Size Y x X [cm x cm]: 10.00 x 10.00
Depth [mm]: 24.0
Profile Type: X Profile
Wedge: Open
Raw/Processed: Processed



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



Mephysto mcc - Report

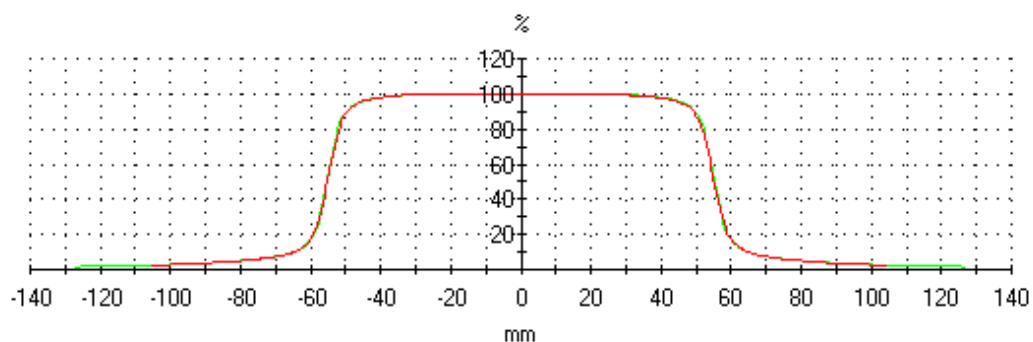
Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 16:58

Setup

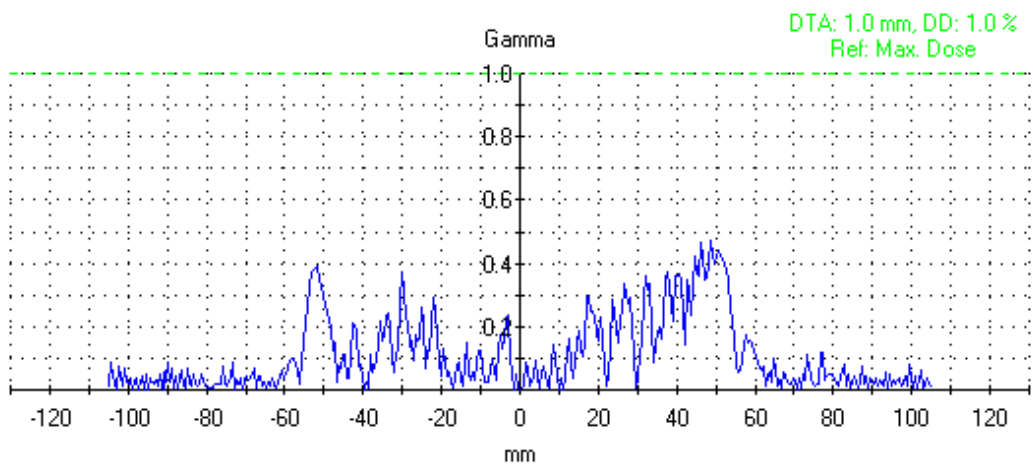
Modality: Photons
Measurement Date: *

Measurement Parameters

Energy [MV]: 10.0
Field Size Y x X [cm x cm]: 10.00 x 10.00
Depth [mm]: 100.0
Profile Type: X Profile
Wedge: Open
Raw/Processed: Processed



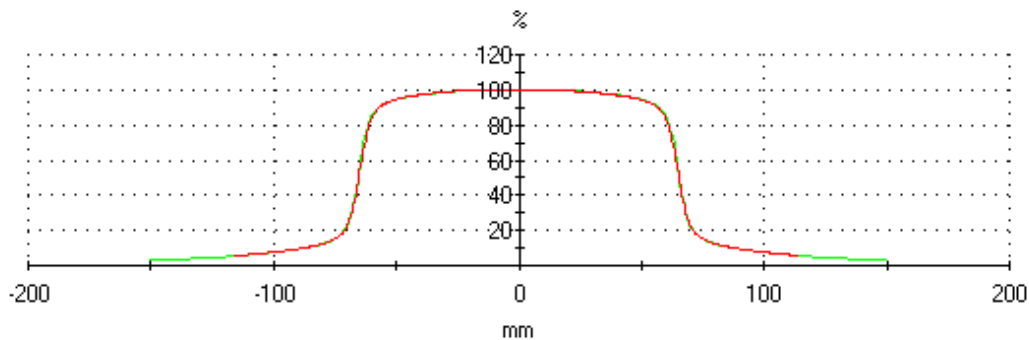
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



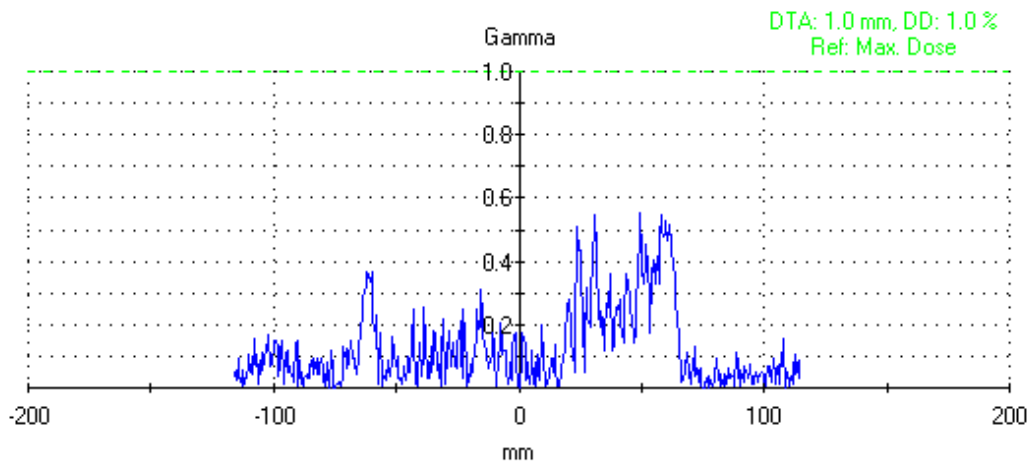
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 16:58

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	10.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	10.00 x 10.00
		Depth [mm]:	300.0
		Profile Type:	X Profile
		Wedge:	Open
		Raw/Processed:	Processed



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



Mephysto mcc - Report

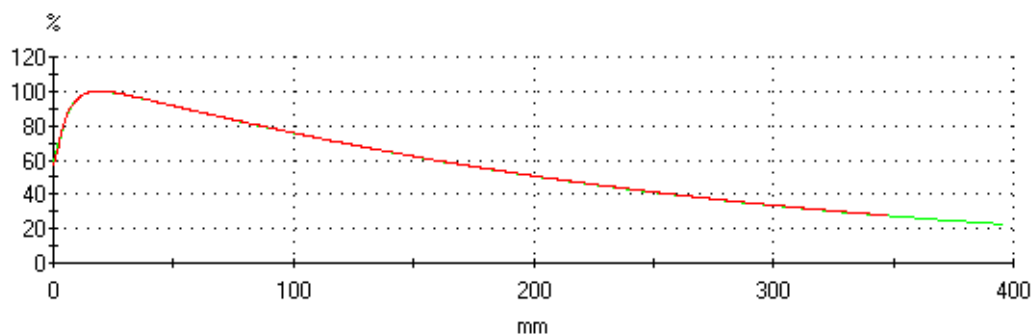
Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 15:49

Setup

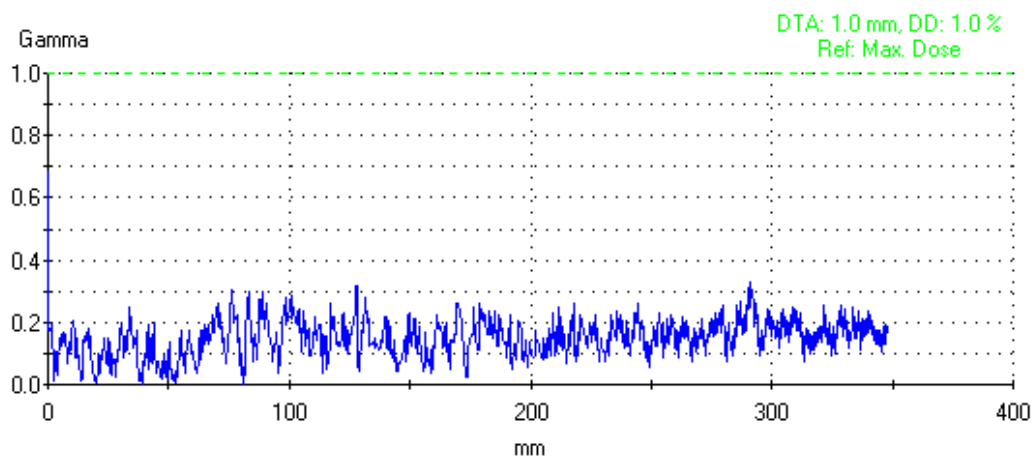
Modality: Photons
Measurement Date: *

Measurement Parameters

Energy [MV]: 10.0
Field Size Y x X [cm x cm]: 30.00 x 30.00
Depth [mm]:
Profile Type: PDD
Wedge: Open
Raw/Processed: Processed



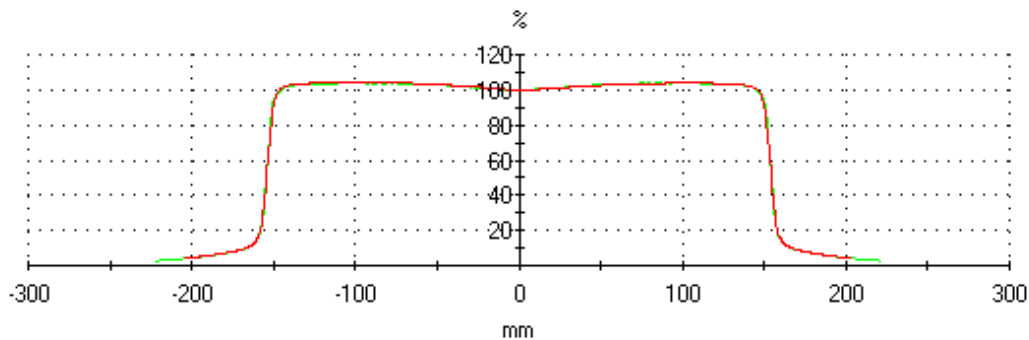
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



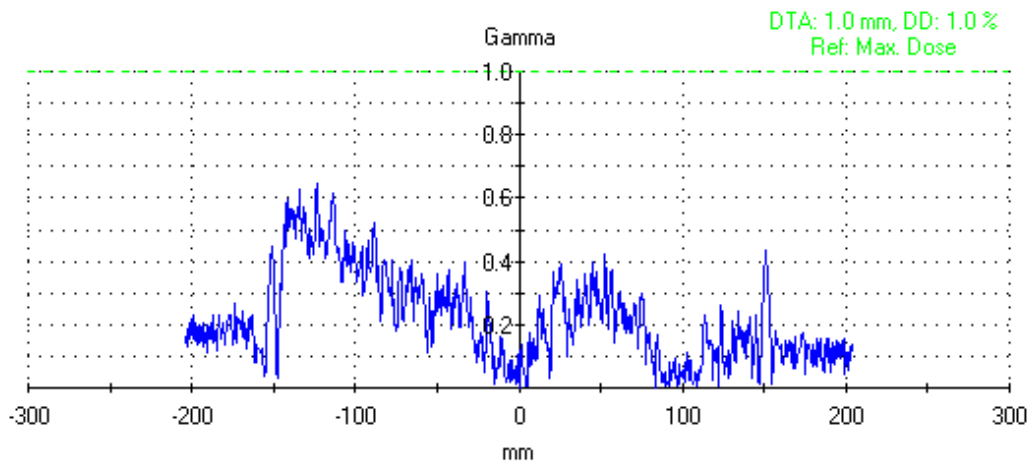
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 16:59

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	10.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	30.00 x 30.00
		Depth [mm]:	24.0
		Profile Type:	X Profile
		Wedge:	Open
		Raw/Processed:	Processed



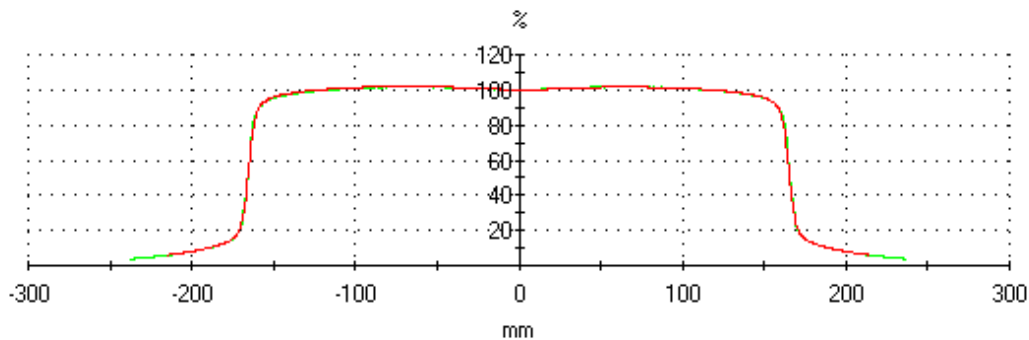
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



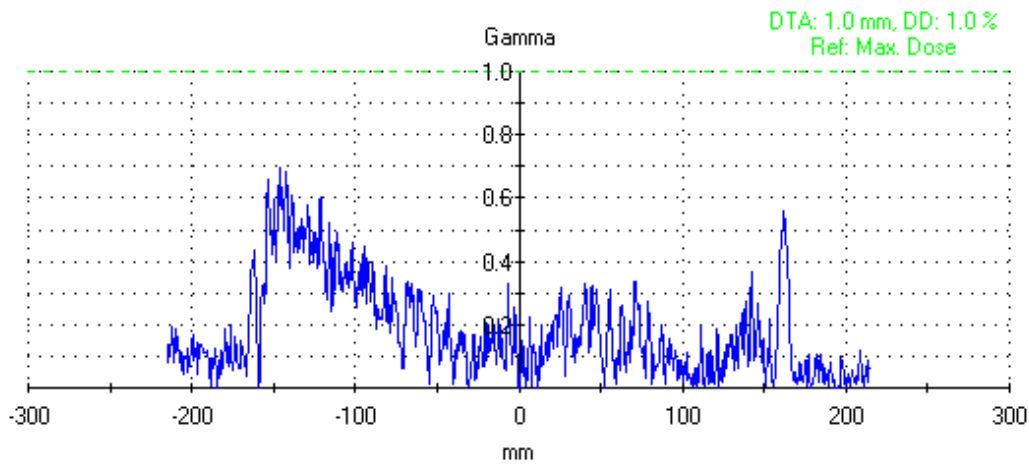
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 16:59

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	10.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	30.00 x 30.00
		Depth [mm]:	100.0
		Profile Type:	X Profile
		Wedge:	Open
		Raw/Processed:	Processed



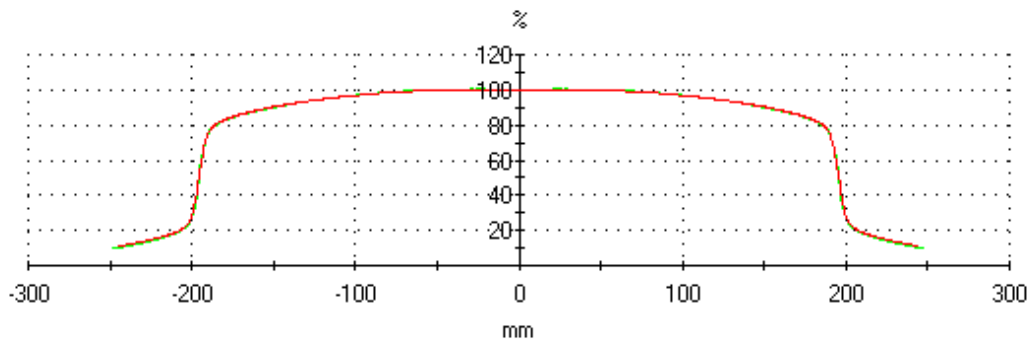
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



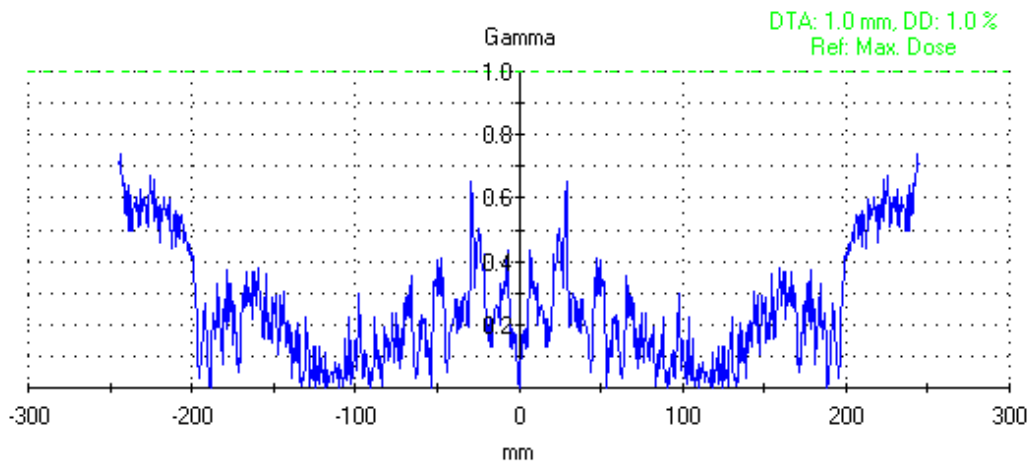
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 17:00

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	10.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	30.00 x 30.00
		Depth [mm]:	300.0
		Profile Type:	X Profile
		Wedge:	Open
		Raw/Processed:	Processed



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



Mephysto mcc - Report

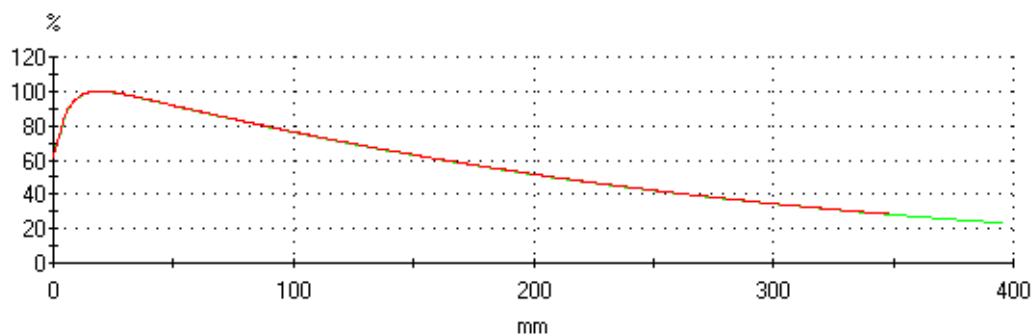
Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 15:49

Setup

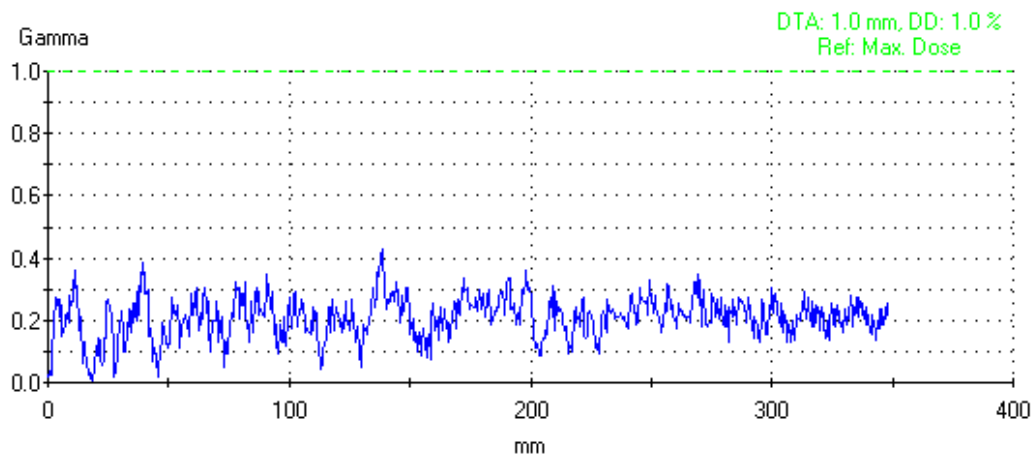
Modality: Photons
Measurement Date: *

Measurement Parameters

Energy [MV]: 10.0
Field Size Y x X [cm x cm]: 40.00 x 40.00
Depth [mm]:
Profile Type: PDD
Wedge: Open
Raw/Processed: Processed



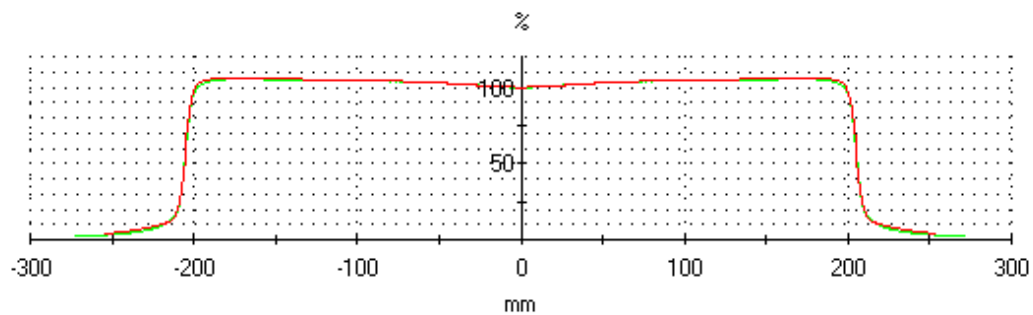
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



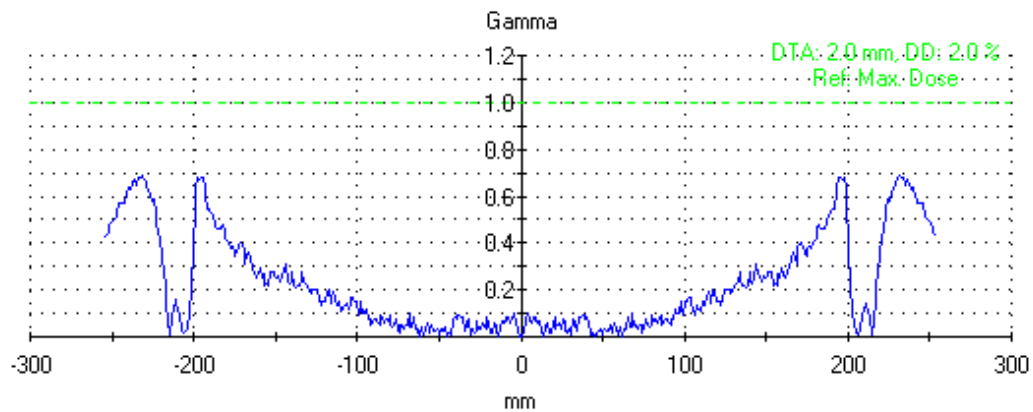
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-03 13:35

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	10.0
		Field Size Y x X [cm x cm]:	40.00 x 40.00
		Depth [mm]:	24.0
		Profile Type:	X Profile
		Meas.Angle [°]:	0.00
		SSD [cm]:	100.0



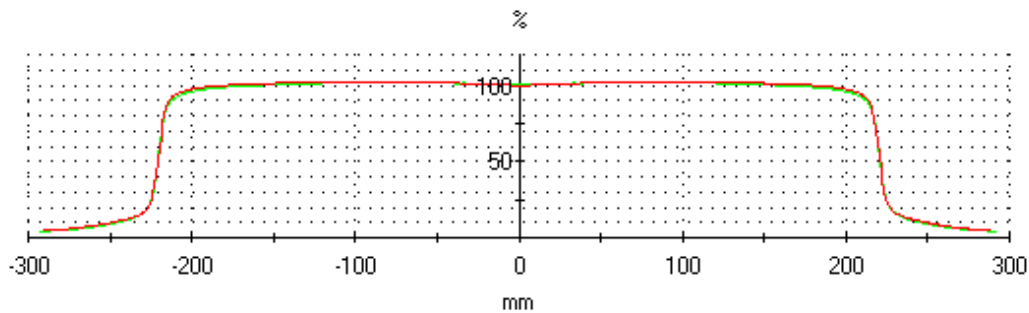
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



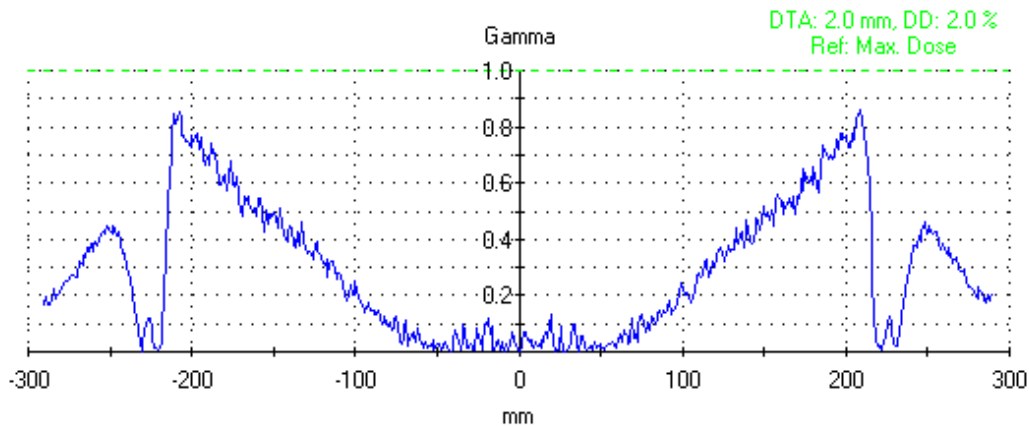
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-03 13:37

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	10.0
		Field Size Y x X [cm x cm]:	40.00 x 40.00
		Depth [mm]:	100.0
		Profile Type:	X Profile
		Meas.Angle [°]:	0.00
		SSD [cm]:	100.0



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



Mephysto mcc - Report

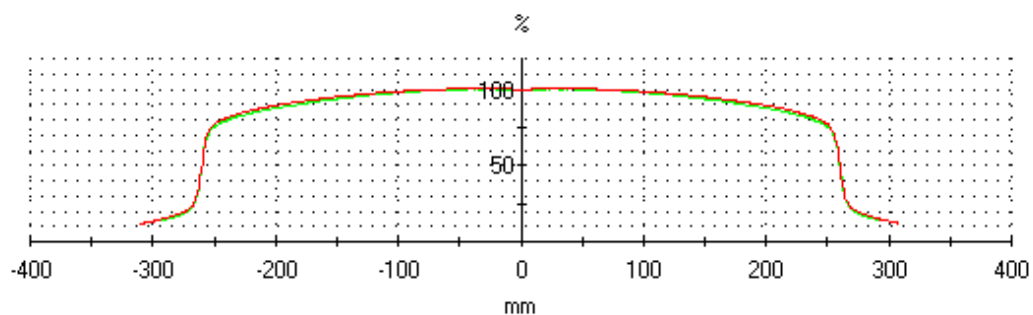
Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-03 13:37

Setup

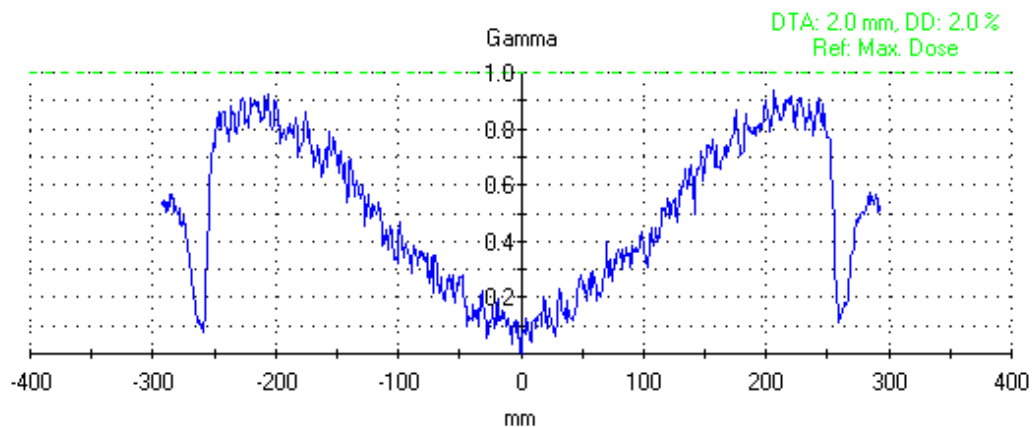
Modality: Photons

Measurement Parameters

Energy [MV]: 10.0
Field Size Y x X [cm x cm]: 40.00 x 40.00
Depth [mm]: 300.0
Profile Type: X Profile
Meas.Angle [°]: 0.00
SSD [cm]: 100.0



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



Mephysto mcc - Report

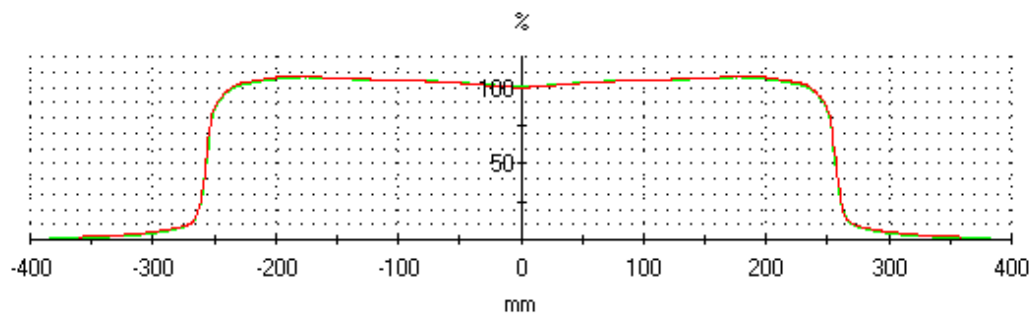
Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-03 13:10

Setup

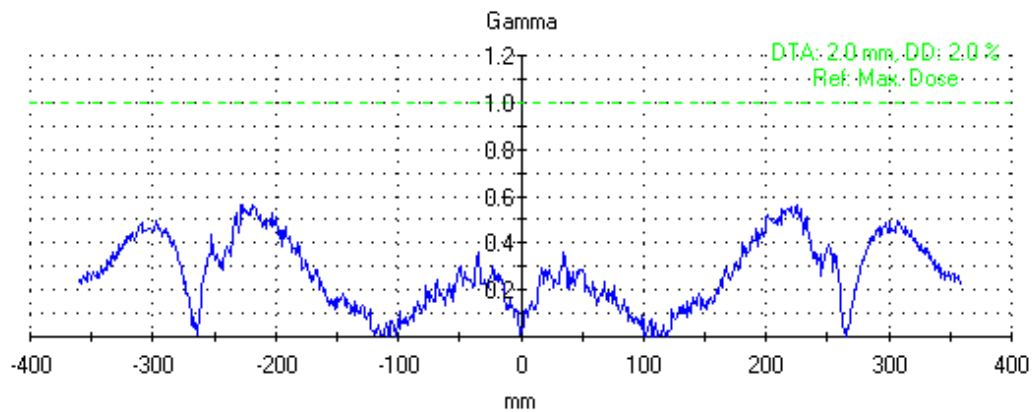
Modality: Photons

Measurement Parameters

Energy [MV]: 10.0
Field Size Y x X [cm x cm]: 40.00 x 40.00
Depth [mm]: 24.0
Profile Type: X Profile
Meas.Angle [°]: Diagonal
SSD [cm]: 100.0



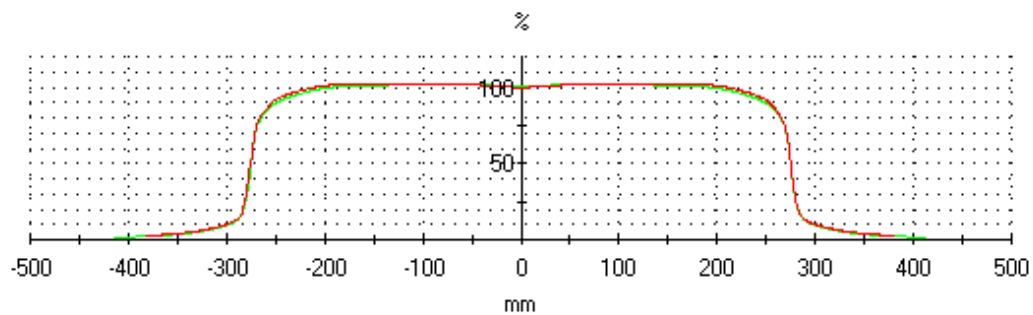
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



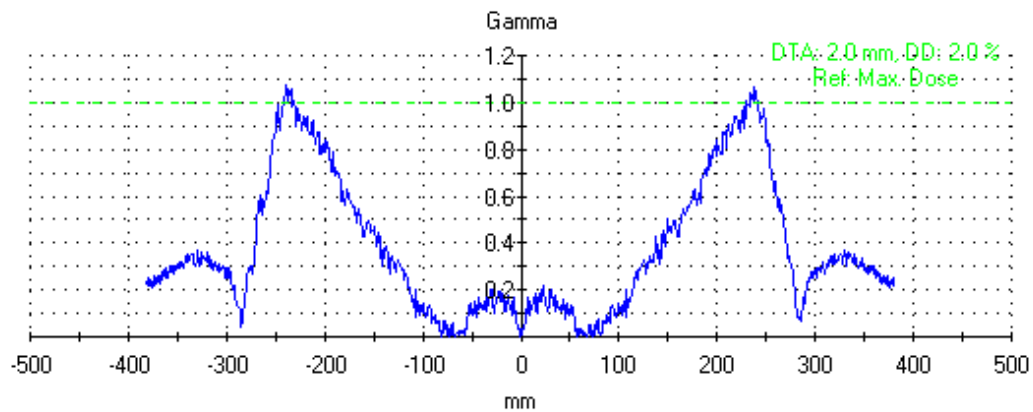
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-03 13:33

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	10.0
		Field Size Y x X [cm x cm]:	40.00 x 40.00
		Depth [mm]:	100.0
		Profile Type:	X Profile
		Meas.Angle [°]:	Diagonal
		SSD [cm]:	100.0



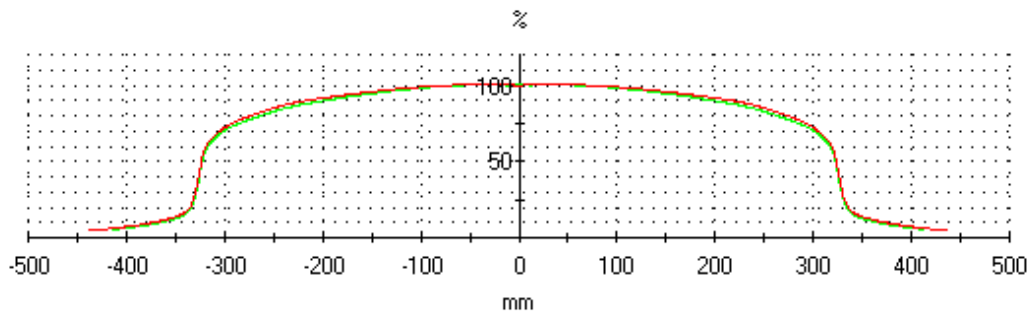
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



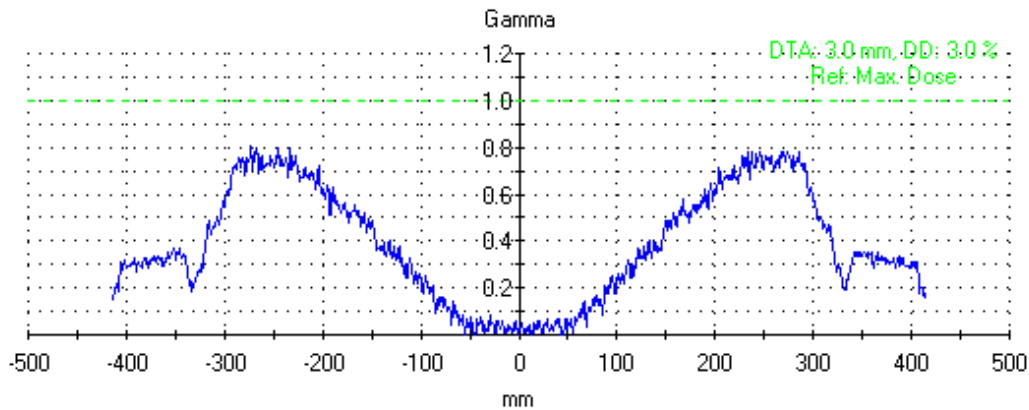
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-03 13:34

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	10.0
		Field Size Y x X [cm x cm]:	40.00 x 40.00
		Depth [mm]:	300.0
		Profile Type:	X Profile
		Meas.Angle [°]:	Diagonal
		SSD [cm]:	100.0



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



Photon Energies

15X TMR

Normalized to 3.0 cm	15X 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	0.232	0.240	0.248	0.259	0.271	0.285	0.298	0.312	0.325
0.5	0.571	0.570	0.567	0.575	0.585	0.595	0.605	0.618	0.631
1.0	0.793	0.788	0.780	0.784	0.788	0.795	0.802	0.811	0.819
1.5	0.906	0.901	0.894	0.895	0.898	0.902	0.907	0.912	0.916
2.0	0.963	0.960	0.956	0.956	0.956	0.958	0.961	0.963	0.966
2.5	0.996	0.992	0.987	0.987	0.986	0.987	0.988	0.990	0.991
3.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
3.5	1.001	1.001	1.003	1.003	1.003	1.002	1.002	1.002	1.001
4.0	0.993	0.995	0.998	0.999	0.999	0.999	0.998	0.997	0.997
4.5	0.980	0.982	0.987	0.989	0.990	0.990	0.991	0.990	0.989
5.0	0.966	0.970	0.977	0.979	0.980	0.980	0.979	0.979	0.979
5.5	0.952	0.957	0.965	0.968	0.970	0.970	0.970	0.970	0.970
6.0	0.941	0.944	0.950	0.955	0.958	0.959	0.959	0.959	0.959
6.5	0.925	0.929	0.938	0.943	0.946	0.948	0.948	0.948	0.948
7.0	0.911	0.916	0.926	0.932	0.934	0.936	0.937	0.938	0.939
7.5	0.896	0.902	0.913	0.919	0.922	0.924	0.926	0.927	0.928
8.0	0.883	0.888	0.899	0.906	0.910	0.913	0.914	0.916	0.917
8.5	0.869	0.874	0.885	0.893	0.897	0.900	0.903	0.905	0.906
9.0	0.854	0.860	0.873	0.882	0.886	0.889	0.891	0.893	0.894
9.5	0.842	0.846	0.858	0.867	0.872	0.877	0.880	0.882	0.884
10.0	0.822	0.830	0.846	0.856	0.862	0.866	0.868	0.871	0.872
10.5	0.820	0.822	0.833	0.842	0.848	0.853	0.856	0.859	0.861
11.0	0.806	0.809	0.820	0.829	0.836	0.841	0.845	0.849	0.850
11.5	0.794	0.797	0.810	0.820	0.826	0.831	0.834	0.838	0.840
12.0	0.779	0.783	0.797	0.807	0.813	0.818	0.822	0.826	0.829
12.5	0.766	0.771	0.785	0.795	0.802	0.808	0.811	0.816	0.818
13.0	0.757	0.760	0.773	0.784	0.791	0.798	0.801	0.805	0.808
13.5	0.745	0.748	0.762	0.772	0.779	0.785	0.789	0.793	0.797
14.0	0.731	0.734	0.748	0.759	0.767	0.775	0.779	0.783	0.786
14.5	0.718	0.723	0.738	0.750	0.757	0.763	0.767	0.772	0.776
15.0	0.710	0.713	0.727	0.737	0.744	0.751	0.755	0.760	0.764
15.5	0.697	0.701	0.715	0.727	0.735	0.742	0.746	0.750	0.754
16.0	0.686	0.690	0.705	0.717	0.724	0.731	0.735	0.739	0.743
16.5	0.679	0.681	0.694	0.705	0.713	0.720	0.725	0.730	0.734
17.0	0.668	0.670	0.683	0.694	0.702	0.709	0.714	0.720	0.724
17.5	0.658	0.659	0.673	0.684	0.692	0.699	0.704	0.709	0.713
18.0	0.645	0.647	0.663	0.675	0.683	0.691	0.695	0.700	0.704
18.5	0.636	0.639	0.654	0.666	0.673	0.679	0.684	0.690	0.694
19.0	0.626	0.628	0.643	0.654	0.662	0.669	0.675	0.681	0.686
19.5	0.617	0.619	0.633	0.644	0.652	0.660	0.665	0.670	0.675
20.0	0.607	0.609	0.624	0.635	0.643	0.649	0.654	0.660	0.665

Normalized to 3.0 cm	15X 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	0.598	0.599	0.613	0.624	0.633	0.640	0.646	0.652	0.657
21.0	0.587	0.589	0.604	0.616	0.624	0.631	0.637	0.643	0.648
21.5	0.581	0.582	0.596	0.608	0.615	0.622	0.628	0.633	0.638
22.0	0.573	0.573	0.587	0.597	0.605	0.612	0.618	0.624	0.629
22.5	0.561	0.563	0.578	0.590	0.597	0.603	0.609	0.614	0.619
23.0	0.553	0.554	0.569	0.580	0.588	0.595	0.601	0.607	0.612
23.5	0.548	0.548	0.562	0.572	0.579	0.586	0.591	0.597	0.602
24.0	0.541	0.540	0.553	0.563	0.570	0.577	0.583	0.589	0.595
24.5	0.529	0.530	0.544	0.555	0.562	0.568	0.574	0.580	0.586
25.0	0.520	0.521	0.536	0.547	0.554	0.561	0.567	0.572	0.577
25.5	0.515	0.514	0.528	0.538	0.545	0.552	0.558	0.564	0.570
26.0	0.508	0.507	0.520	0.530	0.537	0.544	0.550	0.556	0.561
26.5	0.496	0.497	0.512	0.523	0.530	0.536	0.542	0.548	0.553
27.0	0.488	0.489	0.504	0.516	0.522	0.528	0.533	0.539	0.545
27.5	0.484	0.483	0.497	0.507	0.515	0.522	0.527	0.533	0.538
28.0	0.477	0.476	0.490	0.499	0.507	0.513	0.519	0.525	0.530
28.5	0.472	0.470	0.483	0.492	0.499	0.506	0.511	0.517	0.522
29.0	0.464	0.463	0.476	0.484	0.492	0.498	0.504	0.509	0.515
29.5	0.456	0.455	0.469	0.478	0.485	0.491	0.497	0.502	0.508
30.0	0.448	0.447	0.461	0.470	0.478	0.484	0.490	0.495	0.500
30.5	0.439	0.439	0.454	0.463	0.470	0.477	0.483	0.488	0.494
31.0	0.436	0.435	0.448	0.457	0.464	0.470	0.475	0.480	0.486
31.5	0.431	0.429	0.442	0.449	0.456	0.463	0.469	0.474	0.479
32.0	0.422	0.421	0.434	0.442	0.450	0.456	0.461	0.467	0.472
32.5	0.416	0.415	0.428	0.436	0.443	0.450	0.455	0.460	0.465
33.0	0.410	0.409	0.422	0.429	0.437	0.443	0.449	0.454	0.459
33.5	0.403	0.402	0.415	0.423	0.430	0.436	0.442	0.447	0.452
34.0	0.394	0.394	0.408	0.418	0.425	0.431	0.436	0.441	0.446
34.5	0.391	0.390	0.403	0.411	0.418	0.424	0.430	0.435	0.440

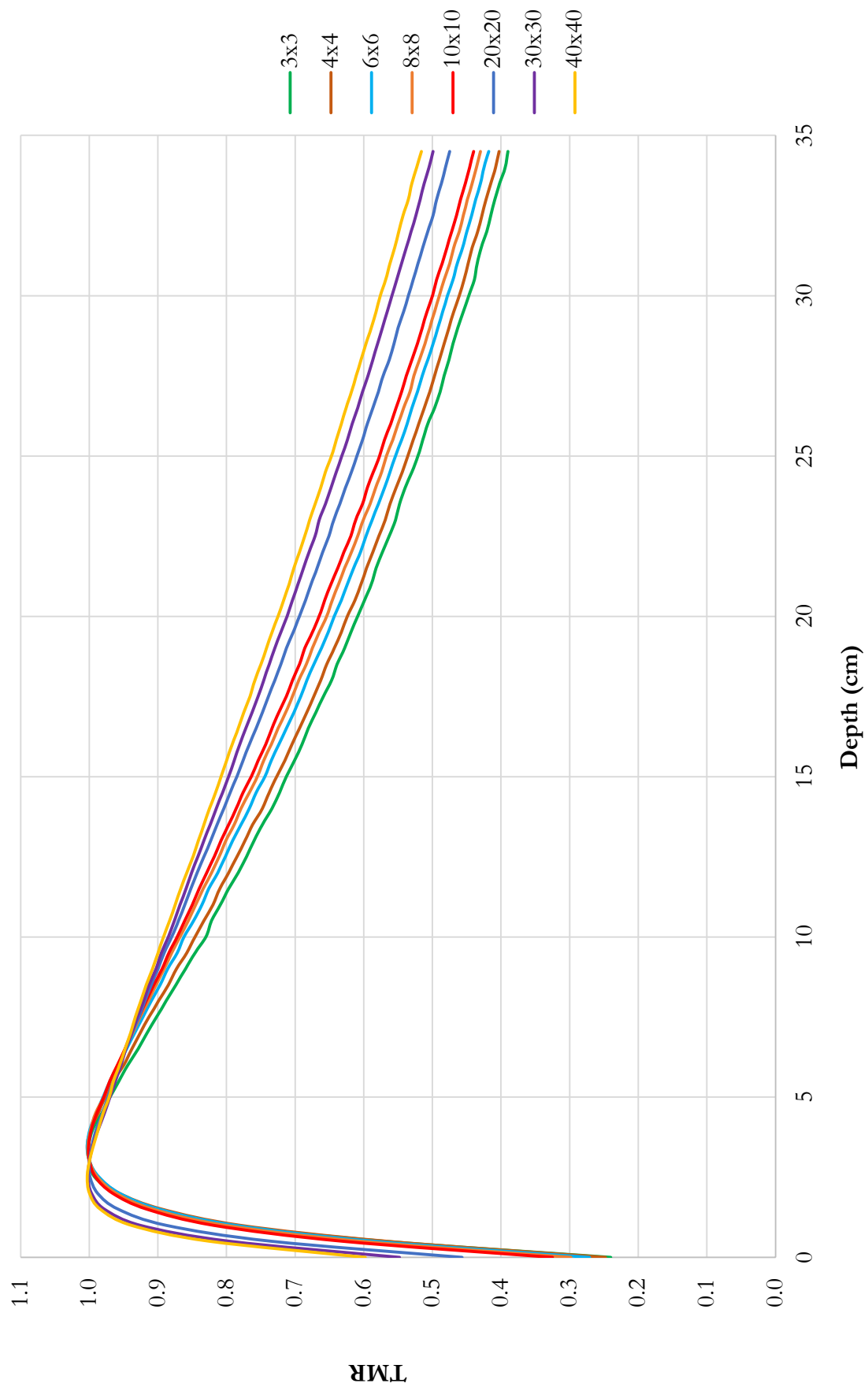
Normalized to 3.0 cm	15X TMR Open									
	Landauer Cancer Institute - Jackson, WY									
	Varian TrueBeam #9999									
Depth (cm)	11x11 (cm ²)	12x12 (cm ²)	13x13 (cm ²)	14x14 (cm ²)	15x15 (cm ²)	16x16 (cm ²)	17x17 (cm ²)	18x18 (cm ²)	19x19 (cm ²)	20x20 (cm ²)
0.0	0.339	0.352	0.365	0.378	0.391	0.404	0.418	0.431	0.444	0.457
0.5	0.641	0.652	0.662	0.673	0.683	0.693	0.704	0.714	0.724	0.735
1.0	0.826	0.833	0.840	0.847	0.853	0.860	0.867	0.874	0.881	0.888
1.5	0.920	0.925	0.929	0.933	0.937	0.941	0.945	0.950	0.954	0.958
2.0	0.969	0.971	0.973	0.975	0.977	0.979	0.981	0.983	0.985	0.988
2.5	0.992	0.993	0.993	0.994	0.995	0.996	0.996	0.997	0.998	0.999
3.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
3.5	1.001	1.001	1.000	1.000	0.999	0.999	0.998	0.997	0.997	0.996
4.0	0.996	0.995	0.995	0.994	0.993	0.993	0.992	0.991	0.990	0.990
4.5	0.988	0.987	0.987	0.986	0.985	0.984	0.984	0.983	0.982	0.981
5.0	0.979	0.978	0.977	0.977	0.976	0.975	0.975	0.974	0.973	0.973
5.5	0.969	0.969	0.968	0.968	0.967	0.967	0.966	0.966	0.965	0.965
6.0	0.959	0.958	0.958	0.958	0.957	0.957	0.956	0.956	0.955	0.955
6.5	0.948	0.948	0.948	0.948	0.948	0.948	0.947	0.947	0.947	0.947
7.0	0.939	0.939	0.939	0.939	0.939	0.939	0.939	0.938	0.938	0.938
7.5	0.929	0.928	0.929	0.929	0.928	0.929	0.928	0.928	0.928	0.928
8.0	0.917	0.917	0.918	0.918	0.918	0.919	0.919	0.919	0.919	0.919
8.5	0.907	0.907	0.908	0.908	0.908	0.909	0.909	0.910	0.910	0.910
9.0	0.896	0.896	0.897	0.897	0.898	0.898	0.899	0.899	0.900	0.900
9.5	0.885	0.886	0.887	0.887	0.888	0.888	0.889	0.890	0.890	0.891
10.0	0.874	0.874	0.875	0.876	0.877	0.878	0.878	0.879	0.880	0.880
10.5	0.863	0.864	0.865	0.866	0.867	0.867	0.868	0.869	0.870	0.870
11.0	0.852	0.853	0.854	0.855	0.856	0.858	0.859	0.860	0.861	0.861
11.5	0.841	0.843	0.844	0.845	0.846	0.848	0.849	0.850	0.851	0.852
12.0	0.831	0.833	0.834	0.836	0.837	0.838	0.840	0.841	0.842	0.843
12.5	0.821	0.822	0.824	0.825	0.827	0.828	0.829	0.831	0.832	0.833
13.0	0.810	0.811	0.813	0.815	0.816	0.817	0.819	0.820	0.822	0.823
13.5	0.800	0.802	0.804	0.805	0.807	0.808	0.810	0.811	0.812	0.814
14.0	0.789	0.791	0.793	0.795	0.796	0.798	0.800	0.801	0.803	0.804
14.5	0.779	0.782	0.784	0.786	0.787	0.789	0.791	0.792	0.794	0.795
15.0	0.768	0.771	0.773	0.775	0.777	0.778	0.780	0.782	0.783	0.785
15.5	0.757	0.760	0.762	0.765	0.766	0.768	0.771	0.772	0.774	0.776
16.0	0.747	0.750	0.753	0.755	0.757	0.759	0.761	0.763	0.765	0.767
16.5	0.737	0.740	0.742	0.745	0.747	0.749	0.751	0.753	0.755	0.757
17.0	0.728	0.731	0.733	0.736	0.738	0.740	0.742	0.744	0.746	0.748
17.5	0.717	0.721	0.723	0.726	0.728	0.730	0.733	0.735	0.737	0.739
18.0	0.708	0.712	0.714	0.717	0.719	0.721	0.724	0.726	0.728	0.730
18.5	0.698	0.701	0.704	0.707	0.709	0.711	0.714	0.716	0.719	0.721
19.0	0.690	0.694	0.696	0.699	0.701	0.704	0.706	0.709	0.711	0.713
19.5	0.679	0.684	0.686	0.689	0.691	0.694	0.696	0.699	0.701	0.703
20.0	0.669	0.674	0.676	0.679	0.682	0.684	0.687	0.690	0.692	0.694

Normalized to 3.0 cm	15X 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	0.661	0.665	0.668	0.671	0.673	0.676	0.678	0.681	0.683	0.685
21.0	0.652	0.656	0.658	0.661	0.664	0.667	0.669	0.672	0.675	0.677
21.5	0.643	0.647	0.650	0.653	0.656	0.658	0.661	0.664	0.666	0.668
22.0	0.634	0.638	0.641	0.644	0.647	0.650	0.653	0.655	0.658	0.660
22.5	0.624	0.629	0.632	0.635	0.638	0.640	0.643	0.646	0.649	0.651
23.0	0.616	0.620	0.624	0.627	0.630	0.633	0.635	0.638	0.641	0.644
23.5	0.607	0.611	0.615	0.618	0.621	0.624	0.627	0.630	0.632	0.635
24.0	0.599	0.604	0.608	0.611	0.614	0.616	0.619	0.622	0.625	0.627
24.5	0.590	0.595	0.599	0.602	0.605	0.607	0.610	0.613	0.616	0.618
25.0	0.582	0.587	0.591	0.594	0.597	0.600	0.602	0.605	0.608	0.610
25.5	0.574	0.578	0.582	0.585	0.588	0.591	0.594	0.596	0.599	0.602
26.0	0.566	0.570	0.575	0.578	0.581	0.583	0.586	0.589	0.592	0.595
26.5	0.558	0.563	0.567	0.570	0.573	0.576	0.579	0.581	0.584	0.587
27.0	0.549	0.554	0.559	0.562	0.565	0.568	0.571	0.574	0.577	0.579
27.5	0.543	0.548	0.552	0.555	0.558	0.561	0.564	0.566	0.569	0.572
28.0	0.535	0.539	0.543	0.546	0.549	0.552	0.555	0.558	0.561	0.563
28.5	0.527	0.532	0.537	0.540	0.543	0.545	0.548	0.551	0.554	0.556
29.0	0.520	0.524	0.529	0.532	0.535	0.538	0.541	0.544	0.547	0.550
29.5	0.513	0.517	0.521	0.525	0.528	0.531	0.534	0.537	0.540	0.542
30.0	0.505	0.510	0.515	0.518	0.521	0.524	0.527	0.530	0.533	0.535
30.5	0.499	0.503	0.507	0.510	0.514	0.517	0.520	0.522	0.525	0.528
31.0	0.491	0.495	0.500	0.503	0.506	0.509	0.512	0.515	0.518	0.521
31.5	0.484	0.488	0.493	0.496	0.499	0.502	0.505	0.508	0.511	0.514
32.0	0.477	0.481	0.486	0.489	0.492	0.495	0.498	0.501	0.504	0.507
32.5	0.470	0.474	0.479	0.482	0.485	0.488	0.491	0.494	0.497	0.499
33.0	0.463	0.468	0.472	0.476	0.479	0.482	0.485	0.488	0.491	0.494
33.5	0.457	0.461	0.466	0.469	0.473	0.476	0.479	0.482	0.484	0.487
34.0	0.451	0.456	0.461	0.464	0.467	0.470	0.473	0.476	0.479	0.481
34.5	0.444	0.449	0.454	0.457	0.460	0.463	0.466	0.469	0.472	0.475

Normalized to 3.0 cm	15X 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	0.475	0.494	0.512	0.530	0.548	0.558	0.568	0.578	0.588	0.598
0.5	0.747	0.759	0.772	0.784	0.796	0.802	0.808	0.813	0.819	0.825
1.0	0.896	0.903	0.911	0.919	0.926	0.929	0.932	0.934	0.937	0.939
1.5	0.962	0.966	0.970	0.974	0.978	0.980	0.981	0.982	0.983	0.984
2.0	0.990	0.992	0.994	0.996	0.997	0.998	0.999	0.999	0.999	1.000
2.5	0.999	1.000	1.001	1.002	1.002	1.003	1.003	1.003	1.003	1.003
3.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
3.5	0.996	0.996	0.995	0.995	0.995	0.995	0.995	0.994	0.994	0.994
4.0	0.989	0.988	0.988	0.987	0.987	0.987	0.987	0.987	0.987	0.987
4.5	0.980	0.980	0.979	0.979	0.978	0.978	0.978	0.979	0.979	0.980
5.0	0.972	0.971	0.971	0.971	0.970	0.970	0.970	0.970	0.971	0.971
5.5	0.964	0.964	0.963	0.963	0.962	0.962	0.963	0.963	0.964	0.965
6.0	0.955	0.955	0.955	0.954	0.954	0.955	0.955	0.955	0.956	0.956
6.5	0.947	0.947	0.947	0.947	0.947	0.947	0.947	0.947	0.948	0.948
7.0	0.938	0.938	0.938	0.938	0.938	0.939	0.939	0.939	0.940	0.940
7.5	0.929	0.929	0.929	0.929	0.930	0.930	0.931	0.932	0.933	0.933
8.0	0.920	0.920	0.921	0.921	0.921	0.922	0.923	0.924	0.925	0.925
8.5	0.911	0.912	0.912	0.912	0.913	0.914	0.914	0.915	0.916	0.917
9.0	0.902	0.902	0.902	0.903	0.903	0.904	0.905	0.906	0.907	0.908
9.5	0.892	0.893	0.894	0.894	0.895	0.896	0.897	0.898	0.899	0.900
10.0	0.882	0.883	0.884	0.885	0.885	0.887	0.888	0.889	0.890	0.892
10.5	0.873	0.874	0.874	0.876	0.876	0.878	0.879	0.880	0.882	0.883
11.0	0.864	0.865	0.866	0.867	0.868	0.869	0.871	0.872	0.873	0.875
11.5	0.855	0.856	0.857	0.858	0.859	0.861	0.863	0.864	0.865	0.867
12.0	0.846	0.847	0.848	0.850	0.851	0.852	0.854	0.855	0.856	0.858
12.5	0.836	0.838	0.839	0.841	0.842	0.844	0.846	0.846	0.848	0.849
13.0	0.826	0.828	0.830	0.831	0.833	0.835	0.837	0.838	0.840	0.841
13.5	0.817	0.819	0.821	0.822	0.824	0.826	0.828	0.830	0.831	0.833
14.0	0.808	0.811	0.812	0.814	0.815	0.817	0.819	0.821	0.823	0.825
14.5	0.799	0.801	0.803	0.805	0.806	0.809	0.811	0.813	0.814	0.816
15.0	0.789	0.792	0.794	0.796	0.797	0.800	0.802	0.804	0.806	0.808
15.5	0.780	0.784	0.786	0.787	0.789	0.791	0.794	0.796	0.798	0.800
16.0	0.771	0.775	0.777	0.779	0.781	0.784	0.786	0.788	0.790	0.792
16.5	0.762	0.766	0.768	0.770	0.772	0.774	0.777	0.779	0.781	0.783
17.0	0.752	0.756	0.759	0.761	0.763	0.766	0.769	0.771	0.773	0.775
17.5	0.743	0.748	0.750	0.752	0.754	0.757	0.760	0.762	0.764	0.766
18.0	0.735	0.740	0.742	0.744	0.746	0.749	0.752	0.755	0.757	0.759
18.5	0.726	0.731	0.733	0.735	0.738	0.740	0.743	0.746	0.748	0.750
19.0	0.718	0.723	0.725	0.727	0.730	0.732	0.735	0.738	0.740	0.742
19.5	0.708	0.714	0.716	0.718	0.721	0.724	0.727	0.730	0.732	0.734
20.0	0.700	0.705	0.707	0.710	0.712	0.715	0.718	0.721	0.723	0.725

Normalized to 3.0 cm	15X 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	0.691	0.696	0.699	0.701	0.704	0.707	0.710	0.713	0.715	0.717
21.0	0.683	0.688	0.691	0.693	0.696	0.699	0.702	0.705	0.707	0.709
21.5	0.674	0.679	0.682	0.685	0.688	0.691	0.694	0.697	0.700	0.702
22.0	0.666	0.672	0.675	0.678	0.680	0.683	0.686	0.690	0.692	0.694
22.5	0.657	0.663	0.666	0.669	0.671	0.674	0.678	0.681	0.684	0.686
23.0	0.649	0.655	0.659	0.662	0.665	0.668	0.671	0.674	0.677	0.679
23.5	0.641	0.647	0.651	0.653	0.656	0.659	0.662	0.665	0.668	0.671
24.0	0.633	0.639	0.643	0.645	0.648	0.651	0.654	0.658	0.661	0.663
24.5	0.624	0.630	0.634	0.637	0.640	0.643	0.647	0.650	0.654	0.656
25.0	0.616	0.622	0.627	0.629	0.632	0.635	0.639	0.642	0.645	0.647
25.5	0.607	0.613	0.618	0.621	0.624	0.627	0.631	0.634	0.638	0.640
26.0	0.600	0.606	0.611	0.614	0.617	0.620	0.623	0.627	0.630	0.633
26.5	0.592	0.598	0.603	0.606	0.609	0.613	0.616	0.620	0.624	0.626
27.0	0.585	0.592	0.597	0.599	0.602	0.605	0.609	0.612	0.616	0.618
27.5	0.577	0.583	0.588	0.591	0.594	0.597	0.601	0.604	0.608	0.611
28.0	0.569	0.575	0.581	0.584	0.587	0.590	0.594	0.597	0.601	0.604
28.5	0.562	0.568	0.573	0.576	0.580	0.583	0.587	0.590	0.594	0.597
29.0	0.556	0.562	0.568	0.570	0.573	0.576	0.580	0.583	0.587	0.589
29.5	0.548	0.555	0.561	0.563	0.566	0.569	0.573	0.576	0.580	0.582
30.0	0.541	0.547	0.553	0.556	0.559	0.562	0.565	0.569	0.573	0.576
30.5	0.534	0.540	0.546	0.549	0.552	0.555	0.558	0.562	0.565	0.568
31.0	0.526	0.533	0.539	0.542	0.545	0.548	0.552	0.555	0.559	0.562
31.5	0.520	0.526	0.532	0.536	0.538	0.541	0.545	0.548	0.551	0.555
32.0	0.513	0.519	0.525	0.528	0.531	0.535	0.538	0.542	0.546	0.549
32.5	0.505	0.511	0.517	0.521	0.524	0.528	0.531	0.535	0.539	0.543
33.0	0.499	0.505	0.511	0.515	0.518	0.521	0.525	0.528	0.532	0.535
33.5	0.493	0.499	0.505	0.510	0.512	0.516	0.519	0.523	0.526	0.530
34.0	0.487	0.493	0.499	0.503	0.505	0.509	0.512	0.515	0.519	0.523
34.5	0.480	0.486	0.492	0.496	0.499	0.502	0.506	0.509	0.513	0.516

15X TMR Open
Landauer Cancer Institute - Jackson, WY
Varian TrueBeam #99999



Photon Energies

15X PDD

Normalized to 3.0 cm	15X 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	24.5	25.3	26.2	27.4	28.7	30.1	31.6	33.0	34.5
0.5	59.8	59.6	59.4	60.4	61.4	62.4	63.5	64.9	66.3
1.0	82.2	81.6	80.9	81.4	81.9	82.7	83.4	84.3	85.2
1.5	93.1	92.5	91.9	92.2	92.4	92.9	93.4	93.9	94.3
2.0	98.1	97.7	97.4	97.4	97.5	97.7	98.0	98.2	98.5
2.5	100.5	100.1	99.6	99.6	99.6	99.7	99.8	100.0	100.1
3.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
3.5	99.2	99.3	99.3	99.3	99.3	99.3	99.2	99.2	99.2
4.0	97.6	97.8	98.0	98.0	98.0	98.0	97.9	97.8	97.8
4.5	95.4	95.8	96.1	96.2	96.2	96.3	96.3	96.2	96.1
5.0	93.3	93.8	94.3	94.3	94.4	94.3	94.3	94.3	94.3
5.5	91.1	91.7	92.3	92.4	92.5	92.6	92.6	92.6	92.5
6.0	89.2	89.7	90.1	90.3	90.6	90.6	90.7	90.6	90.6
6.5	87.0	87.6	88.2	88.5	88.7	88.8	88.8	88.8	88.8
7.0	84.9	85.6	86.3	86.6	86.8	86.9	87.0	87.1	87.2
7.5	82.9	83.6	84.4	84.7	84.9	85.1	85.2	85.3	85.4
8.0	81.0	81.7	82.4	82.7	83.1	83.2	83.4	83.5	83.6
8.5	78.9	79.7	80.4	80.8	81.2	81.5	81.7	81.8	81.9
9.0	77.0	77.8	78.7	79.1	79.5	79.7	79.9	80.0	80.2
9.5	75.2	75.9	76.6	77.1	77.7	77.9	78.2	78.4	78.6
10.0	72.9	74.0	75.0	75.5	76.0	76.2	76.5	76.7	76.8
10.5	72.0	72.6	73.1	73.7	74.2	74.5	74.8	75.0	75.3
11.0	70.2	70.8	71.4	72.0	72.5	72.9	73.3	73.5	73.6
11.5	68.6	69.3	70.0	70.5	71.0	71.4	71.7	71.9	72.1
12.0	66.8	67.5	68.2	68.8	69.3	69.7	70.1	70.4	70.6
12.5	65.2	65.9	66.7	67.3	67.8	68.2	68.6	68.9	69.1
13.0	63.8	64.5	65.1	65.8	66.5	66.8	67.2	67.4	67.6
13.5	62.3	63.0	63.6	64.2	64.8	65.2	65.6	65.9	66.3
14.0	60.6	61.3	62.0	62.7	63.4	63.8	64.2	64.5	64.8
14.5	59.1	59.9	60.8	61.3	61.9	62.4	62.8	63.2	63.5
15.0	57.9	58.6	59.3	59.8	60.4	60.9	61.3	61.7	62.1
15.5	56.5	57.2	57.9	58.5	59.2	59.6	60.0	60.4	60.7
16.0	55.1	55.9	56.6	57.2	57.9	58.3	58.7	59.1	59.4
16.5	54.1	54.7	55.2	55.9	56.5	57.0	57.5	57.8	58.1
17.0	52.8	53.4	54.0	54.6	55.2	55.7	56.2	56.6	56.9
17.5	51.6	52.1	52.7	53.4	54.0	54.5	54.9	55.3	55.7
18.0	50.2	50.9	51.6	52.3	53.0	53.4	53.8	54.2	54.6
18.5	49.1	49.8	50.5	51.1	51.6	52.1	52.6	53.0	53.3
19.0	48.0	48.6	49.2	49.9	50.5	51.0	51.5	51.9	52.3
19.5	46.9	47.5	48.1	48.7	49.4	49.8	50.3	50.7	51.1
20.0	45.8	46.4	47.0	47.6	48.2	48.7	49.1	49.6	50.0

Normalized to 3.0 cm	15X 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	44.8	45.3	45.9	46.5	47.2	47.7	48.2	48.6	49.0
21.0	43.6	44.3	44.9	45.5	46.1	46.6	47.2	47.5	47.9
21.5	42.8	43.4	43.9	44.5	45.1	45.6	46.1	46.5	46.9
22.0	41.9	42.4	42.9	43.5	44.1	44.6	45.1	45.5	45.9
22.5	40.8	41.4	42.0	42.5	43.1	43.6	44.0	44.5	44.9
23.0	39.8	40.4	41.0	41.6	42.2	42.7	43.2	43.6	44.0
23.5	39.2	39.6	40.1	40.7	41.2	41.7	42.2	42.6	43.0
24.0	38.4	38.7	39.1	39.7	40.3	40.8	41.3	41.8	42.2
24.5	37.3	37.8	38.3	38.8	39.4	39.9	40.4	40.8	41.2
25.0	36.4	37.0	37.5	38.0	38.6	39.1	39.5	40.0	40.4
25.5	35.7	36.2	36.6	37.2	37.7	38.2	38.8	39.1	39.5
26.0	35.0	35.4	35.8	36.3	36.9	37.4	37.9	38.3	38.7
26.5	34.0	34.5	35.0	35.6	36.1	36.6	37.0	37.5	37.9
27.0	33.2	33.8	34.3	34.8	35.2	35.7	36.2	36.6	37.0
27.5	32.6	33.1	33.5	34.0	34.6	35.0	35.5	35.9	36.3
28.0	31.9	32.3	32.7	33.3	33.8	34.3	34.7	35.1	35.5
28.5	31.3	31.7	32.0	32.5	33.0	33.5	34.0	34.4	34.8
29.0	30.6	31.0	31.3	31.8	32.4	32.8	33.2	33.7	34.1
29.5	29.9	30.3	30.6	31.1	31.6	32.1	32.6	33.0	33.3
30.0	29.1	29.5	30.0	30.5	31.0	31.4	31.8	32.2	32.7
30.5	28.4	28.8	29.3	29.8	30.3	30.8	31.2	31.6	32.0
31.0	27.9	28.3	28.7	29.1	29.6	30.1	30.5	30.9	31.3
31.5	27.4	27.7	28.0	28.5	29.0	29.4	29.9	30.3	30.6
32.0	26.7	27.0	27.4	27.9	28.4	28.8	29.2	29.6	30.0
32.5	26.1	26.4	26.8	27.3	27.8	28.2	28.6	29.0	29.3
33.0	25.6	25.9	26.2	26.7	27.2	27.6	28.0	28.4	28.8
33.5	24.9	25.3	25.6	26.1	26.6	27.0	27.4	27.8	28.2
34.0	24.3	24.7	25.2	25.6	26.1	26.5	26.9	27.3	27.7
34.5	23.9	24.2	24.6	25.1	25.5	25.9	26.3	26.7	27.1

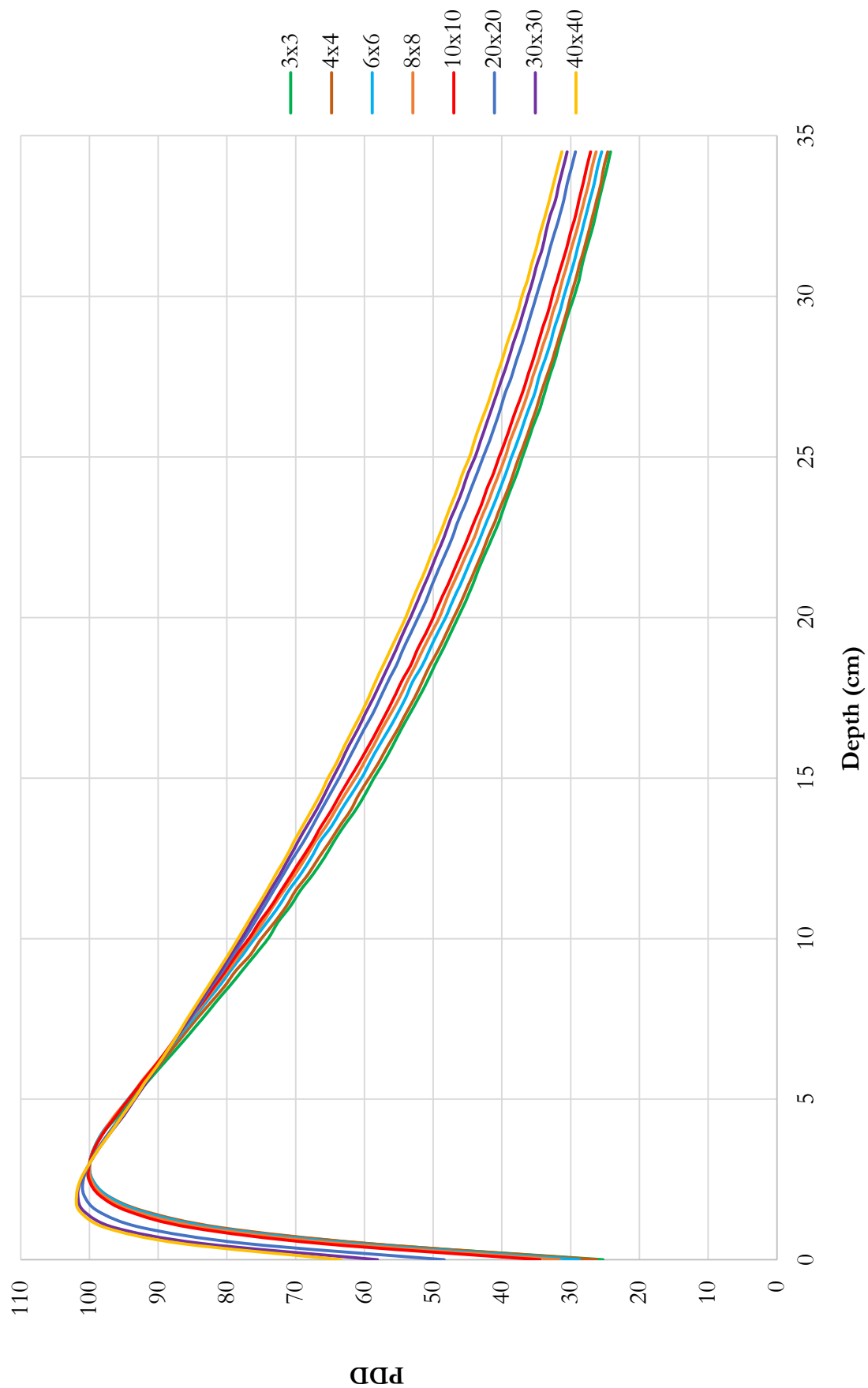
Normalized to 3.0 cm	15X PDD Open									
	Landauer Cancer Institute - Jackson, WY									
	Varian TrueBeam #9999									
Depth (cm)	11x11 (cm ²)	12x12 (cm ²)	13x13 (cm ²)	14x14 (cm ²)	15x15 (cm ²)	16x16 (cm ²)	17x17 (cm ²)	18x18 (cm ²)	19x19 (cm ²)	20x20 (cm ²)
0.0	35.9	37.3	38.7	40.1	41.5	42.9	44.3	45.7	47.1	48.4
0.5	67.4	68.5	69.6	70.6	71.7	72.8	73.9	75.0	76.1	77.2
1.0	85.9	86.6	87.3	88.1	88.8	89.5	90.2	90.9	91.7	92.4
1.5	94.8	95.2	95.7	96.1	96.5	97.0	97.4	97.8	98.3	98.7
2.0	98.8	99.0	99.2	99.4	99.6	99.9	100.1	100.3	100.5	100.8
2.5	100.2	100.3	100.3	100.4	100.5	100.6	100.6	100.7	100.8	100.9
3.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
3.5	99.1	99.1	99.0	99.0	98.9	98.9	98.8	98.8	98.7	98.7
4.0	97.7	97.6	97.6	97.5	97.4	97.3	97.3	97.2	97.1	97.0
4.5	96.0	96.0	95.9	95.8	95.7	95.6	95.6	95.5	95.4	95.3
5.0	94.2	94.2	94.1	94.0	93.9	93.9	93.8	93.7	93.7	93.6
5.5	92.5	92.4	92.3	92.3	92.2	92.2	92.1	92.1	92.0	92.0
6.0	90.6	90.6	90.5	90.5	90.4	90.4	90.4	90.3	90.3	90.2
6.5	88.8	88.8	88.8	88.8	88.7	88.7	88.7	88.7	88.7	88.6
7.0	87.2	87.2	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1
7.5	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.3
8.0	83.6	83.7	83.7	83.7	83.7	83.7	83.7	83.8	83.8	83.8
8.5	81.9	82.0	82.0	82.1	82.1	82.1	82.2	82.2	82.2	82.3
9.0	80.2	80.3	80.3	80.4	80.4	80.5	80.5	80.6	80.6	80.6
9.5	78.6	78.7	78.7	78.8	78.8	78.9	78.9	79.0	79.0	79.1
10.0	76.9	77.0	77.0	77.1	77.2	77.2	77.3	77.4	77.4	77.5
10.5	75.3	75.4	75.5	75.6	75.6	75.7	75.8	75.9	75.9	76.0
11.0	73.7	73.8	73.9	74.0	74.1	74.2	74.3	74.4	74.5	74.6
11.5	72.2	72.3	72.4	72.5	72.6	72.7	72.9	73.0	73.1	73.2
12.0	70.8	70.9	71.0	71.1	71.2	71.3	71.4	71.6	71.7	71.8
12.5	69.3	69.4	69.5	69.6	69.7	69.9	70.0	70.1	70.2	70.4
13.0	67.8	67.9	68.0	68.2	68.3	68.4	68.5	68.7	68.8	68.9
13.5	66.4	66.5	66.7	66.8	66.9	67.1	67.2	67.3	67.5	67.6
14.0	64.9	65.1	65.2	65.4	65.5	65.7	65.9	66.0	66.2	66.3
14.5	63.7	63.8	64.0	64.1	64.3	64.4	64.6	64.7	64.9	65.0
15.0	62.3	62.4	62.6	62.7	62.9	63.1	63.2	63.4	63.5	63.7
15.5	60.9	61.1	61.2	61.4	61.6	61.8	62.0	62.1	62.3	62.5
16.0	59.6	59.8	60.0	60.2	60.4	60.5	60.7	60.9	61.1	61.3
16.5	58.3	58.5	58.7	58.9	59.1	59.3	59.5	59.7	59.9	60.1
17.0	57.1	57.3	57.5	57.7	57.9	58.1	58.3	58.4	58.6	58.8
17.5	55.9	56.1	56.3	56.5	56.7	56.9	57.1	57.3	57.5	57.7
18.0	54.8	55.0	55.2	55.4	55.6	55.8	56.0	56.2	56.4	56.6
18.5	53.5	53.7	53.9	54.2	54.4	54.6	54.8	55.0	55.2	55.4
19.0	52.5	52.7	52.9	53.1	53.4	53.6	53.8	54.0	54.2	54.4
19.5	51.3	51.6	51.8	52.0	52.2	52.4	52.6	52.8	53.1	53.3
20.0	50.2	50.4	50.7	50.9	51.1	51.3	51.6	51.8	52.0	52.2

Normalized to 3.0 cm	15X 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	49.2	49.4	49.6	49.8	50.1	50.3	50.5	50.7	50.9	51.1
21.0	48.1	48.4	48.6	48.8	49.0	49.3	49.5	49.7	50.0	50.2
21.5	47.2	47.4	47.6	47.8	48.0	48.3	48.5	48.7	48.9	49.2
22.0	46.1	46.4	46.6	46.8	47.1	47.3	47.5	47.8	48.0	48.2
22.5	45.1	45.4	45.6	45.8	46.1	46.3	46.5	46.8	47.0	47.2
23.0	44.2	44.4	44.7	44.9	45.2	45.4	45.6	45.9	46.1	46.4
23.5	43.3	43.5	43.7	44.0	44.2	44.5	44.7	44.9	45.2	45.4
24.0	42.4	42.6	42.9	43.1	43.3	43.6	43.8	44.0	44.3	44.5
24.5	41.5	41.7	41.9	42.2	42.4	42.6	42.9	43.1	43.3	43.6
25.0	40.6	40.8	41.1	41.3	41.6	41.8	42.0	42.3	42.5	42.7
25.5	39.7	39.9	40.2	40.4	40.6	40.9	41.1	41.3	41.6	41.8
26.0	38.9	39.1	39.4	39.6	39.9	40.1	40.3	40.6	40.8	41.0
26.5	38.1	38.3	38.6	38.8	39.0	39.3	39.5	39.7	40.0	40.2
27.0	37.3	37.5	37.8	38.0	38.3	38.5	38.7	39.0	39.2	39.5
27.5	36.6	36.8	37.0	37.3	37.5	37.7	37.9	38.2	38.4	38.6
28.0	35.7	35.9	36.2	36.4	36.7	36.9	37.1	37.4	37.6	37.9
28.5	35.0	35.3	35.5	35.7	35.9	36.2	36.4	36.6	36.9	37.1
29.0	34.3	34.5	34.8	35.0	35.3	35.5	35.7	36.0	36.2	36.4
29.5	33.6	33.8	34.0	34.3	34.5	34.8	35.0	35.2	35.5	35.7
30.0	32.9	33.1	33.4	33.6	33.8	34.1	34.3	34.5	34.8	35.0
30.5	32.2	32.4	32.7	32.9	33.1	33.4	33.6	33.8	34.1	34.3
31.0	31.5	31.7	32.0	32.2	32.4	32.7	32.9	33.1	33.4	33.6
31.5	30.8	31.1	31.3	31.6	31.8	32.0	32.3	32.5	32.7	33.0
32.0	30.2	30.4	30.7	30.9	31.1	31.4	31.6	31.8	32.1	32.3
32.5	29.6	29.8	30.0	30.2	30.5	30.7	30.9	31.1	31.4	31.6
33.0	29.0	29.2	29.4	29.7	29.9	30.1	30.4	30.6	30.8	31.0
33.5	28.4	28.6	28.9	29.1	29.3	29.6	29.8	30.0	30.2	30.5
34.0	27.9	28.1	28.3	28.5	28.8	29.0	29.2	29.4	29.6	29.9
34.5	27.3	27.5	27.7	27.9	28.2	28.4	28.6	28.8	29.0	29.3

Normalized to 3.0 cm	15X 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	50.4	52.3	54.2	56.2	58.1	59.2	60.2	61.3	62.3	63.4
0.5	78.5	79.8	81.1	82.3	83.6	84.2	84.8	85.4	86.0	86.6
1.0	93.2	94.0	94.8	95.6	96.4	96.7	96.9	97.2	97.5	97.7
1.5	99.1	99.5	99.9	100.3	100.8	100.9	101.0	101.1	101.3	101.4
2.0	100.9	101.1	101.3	101.5	101.7	101.8	101.8	101.9	101.9	101.9
2.5	100.9	101.0	101.1	101.1	101.2	101.2	101.2	101.3	101.3	101.3
3.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
3.5	98.6	98.6	98.6	98.6	98.5	98.5	98.5	98.5	98.5	98.5
4.0	97.0	97.0	96.9	96.9	96.8	96.8	96.8	96.8	96.8	96.8
4.5	95.3	95.2	95.2	95.1	95.0	95.1	95.1	95.1	95.2	95.2
5.0	93.6	93.5	93.5	93.4	93.4	93.4	93.4	93.4	93.5	93.5
5.5	91.9	91.9	91.8	91.8	91.8	91.8	91.9	91.9	92.0	92.0
6.0	90.2	90.2	90.2	90.2	90.2	90.2	90.3	90.3	90.3	90.3
6.5	88.6	88.6	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7
7.0	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.2	87.2	87.2
7.5	85.4	85.4	85.4	85.5	85.5	85.6	85.6	85.7	85.7	85.8
8.0	83.8	83.9	83.9	83.9	84.0	84.0	84.1	84.2	84.3	84.3
8.5	82.3	82.3	82.4	82.4	82.5	82.5	82.6	82.7	82.7	82.8
9.0	80.7	80.7	80.8	80.8	80.9	81.0	81.1	81.1	81.2	81.3
9.5	79.2	79.2	79.3	79.4	79.5	79.5	79.6	79.7	79.7	79.8
10.0	77.6	77.7	77.8	77.8	77.9	78.0	78.1	78.2	78.3	78.4
10.5	76.1	76.2	76.3	76.4	76.5	76.6	76.7	76.8	76.9	77.0
11.0	74.7	74.8	74.9	75.0	75.1	75.2	75.3	75.4	75.5	75.6
11.5	73.3	73.4	73.5	73.6	73.7	73.8	73.9	74.0	74.1	74.2
12.0	71.9	72.0	72.1	72.2	72.3	72.4	72.5	72.6	72.7	72.9
12.5	70.5	70.6	70.7	70.9	71.0	71.1	71.2	71.3	71.4	71.5
13.0	69.1	69.2	69.4	69.5	69.7	69.8	69.9	70.0	70.1	70.3
13.5	67.8	67.9	68.1	68.2	68.4	68.5	68.6	68.7	68.9	69.0
14.0	66.5	66.6	66.7	66.9	67.0	67.2	67.3	67.5	67.6	67.7
14.5	65.2	65.3	65.5	65.7	65.8	65.9	66.1	66.2	66.3	66.4
15.0	63.9	64.0	64.2	64.4	64.6	64.7	64.9	65.0	65.2	65.3
15.5	62.7	62.9	63.0	63.2	63.4	63.5	63.6	63.8	63.9	64.0
16.0	61.5	61.7	61.9	62.1	62.3	62.4	62.5	62.6	62.7	62.9
16.5	60.2	60.4	60.6	60.8	61.0	61.1	61.3	61.4	61.6	61.7
17.0	59.0	59.2	59.4	59.7	59.9	60.0	60.1	60.3	60.4	60.5
17.5	57.9	58.1	58.3	58.5	58.7	58.8	59.0	59.1	59.2	59.4
18.0	56.8	57.0	57.2	57.4	57.6	57.8	57.9	58.1	58.2	58.4
18.5	55.7	55.9	56.1	56.3	56.5	56.7	56.8	57.0	57.1	57.3
19.0	54.6	54.8	55.0	55.2	55.4	55.6	55.8	55.9	56.1	56.2
19.5	53.5	53.7	53.9	54.2	54.4	54.5	54.7	54.8	55.0	55.1
20.0	52.4	52.7	52.9	53.1	53.3	53.5	53.6	53.7	53.9	54.0

Normalized to 3.0 cm	15X 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	51.4	51.6	51.8	52.1	52.3	52.4	52.6	52.8	52.9	53.1
21.0	50.4	50.6	50.9	51.1	51.3	51.5	51.6	51.8	51.9	52.1
21.5	49.4	49.6	49.9	50.1	50.3	50.5	50.6	50.8	50.9	51.1
22.0	48.5	48.7	48.9	49.2	49.4	49.6	49.7	49.9	50.0	50.2
22.5	47.5	47.7	47.9	48.2	48.4	48.6	48.7	48.9	49.1	49.2
23.0	46.6	46.8	47.1	47.3	47.6	47.7	47.9	48.0	48.2	48.3
23.5	45.7	45.9	46.1	46.4	46.6	46.8	46.9	47.1	47.2	47.4
24.0	44.7	45.0	45.2	45.5	45.7	45.9	46.0	46.2	46.4	46.5
24.5	43.8	44.1	44.3	44.6	44.9	45.0	45.2	45.3	45.5	45.7
25.0	43.0	43.2	43.5	43.7	43.9	44.1	44.3	44.4	44.6	44.7
25.5	42.1	42.3	42.6	42.8	43.1	43.3	43.5	43.6	43.8	44.0
26.0	41.3	41.5	41.8	42.0	42.3	42.5	42.6	42.8	43.0	43.2
26.5	40.5	40.7	41.0	41.2	41.5	41.7	41.8	42.0	42.1	42.3
27.0	39.7	40.0	40.2	40.4	40.7	40.9	41.0	41.2	41.3	41.5
27.5	38.9	39.1	39.4	39.6	39.9	40.1	40.2	40.4	40.6	40.8
28.0	38.1	38.4	38.6	38.9	39.1	39.3	39.5	39.6	39.8	40.0
28.5	37.4	37.6	37.9	38.2	38.4	38.6	38.8	38.9	39.1	39.3
29.0	36.7	36.9	37.2	37.4	37.6	37.8	38.0	38.2	38.4	38.5
29.5	36.0	36.2	36.4	36.7	36.9	37.1	37.2	37.4	37.6	37.7
30.0	35.2	35.5	35.7	36.0	36.2	36.4	36.6	36.7	36.9	37.1
30.5	34.6	34.8	35.0	35.3	35.5	35.7	35.8	36.0	36.2	36.3
31.0	33.9	34.1	34.4	34.6	34.9	35.0	35.2	35.4	35.5	35.7
31.5	33.2	33.4	33.7	33.9	34.1	34.3	34.5	34.6	34.8	35.0
32.0	32.6	32.8	33.1	33.3	33.6	33.7	33.9	34.0	34.2	34.4
32.5	31.9	32.1	32.4	32.7	33.0	33.1	33.3	33.4	33.6	33.7
33.0	31.3	31.5	31.8	32.0	32.2	32.4	32.6	32.8	33.0	33.1
33.5	30.7	31.0	31.2	31.5	31.7	31.9	32.0	32.2	32.3	32.5
34.0	30.1	30.3	30.6	30.8	31.1	31.2	31.4	31.5	31.7	31.9
34.5	29.5	29.7	30.0	30.2	30.5	30.6	30.8	31.0	31.1	31.3

15X PDD Open
Landauer Cancer Institute - Jackson, WY
Varian TrueBeam #9999

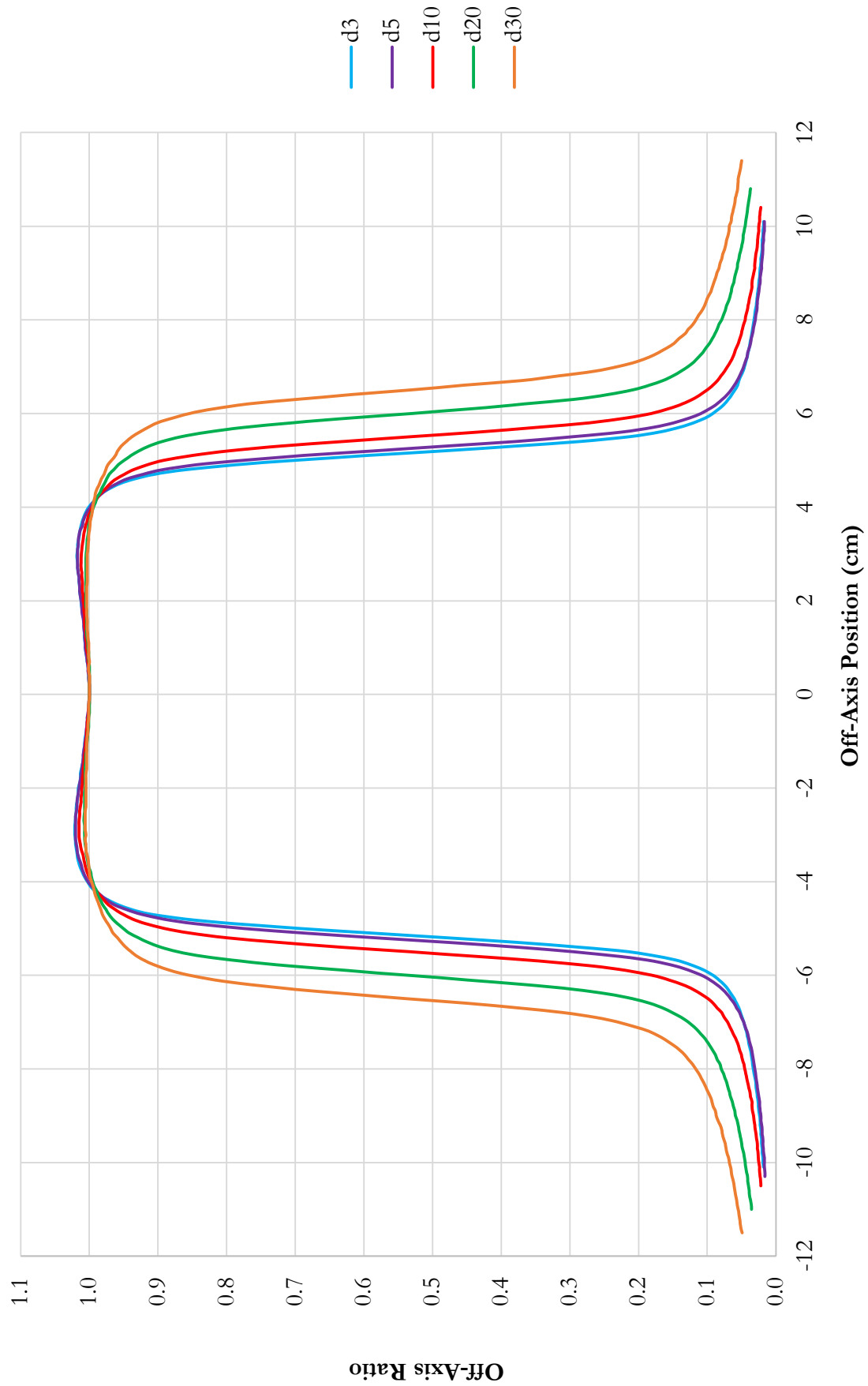


Photon Energies

15X Crossplane

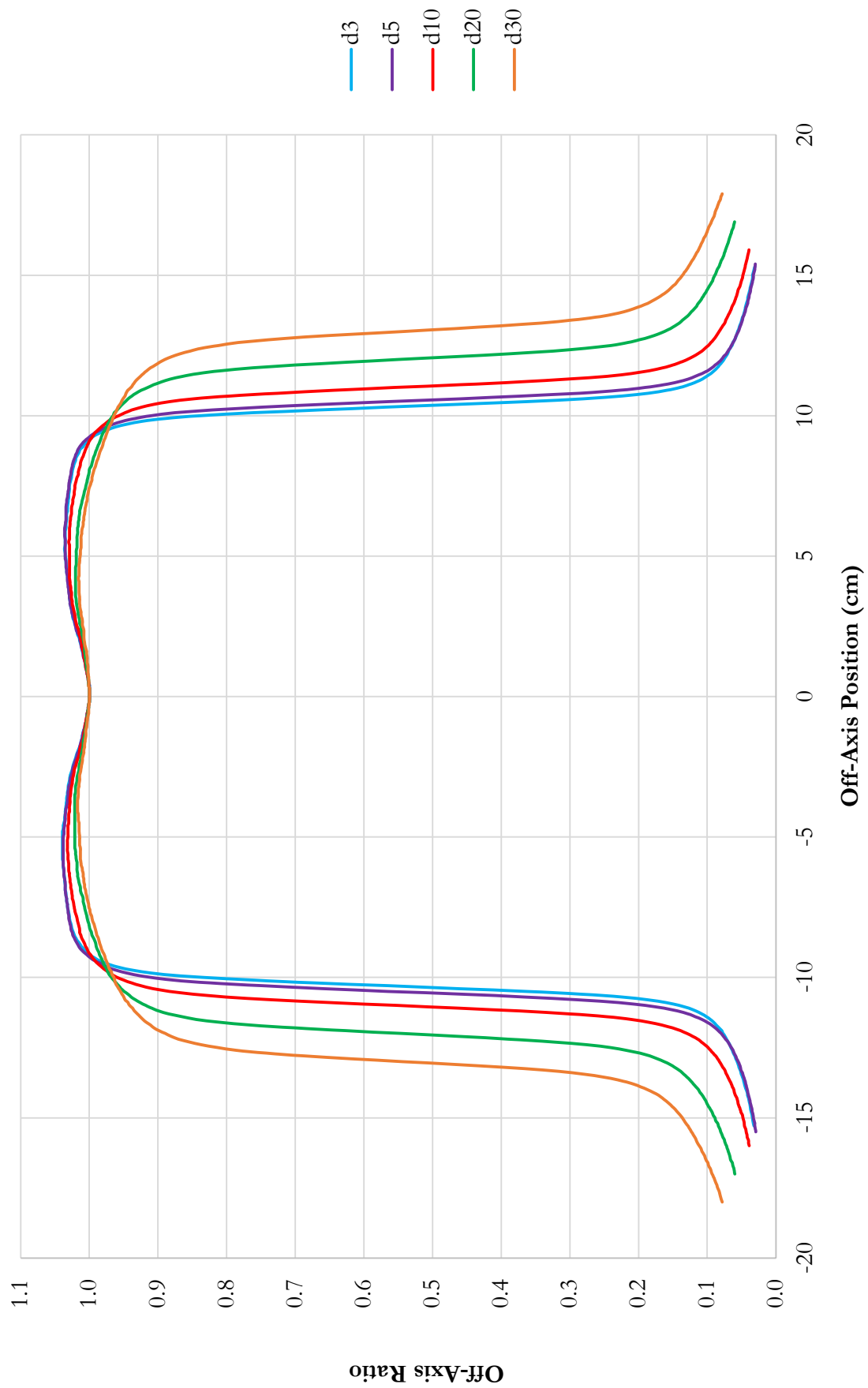
15X Crossplane Open 10x10 100 SSD Landauer Cancer Institute - Jackson, WY Varian TrueBeam #9999					
Off-Axis (cm)	d3	d5	d10	d20	d30
-7.0	0.047	0.047	0.071	0.128	0.231
-6.5	0.061	0.066	0.099	0.209	0.538
-6.0	0.092	0.108	0.181	0.537	0.854
-5.5	0.215	0.296	0.533	0.871	0.939
-5.0	0.693	0.775	0.890	0.950	0.969
-4.5	0.957	0.963	0.972	0.980	0.986
-4.0	1.003	1.002	0.996	0.995	0.997
-3.5	1.017	1.015	1.008	1.003	1.002
-3.0	1.021	1.020	1.015	1.007	1.005
-2.5	1.019	1.019	1.014	1.007	1.006
-2.0	1.016	1.015	1.011	1.006	1.005
-1.5	1.010	1.010	1.008	1.006	1.004
-1.0	1.006	1.006	1.005	1.003	1.004
-0.5	1.002	1.003	1.002	1.001	1.001
0.0	1.000	1.000	1.000	1.000	1.000
0.5	1.001	1.002	1.001	1.000	1.001
1.0	1.006	1.006	1.004	1.002	1.001
1.5	1.008	1.008	1.007	1.004	1.003
2.0	1.012	1.012	1.009	1.005	1.004
2.5	1.015	1.015	1.011	1.005	1.003
3.0	1.018	1.017	1.012	1.004	1.003
3.5	1.014	1.014	1.007	1.001	1.000
4.0	1.001	0.998	0.996	0.994	0.995
4.5	0.956	0.960	0.970	0.978	0.985
5.0	0.699	0.774	0.891	0.949	0.967
5.5	0.214	0.296	0.532	0.866	0.938
6.0	0.092	0.109	0.181	0.530	0.854
6.5	0.060	0.066	0.100	0.210	0.533
7.0	0.046	0.047	0.070	0.128	0.230

15X Crossplane Open 10x10 100 SSD
 Landauer Cancer Institute - Jackson, WY
 Varian TrueBeam #9999



15X Crossplane Open 20x20 100 SSD Landauer Cancer Institute - Jackson, WY Varian TrueBeam #9999					
Off-Axis (cm)	d3	d5	d10	d20	d30
-12.0	0.077	0.080	0.130	0.546	0.890
-11.5	0.096	0.108	0.211	0.844	0.922
-11.0	0.141	0.190	0.553	0.918	0.941
-10.5	0.364	0.565	0.883	0.949	0.955
-10.0	0.835	0.911	0.960	0.968	0.964
-9.5	0.976	0.984	0.988	0.980	0.974
-9.0	1.008	1.012	1.003	0.988	0.982
-8.5	1.022	1.024	1.012	0.996	0.989
-8.0	1.028	1.029	1.017	1.002	0.995
-7.5	1.032	1.032	1.022	1.007	1.001
-7.0	1.034	1.035	1.026	1.012	1.005
-6.5	1.036	1.036	1.028	1.016	1.008
-6.0	1.038	1.038	1.030	1.018	1.012
-5.5	1.039	1.038	1.032	1.020	1.013
-5.0	1.039	1.038	1.031	1.021	1.014
-4.5	1.037	1.036	1.030	1.021	1.015
-4.0	1.035	1.034	1.029	1.021	1.017
-3.5	1.032	1.031	1.027	1.021	1.016
-3.0	1.029	1.028	1.024	1.018	1.014
-2.5	1.024	1.024	1.020	1.015	1.012
-2.0	1.018	1.017	1.014	1.011	1.008
-1.5	1.011	1.010	1.009	1.008	1.006
-1.0	1.006	1.006	1.006	1.005	1.004
-0.5	1.002	1.002	1.002	1.002	1.001
0.0	1.000	1.000	1.000	1.000	1.000
0.5	1.001	1.001	1.001	1.001	1.000
1.0	1.005	1.004	1.005	1.004	1.002
1.5	1.009	1.009	1.008	1.006	1.004
2.0	1.014	1.014	1.012	1.009	1.008
2.5	1.020	1.020	1.018	1.012	1.010
3.0	1.025	1.026	1.022	1.016	1.012
3.5	1.029	1.029	1.026	1.020	1.014
4.0	1.031	1.031	1.028	1.020	1.015
4.5	1.033	1.033	1.029	1.020	1.015
5.0	1.035	1.035	1.029	1.019	1.013
5.5	1.035	1.035	1.030	1.018	1.012
6.0	1.034	1.036	1.029	1.017	1.010
6.5	1.033	1.034	1.026	1.014	1.007
7.0	1.031	1.033	1.024	1.010	1.003
7.5	1.029	1.030	1.021	1.005	0.999
8.0	1.025	1.026	1.016	1.000	0.994
8.5	1.020	1.021	1.010	0.994	0.987
9.0	1.006	1.010	1.002	0.986	0.980
9.5	0.973	0.983	0.987	0.977	0.973
10.0	0.839	0.910	0.957	0.965	0.964
10.5	0.363	0.564	0.882	0.948	0.953
11.0	0.140	0.191	0.556	0.915	0.940
11.5	0.095	0.108	0.210	0.841	0.921
12.0	0.076	0.079	0.129	0.550	0.890

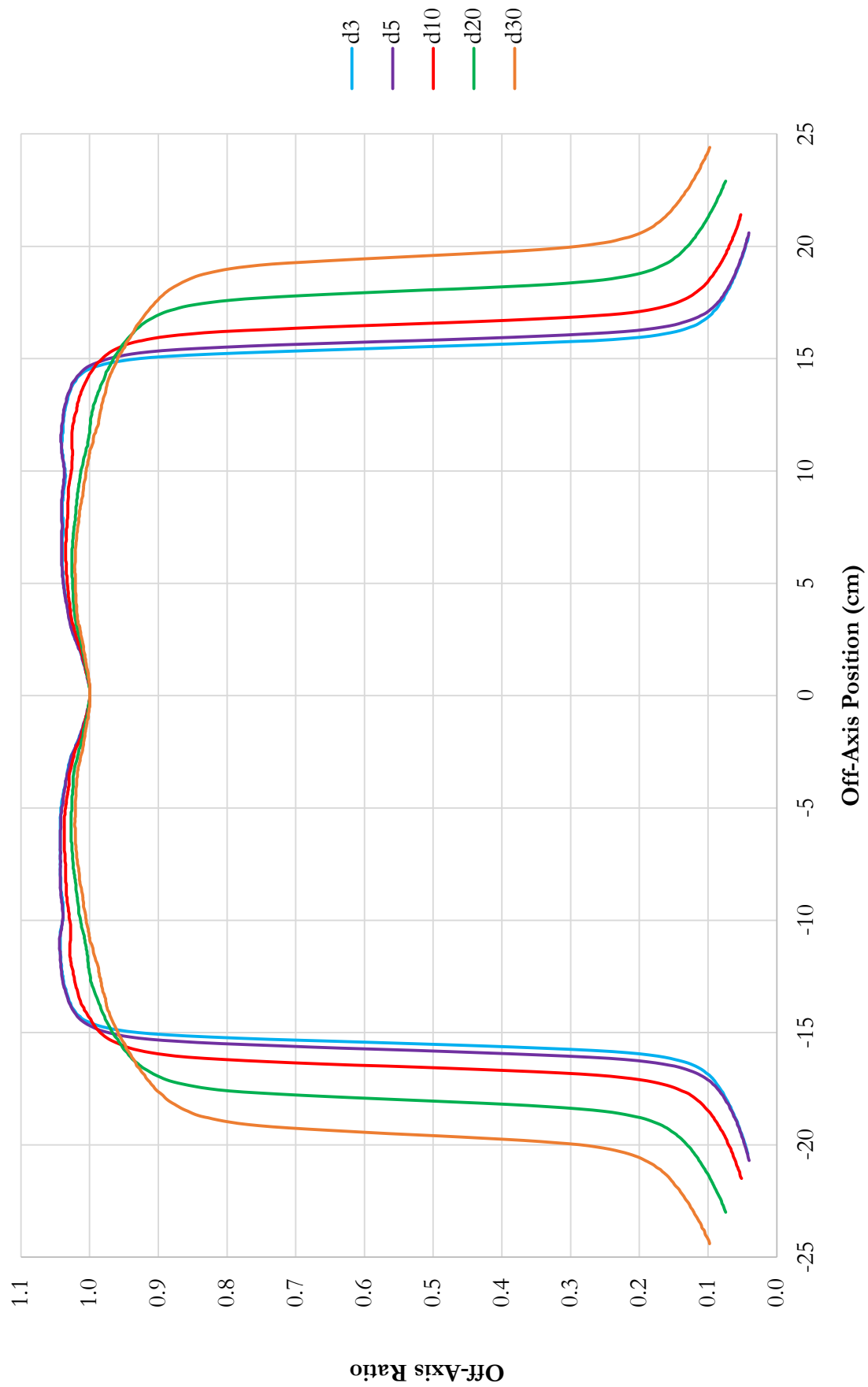
15X Crossplane Open 20x20 100 SSD
 Landauer Cancer Institute - Jackson, WY
 Varian TrueBeam #9999



15X Crossplane Open 30x30 100 SSD Landauer Cancer Institute - Jackson, WY Varian TrueBeam #9999					
Off-Axis (cm)	d3	d5	d10	d20	d30
-17.0	0.095	0.106	0.227	0.897	0.919
-16.5	0.118	0.149	0.568	0.926	0.931
-16.0	0.186	0.346	0.888	0.943	0.940
-15.5	0.533	0.808	0.958	0.956	0.949
-15.0	0.930	0.973	0.985	0.967	0.959
-14.5	1.004	1.011	0.997	0.976	0.967
-14.0	1.023	1.025	1.008	0.983	0.974
-13.5	1.031	1.032	1.015	0.989	0.977
-13.0	1.036	1.038	1.020	0.995	0.982
-12.5	1.039	1.041	1.023	0.999	0.986
-12.0	1.041	1.042	1.027	1.002	0.988
-11.5	1.043	1.043	1.029	1.004	0.994
-11.0	1.043	1.044	1.029	1.007	0.999
-10.5	1.043	1.042	1.028	1.010	1.002
-10.0	1.039	1.040	1.029	1.013	1.005
-9.5	1.039	1.040	1.031	1.016	1.008
-9.0	1.040	1.042	1.033	1.018	1.010
-8.5	1.042	1.043	1.034	1.020	1.013
-8.0	1.043	1.043	1.035	1.022	1.015
-7.5	1.043	1.043	1.035	1.024	1.018
-7.0	1.043	1.042	1.036	1.025	1.019
-6.5	1.043	1.043	1.037	1.027	1.021
-6.0	1.043	1.043	1.037	1.027	1.021
-5.5	1.043	1.042	1.037	1.027	1.022
-5.0	1.042	1.041	1.035	1.026	1.021
-4.5	1.039	1.038	1.033	1.026	1.020
-4.0	1.036	1.035	1.030	1.024	1.019
-3.5	1.033	1.033	1.030	1.024	1.018
-3.0	1.030	1.029	1.026	1.020	1.015
-2.5	1.024	1.024	1.022	1.016	1.011
-2.0	1.017	1.017	1.014	1.012	1.008
-1.5	1.011	1.011	1.010	1.009	1.006
-1.0	1.006	1.006	1.006	1.004	1.002
-0.5	1.002	1.002	1.002	1.002	1.000

15X Crossplane Open 30x30 100 SSD Landauer Cancer Institute - Jackson, WY Varian TrueBeam #9999					
Off-Axis (cm)	d3	d5	d10	d20	d30
0.0	1.000	1.000	1.000	1.000	1.000
0.5	1.001	1.002	1.001	1.001	1.000
1.0	1.005	1.005	1.005	1.004	1.002
1.5	1.010	1.010	1.008	1.007	1.006
2.0	1.014	1.014	1.013	1.010	1.009
2.5	1.021	1.022	1.018	1.014	1.011
3.0	1.027	1.027	1.023	1.018	1.014
3.5	1.030	1.031	1.027	1.021	1.018
4.0	1.033	1.033	1.029	1.023	1.019
4.5	1.035	1.036	1.031	1.024	1.020
5.0	1.038	1.039	1.033	1.025	1.021
5.5	1.039	1.040	1.034	1.026	1.022
6.0	1.040	1.041	1.035	1.026	1.021
6.5	1.040	1.041	1.035	1.026	1.021
7.0	1.040	1.041	1.034	1.024	1.019
7.5	1.039	1.040	1.033	1.023	1.017
8.0	1.040	1.041	1.032	1.021	1.015
8.5	1.040	1.041	1.032	1.019	1.013
9.0	1.038	1.040	1.031	1.018	1.010
9.5	1.036	1.038	1.030	1.015	1.008
10.0	1.036	1.037	1.027	1.013	1.005
10.5	1.039	1.039	1.026	1.009	1.002
11.0	1.041	1.041	1.026	1.005	0.998
11.5	1.040	1.042	1.026	1.002	0.995
12.0	1.039	1.041	1.025	1.000	0.988
12.5	1.037	1.039	1.022	0.997	0.986
13.0	1.034	1.035	1.018	0.993	0.982
13.5	1.029	1.030	1.013	0.988	0.977
14.0	1.021	1.023	1.005	0.980	0.973
14.5	1.003	1.009	0.996	0.974	0.967
15.0	0.928	0.972	0.982	0.965	0.960
15.5	0.535	0.806	0.956	0.954	0.949
16.0	0.184	0.346	0.886	0.942	0.940
16.5	0.117	0.149	0.567	0.925	0.931
17.0	0.094	0.105	0.226	0.896	0.918

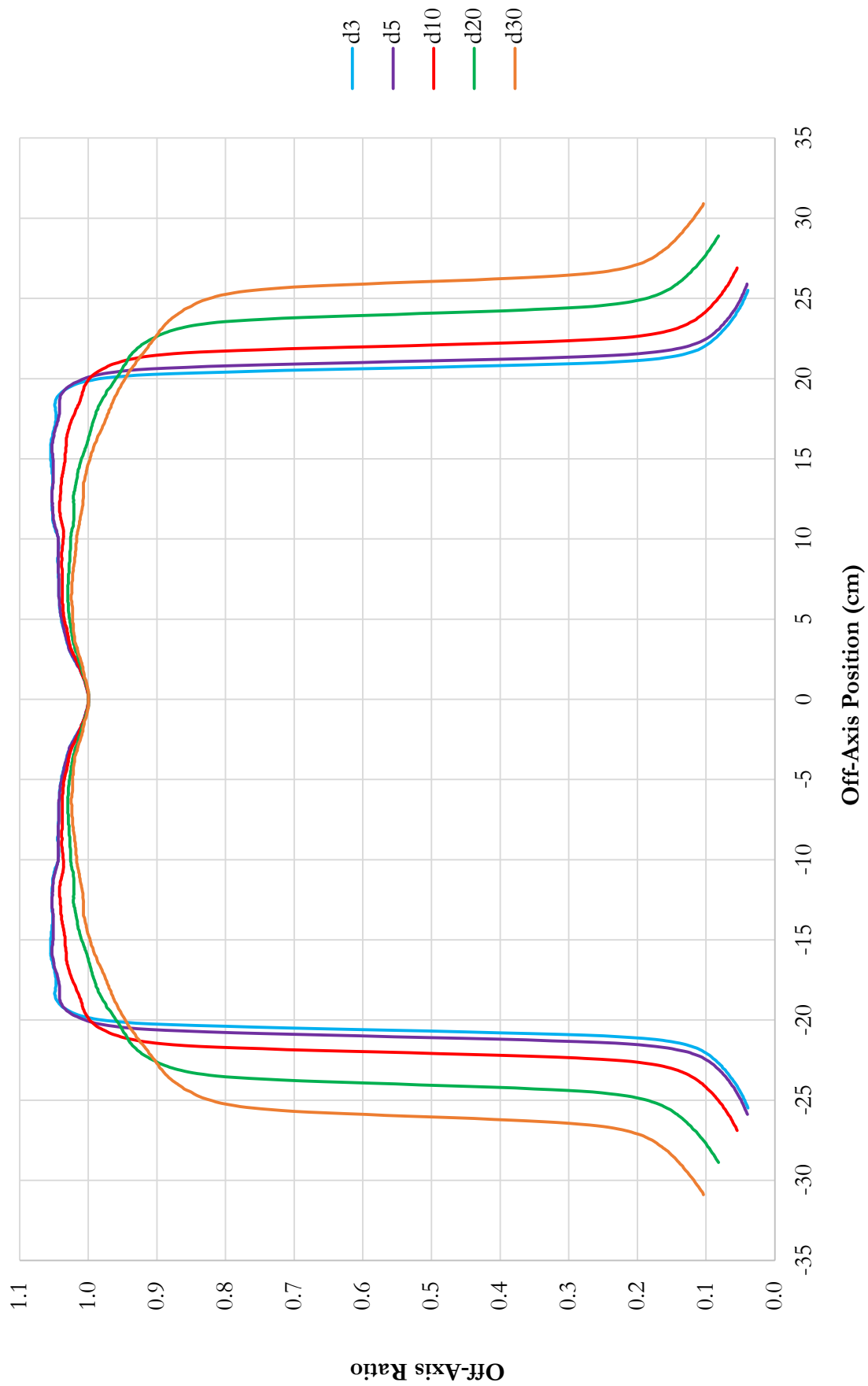
15X Crossplane Open 30x30 100 SSD
 Landauer Cancer Institute - Jackson, WY
 Varian TrueBeam #9999



15X Crossplane Open 40x40 100 SSD Landauer Cancer Institute - Jackson, WY Varian TrueBeam #9999					
Off-Axis (cm)	d3	d5	d10	d20	d30
-22.0	0.103	0.127	0.578	0.925	0.913
-21.5	0.134	0.215	0.891	0.938	0.922
-21.0	0.250	0.605	0.956	0.945	0.931
-20.5	0.708	0.941	0.984	0.952	0.940
-20.0	0.982	1.005	0.998	0.960	0.946
-19.5	1.025	1.029	1.006	0.967	0.953
-19.0	1.042	1.039	1.009	0.975	0.959
-18.5	1.048	1.042	1.013	0.982	0.964
-18.0	1.048	1.042	1.018	0.988	0.970
-17.5	1.047	1.044	1.023	0.991	0.974
-17.0	1.049	1.047	1.028	0.995	0.979
-16.5	1.052	1.050	1.031	0.998	0.985
-16.0	1.055	1.053	1.032	1.002	0.990
-15.5	1.055	1.053	1.033	1.005	0.994
-15.0	1.055	1.051	1.034	1.010	0.998
-14.5	1.054	1.051	1.035	1.013	1.001
-14.0	1.052	1.051	1.038	1.016	1.004
-13.5	1.052	1.051	1.039	1.018	1.007
-13.0	1.053	1.053	1.040	1.020	1.007
-12.5	1.053	1.053	1.041	1.022	1.008
-12.0	1.053	1.052	1.042	1.021	1.009
-11.5	1.052	1.051	1.041	1.021	1.011
-11.0	1.051	1.050	1.038	1.022	1.013
-10.5	1.048	1.046	1.036	1.024	1.015
-10.0	1.044	1.044	1.036	1.026	1.017
-9.5	1.043	1.044	1.038	1.026	1.018
-9.0	1.044	1.044	1.039	1.027	1.019
-8.5	1.044	1.044	1.039	1.028	1.020
-8.0	1.044	1.044	1.038	1.028	1.022
-7.5	1.043	1.043	1.038	1.029	1.023
-7.0	1.043	1.043	1.038	1.030	1.024
-6.5	1.043	1.043	1.038	1.030	1.025
-6.0	1.042	1.042	1.038	1.029	1.024
-5.5	1.041	1.041	1.037	1.029	1.023
-5.0	1.039	1.039	1.035	1.027	1.023
-4.5	1.037	1.036	1.032	1.026	1.022
-4.0	1.033	1.034	1.030	1.024	1.021
-3.5	1.031	1.030	1.028	1.022	1.019
-3.0	1.027	1.028	1.024	1.019	1.015
-2.5	1.021	1.020	1.018	1.014	1.012
-2.0	1.014	1.014	1.013	1.011	1.008
-1.5	1.009	1.008	1.009	1.007	1.006
-1.0	1.004	1.005	1.004	1.004	1.002
-0.5	1.001	1.001	1.001	1.000	1.000

15X Crossplane Open 40x40 100 SSD Landauer Cancer Institute - Jackson, WY Varian TrueBeam #9999					
Off-Axis (cm)	d3	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	1.004	1.005	1.004	1.004	1.002
1.5	1.009	1.009	1.008	1.007	1.006
2.0	1.014	1.014	1.013	1.011	1.008
2.5	1.021	1.021	1.018	1.014	1.012
3.0	1.027	1.027	1.024	1.019	1.015
3.5	1.031	1.030	1.028	1.022	1.019
4.0	1.033	1.034	1.030	1.024	1.021
4.5	1.037	1.036	1.032	1.026	1.022
5.0	1.039	1.039	1.035	1.027	1.023
5.5	1.041	1.041	1.037	1.029	1.023
6.0	1.042	1.042	1.038	1.029	1.024
6.5	1.043	1.043	1.038	1.030	1.025
7.0	1.043	1.043	1.038	1.030	1.024
7.5	1.043	1.043	1.038	1.029	1.023
8.0	1.044	1.044	1.038	1.028	1.022
8.5	1.044	1.044	1.039	1.028	1.020
9.0	1.044	1.044	1.039	1.027	1.019
9.5	1.043	1.044	1.038	1.026	1.018
10.0	1.044	1.044	1.037	1.026	1.017
10.5	1.048	1.046	1.036	1.024	1.015
11.0	1.051	1.050	1.039	1.022	1.013
11.5	1.052	1.051	1.041	1.021	1.011
12.0	1.053	1.052	1.042	1.021	1.009
12.5	1.053	1.053	1.041	1.022	1.008
13.0	1.053	1.053	1.040	1.020	1.007
13.5	1.052	1.051	1.039	1.018	1.007
14.0	1.052	1.051	1.038	1.016	1.004
14.5	1.054	1.051	1.036	1.013	1.001
15.0	1.055	1.052	1.034	1.010	0.998
15.5	1.055	1.053	1.033	1.005	0.994
16.0	1.054	1.052	1.032	1.002	0.990
16.5	1.052	1.050	1.031	0.998	0.985
17.0	1.049	1.047	1.028	0.995	0.979
17.5	1.047	1.044	1.023	0.991	0.974
18.0	1.048	1.042	1.018	0.988	0.970
18.5	1.048	1.042	1.013	0.982	0.964
19.0	1.042	1.040	1.009	0.975	0.959
19.5	1.026	1.029	1.006	0.967	0.953
20.0	0.981	1.005	0.998	0.960	0.946
20.5	0.715	0.941	0.983	0.952	0.940
21.0	0.249	0.606	0.956	0.945	0.931
21.5	0.134	0.215	0.889	0.938	0.922
22.0	0.103	0.128	0.578	0.925	0.913

15X Crossplane Open 40x40 100 SSD
Landauer Cancer Institute - Jackson, WY
Varian TrueBeam #9999



Photon Energies

15X Factors

15X Scatter Factors dmax 100 SAD Landauer Cancer Institute - Jackson, WY Varian Truebeam #9999			
Field (cm x cm)	Scp	Sp	Sc
2x2	0.837	0.891	0.939
3x3	0.890	0.941	0.945
4x4	0.915	0.961	0.952
5x5	0.935	0.972	0.962
6x6	0.952	0.979	0.972
7x7	0.965	0.985	0.980
8x8	0.979	0.990	0.988
9x9	0.989	0.995	0.994
10x10	1.000	1.000	1.000
11x11	1.008	1.004	1.004
12x12	1.016	1.008	1.007
13x13	1.022	1.012	1.010
14x14	1.028	1.015	1.013
15x15	1.034	1.018	1.015
16x16	1.038	1.021	1.017
17x17	1.043	1.023	1.019
18x18	1.048	1.026	1.021
19x19	1.052	1.028	1.024
20x20	1.057	1.030	1.026
21x21	1.060	1.032	1.027
22x22	1.063	1.034	1.028
23x23	1.066	1.035	1.030
24x24	1.069	1.037	1.031
25x25	1.073	1.039	1.033
26x26	1.075	1.040	1.034
27x27	1.077	1.041	1.035
28x28	1.080	1.042	1.036
29x29	1.082	1.043	1.037
30x30	1.084	1.045	1.038
31x31	1.086	1.045	1.039
32x32	1.087	1.046	1.039
33x33	1.088	1.046	1.040
34x34	1.090	1.047	1.041
35x35	1.091	1.048	1.042
36x36	1.091	1.048	1.041
37x37	1.092	1.048	1.041
38x38	1.092	1.049	1.041
39x39	1.092	1.049	1.041
40x40	1.092	1.050	1.041

Photon Energies

15X Beam Match Verification

15X Eclipse Output Factors 95 SSD d5
 Landauer Cancer Institute - Jackson, WY
 Varian TrueBeam #9999

Verification Data Measured on TrueBeam #9999

Open Field		X (cm)									
Y (cm)	3	4	5	7	10	15	20	30	40		
3	0.875							0.921			
4											
5			0.937								
7											
10					1.000					1.024	
15											
20	0.938						1.049				
30								1.075			
40					1.041					1.086	

Representative TrueBeam Data

Open Field		Field size X (cm)									
Field Size Y (cm)	3	4	5	7	10	15	20	30	40		
3	0.877	0.894	0.902	0.910	0.916	0.919	0.921	0.923	0.923		
4	0.886	0.915	0.925	0.936	0.942	0.947	0.949	0.952	0.952		
5	0.906	0.927	0.939	0.951	0.959	0.965	0.968	0.971	0.971		
7	0.917	0.941	0.955	0.970	0.980	0.988	0.992	0.996	0.997		
10	0.927	0.953	0.969	0.987	1.000	1.010	1.016	1.021	1.022		
15	0.934	0.963	0.980	1.001	1.017	1.030	1.038	1.045	1.047		
20	0.938	0.968	0.986	1.008	1.026	1.040	1.050	1.059	1.061		
30	0.942	0.973	0.992	1.016	1.035	1.052	1.064	1.075	1.078		
40	0.945	0.976	0.995	1.020	1.040	1.058	1.070	1.082	1.085		

% difference (Verification/Representative)

Open Field		X (cm)									
Y (cm)	3	4	5	7	10	15	20	30	40		
3	-0.2%							-0.2%			
4											
5			-0.2%								
7											
10					0.0%					0.2%	
15											
20	0.0%						0.0%				
30								0.0%			
40					0.1%					0.1%	

Mephysto mcc - Report

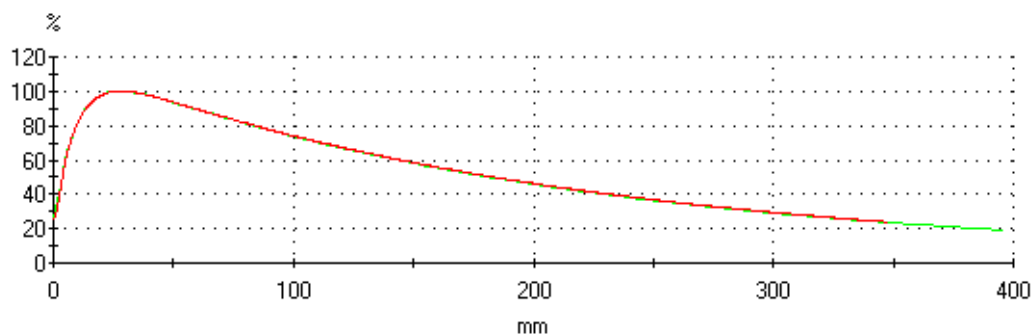
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Operator:
Comment:
Print-Date: 2020-09-01 16:00

Setup

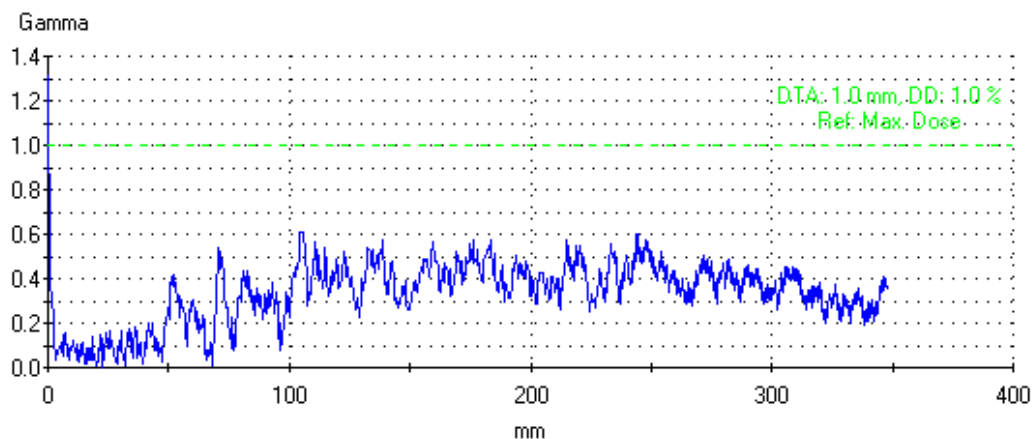
Modality: Photons
Measurement Date: *

Measurement Parameters

Energy [MV]: 15.0
Field Size Y x X [cm x cm]: 3.00 x 3.00
Depth [mm]:
Profile Type: PDD
Wedge: Open
Raw/Processed: Processed



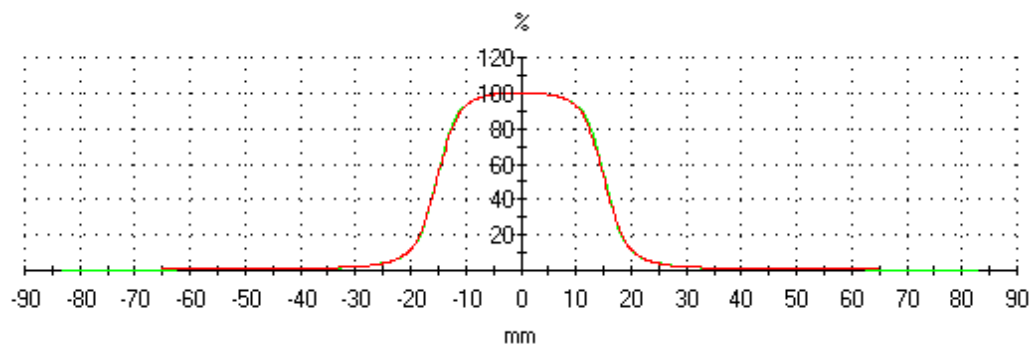
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



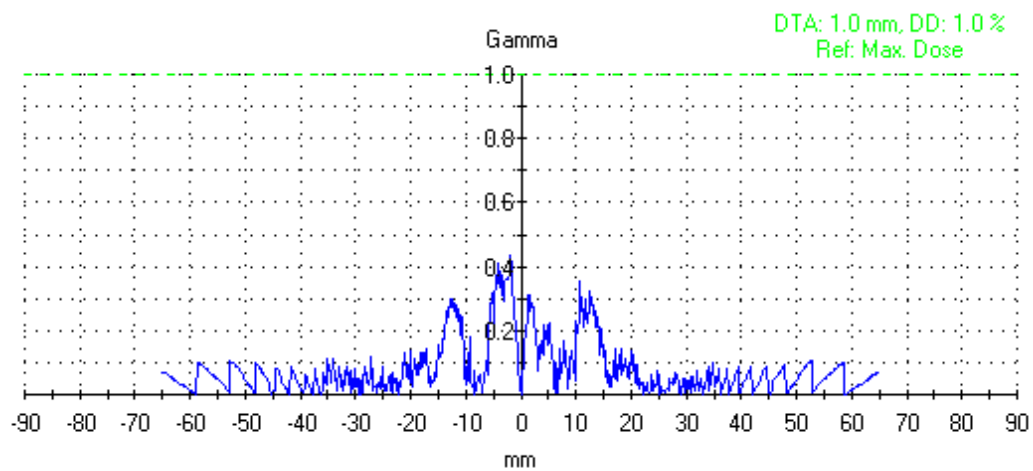
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 16:49

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	15.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	3.00 x 3.00
		Depth [mm]:	30.0
		Profile Type:	X Profile
		Wedge:	Open
		Raw/Processed:	Processed



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



Mephysto mcc - Report

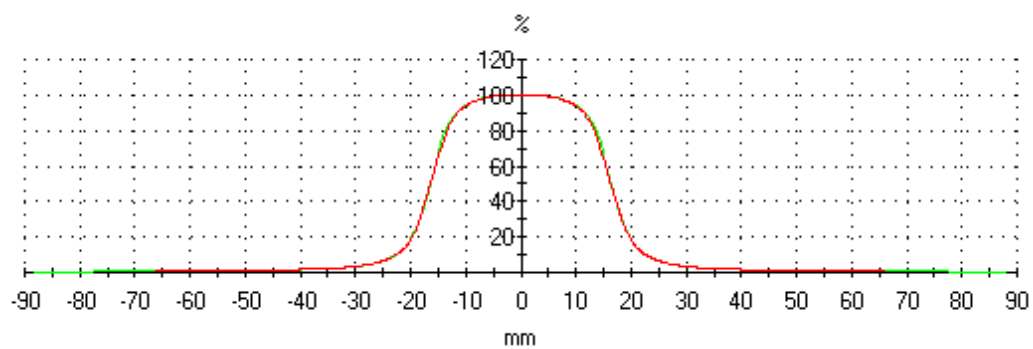
Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 16:50

Setup

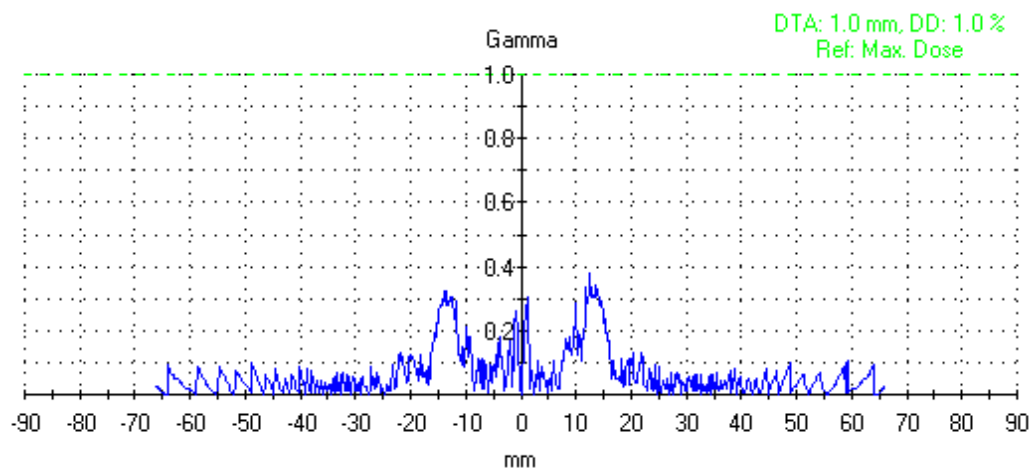
Modality: Photons
Measurement Date: *

Measurement Parameters

Energy [MV]: 15.0
Field Size Y x X [cm x cm]: 3.00 x 3.00
Depth [mm]: 100.0
Profile Type: X Profile
Wedge: Open
Raw/Processed: Processed



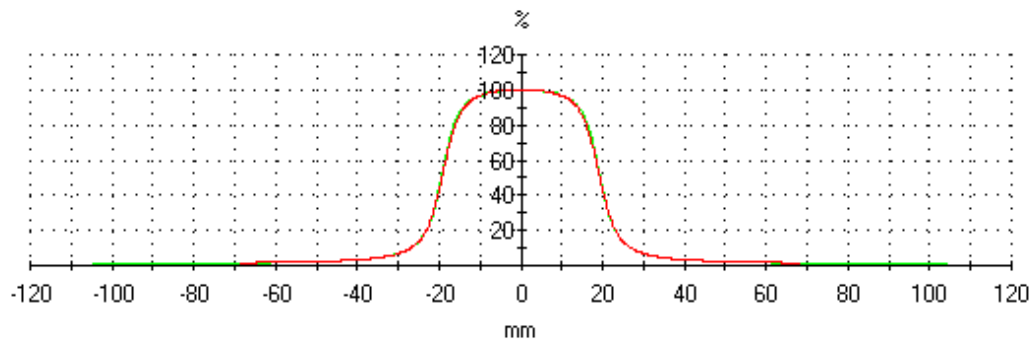
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



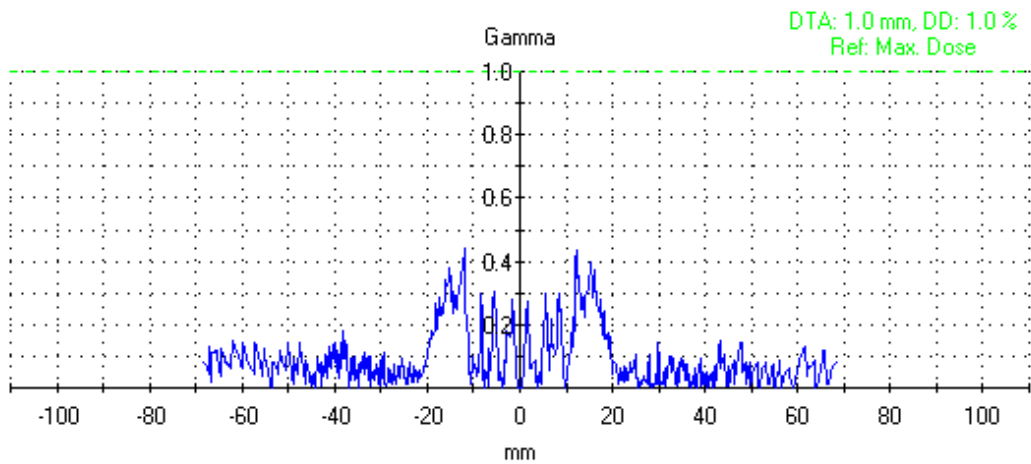
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 16:50

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	15.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	3.00 x 3.00
		Depth [mm]:	300.0
		Profile Type:	X Profile
		Wedge:	Open
		Raw/Processed:	Processed



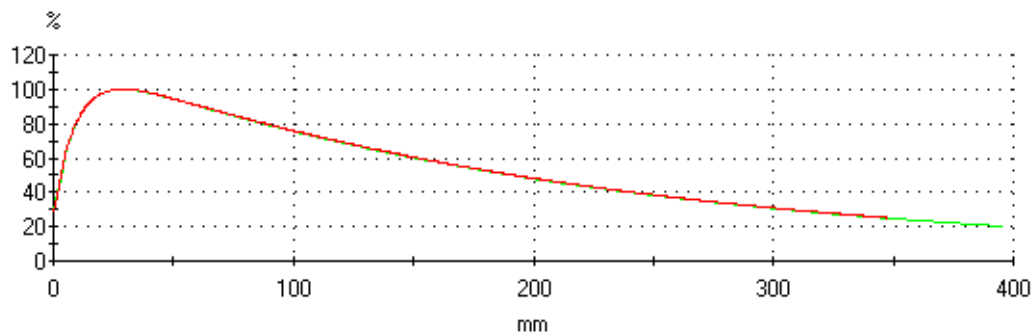
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



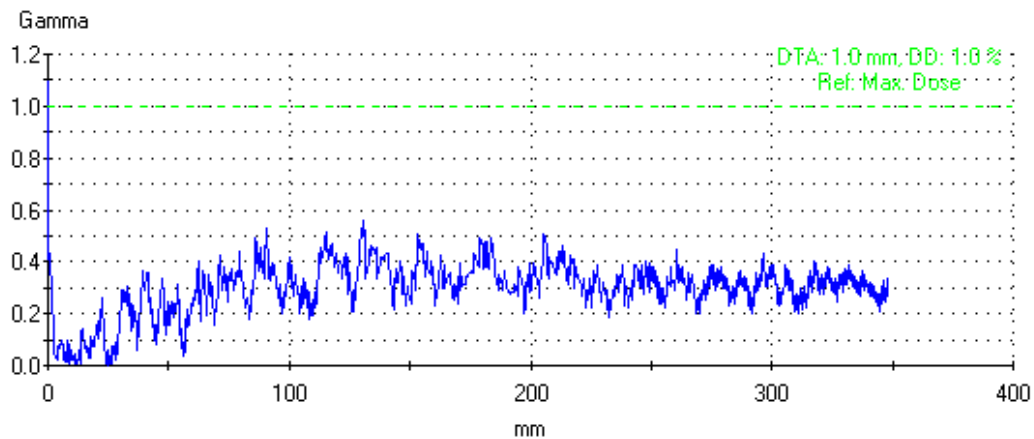
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 16:01

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	15.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	6.00 x 6.00
		Depth [mm]:	
		Profile Type:	PDD
		Wedge:	Open
		Raw/Processed:	Processed



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



Mephysto mcc - Report

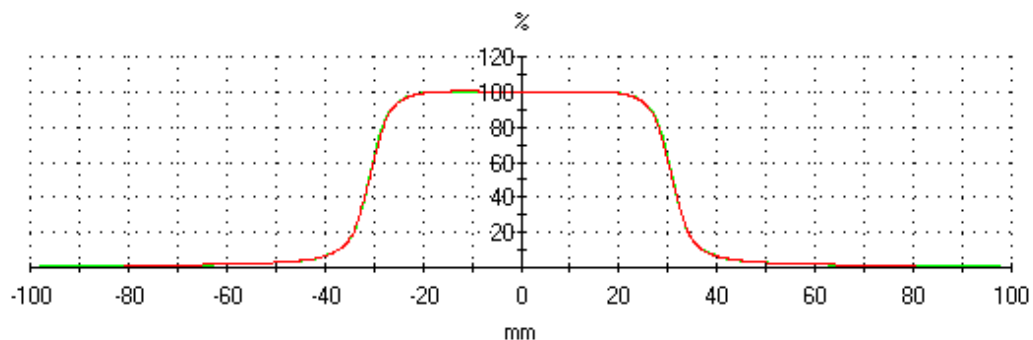
Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 16:50

Setup

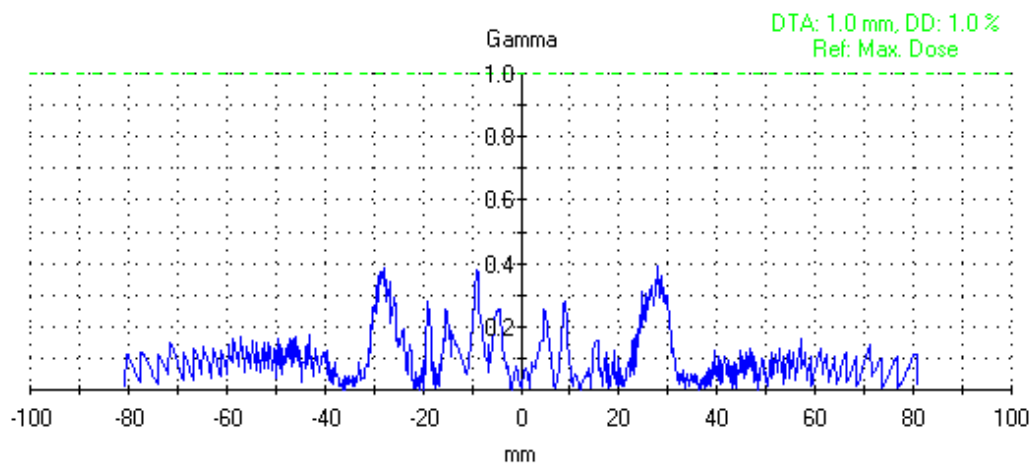
Modality: Photons
Measurement Date: *

Measurement Parameters

Energy [MV]: 15.0
Field Size Y x X [cm x cm]: 6.00 x 6.00
Depth [mm]: 30.0
Profile Type: X Profile
Wedge: Open
Raw/Processed: Processed



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



Mephysto mcc - Report

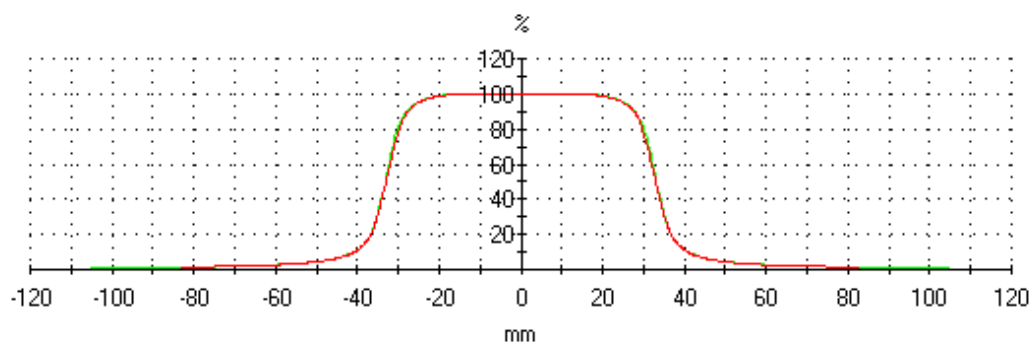
Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 16:51

Setup

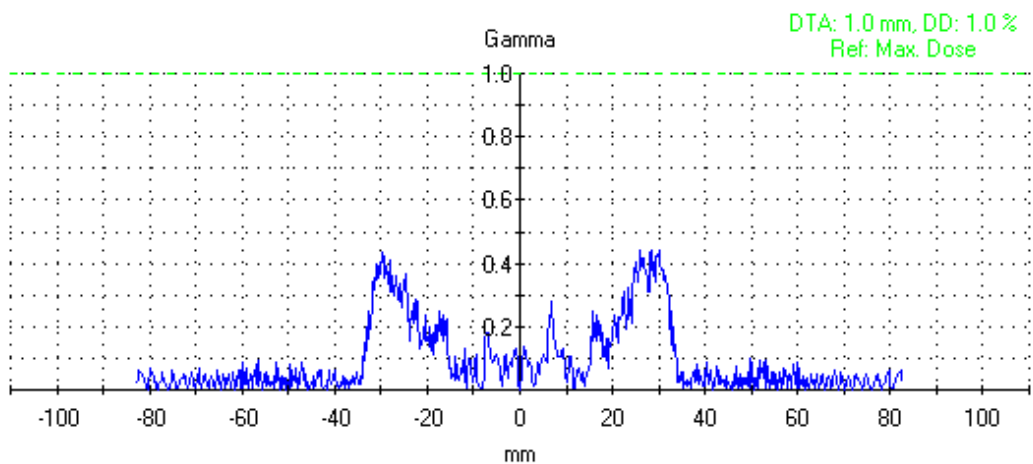
Modality: Photons
Measurement Date: *

Measurement Parameters

Energy [MV]: 15.0
Field Size Y x X [cm x cm]: 6.00 x 6.00
Depth [mm]: 100.0
Profile Type: X Profile
Wedge: Open
Raw/Processed: Processed



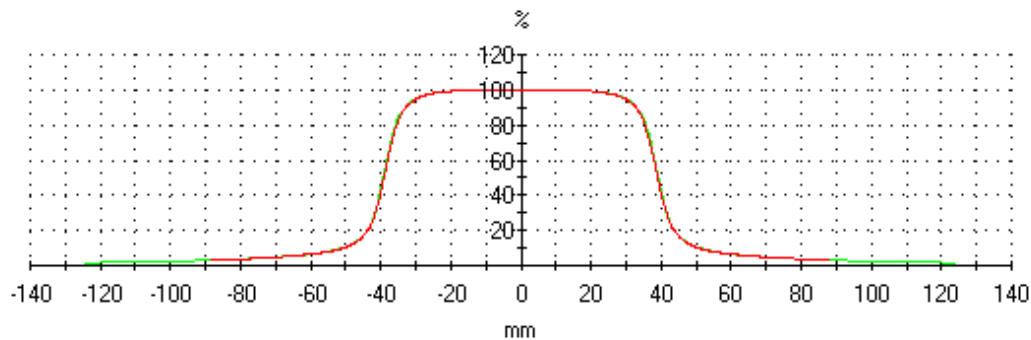
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



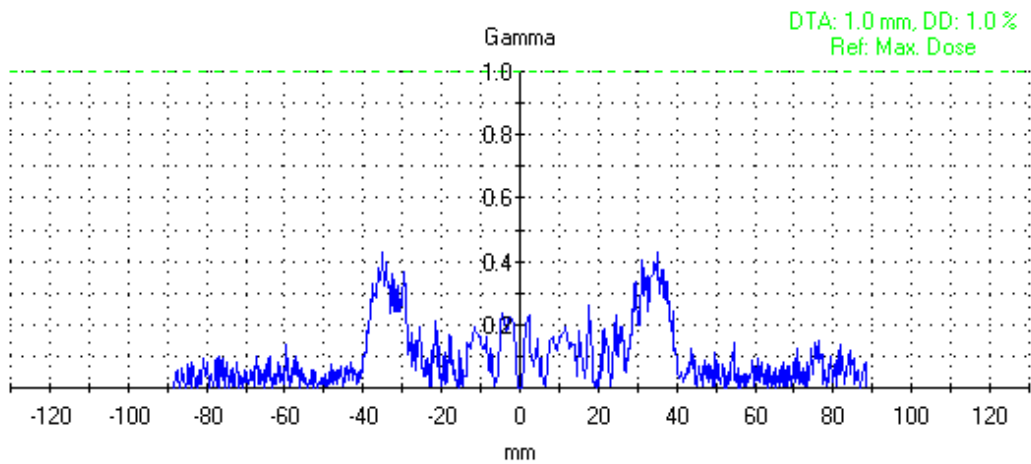
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 16:51

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	15.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	6.00 x 6.00
		Depth [mm]:	300.0
		Profile Type:	X Profile
		Wedge:	Open
		Raw/Processed:	Processed



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



Mephysto mcc - Report

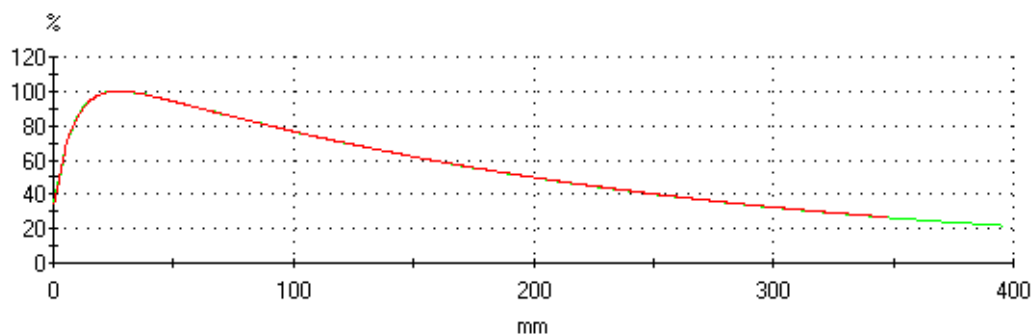
Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 16:02

Setup

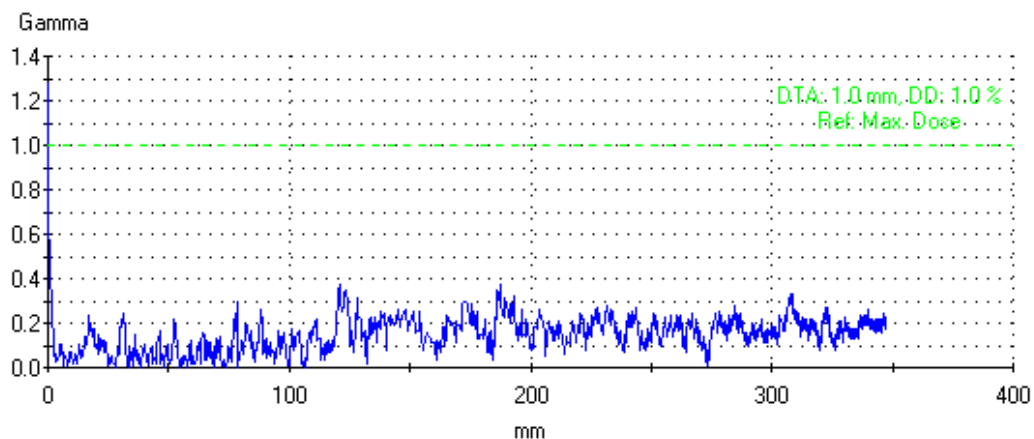
Modality: Photons
Measurement Date: *

Measurement Parameters

Energy [MV]: 15.0
Field Size Y x X [cm x cm]: 10.00 x 10.00
Depth [mm]:
Profile Type: PDD
Wedge: Open
Raw/Processed: Processed



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



Mephysto mcc - Report

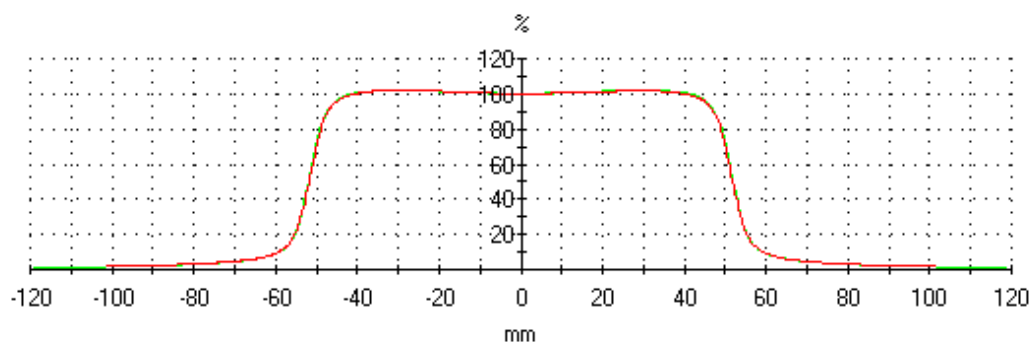
Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 16:52

Setup

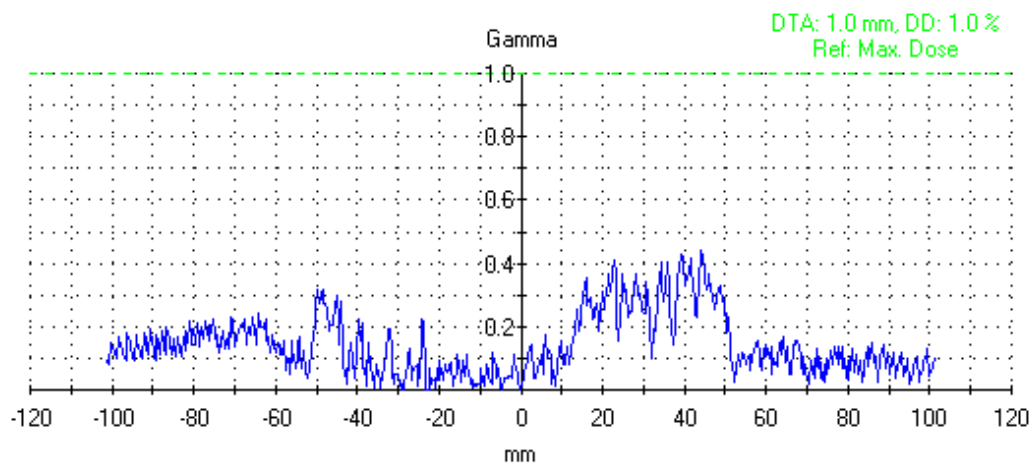
Modality: Photons
Measurement Date: *

Measurement Parameters

Energy [MV]: 15.0
Field Size Y x X [cm x cm]: 10.00 x 10.00
Depth [mm]: 30.0
Profile Type: X Profile
Wedge: Open
Raw/Processed: Processed



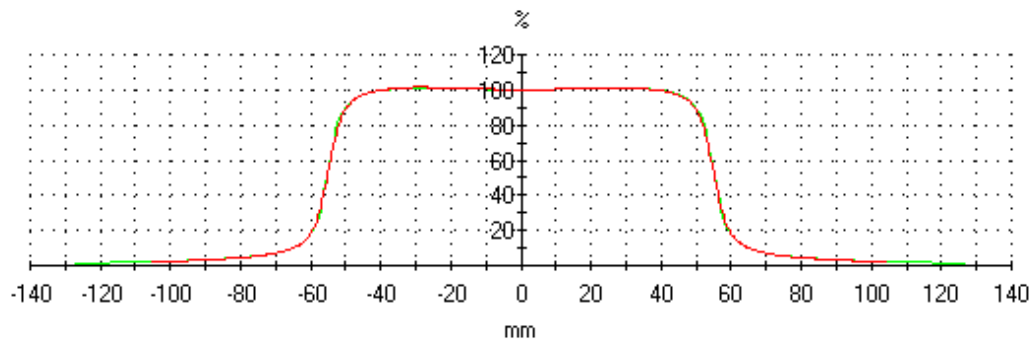
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



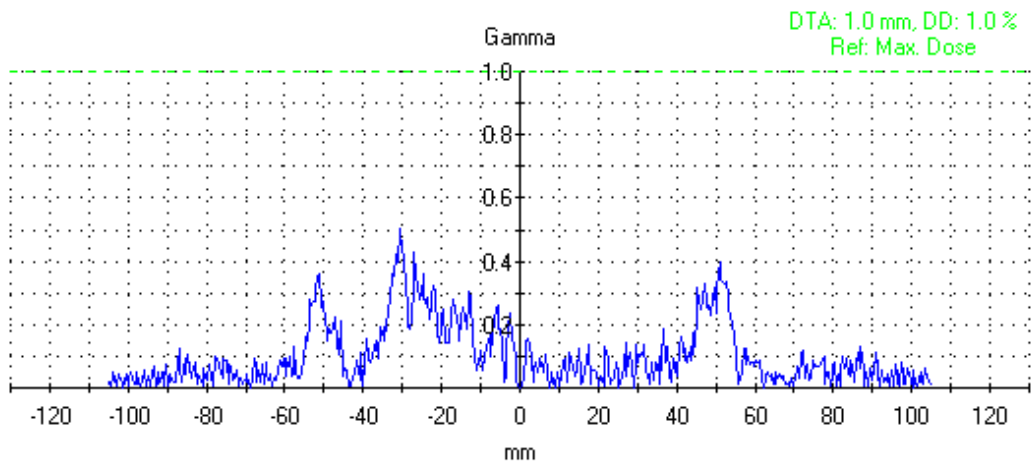
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 16:52

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	15.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	10.00 x 10.00
		Depth [mm]:	100.0
		Profile Type:	X Profile
		Wedge:	Open
		Raw/Processed:	Processed



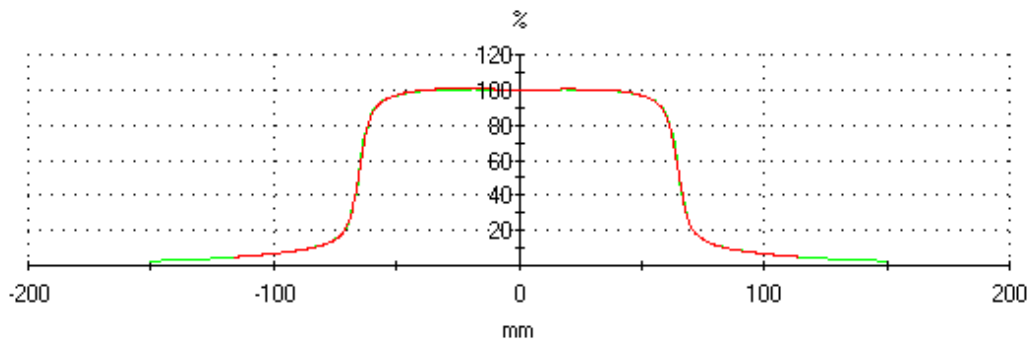
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



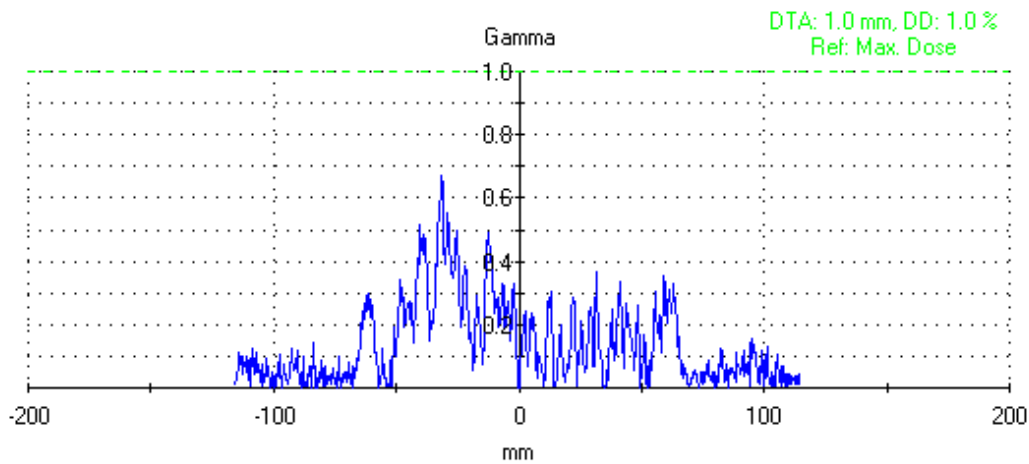
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 16:53

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	15.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	10.00 x 10.00
		Depth [mm]:	300.0
		Profile Type:	X Profile
		Wedge:	Open
		Raw/Processed:	Processed



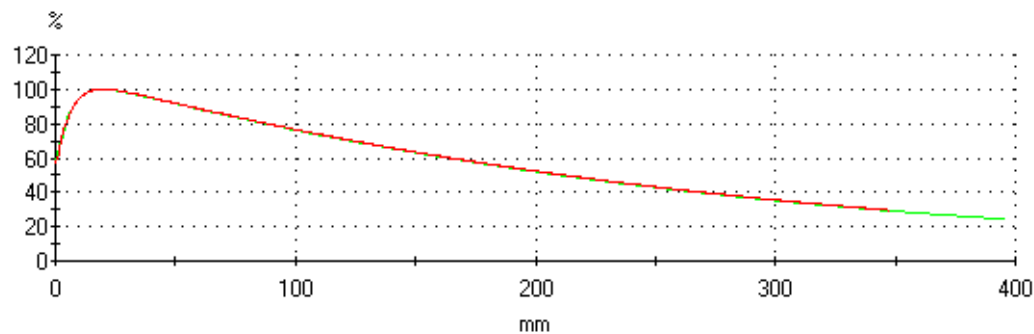
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



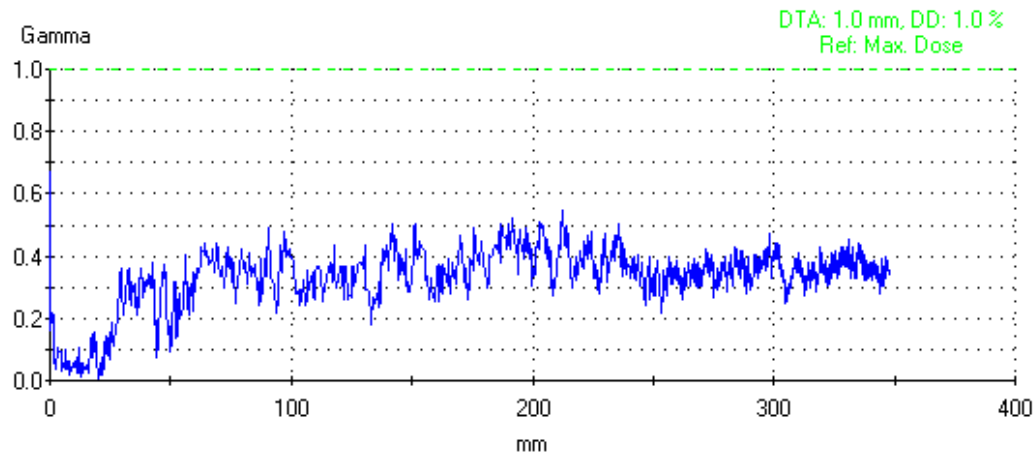
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 16:02

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	15.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	30.00 x 30.00
		Depth [mm]:	
		Profile Type:	PDD
		Wedge:	Open
		Raw/Processed:	Processed



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



Mephysto mcc - Report

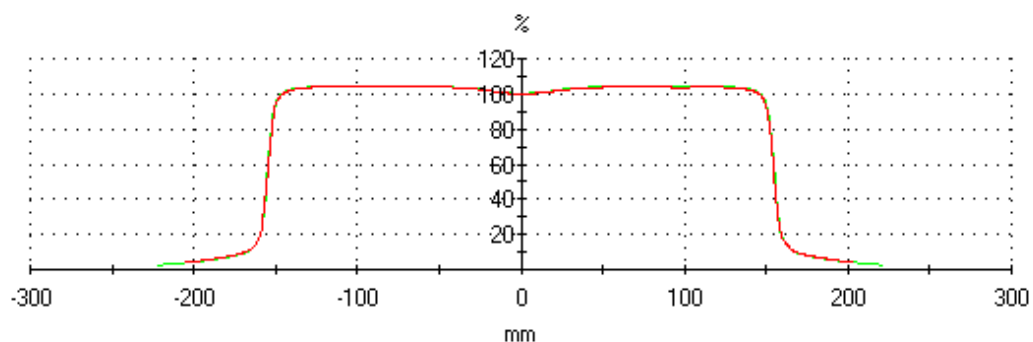
Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 16:53

Setup

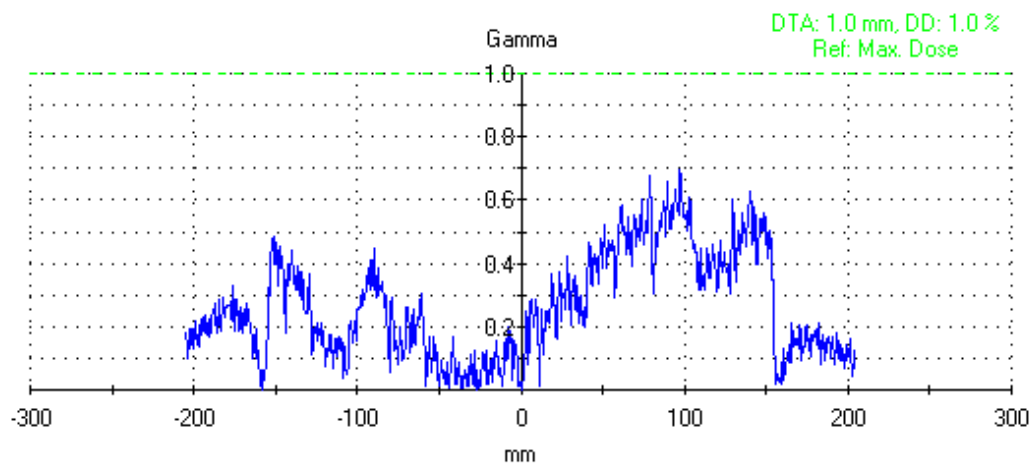
Modality: Photons
Measurement Date: *

Measurement Parameters

Energy [MV]: 15.0
Field Size Y x X [cm x cm]: 30.00 x 30.00
Depth [mm]: 30.0
Profile Type: X Profile
Wedge: Open
Raw/Processed: Processed



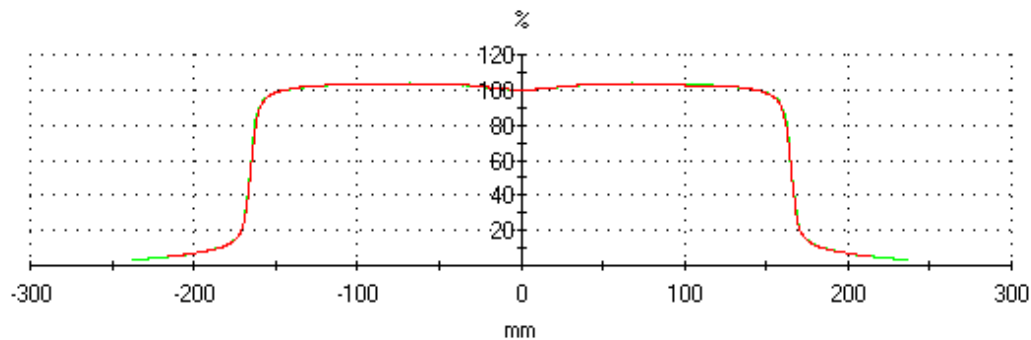
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



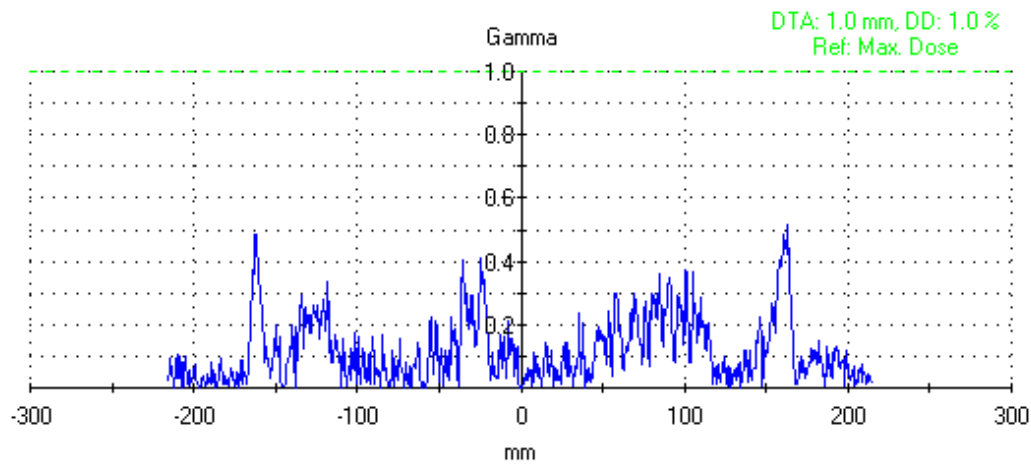
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 16:54

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	15.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	30.00 x 30.00
		Depth [mm]:	100.0
		Profile Type:	X Profile
		Wedge:	Open
		Raw/Processed:	Processed



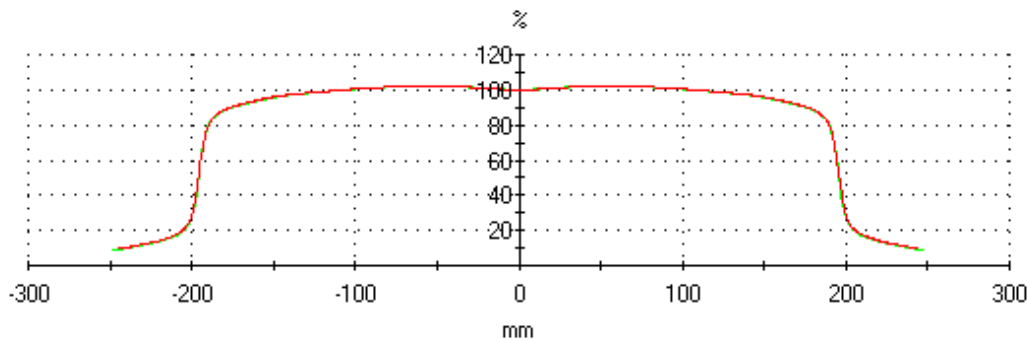
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



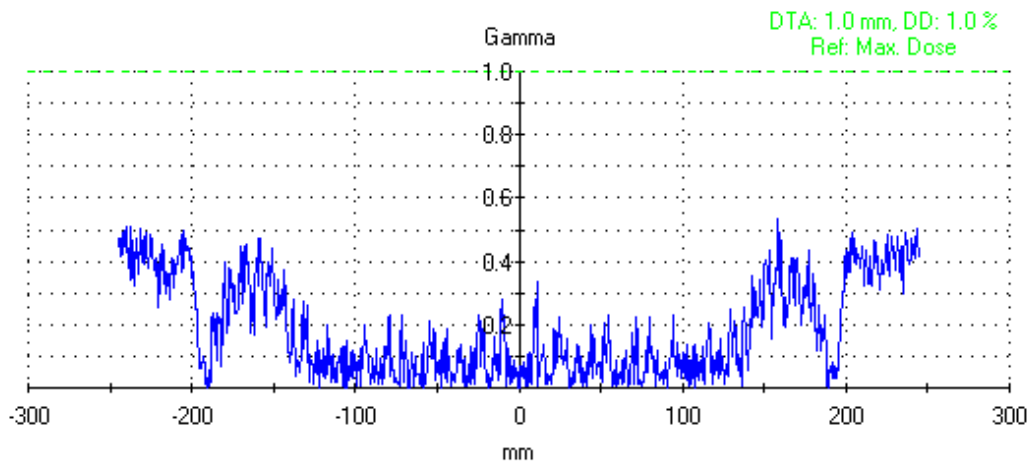
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 16:54

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	15.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	30.00 x 30.00
		Depth [mm]:	300.0
		Profile Type:	X Profile
		Wedge:	Open
		Raw/Processed:	Processed



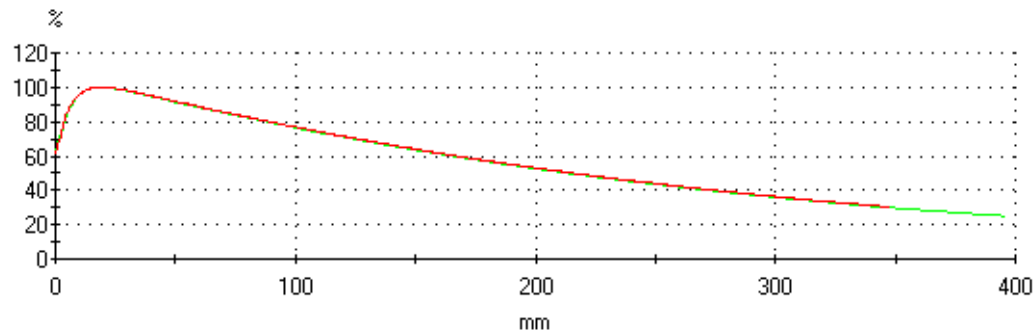
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



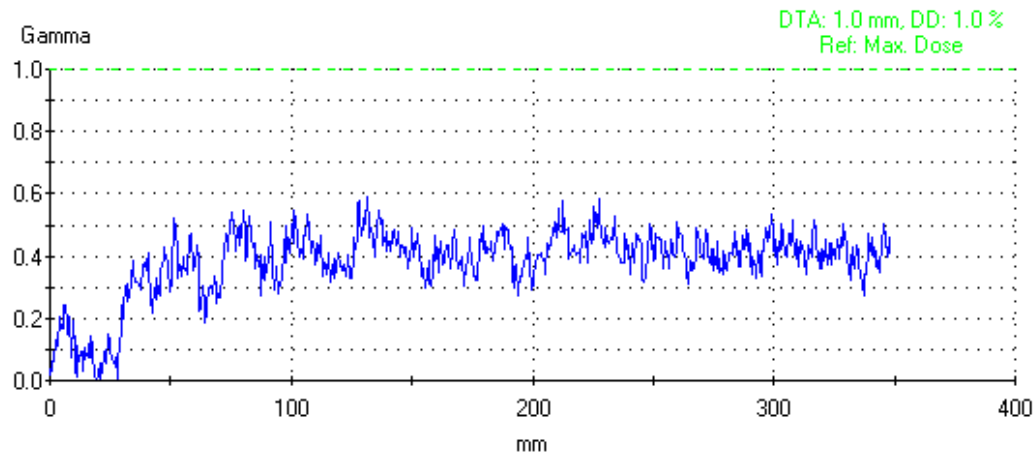
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 16:02

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	15.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	40.00 x 40.00
		Depth [mm]:	
		Profile Type:	PDD
		Wedge:	Open
		Raw/Processed:	Processed



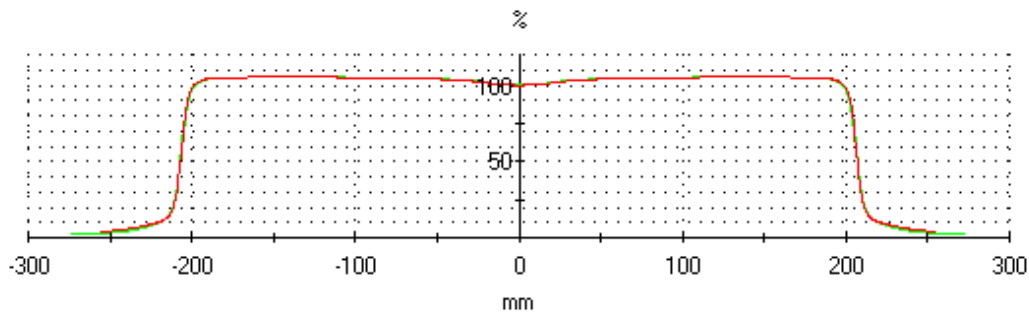
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



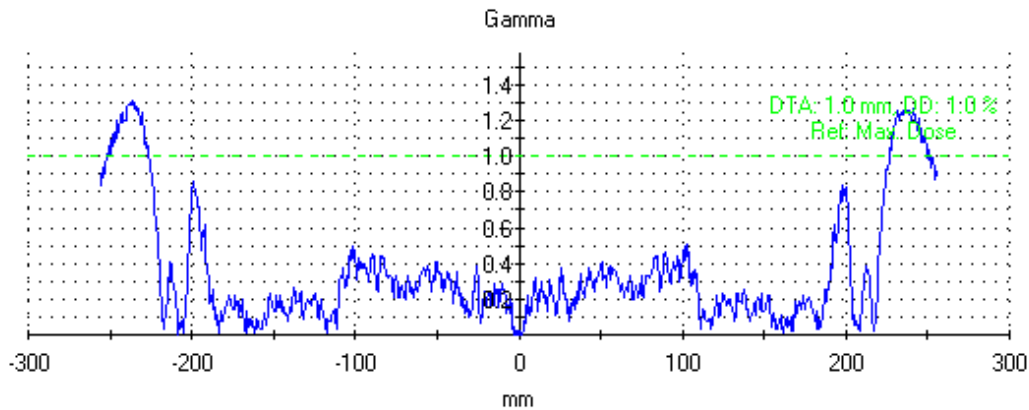
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-03 13:44

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	15.0
		Field Size Y x X [cm x cm]:	40.00 x 40.00
		Depth [mm]:	30.0
		Profile Type:	X Profile
		Meas.Angle [°]:	0.00
		SSD [cm]:	100.0



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



Mephysto mcc - Report

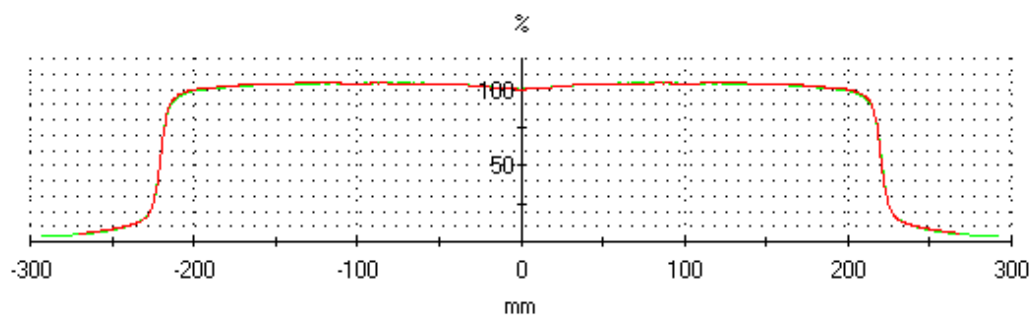
Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-03 13:45

Setup

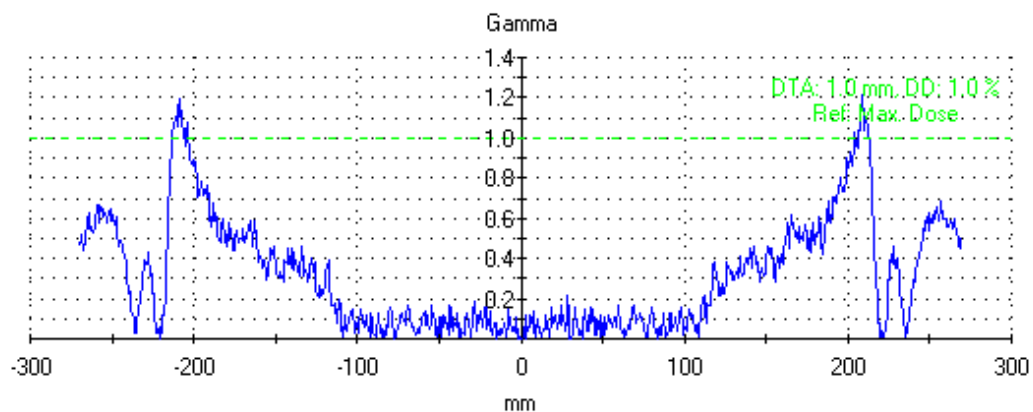
Modality: Photons

Measurement Parameters

Energy [MV]: 15.0
Field Size Y x X [cm x cm]: 40.00 x 40.00
Depth [mm]: 100.0
Profile Type: X Profile
Meas.Angle [°]: 0.00
SSD [cm]: 100.0



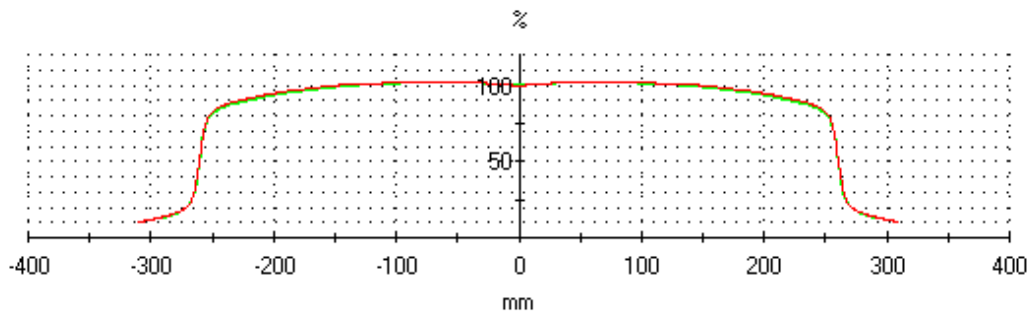
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



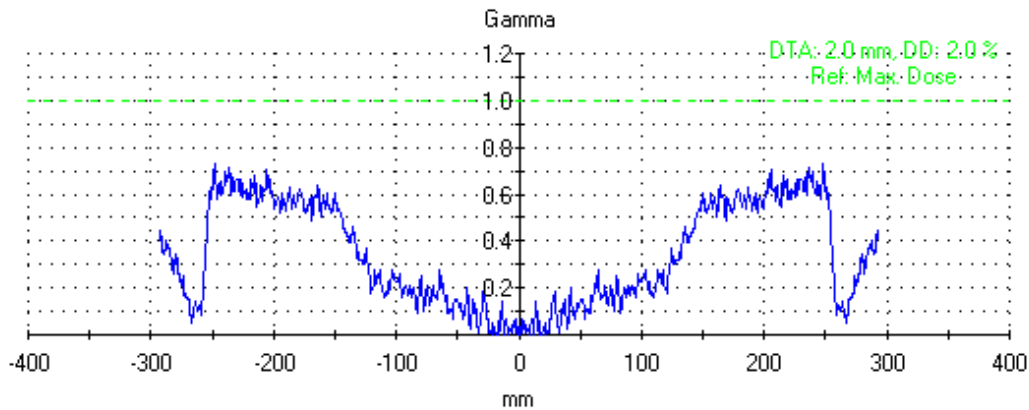
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-03 13:46

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	15.0
		Field Size Y x X [cm x cm]:	40.00 x 40.00
		Depth [mm]:	300.0
		Profile Type:	X Profile
		Meas.Angle [°]:	0.00
		SSD [cm]:	100.0



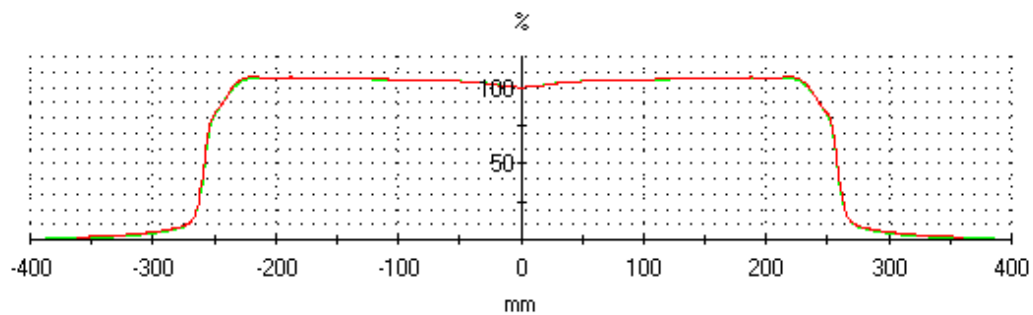
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



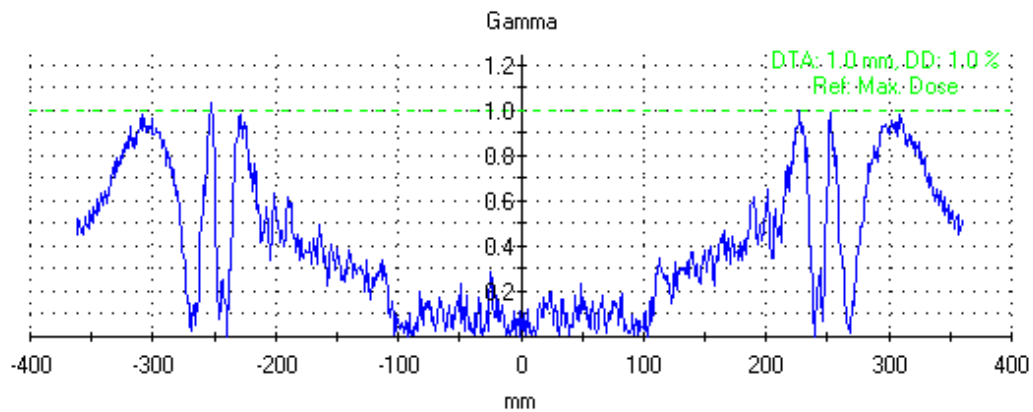
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-03 13:40

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	15.0
		Field Size Y x X [cm x cm]:	40.00 x 40.00
		Depth [mm]:	30.0
		Profile Type:	X Profile
		Meas.Angle [°]:	Diagonal
		SSD [cm]:	100.0



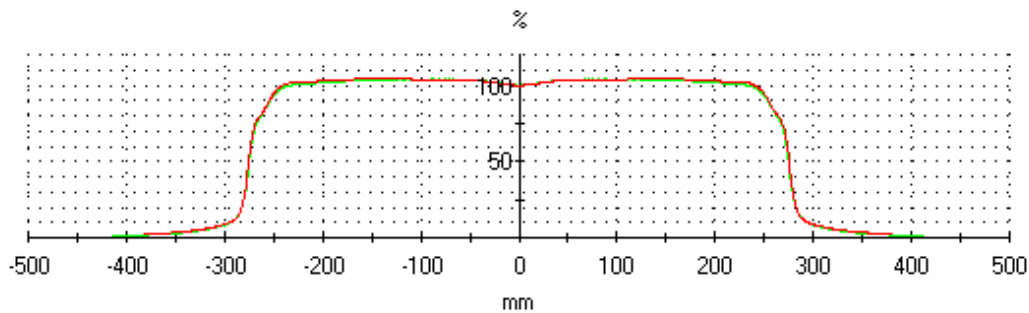
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



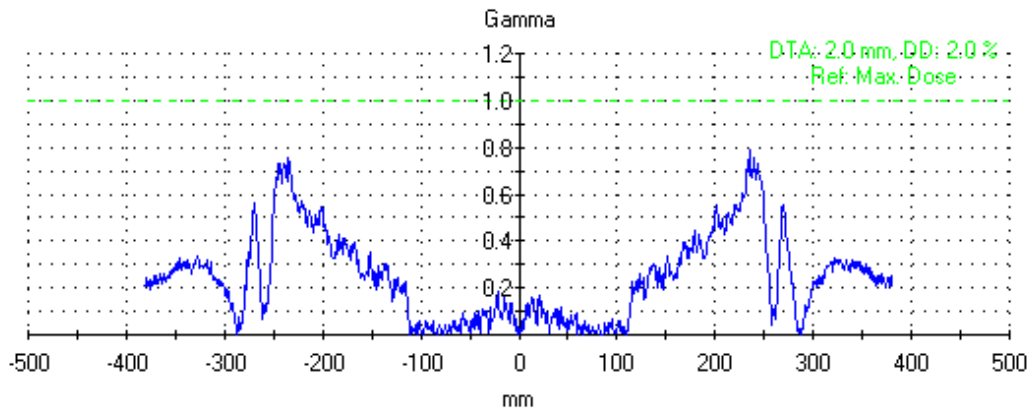
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-03 13:42

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	15.0
		Field Size Y x X [cm x cm]:	40.00 x 40.00
		Depth [mm]:	100.0
		Profile Type:	X Profile
		Meas.Angle [°]:	Diagonal
		SSD [cm]:	100.0



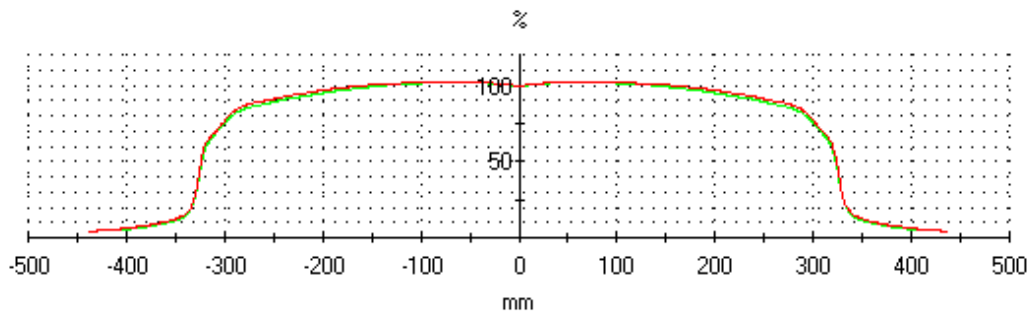
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



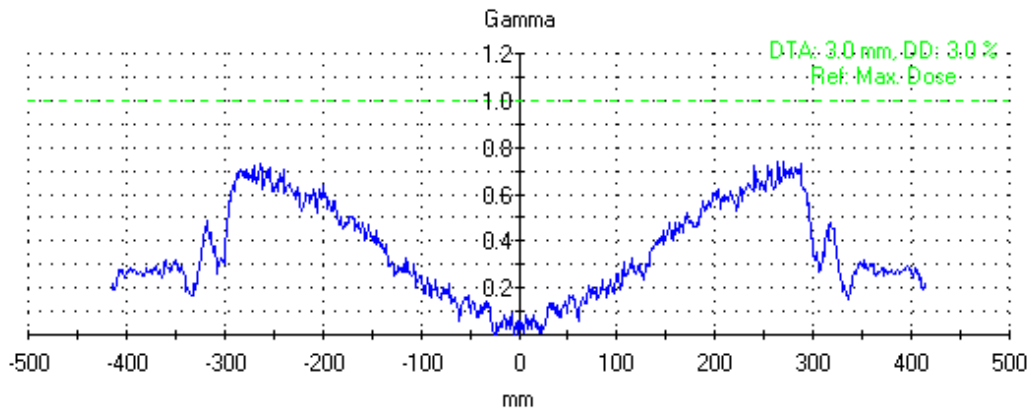
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-03 13:43

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	15.0
		Field Size Y x X [cm x cm]:	40.00 x 40.00
		Depth [mm]:	300.0
		Profile Type:	X Profile
		Meas.Angle [°]:	Diagonal
		SSD [cm]:	100.0



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

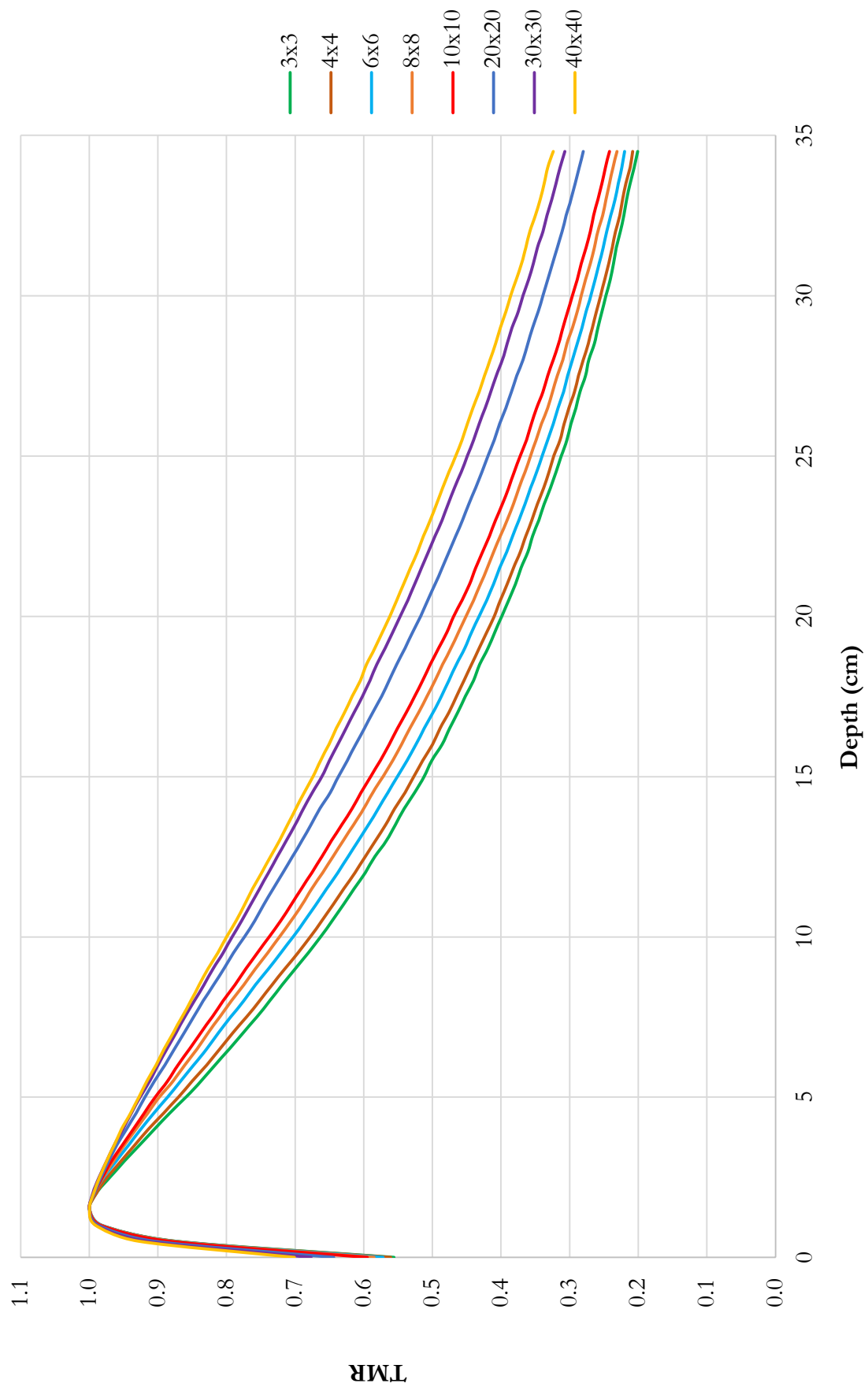
Normalized to 1.5 cm	6FFF TMR Open									
	Landauer Cancer Institute - Jackson, WY									
	Varian TrueBeam #9999									
Depth (cm)	11x11 (cm ²)	12x12 (cm ²)	13x13 (cm ²)	14x14 (cm ²)	15x15 (cm ²)	16x16 (cm ²)	17x17 (cm ²)	18x18 (cm ²)	19x19 (cm ²)	20x20 (cm ²)
0.0	0.600	0.605	0.610	0.615	0.620	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	56.7	57.2	57.8	58.3	58.9	59.5	60.2	60.7	61.3
0.5	89.0	89.1	89.2	89.4	89.5	89.7	89.8	90.0	90.2
1.0	99.3	99.2	99.2	99.2	99.1	99.2	99.3	99.3	99.3
1.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2.0	97.9	98.0	98.1	98.2	98.4	98.4	98.4	98.4	98.4
2.5	94.8	95.2	95.6	95.8	96.0	96.1	96.1	96.2	96.3
3.0	91.8	92.3	92.7	93.1	93.4	93.6	93.8	93.9	94.0
3.5	88.6	89.3	90.0	90.4	90.9	91.2	91.4	91.5	91.7
4.0	85.6	86.4	87.2	87.7	88.3	88.6	88.9	89.1	89.3
4.5	82.7	83.5	84.4	85.0	85.7	86.1	86.6	86.8	87.0
5.0	79.5	80.6	81.6	82.4	83.1	83.6	84.2	84.4	84.7
5.5	76.6	77.8	79.0	79.8	80.7	81.1	81.6	82.0	82.4
6.0	74.2	75.3	76.4	77.3	78.2	78.8	79.4	79.8	80.2
6.5	71.4	72.7	74.1	74.9	75.7	76.4	77.1	77.5	77.9
7.0	69.0	70.3	71.7	72.6	73.5	74.2	74.9	75.4	75.8
7.5	66.6	68.0	69.3	70.3	71.3	72.0	72.7	73.2	73.7
8.0	64.3	65.6	67.0	68.0	69.1	69.8	70.6	71.1	71.7
8.5	62.2	63.5	64.8	65.9	67.0	67.7	68.5	69.0	69.6
9.0	59.9	61.3	62.6	63.7	64.8	65.6	66.4	67.0	67.6
9.5	57.8	59.1	60.4	61.6	62.7	63.5	64.3	64.9	65.5
10.0	55.8	57.1	58.4	59.5	60.6	61.5	62.3	63.0	63.6
10.5	53.8	55.1	56.5	57.6	58.7	59.6	60.4	61.0	61.6
11.0	52.1	53.4	54.6	55.7	56.9	57.7	58.6	59.2	59.9
11.5	50.3	51.6	52.8	54.0	55.1	56.0	56.9	57.5	58.1
12.0	48.6	49.8	51.1	52.2	53.4	54.2	55.1	55.8	56.4
12.5	47.0	48.2	49.4	50.6	51.7	52.6	53.4	54.1	54.8
13.0	45.2	46.5	47.9	48.9	50.0	50.9	51.8	52.5	53.1
13.5	43.8	45.0	46.2	47.3	48.4	49.3	50.2	50.9	51.6
14.0	42.4	43.6	44.8	45.8	46.9	47.8	48.6	49.3	50.0
14.5	40.9	42.1	43.2	44.3	45.4	46.3	47.2	47.8	48.4
15.0	39.5	40.7	41.9	42.9	43.9	44.8	45.6	46.4	47.1
15.5	38.3	39.4	40.4	41.5	42.5	43.4	44.2	44.9	45.6
16.0	36.8	38.0	39.1	40.1	41.2	42.0	42.9	43.6	44.3
16.5	35.8	36.8	37.9	38.9	39.9	40.8	41.6	42.3	43.0
17.0	34.6	35.6	36.6	37.6	38.6	39.5	40.3	41.0	41.7
17.5	33.4	34.5	35.6	36.5	37.4	38.2	39.1	39.8	40.4
18.0	32.3	33.4	34.4	35.3	36.2	37.1	38.0	38.6	39.3
18.5	31.4	32.4	33.3	34.2	35.2	36.0	36.8	37.4	38.1
19.0	30.3	31.3	32.3	33.1	34.0	34.8	35.7	36.3	37.0
19.5	29.4	30.3	31.2	32.1	33.0	33.8	34.6	35.2	35.9
20.0	28.4	29.3	30.2	31.1	31.9	32.7	33.5	34.1	34.8

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	27.4	28.3	29.2	30.1	30.9	31.7	32.4	33.1	33.7
21.0	26.5	27.4	28.3	29.2	30.0	30.7	31.4	32.1	32.7
21.5	25.8	26.6	27.4	28.3	29.1	29.8	30.5	31.1	31.7
22.0	24.9	25.7	26.6	27.4	28.2	28.9	29.6	30.2	30.8
22.5	24.2	25.0	25.7	26.5	27.3	28.0	28.7	29.3	29.9
23.0	23.4	24.2	25.0	25.7	26.5	27.2	27.9	28.5	29.0
23.5	22.7	23.5	24.2	24.9	25.7	26.3	27.0	27.6	28.2
24.0	21.9	22.7	23.5	24.2	24.9	25.6	26.2	26.8	27.3
24.5	21.2	21.9	22.7	23.4	24.1	24.8	25.5	26.0	26.6
25.0	20.6	21.3	22.0	22.7	23.4	24.1	24.7	25.2	25.7
25.5	19.9	20.6	21.3	22.0	22.7	23.3	24.0	24.5	25.1
26.0	19.4	20.0	20.7	21.4	22.0	22.7	23.3	23.8	24.3
26.5	18.8	19.4	20.1	20.7	21.3	22.0	22.6	23.1	23.6
27.0	18.2	18.8	19.4	20.1	20.8	21.3	21.9	22.4	22.9
27.5	17.6	18.2	18.9	19.5	20.1	20.7	21.3	21.8	22.3
28.0	17.1	17.7	18.3	18.9	19.5	20.1	20.7	21.1	21.6
28.5	16.5	17.1	17.8	18.4	19.0	19.5	20.0	20.5	21.0
29.0	16.0	16.6	17.2	17.8	18.4	18.9	19.5	20.0	20.4
29.5	15.5	16.1	16.7	17.3	17.8	18.4	18.9	19.4	19.8
30.0	15.1	15.7	16.2	16.8	17.3	17.9	18.4	18.8	19.2
30.5	14.6	15.2	15.7	16.3	16.8	17.3	17.8	18.3	18.7
31.0	14.2	14.7	15.2	15.8	16.3	16.8	17.3	17.8	18.2
31.5	13.9	14.3	14.8	15.3	15.8	16.3	16.8	17.3	17.7
32.0	13.4	13.9	14.4	14.9	15.4	15.9	16.3	16.7	17.2
32.5	13.0	13.5	13.9	14.4	14.9	15.4	15.9	16.3	16.7
33.0	12.7	13.1	13.5	14.0	14.5	15.0	15.4	15.8	16.2
33.5	12.3	12.7	13.1	13.6	14.1	14.6	15.0	15.4	15.7
34.0	11.9	12.3	12.8	13.2	13.7	14.2	14.6	15.0	15.3
34.5	11.5	12.0	12.4	12.9	13.3	13.7	14.1	14.5	14.9

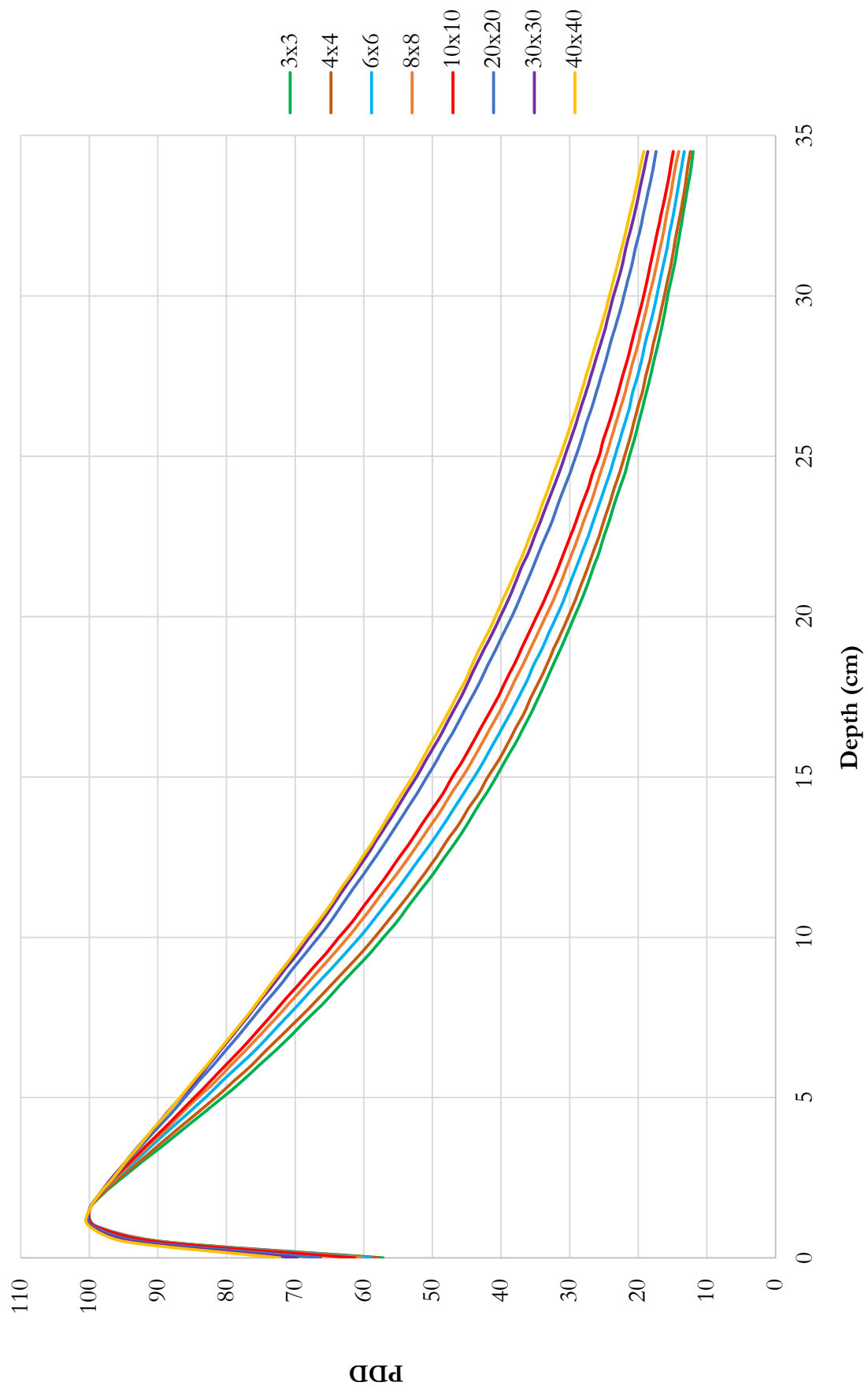
Normalized to 1.5 cm	6FFF PDD Open									
	Landauer Cancer Institute - Jackson, WY									
	Varian TrueBeam #9999									
Depth (cm)	11x11 (cm ²)	12x12 (cm ²)	13x13 (cm ²)	14x14 (cm ²)	15x15 (cm ²)	16x16 (cm ²)	17x17 (cm ²)	18x18 (cm ²)	19x19 (cm ²)	20x20 (cm ²)
0.0	61.8	62.3	62.8	63.3	63.8	64.3	64.8	65.3	65.8	66.3
0.5	90.4	90.6	90.8	91.0	91.3	91.5	91.7	91.9	92.1	92.3
1.0	99.4	99.4	99.5	99.5	99.5	99.6	99.6	99.6	99.7	99.7
1.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2.0	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4
2.5	96.3	96.3	96.3	96.3	96.4	96.4	96.4	96.4	96.4	96.4
3.0	94.1	94.1	94.2	94.2	94.3	94.3	94.3	94.4	94.4	94.5
3.5	91.7	91.8	91.9	92.0	92.0	92.1	92.2	92.2	92.3	92.4
4.0	89.4	89.5	89.6	89.7	89.8	89.9	90.0	90.1	90.2	90.3
4.5	87.1	87.2	87.3	87.5	87.6	87.7	87.8	87.9	88.0	88.1
5.0	84.8	85.0	85.1	85.3	85.4	85.5	85.7	85.8	85.9	86.1
5.5	82.5	82.7	82.9	83.0	83.2	83.4	83.5	83.7	83.9	84.1
6.0	80.4	80.5	80.7	80.9	81.1	81.2	81.4	81.6	81.8	82.0
6.5	78.2	78.4	78.6	78.8	79.0	79.2	79.4	79.6	79.8	80.0
7.0	76.1	76.3	76.5	76.7	76.9	77.1	77.4	77.6	77.8	78.0
7.5	74.0	74.2	74.4	74.7	74.9	75.1	75.4	75.6	75.8	76.1
8.0	71.9	72.2	72.4	72.7	72.9	73.2	73.4	73.7	73.9	74.2
8.5	69.9	70.1	70.4	70.6	70.9	71.2	71.4	71.7	72.0	72.2
9.0	67.9	68.2	68.4	68.7	69.0	69.3	69.5	69.8	70.1	70.4
9.5	65.8	66.1	66.4	66.7	67.0	67.3	67.6	67.9	68.2	68.5
10.0	63.9	64.2	64.5	64.8	65.1	65.4	65.7	66.0	66.3	66.6
10.5	61.9	62.3	62.6	62.9	63.2	63.5	63.8	64.2	64.5	64.8
11.0	60.2	60.6	60.9	61.2	61.6	61.9	62.2	62.6	62.9	63.2
11.5	58.5	58.8	59.2	59.5	59.9	60.2	60.6	60.9	61.2	61.6
12.0	56.8	57.1	57.5	57.8	58.1	58.5	58.8	59.2	59.5	59.9
12.5	55.1	55.5	55.8	56.2	56.5	56.9	57.2	57.6	57.9	58.3
13.0	53.5	53.8	54.2	54.5	54.9	55.3	55.6	56.0	56.3	56.7
13.5	51.9	52.3	52.6	53.0	53.4	53.7	54.1	54.4	54.8	55.2
14.0	50.4	50.8	51.1	51.5	51.9	52.2	52.6	53.0	53.3	53.7
14.5	48.8	49.2	49.6	49.9	50.3	50.7	51.1	51.4	51.8	52.2
15.0	47.4	47.8	48.2	48.5	48.9	49.3	49.6	50.0	50.4	50.8
15.5	46.0	46.4	46.8	47.1	47.5	47.9	48.3	48.7	49.0	49.4
16.0	44.7	45.0	45.4	45.8	46.2	46.6	46.9	47.3	47.7	48.1
16.5	43.4	43.8	44.1	44.5	44.9	45.2	45.6	46.0	46.4	46.7
17.0	42.1	42.4	42.8	43.2	43.6	44.0	44.4	44.7	45.1	45.5
17.5	40.8	41.2	41.6	41.9	42.3	42.7	43.0	43.4	43.8	44.2
18.0	39.7	40.0	40.4	40.8	41.2	41.5	41.9	42.3	42.7	43.0
18.5	38.5	38.8	39.2	39.6	40.0	40.4	40.7	41.1	41.5	41.9
19.0	37.4	37.7	38.1	38.5	38.8	39.2	39.6	39.9	40.3	40.7
19.5	36.2	36.6	37.0	37.3	37.7	38.1	38.5	38.8	39.2	39.6
20.0	35.1	35.5	35.9	36.2	36.6	37.0	37.3	37.7	38.1	38.4

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	34.1	34.5	34.8	35.2	35.6	35.9	36.3	36.7	37.0	37.4
21.0	33.1	33.4	33.8	34.2	34.5	34.9	35.3	35.6	36.0	36.4
21.5	32.1	32.5	32.8	33.2	33.6	33.9	34.3	34.7	35.0	35.4
22.0	31.2	31.6	31.9	32.3	32.6	33.0	33.4	33.7	34.1	34.5
22.5	30.2	30.6	31.0	31.3	31.7	32.0	32.4	32.8	33.1	33.5
23.0	29.4	29.7	30.1	30.4	30.8	31.1	31.5	31.8	32.2	32.5
23.5	28.5	28.9	29.2	29.6	29.9	30.3	30.6	31.0	31.3	31.7
24.0	27.7	28.0	28.4	28.7	29.1	29.4	29.8	30.1	30.5	30.8
24.5	26.9	27.2	27.6	27.9	28.3	28.6	28.9	29.3	29.6	29.9
25.0	26.1	26.4	26.8	27.1	27.4	27.8	28.1	28.5	28.8	29.1
25.5	25.4	25.7	26.0	26.4	26.7	27.0	27.3	27.7	28.0	28.3
26.0	24.6	25.0	25.3	25.6	25.9	26.3	26.6	26.9	27.3	27.6
26.5	24.0	24.3	24.6	24.9	25.2	25.6	25.9	26.2	26.5	26.8
27.0	23.2	23.6	23.9	24.2	24.5	24.8	25.2	25.5	25.8	26.1
27.5	22.6	22.9	23.2	23.5	23.8	24.2	24.5	24.8	25.1	25.4
28.0	21.9	22.2	22.5	22.8	23.1	23.4	23.7	24.0	24.4	24.7
28.5	21.3	21.6	21.9	22.2	22.5	22.8	23.2	23.5	23.8	24.1
29.0	20.7	21.0	21.3	21.6	21.9	22.2	22.5	22.8	23.1	23.4
29.5	20.1	20.4	20.7	21.0	21.3	21.6	21.9	22.2	22.4	22.7
30.0	19.5	19.8	20.1	20.4	20.7	21.0	21.3	21.6	21.8	22.1
30.5	19.0	19.3	19.6	19.8	20.1	20.4	20.7	21.0	21.3	21.5
31.0	18.5	18.7	19.0	19.3	19.6	19.8	20.1	20.4	20.7	20.9
31.5	18.0	18.2	18.5	18.8	19.1	19.3	19.6	19.9	20.2	20.4
32.0	17.4	17.7	18.0	18.2	18.5	18.8	19.0	19.3	19.6	19.8
32.5	17.0	17.2	17.5	17.8	18.0	18.3	18.5	18.8	19.1	19.3
33.0	16.4	16.7	17.0	17.2	17.5	17.8	18.0	18.3	18.6	18.8
33.5	16.0	16.3	16.5	16.8	17.0	17.3	17.6	17.8	18.1	18.3
34.0	15.6	15.8	16.1	16.3	16.6	16.8	17.1	17.3	17.6	17.8
34.5	15.2	15.4	15.6	15.9	16.1	16.4	16.6	16.9	17.1	17.4

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	67.0	67.7	68.3	69.0	69.7	70.2	70.7	71.2	71.7	72.2
0.5	92.6	92.8	93.1	93.3	93.5	93.8	94.0	94.2	94.5	94.7
1.0	99.8	99.8	99.9	99.9	100.0	100.0	100.0	100.0	100.1	100.1
1.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2.0	98.4	98.4	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5
2.5	96.5	96.5	96.6	96.6	96.7	96.7	96.6	96.6	96.6	96.5
3.0	94.5	94.6	94.6	94.7	94.7	94.7	94.7	94.7	94.7	94.7
3.5	92.5	92.5	92.6	92.7	92.8	92.8	92.7	92.7	92.7	92.7
4.0	90.4	90.5	90.5	90.6	90.7	90.7	90.7	90.8	90.8	90.8
4.5	88.3	88.4	88.5	88.6	88.8	88.8	88.8	88.7	88.7	88.7
5.0	86.2	86.3	86.4	86.5	86.7	86.7	86.7	86.7	86.8	86.8
5.5	84.2	84.3	84.4	84.5	84.6	84.7	84.7	84.8	84.8	84.9
6.0	82.1	82.3	82.4	82.6	82.7	82.8	82.8	82.8	82.8	82.9
6.5	80.1	80.3	80.5	80.6	80.8	80.8	80.9	80.9	81.0	81.0
7.0	78.2	78.4	78.6	78.8	78.9	79.0	79.0	79.1	79.1	79.1
7.5	76.3	76.5	76.6	76.8	77.0	77.1	77.1	77.1	77.2	77.2
8.0	74.4	74.6	74.8	75.0	75.2	75.2	75.3	75.3	75.4	75.4
8.5	72.4	72.7	72.9	73.1	73.3	73.4	73.4	73.5	73.6	73.7
9.0	70.6	70.8	71.1	71.3	71.5	71.6	71.7	71.7	71.8	71.9
9.5	68.8	69.0	69.2	69.4	69.6	69.7	69.8	69.9	70.0	70.1
10.0	66.9	67.1	67.4	67.7	67.9	68.0	68.1	68.2	68.3	68.4
10.5	65.1	65.3	65.6	65.9	66.1	66.2	66.3	66.4	66.5	66.6
11.0	63.5	63.7	64.0	64.2	64.5	64.6	64.7	64.7	64.8	64.9
11.5	61.8	62.1	62.4	62.6	62.9	63.0	63.1	63.2	63.3	63.4
12.0	60.2	60.4	60.7	61.0	61.3	61.4	61.5	61.6	61.6	61.7
12.5	58.6	58.8	59.1	59.4	59.7	59.8	59.9	60.0	60.1	60.2
13.0	57.0	57.3	57.6	57.9	58.2	58.3	58.4	58.5	58.6	58.6
13.5	55.5	55.8	56.1	56.4	56.7	56.8	56.9	57.0	57.1	57.2
14.0	54.0	54.3	54.6	54.9	55.2	55.4	55.5	55.6	55.7	55.8
14.5	52.5	52.8	53.2	53.5	53.8	53.9	54.0	54.1	54.3	54.4
15.0	51.1	51.4	51.7	52.0	52.3	52.4	52.5	52.7	52.8	52.9
15.5	49.7	50.0	50.3	50.6	51.0	51.1	51.2	51.4	51.5	51.6
16.0	48.4	48.7	49.0	49.3	49.6	49.8	49.9	50.0	50.2	50.3
16.5	47.1	47.4	47.7	48.0	48.3	48.5	48.6	48.7	48.9	49.0
17.0	45.8	46.1	46.5	46.8	47.1	47.2	47.3	47.5	47.6	47.7
17.5	44.5	44.8	45.2	45.5	45.8	46.0	46.1	46.3	46.4	46.5
18.0	43.4	43.7	44.0	44.3	44.7	44.8	44.9	45.0	45.1	45.2
18.5	42.2	42.5	42.9	43.2	43.6	43.7	43.8	43.9	44.0	44.2
19.0	41.0	41.4	41.7	42.0	42.4	42.5	42.6	42.8	42.9	43.1
19.5	39.9	40.2	40.5	40.9	41.2	41.3	41.5	41.6	41.8	41.9
20.0	38.8	39.1	39.4	39.8	40.1	40.2	40.4	40.5	40.6	40.8

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	37.7	38.0	38.4	38.7	39.0	39.2	39.3	39.5	39.6	39.8
21.0	36.7	37.0	37.4	37.7	38.0	38.2	38.3	38.4	38.6	38.7
21.5	35.7	36.1	36.4	36.7	37.1	37.2	37.3	37.4	37.6	37.7
22.0	34.8	35.1	35.4	35.7	36.0	36.2	36.3	36.4	36.6	36.7
22.5	33.8	34.1	34.4	34.8	35.1	35.2	35.4	35.5	35.7	35.8
23.0	32.9	33.2	33.5	33.8	34.2	34.3	34.4	34.6	34.7	34.8
23.5	32.0	32.3	32.6	33.0	33.3	33.4	33.6	33.7	33.9	34.0
24.0	31.2	31.5	31.8	32.1	32.4	32.6	32.7	32.8	33.0	33.1
24.5	30.3	30.6	30.9	31.2	31.5	31.7	31.8	32.0	32.1	32.3
25.0	29.5	29.8	30.1	30.4	30.7	30.8	31.0	31.1	31.3	31.4
25.5	28.6	28.9	29.2	29.6	29.9	30.0	30.2	30.3	30.4	30.6
26.0	27.9	28.2	28.5	28.8	29.1	29.3	29.4	29.5	29.7	29.8
26.5	27.2	27.5	27.8	28.1	28.4	28.5	28.6	28.8	28.9	29.0
27.0	26.4	26.7	27.0	27.3	27.6	27.7	27.9	28.0	28.1	28.3
27.5	25.7	26.0	26.3	26.6	26.9	27.0	27.2	27.3	27.4	27.6
28.0	25.0	25.3	25.6	25.9	26.2	26.3	26.5	26.6	26.7	26.9
28.5	24.4	24.6	24.9	25.2	25.5	25.6	25.8	25.9	26.0	26.2
29.0	23.7	24.0	24.3	24.6	24.8	25.0	25.1	25.2	25.4	25.5
29.5	23.0	23.3	23.6	23.9	24.2	24.3	24.5	24.6	24.7	24.8
30.0	22.4	22.7	23.0	23.3	23.6	23.7	23.8	23.9	24.0	24.2
30.5	21.8	22.1	22.4	22.6	22.9	23.1	23.2	23.3	23.5	23.6
31.0	21.2	21.5	21.7	22.0	22.3	22.4	22.6	22.7	22.8	23.0
31.5	20.7	21.0	21.2	21.5	21.8	21.9	22.0	22.2	22.3	22.4
32.0	20.1	20.4	20.7	20.9	21.2	21.3	21.4	21.5	21.7	21.8
32.5	19.6	19.9	20.1	20.4	20.6	20.8	20.9	21.0	21.1	21.3
33.0	19.1	19.3	19.6	19.8	20.1	20.2	20.3	20.4	20.5	20.7
33.5	18.6	18.8	19.1	19.3	19.6	19.7	19.8	19.9	20.0	20.2
34.0	18.1	18.3	18.6	18.9	19.1	19.2	19.3	19.4	19.6	19.7
34.5	17.6	17.8	18.1	18.3	18.6	18.7	18.8	18.9	19.0	19.2

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

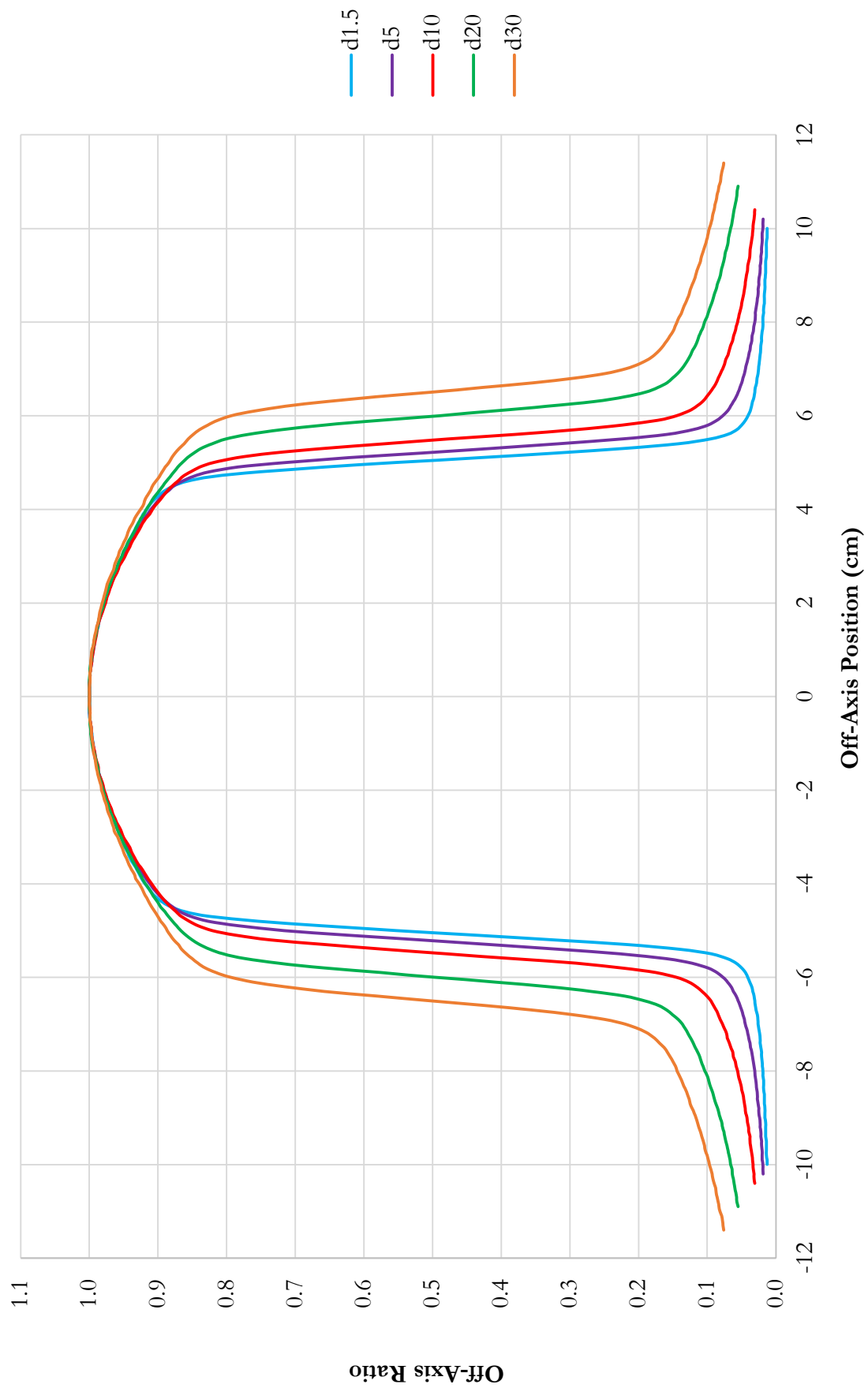


Photon Energies

6FFF Crossplane

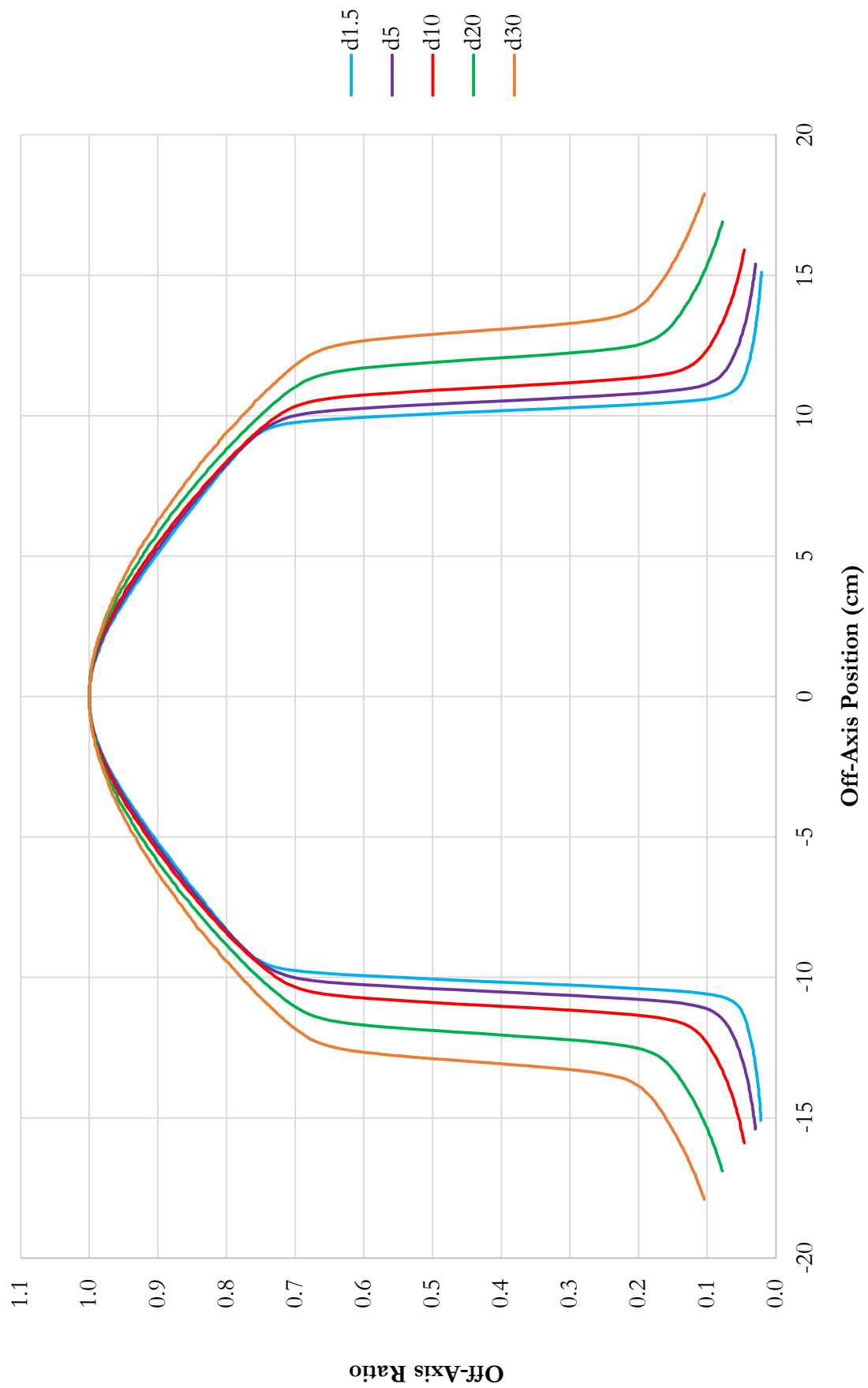
6FFF Crossplane Open 10x10 100 SSD Landauer Cancer Institute - Jackson, WY Varian TrueBeam #9999					
Off-Axis (cm)	d1.5	d5	d10	d20	d30
-7.0	0.026	0.045	0.078	0.136	0.220
-6.5	0.031	0.055	0.095	0.191	0.504
-6.0	0.041	0.077	0.145	0.496	0.794
-5.5	0.094	0.227	0.480	0.805	0.859
-5.0	0.552	0.716	0.821	0.867	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

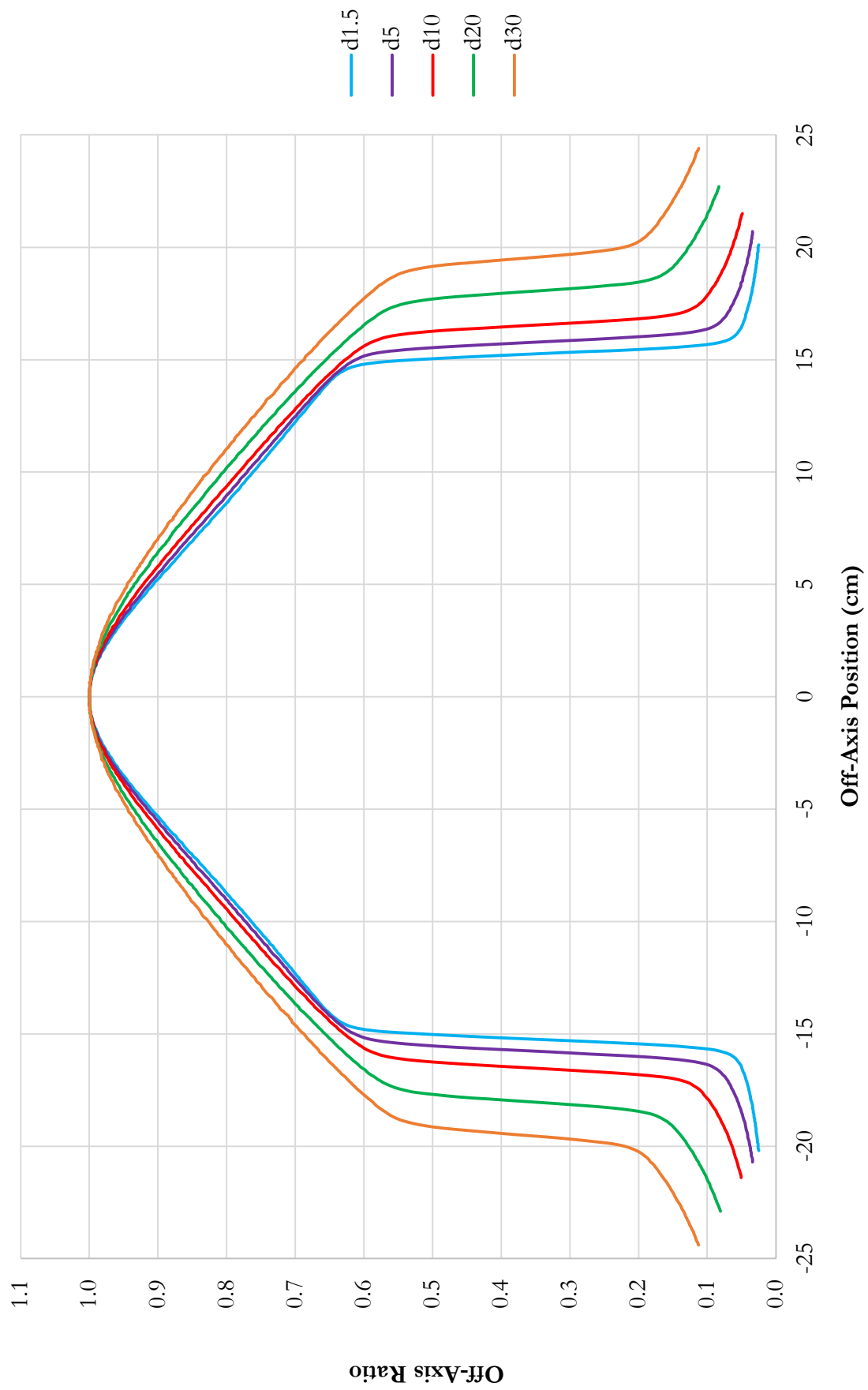
6FFF Crossplane Open 20x20 100 SSD
 Landauer Cancer Institute - Jackson, WY
 Varian TrueBeam #9999



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

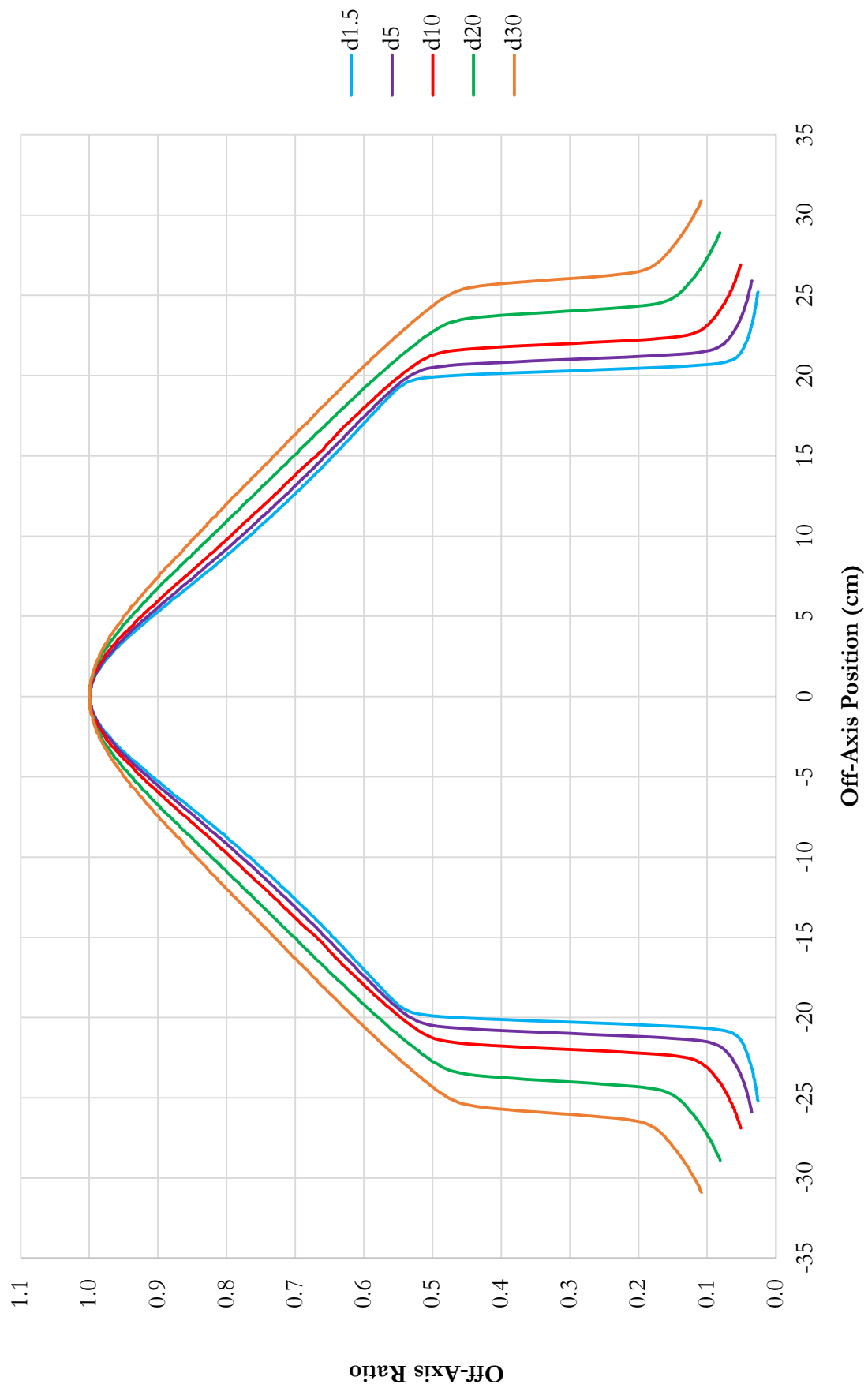
6FFF Crossplane Open 30x30 100 SSD
Landauer Cancer Institute - Jackson, WY
Varian TrueBeam #9999



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 Factors

6X FFF Scatter Factors dmax 100 SAD Landauer Cancer Institute - Jackson, WY Varian Truebeam #9999			
Field (cm x cm)	Scp	Sp	Sc
2x2	0.918	0.943	0.974
3x3	0.939	0.958	0.980
4x4	0.953	0.969	0.983
5x5	0.964	0.976	0.988
6x6	0.974	0.982	0.992
7x7	0.981	0.987	0.994
8x8	0.989	0.992	0.997
9x9	0.994	0.996	0.999
10x10	1.000	1.000	1.000
11x11	1.004	1.003	1.001
12x12	1.008	1.006	1.002
13x13	1.012	1.009	1.003
14x14	1.015	1.011	1.004
15x15	1.018	1.014	1.004
16x16	1.021	1.016	1.005
17x17	1.023	1.017	1.006
18x18	1.026	1.019	1.007
19x19	1.029	1.021	1.008
20x20	1.031	1.023	1.008
21x21	1.033	1.024	1.009
22x22	1.035	1.025	1.010
23x23	1.037	1.026	1.010
24x24	1.038	1.027	1.011
25x25	1.040	1.028	1.012
26x26	1.042	1.029	1.012
27x27	1.043	1.030	1.013
28x28	1.044	1.031	1.013
29x29	1.046	1.032	1.014
30x30	1.047	1.032	1.014
31x31	1.048	1.033	1.014
32x32	1.049	1.033	1.015
33x33	1.049	1.034	1.015
34x34	1.050	1.034	1.015
35x35	1.051	1.035	1.016
36x36	1.051	1.035	1.016
37x37	1.051	1.035	1.016
38x38	1.052	1.036	1.015
39x39	1.052	1.036	1.015
40x40	1.052	1.036	1.015

Photon Energies

6FFF Beam Match Verification

6FFF Eclipse Output Factors 95 SSD d5
Landauer Cancer Institute - Jackson, WY
Varian TrueBeam #9999

Verification Data Measured on TrueBeam #9999

Open Field		X (cm)									
Y (cm)		3	4	5	7	10	15	20	30	40	
3	0.893								0.934		
4											
5			0.939								
7											
10					1.000					1.027	
15											
20	0.941							1.050			
30									1.073		
40					1.033					1.083	

Representative TrueBeam Data

Open Field		Field size X (cm)									
Field Size Y (cm)		3	4	5	7	10	15	20	30	40	
3	0.896	0.907	0.914	0.922	0.928	0.932	0.934	0.937	0.937		
4	0.907	0.921	0.929	0.940	0.947	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		
7	0.925	0.943	0.955	0.970	0.982	0.991	0.996	1.000	1.001		
10	0.933	0.953	0.967	0.985	1.000	1.012	1.018	1.024	1.025		
15	0.938	0.960	0.975	0.996	1.013	1.029	1.038	1.046	1.048		
20	0.941	0.963	0.979	1.001	1.020	1.038	1.049	1.058	1.060		
30	0.944	0.967	0.983	1.006	1.028	1.048	1.061	1.072	1.075		
40	0.945	0.968	0.985	1.009	1.031	1.052	1.065	1.078	1.080		

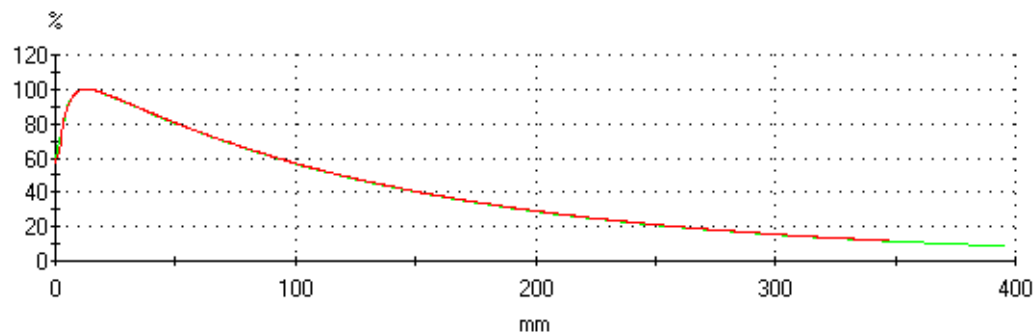
% difference (Verification/Representative)

Open Field		X (cm)									
Y (cm)		3	4	5	7	10	15	20	30	40	
3	-0.3%								-0.3%		
4											
5			-0.1%								
7											
10					0.0%					0.2%	
15											
20	0.0%							0.1%	0.1%		
30											
40					0.2%					0.3%	

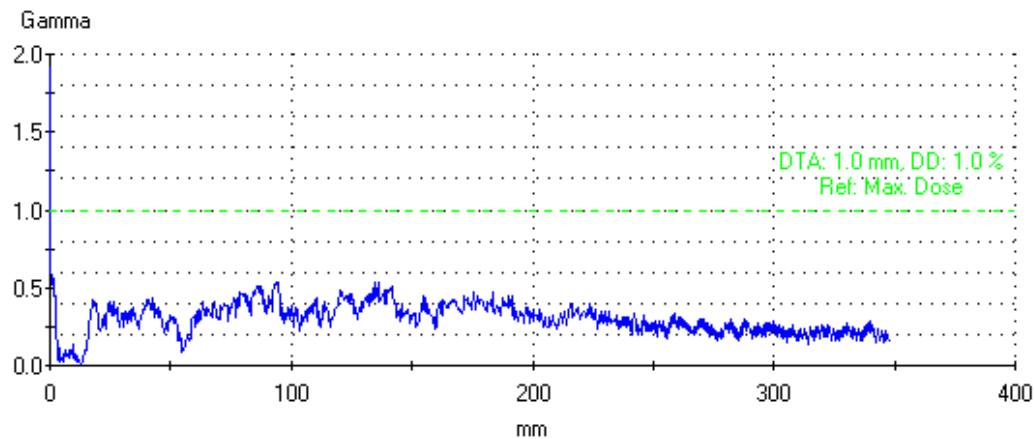
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-09-01 16:09

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	6.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	3.00 x 3.00
		Depth [mm]:	
		Profile Type:	PDD
		Wedge:	Open
		Raw/Processed:	Processed



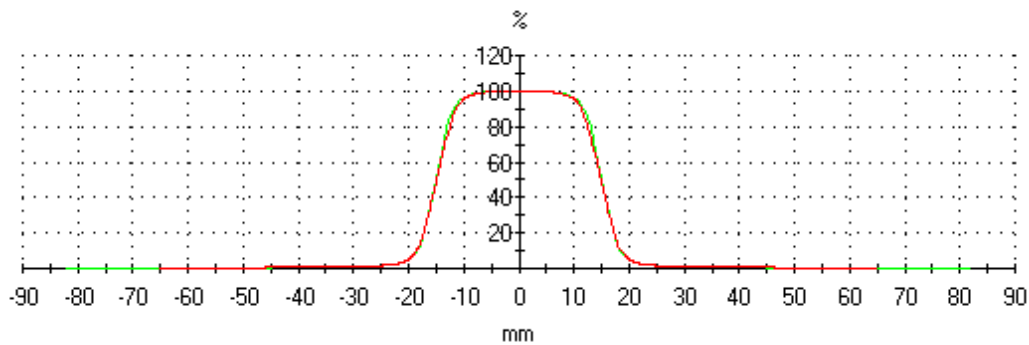
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



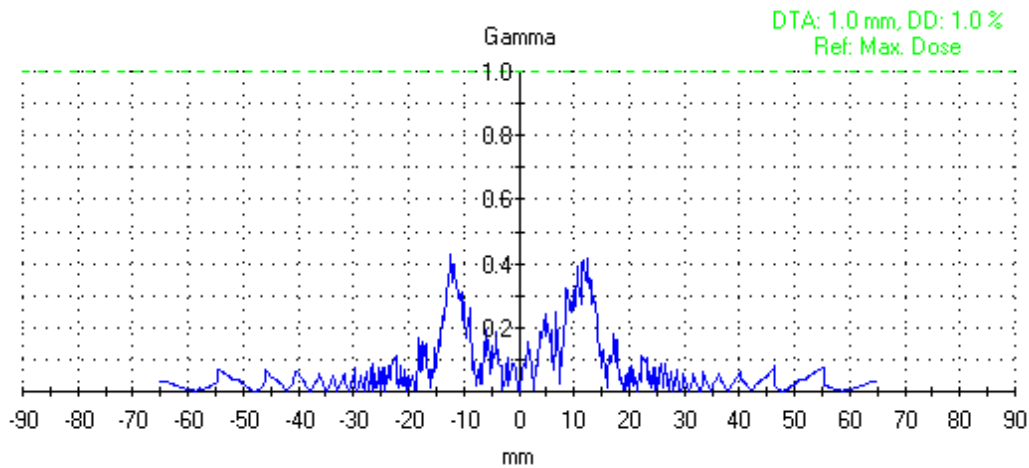
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-09-01 16:43

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	6.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	3.00 x 3.00
		Depth [mm]:	15.0
		Profile Type:	X Profile
		Wedge:	Open
		Raw/Processed:	Processed



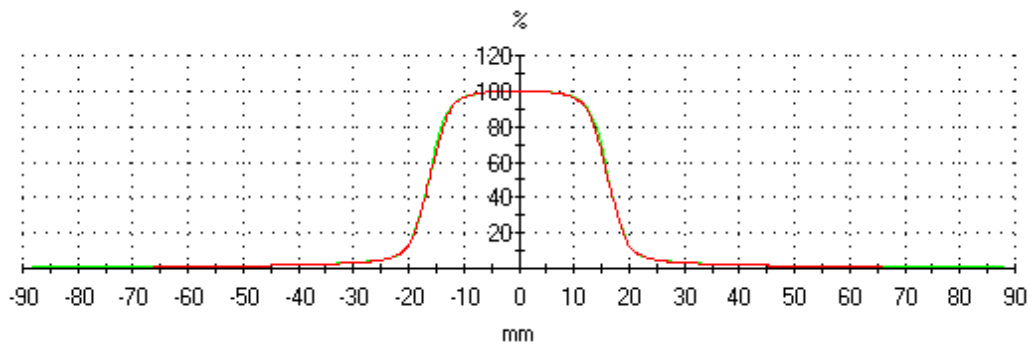
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



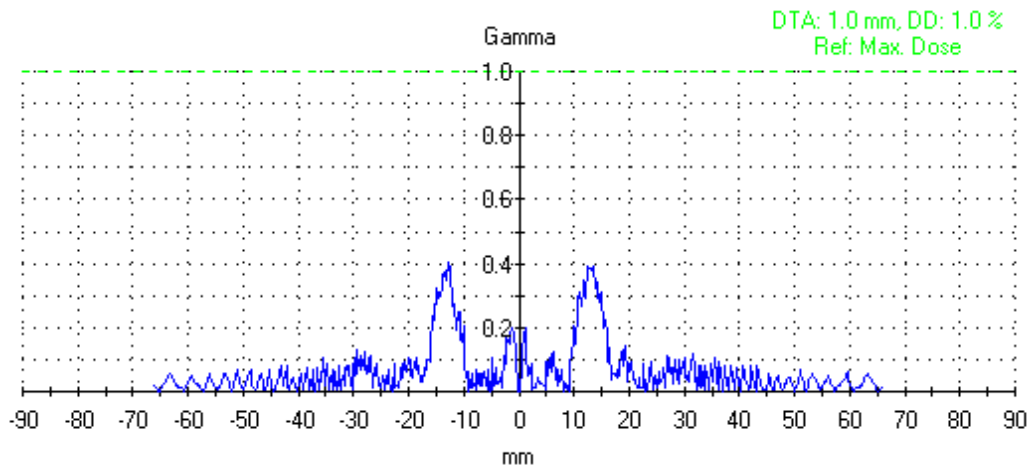
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-09-01 16:43

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	6.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	3.00 x 3.00
		Depth [mm]:	100.0
		Profile Type:	X Profile
		Wedge:	Open
		Raw/Processed:	Processed



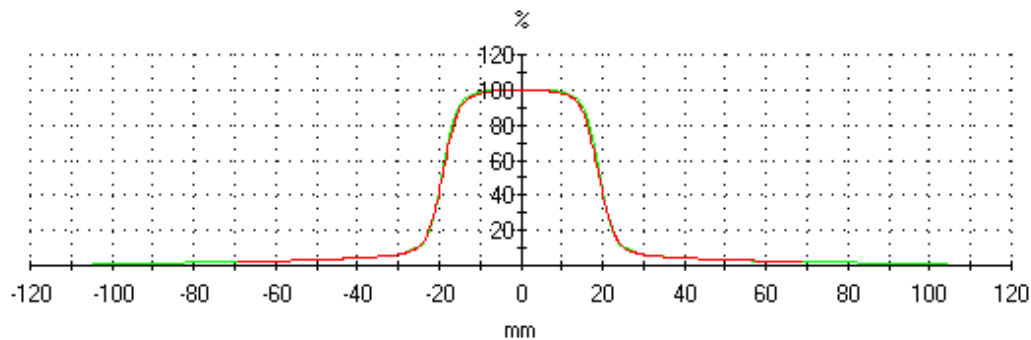
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



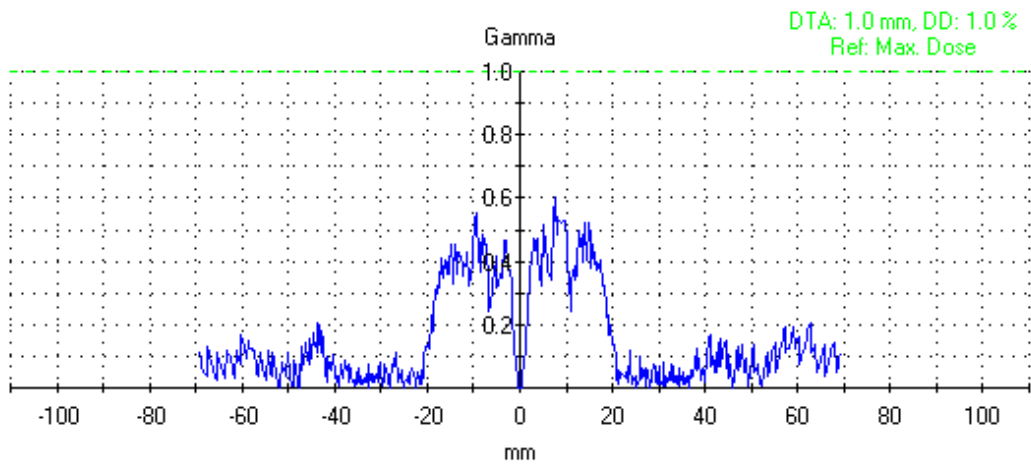
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-09-01 16:43

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	6.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	3.00 x 3.00
		Depth [mm]:	300.0
		Profile Type:	X Profile
		Wedge:	Open
		Raw/Processed:	Processed



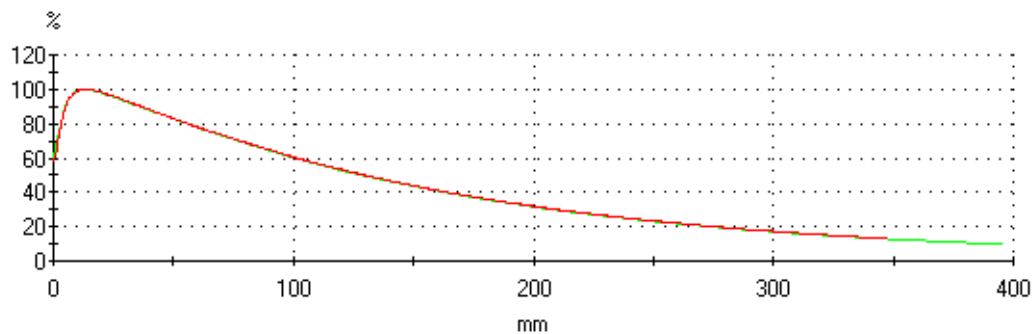
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



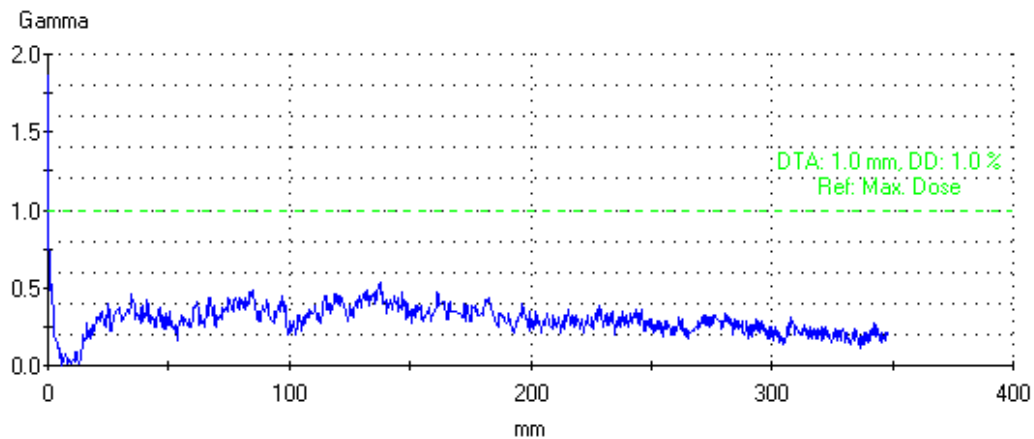
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-09-01 16:10

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	6.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	6.00 x 6.00
		Depth [mm]:	
		Profile Type:	PDD
		Wedge:	Open
		Raw/Processed:	Processed



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



Mephysto mcc - Report

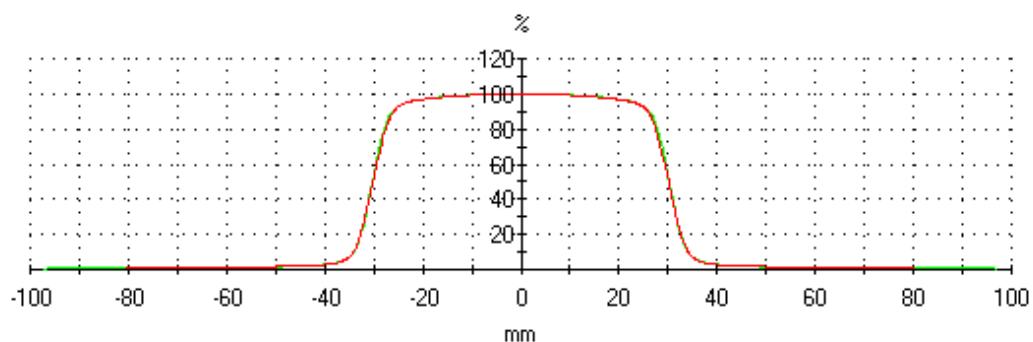
Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-09-01 16:44

Setup

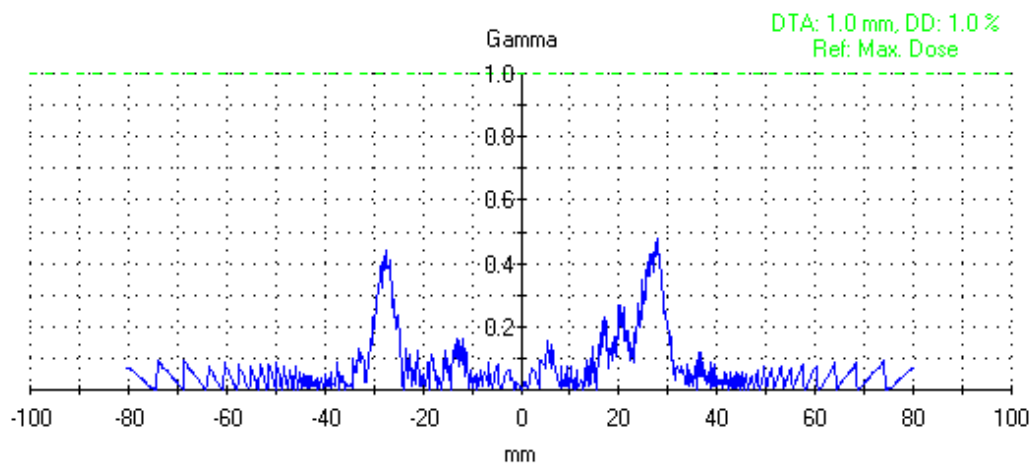
Modality: Photons
Measurement Date: *

Measurement Parameters

Energy [MV]: 6.0
Field Size Y x X [cm x cm]: 6.00 x 6.00
Depth [mm]: 15.0
Profile Type: X Profile
Wedge: Open
Raw/Processed: Processed



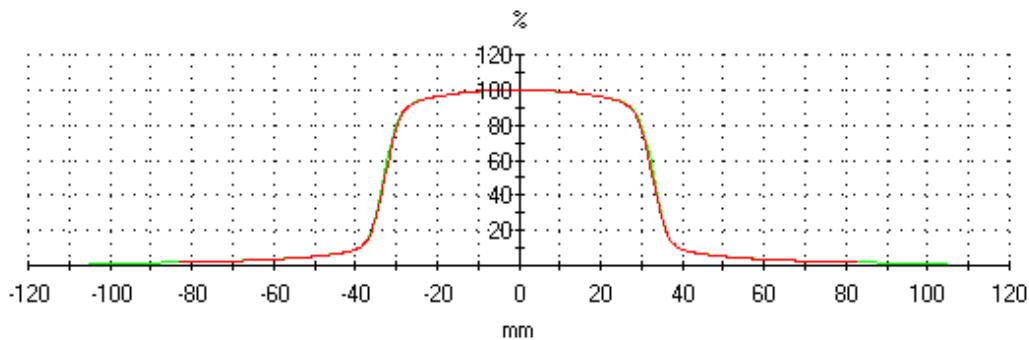
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



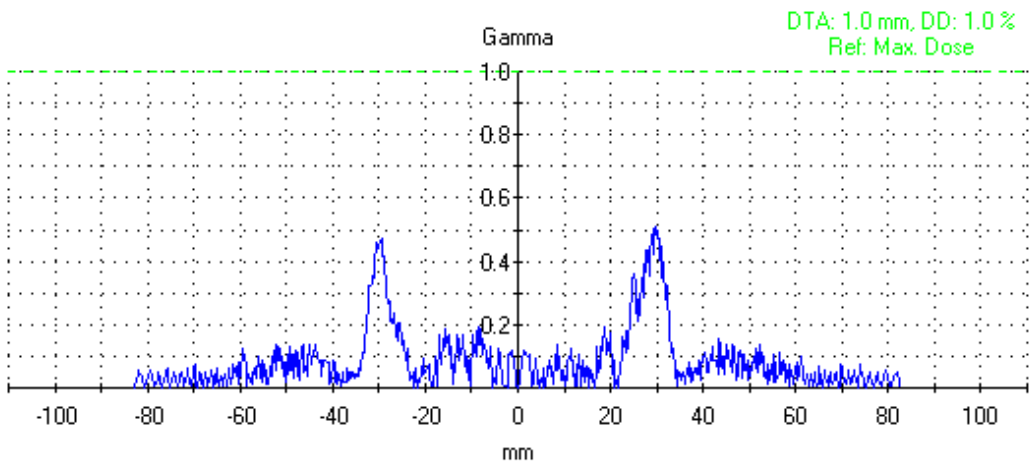
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-09-01 16:44

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	6.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	6.00 x 6.00
		Depth [mm]:	100.0
		Profile Type:	X Profile
		Wedge:	Open
		Raw/Processed:	Processed



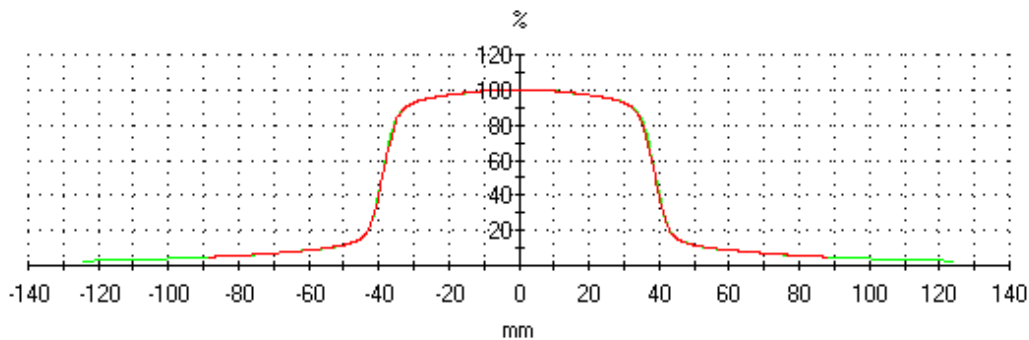
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



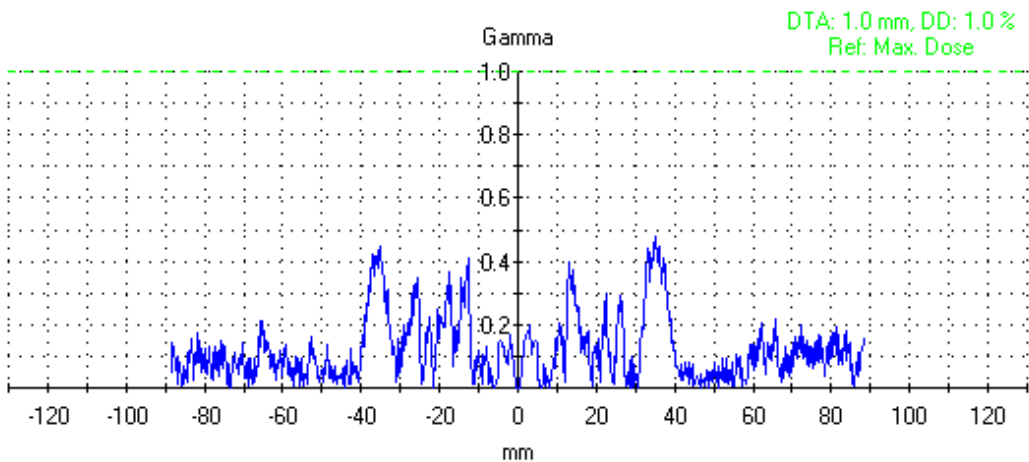
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-09-01 16:45

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	6.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	6.00 x 6.00
		Depth [mm]:	300.0
		Profile Type:	X Profile
		Wedge:	Open
		Raw/Processed:	Processed



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



Mephysto mcc - Report

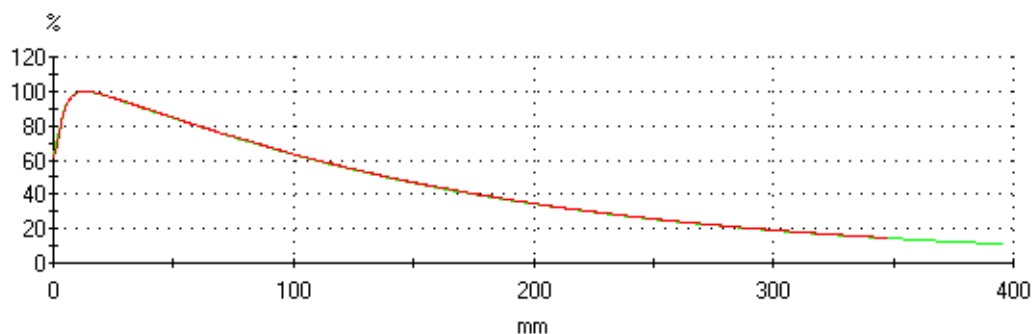
Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-09-01 16:10

Setup

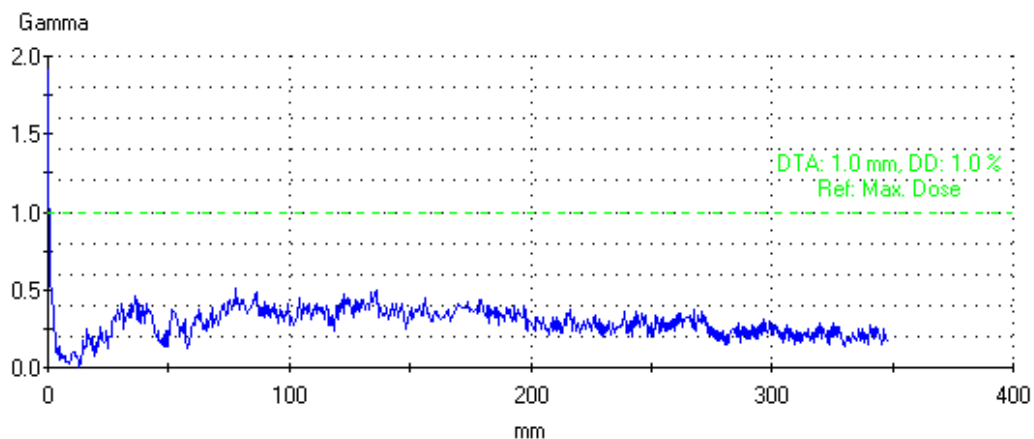
Modality: Photons
Measurement Date: *

Measurement Parameters

Energy [MV]: 6.0
Field Size Y x X [cm x cm]: 10.00 x 10.00
Depth [mm]:
Profile Type: PDD
Wedge: Open
Raw/Processed: Processed



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



Mephysto mcc - Report

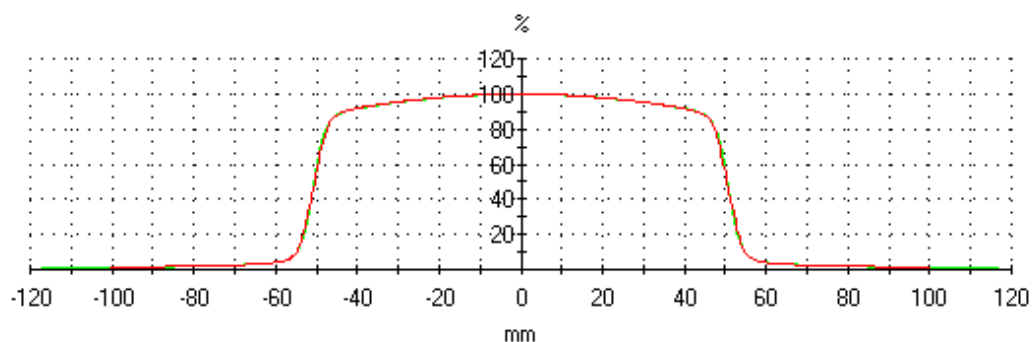
Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-09-01 16:45

Setup

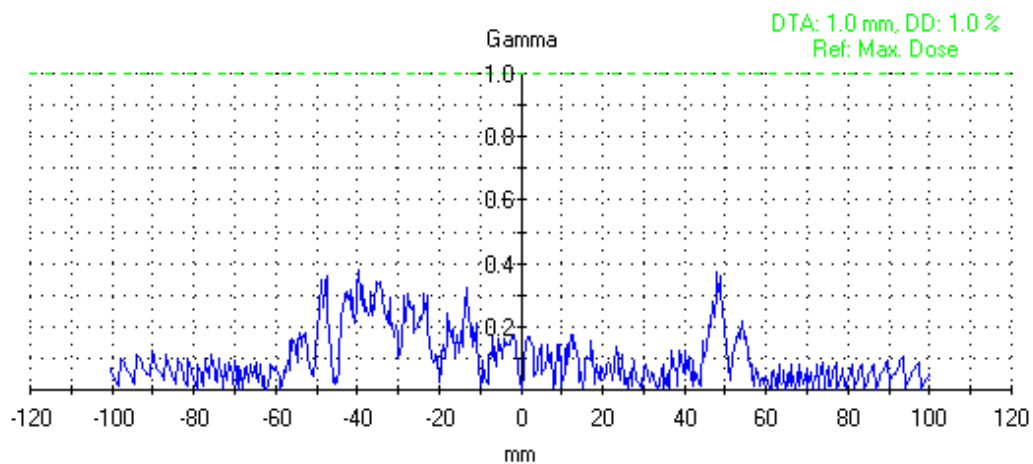
Modality: Photons
Measurement Date: *

Measurement Parameters

Energy [MV]: 6.0
Field Size Y x X [cm x cm]: 10.00 x 10.00
Depth [mm]: 15.0
Profile Type: X Profile
Wedge: Open
Raw/Processed: Processed



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



Mephysto mcc - Report

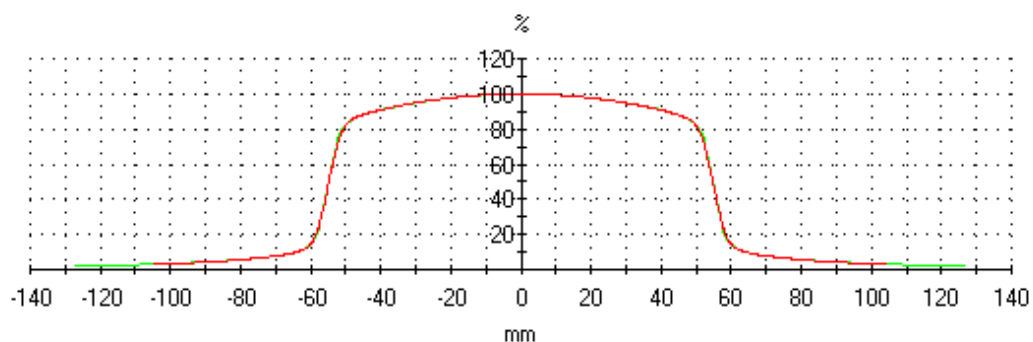
Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-09-01 16:45

Setup

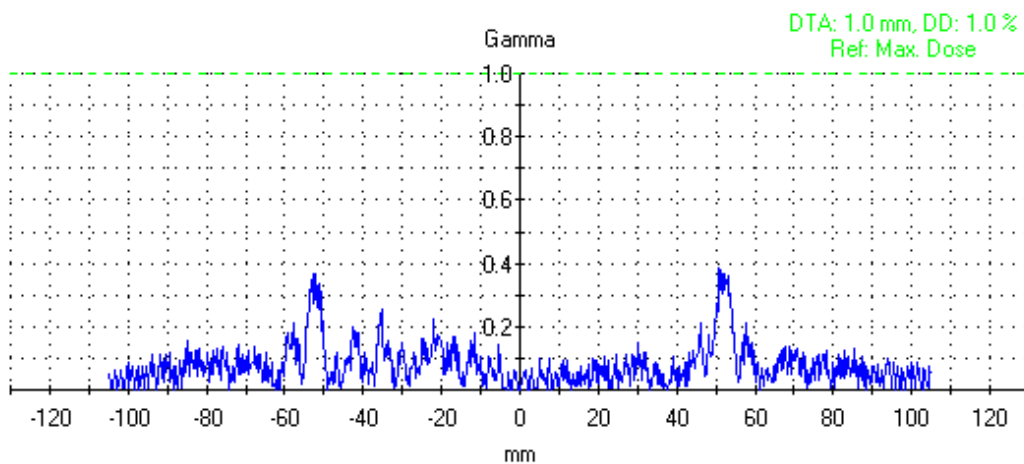
Modality: Photons
Measurement Date: *

Measurement Parameters

Energy [MV]: 6.0
Field Size Y x X [cm x cm]: 10.00 x 10.00
Depth [mm]: 100.0
Profile Type: X Profile
Wedge: Open
Raw/Processed: Processed



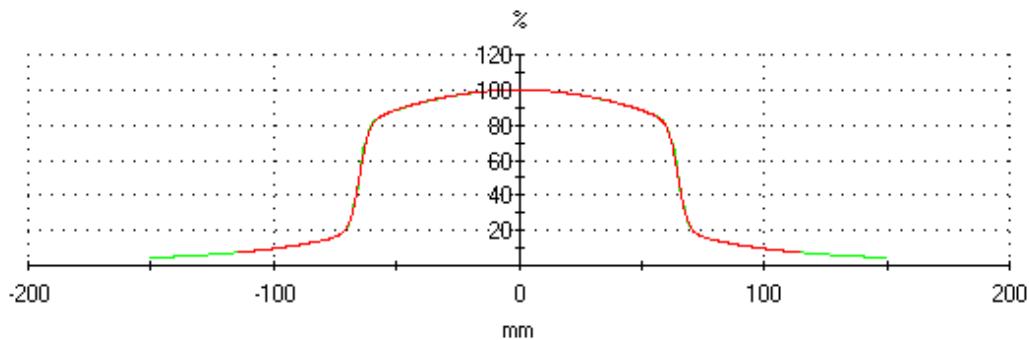
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



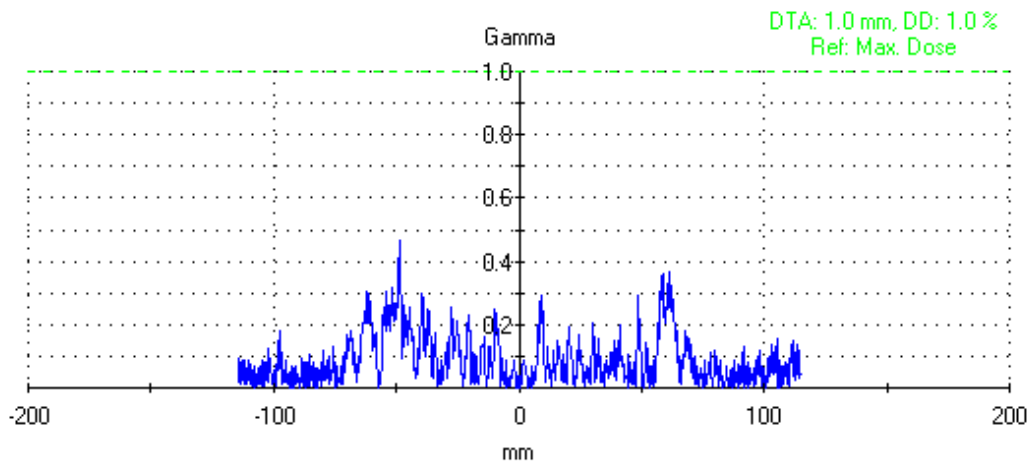
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-09-01 16:46

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	6.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	10.00 x 10.00
		Depth [mm]:	300.0
		Profile Type:	X Profile
		Wedge:	Open
		Raw/Processed:	Processed



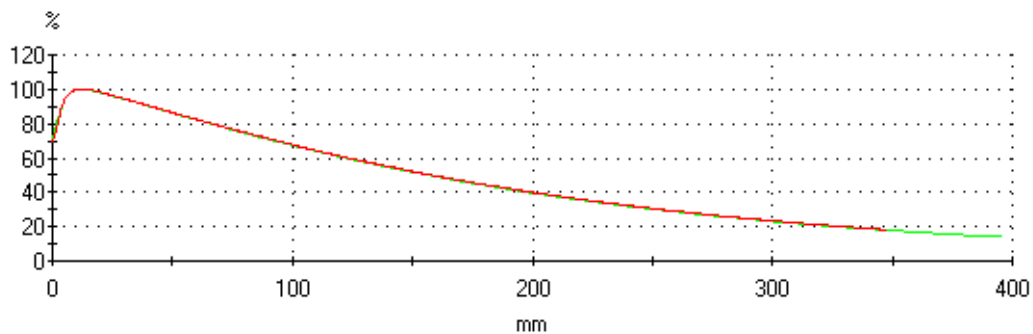
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



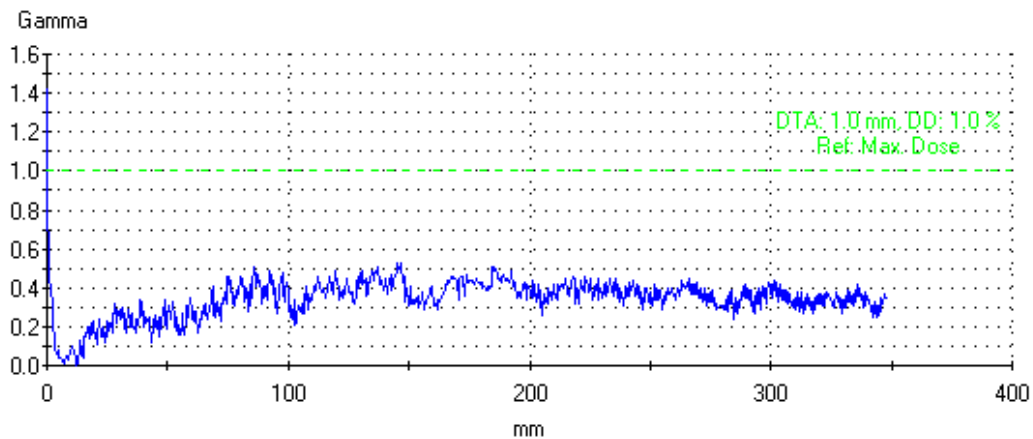
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-09-01 16:11

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	6.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	30.00 x 30.00
		Depth [mm]:	
		Profile Type:	PDD
		Wedge:	Open
		Raw/Processed:	Processed



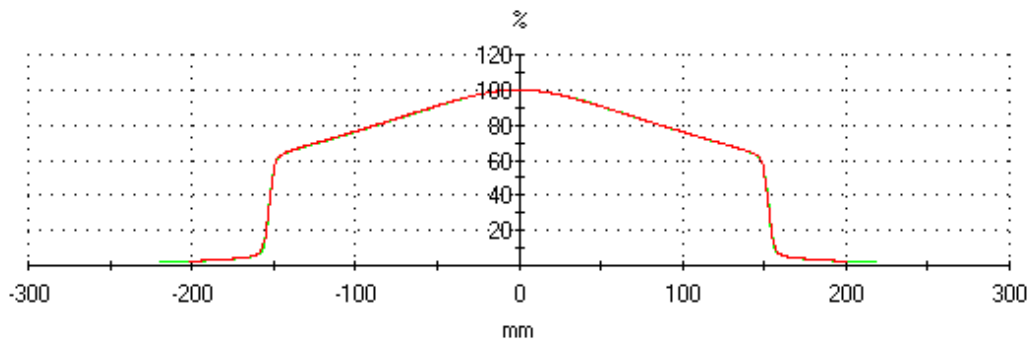
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



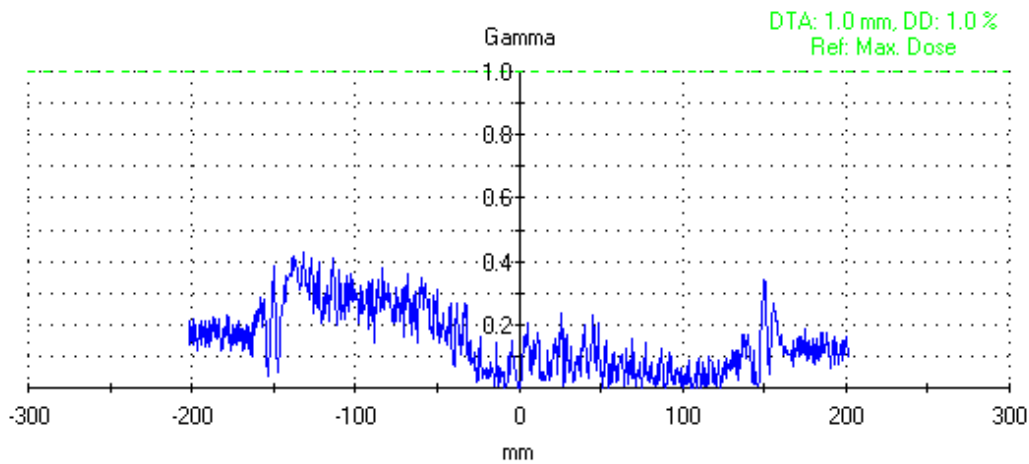
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-09-01 16:46

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	6.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	30.00 x 30.00
		Depth [mm]:	15.0
		Profile Type:	X Profile
		Wedge:	Open
		Raw/Processed:	Processed



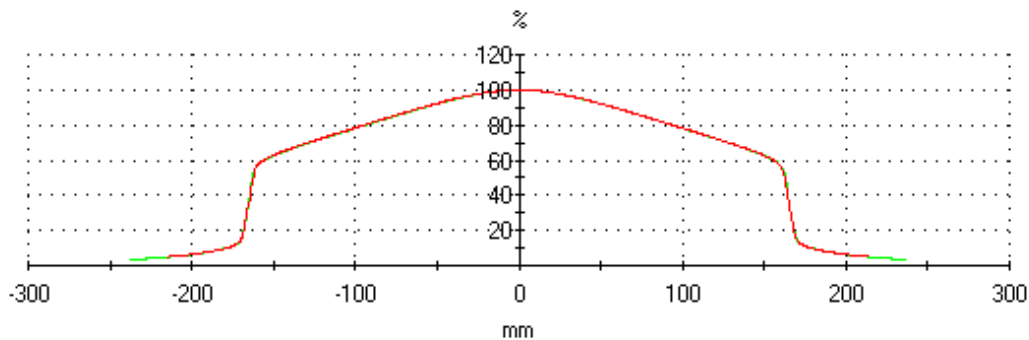
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



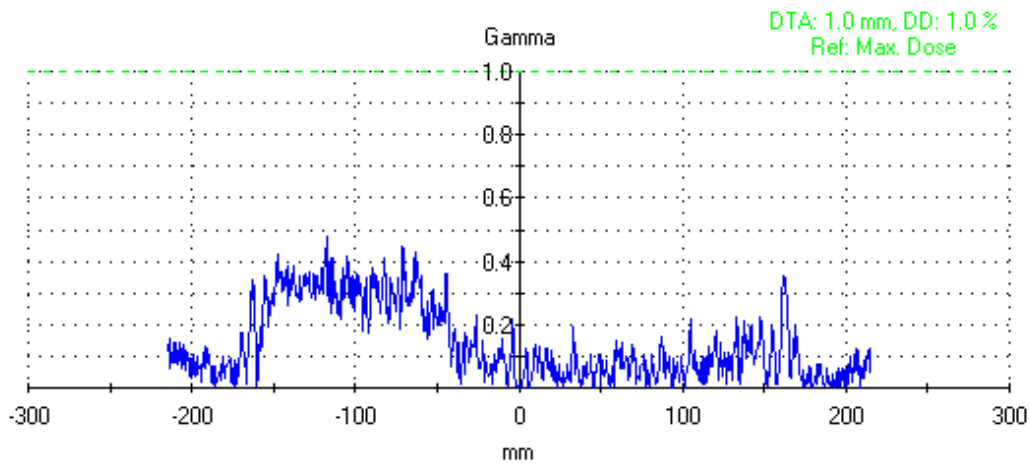
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-09-01 16:46

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	6.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	30.00 x 30.00
		Depth [mm]:	100.0
		Profile Type:	X Profile
		Wedge:	Open
		Raw/Processed:	Processed



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



Mephysto mcc - Report

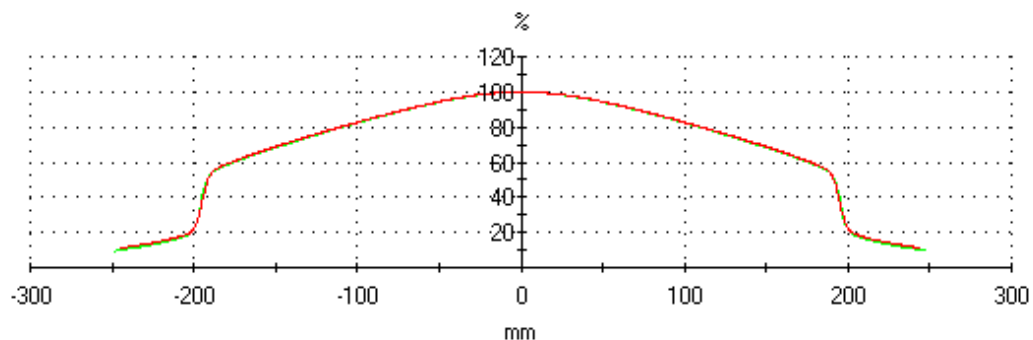
Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-09-01 16:48

Setup

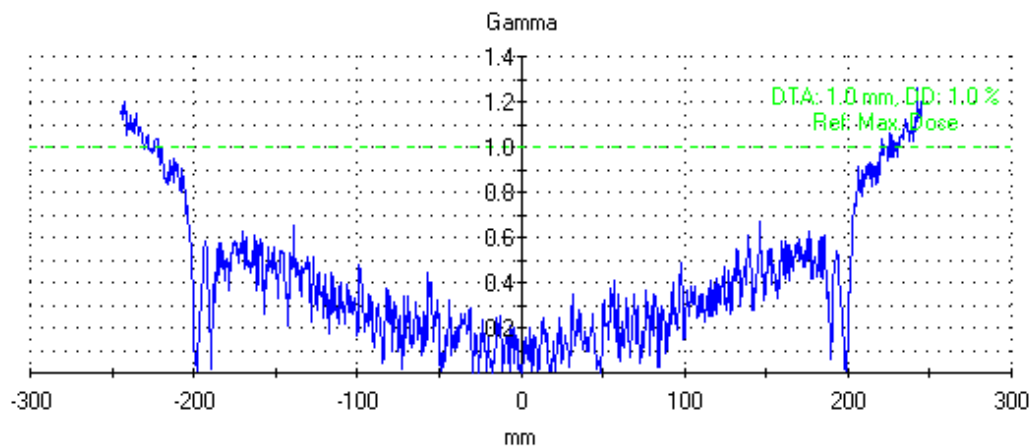
Modality: Photons
Measurement Date: *

Measurement Parameters

Energy [MV]: 6.0
Field Size Y x X [cm x cm]: 30.00 x 30.00
Depth [mm]: 300.0
Profile Type: X Profile
Wedge: Open
Raw/Processed: Processed



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



Mephysto mcc - Report

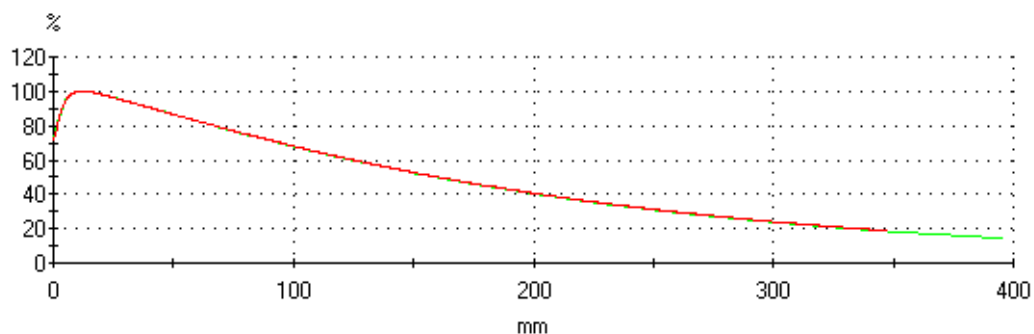
Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-09-01 16:11

Setup

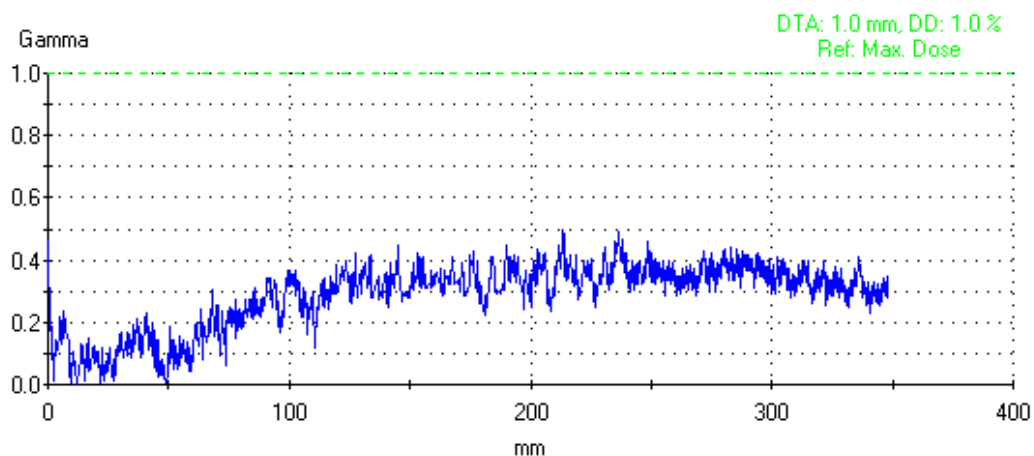
Modality: Photons
Measurement Date: *

Measurement Parameters

Energy [MV]: 6.0
Field Size Y x X [cm x cm]: 40.00 x 40.00
Depth [mm]:
Profile Type: PDD
Wedge: Open
Raw/Processed: Processed



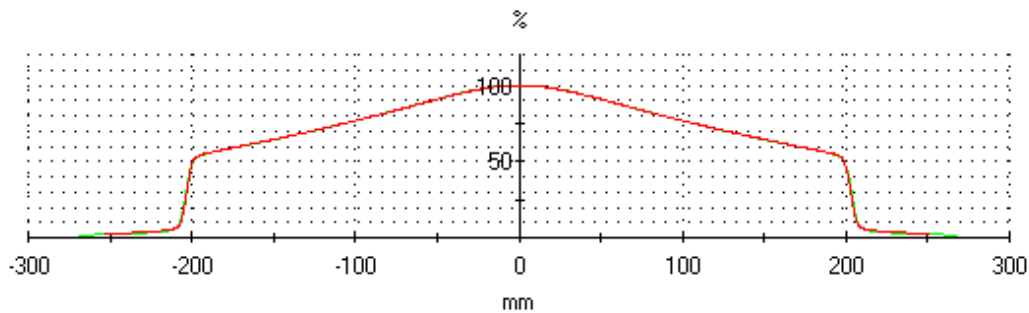
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



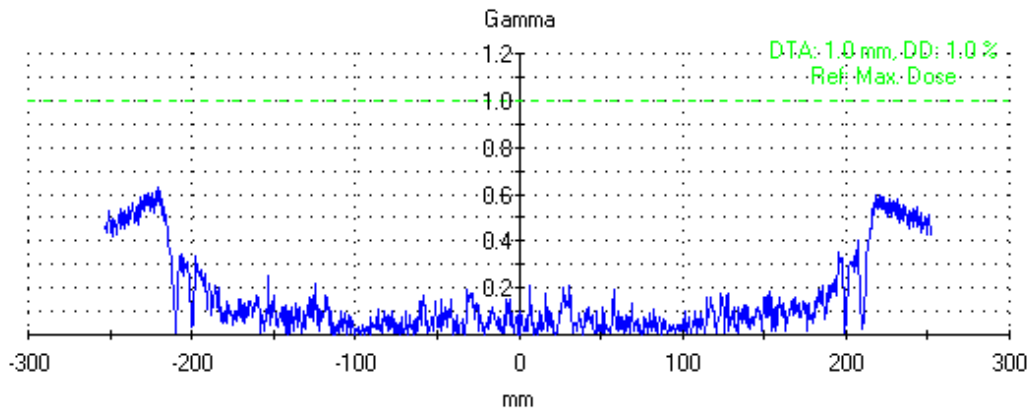
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-09-03 12:44

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	6.0
		Field Size Y x X [cm x cm]:	40.00 x 40.00
		Depth [mm]:	15.0
		Profile Type:	X Profile
		Meas.Angle [°]:	0.00
		SSD [cm]:	100.0



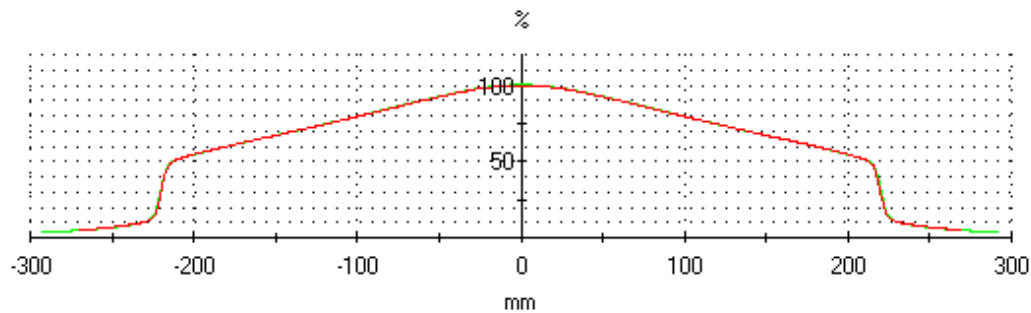
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



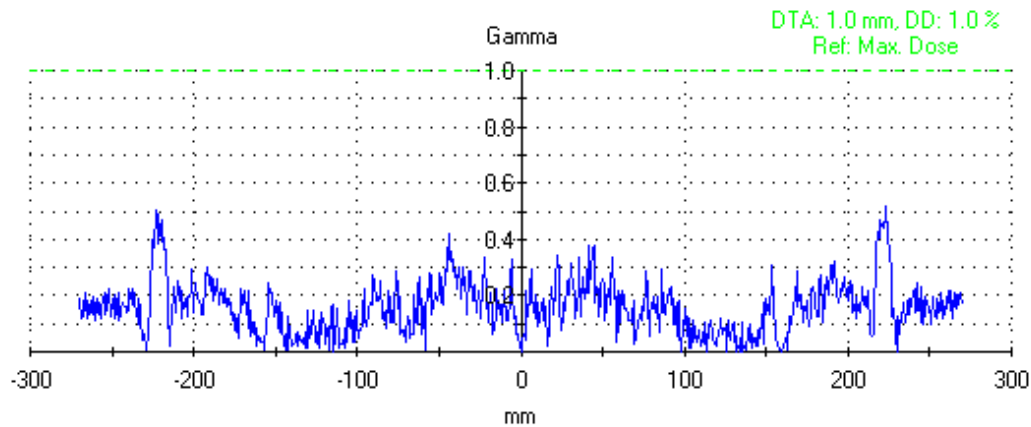
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-09-03 12:45

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	6.0
		Field Size Y x X [cm x cm]:	40.00 x 40.00
		Depth [mm]:	100.0
		Profile Type:	X Profile
		Meas.Angle [°]:	0.00
		SSD [cm]:	100.0



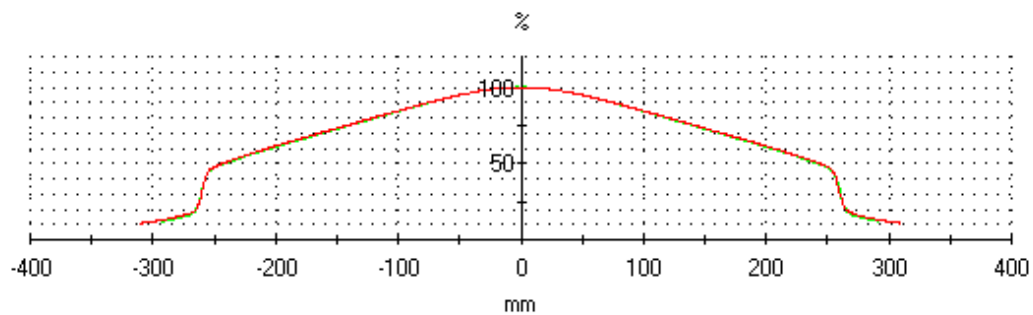
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



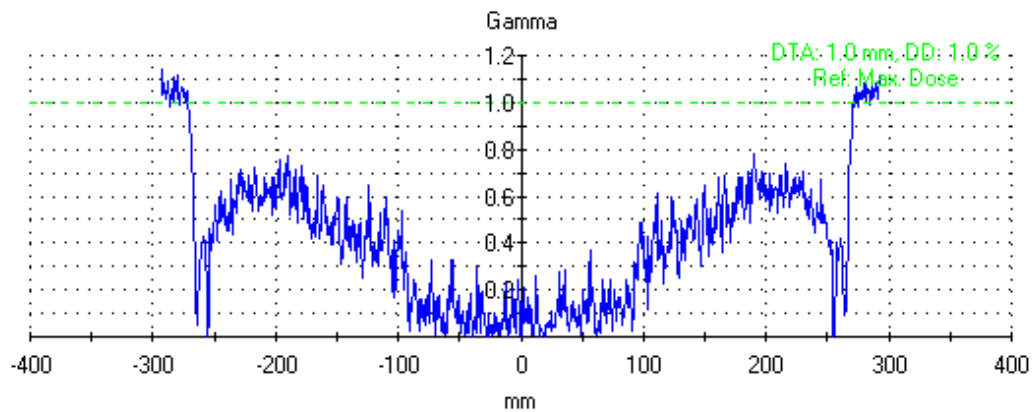
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-09-03 12:46

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	6.0
		Field Size Y x X [cm x cm]:	40.00 x 40.00
		Depth [mm]:	300.0
		Profile Type:	X Profile
		Meas.Angle [°]:	0.00
		SSD [cm]:	100.0



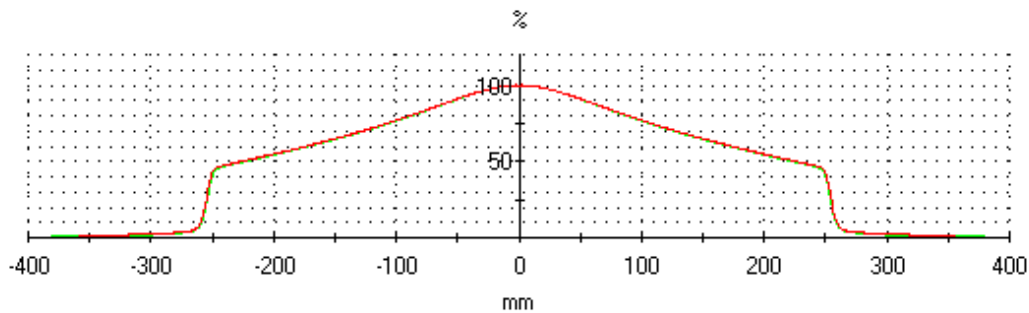
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



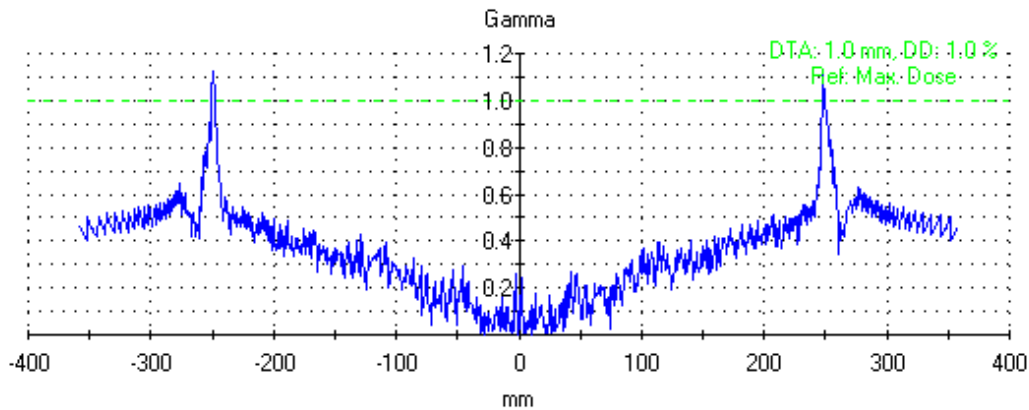
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-09-03 12:33

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	6.0
		Field Size Y x X [cm x cm]:	40.00 x 40.00
		Depth [mm]:	15.0
		Profile Type:	X Profile
		Meas.Angle [°]:	Diagonal
		SSD [cm]:	100.0



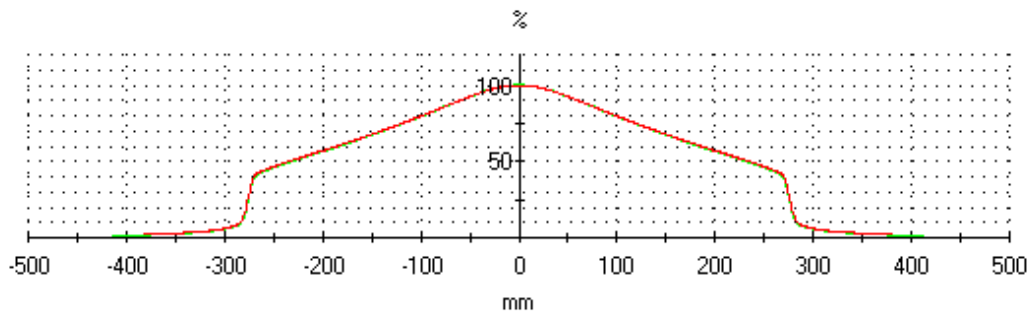
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



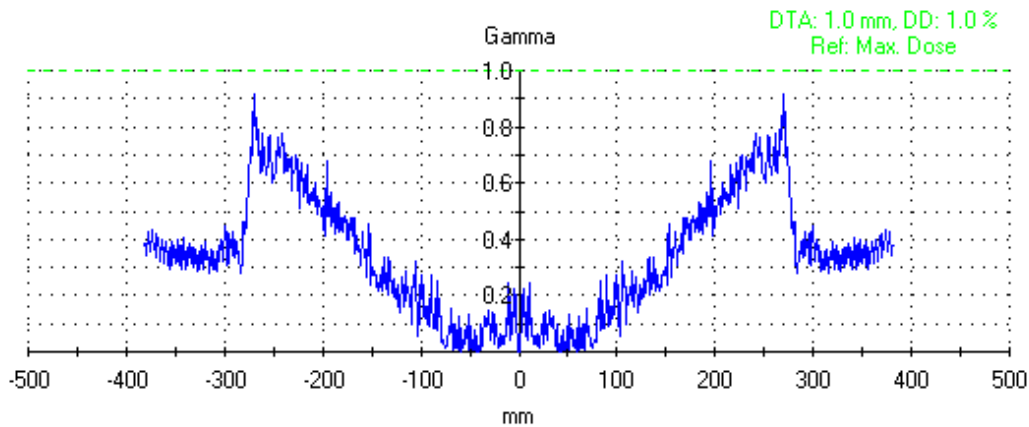
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-09-03 12:37

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	6.0
		Field Size Y x X [cm x cm]:	40.00 x 40.00
		Depth [mm]:	100.0
		Profile Type:	X Profile
		Meas.Angle [°]:	Diagonal
		SSD [cm]:	100.0



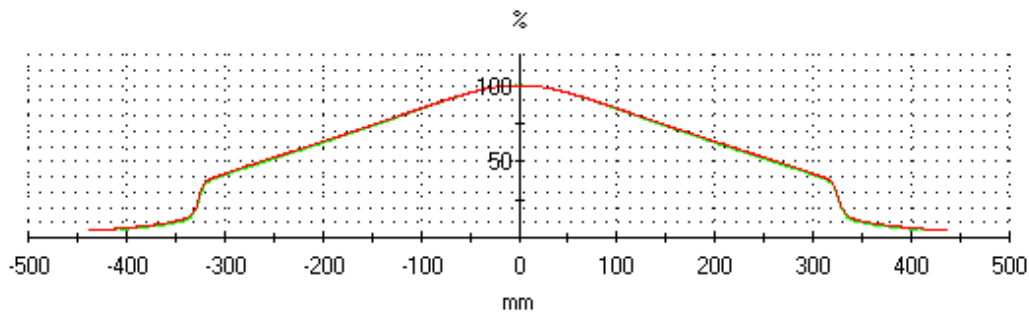
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



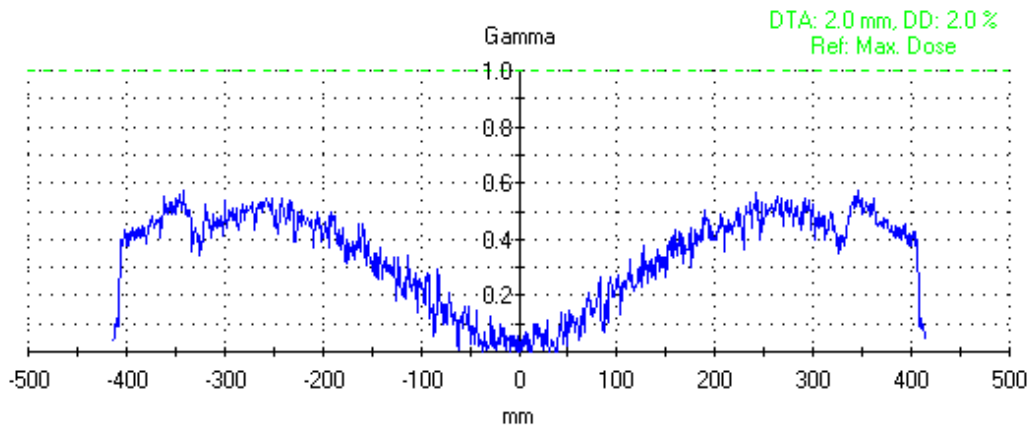
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-09-03 12:40

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	6.0
		Field Size Y x X [cm x cm]:	40.00 x 40.00
		Depth [mm]:	300.0
		Profile Type:	X Profile
		Meas.Angle [°]:	Diagonal
		SSD [cm]:	100.0



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



Photon Energies

10FFF TMR

Normalized to 2.4 cm	10FFF 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	0.384	0.388	0.391	0.398	0.405	0.411	0.417	0.423	0.429	
0.5	0.718	0.719	0.719	0.720	0.722	0.725	0.729	0.734	0.740	
1.0	0.900	0.894	0.887	0.888	0.889	0.891	0.893	0.895	0.897	
1.5	0.970	0.967	0.963	0.962	0.962	0.963	0.964	0.965	0.965	
2.0	0.994	0.993	0.992	0.992	0.991	0.992	0.992	0.992	0.992	
2.4	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2.5	0.999	0.999	1.000	1.000	1.000	1.001	1.001	1.001	1.001	
3.0	0.989	0.991	0.994	0.995	0.996	0.997	0.997	0.997	0.997	
3.5	0.976	0.979	0.982	0.984	0.985	0.986	0.987	0.988	0.988	
4.0	0.960	0.963	0.968	0.970	0.972	0.974	0.975	0.976	0.976	
4.5	0.939	0.944	0.952	0.955	0.958	0.960	0.962	0.963	0.964	
5.0	0.923	0.927	0.935	0.939	0.943	0.946	0.948	0.949	0.950	
5.5	0.906	0.911	0.919	0.924	0.928	0.931	0.934	0.936	0.937	
6.0	0.885	0.892	0.902	0.908	0.913	0.916	0.919	0.921	0.923	
6.5	0.869	0.875	0.885	0.892	0.897	0.901	0.905	0.907	0.910	
7.0	0.852	0.859	0.870	0.877	0.883	0.887	0.891	0.894	0.896	
7.5	0.834	0.841	0.853	0.861	0.867	0.872	0.876	0.880	0.883	
8.0	0.818	0.825	0.837	0.846	0.853	0.858	0.862	0.866	0.869	
8.5	0.802	0.809	0.822	0.830	0.838	0.844	0.848	0.853	0.855	
9.0	0.783	0.792	0.806	0.816	0.822	0.828	0.833	0.838	0.842	
9.5	0.770	0.778	0.791	0.800	0.808	0.815	0.820	0.825	0.829	
10.0	0.754	0.762	0.776	0.786	0.794	0.801	0.807	0.812	0.815	
10.5	0.739	0.747	0.761	0.771	0.780	0.787	0.792	0.797	0.801	
11.0	0.725	0.733	0.746	0.756	0.765	0.772	0.778	0.784	0.788	
11.5	0.709	0.718	0.733	0.744	0.752	0.760	0.766	0.771	0.775	
12.0	0.697	0.704	0.719	0.730	0.738	0.746	0.752	0.758	0.762	
12.5	0.684	0.691	0.705	0.716	0.725	0.732	0.739	0.745	0.749	
13.0	0.673	0.679	0.692	0.702	0.711	0.720	0.726	0.732	0.737	
13.5	0.656	0.664	0.678	0.690	0.699	0.707	0.713	0.719	0.724	
14.0	0.643	0.650	0.665	0.677	0.686	0.694	0.700	0.706	0.711	
14.5	0.632	0.639	0.653	0.664	0.673	0.681	0.688	0.695	0.700	
15.0	0.621	0.627	0.641	0.652	0.661	0.670	0.676	0.682	0.687	
15.5	0.609	0.615	0.629	0.640	0.649	0.658	0.664	0.670	0.675	
16.0	0.594	0.602	0.617	0.629	0.638	0.646	0.653	0.660	0.665	
16.5	0.586	0.592	0.605	0.616	0.625	0.634	0.642	0.649	0.654	
17.0	0.572	0.579	0.595	0.606	0.615	0.623	0.631	0.638	0.643	
17.5	0.561	0.568	0.583	0.594	0.603	0.612	0.619	0.627	0.632	
18.0	0.554	0.559	0.573	0.583	0.592	0.600	0.608	0.616	0.622	
18.5	0.541	0.547	0.561	0.572	0.581	0.590	0.598	0.605	0.611	
19.0	0.531	0.537	0.550	0.561	0.571	0.580	0.587	0.594	0.600	
19.5	0.520	0.526	0.540	0.552	0.561	0.570	0.577	0.584	0.589	
20.0	0.510	0.516	0.530	0.542	0.551	0.559	0.567	0.574	0.580	

Normalized to 2.4 cm	10FFF 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	0.501	0.507	0.521	0.531	0.540	0.548	0.556	0.563	0.569
21.0	0.491	0.497	0.511	0.522	0.530	0.539	0.546	0.553	0.559
21.5	0.485	0.489	0.502	0.512	0.521	0.530	0.537	0.544	0.550
22.0	0.477	0.480	0.493	0.502	0.511	0.520	0.527	0.534	0.540
22.5	0.467	0.471	0.484	0.493	0.502	0.510	0.518	0.525	0.531
23.0	0.457	0.462	0.475	0.485	0.493	0.501	0.508	0.515	0.522
23.5	0.447	0.452	0.466	0.477	0.484	0.492	0.499	0.506	0.513
24.0	0.439	0.444	0.457	0.468	0.476	0.483	0.491	0.498	0.504
24.5	0.434	0.438	0.450	0.459	0.467	0.475	0.483	0.489	0.496
25.0	0.426	0.429	0.441	0.450	0.459	0.467	0.474	0.481	0.487
25.5	0.418	0.421	0.434	0.443	0.451	0.459	0.466	0.472	0.478
26.0	0.407	0.412	0.425	0.436	0.443	0.451	0.457	0.464	0.470
26.5	0.401	0.405	0.418	0.427	0.434	0.442	0.449	0.456	0.463
27.0	0.395	0.399	0.411	0.420	0.428	0.435	0.442	0.448	0.454
27.5	0.388	0.391	0.403	0.412	0.420	0.427	0.434	0.440	0.446
28.0	0.380	0.384	0.396	0.405	0.413	0.420	0.426	0.432	0.439
28.5	0.375	0.377	0.389	0.397	0.405	0.412	0.418	0.425	0.431
29.0	0.366	0.370	0.382	0.391	0.398	0.405	0.412	0.417	0.423
29.5	0.361	0.364	0.376	0.384	0.391	0.398	0.404	0.410	0.417
30.0	0.355	0.357	0.369	0.376	0.384	0.391	0.397	0.404	0.410
30.5	0.348	0.351	0.363	0.370	0.377	0.384	0.390	0.396	0.402
31.0	0.341	0.344	0.355	0.363	0.371	0.378	0.384	0.390	0.395
31.5	0.336	0.338	0.350	0.357	0.365	0.371	0.377	0.383	0.389
32.0	0.330	0.333	0.344	0.352	0.359	0.365	0.371	0.377	0.382
32.5	0.327	0.328	0.338	0.345	0.352	0.358	0.364	0.370	0.375
33.0	0.319	0.322	0.332	0.339	0.346	0.353	0.358	0.364	0.369
33.5	0.313	0.316	0.326	0.333	0.340	0.347	0.353	0.358	0.363
34.0	0.307	0.309	0.320	0.328	0.334	0.341	0.346	0.352	0.357

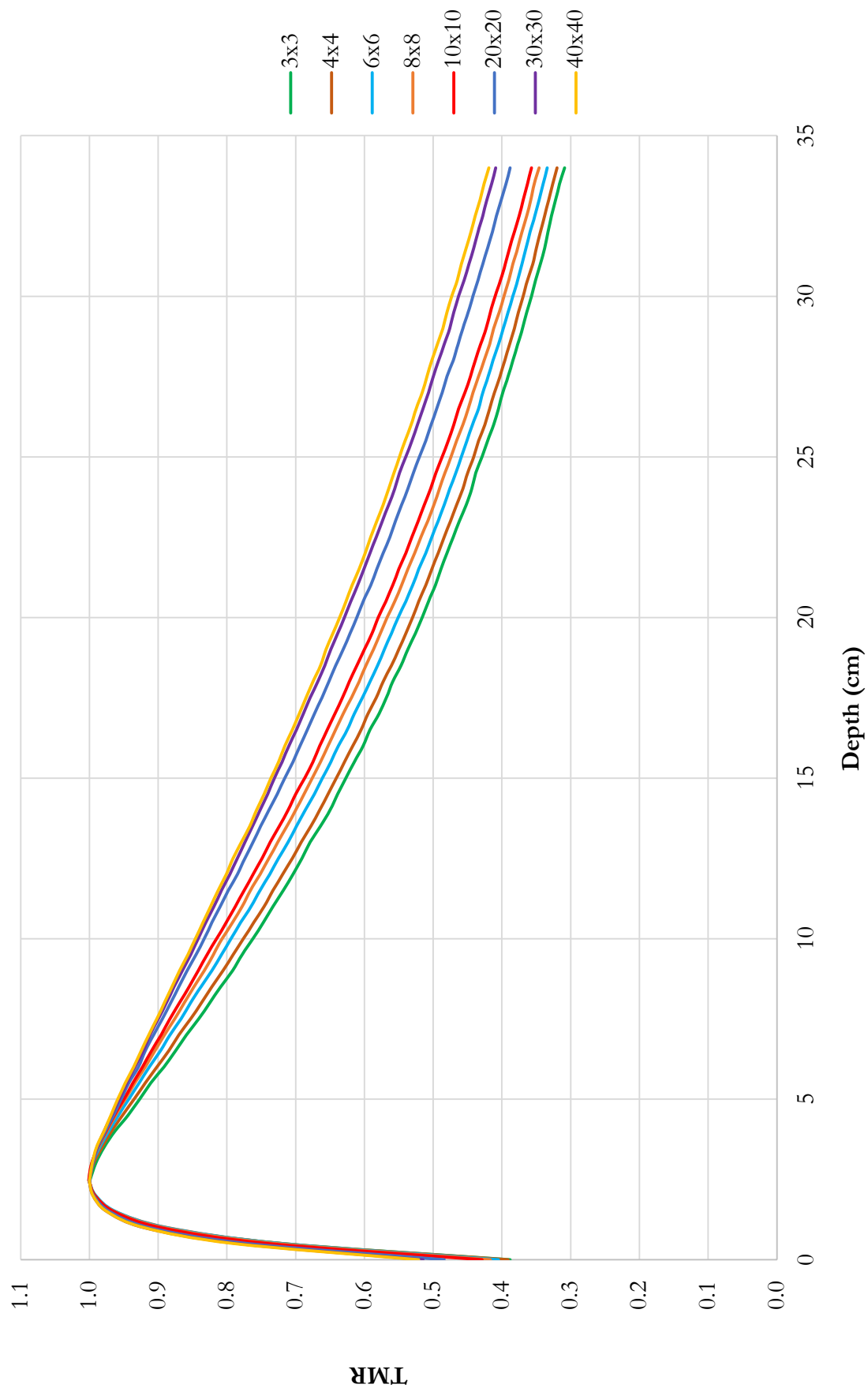
Normalized to 2.4 cm	10FFF TMR Open									
	Landauer Cancer Institute - Jackson, WY									
	Varian TrueBeam #9999									
Depth (cm)	11x11 (cm ²)	12x12 (cm ²)	13x13 (cm ²)	14x14 (cm ²)	15x15 (cm ²)	16x16 (cm ²)	17x17 (cm ²)	18x18 (cm ²)	19x19 (cm ²)	20x20 (cm ²)
0.0	0.434	0.440	0.445	0.451	0.456	0.462	0.467	0.473	0.478	0.484
0.5	0.743	0.746	0.749	0.752	0.755	0.758	0.761	0.764	0.767	0.770
1.0	0.898	0.900	0.902	0.903	0.905	0.906	0.908	0.910	0.911	0.913
1.5	0.965	0.966	0.967	0.967	0.968	0.968	0.969	0.970	0.970	0.971
2.0	0.992	0.993	0.993	0.993	0.993	0.993	0.993	0.994	0.994	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	1.001	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000
3.0	0.997	0.997	0.996	0.996	0.996	0.996	0.996	0.996	0.995	0.995
3.5	0.988	0.988	0.988	0.988	0.988	0.988	0.988	0.988	0.988	0.988
4.0	0.977	0.977	0.977	0.977	0.977	0.977	0.977	0.977	0.977	0.977
4.5	0.964	0.964	0.965	0.965	0.965	0.965	0.965	0.965	0.965	0.965
5.0	0.951	0.951	0.952	0.952	0.952	0.953	0.953	0.953	0.954	0.954
5.5	0.938	0.938	0.939	0.940	0.940	0.941	0.941	0.942	0.943	0.943
6.0	0.925	0.925	0.926	0.926	0.927	0.927	0.928	0.928	0.929	0.929
6.5	0.912	0.913	0.914	0.915	0.915	0.916	0.917	0.918	0.918	0.919
7.0	0.898	0.899	0.900	0.901	0.902	0.903	0.904	0.905	0.906	0.907
7.5	0.885	0.886	0.887	0.888	0.889	0.890	0.891	0.892	0.893	0.894
8.0	0.872	0.873	0.875	0.876	0.877	0.878	0.879	0.880	0.881	0.882
8.5	0.859	0.860	0.861	0.863	0.864	0.865	0.866	0.868	0.869	0.870
9.0	0.846	0.847	0.849	0.850	0.851	0.853	0.854	0.855	0.857	0.858
9.5	0.833	0.834	0.836	0.837	0.839	0.840	0.842	0.843	0.844	0.845
10.0	0.819	0.820	0.822	0.824	0.825	0.827	0.829	0.830	0.832	0.833
10.5	0.805	0.807	0.809	0.811	0.813	0.815	0.817	0.818	0.820	0.822
11.0	0.793	0.795	0.797	0.799	0.800	0.803	0.805	0.806	0.808	0.810
11.5	0.780	0.782	0.784	0.786	0.788	0.790	0.792	0.794	0.796	0.798
12.0	0.766	0.769	0.771	0.773	0.775	0.777	0.779	0.781	0.783	0.785
12.5	0.755	0.757	0.760	0.762	0.764	0.766	0.768	0.770	0.772	0.774
13.0	0.742	0.745	0.747	0.749	0.751	0.754	0.756	0.758	0.760	0.762
13.5	0.730	0.733	0.735	0.738	0.740	0.742	0.745	0.747	0.749	0.751
14.0	0.717	0.720	0.723	0.725	0.727	0.730	0.732	0.734	0.737	0.739
14.5	0.705	0.708	0.711	0.713	0.716	0.718	0.721	0.723	0.725	0.727
15.0	0.693	0.697	0.700	0.702	0.704	0.707	0.710	0.712	0.714	0.716
15.5	0.681	0.685	0.687	0.690	0.692	0.695	0.697	0.700	0.702	0.704
16.0	0.670	0.674	0.676	0.679	0.681	0.684	0.687	0.689	0.692	0.694
16.5	0.659	0.662	0.665	0.668	0.670	0.673	0.676	0.678	0.681	0.683
17.0	0.648	0.651	0.654	0.657	0.659	0.662	0.665	0.668	0.670	0.673
17.5	0.636	0.640	0.643	0.646	0.649	0.651	0.654	0.657	0.660	0.662
18.0	0.625	0.629	0.632	0.635	0.638	0.641	0.644	0.646	0.649	0.652
18.5	0.615	0.619	0.622	0.625	0.628	0.631	0.633	0.636	0.639	0.642
19.0	0.605	0.610	0.612	0.615	0.618	0.621	0.623	0.626	0.629	0.631
19.5	0.594	0.598	0.601	0.604	0.607	0.610	0.613	0.616	0.618	0.621
20.0	0.584	0.589	0.592	0.595	0.597	0.600	0.603	0.606	0.609	0.611

Normalized to 2.4 cm	10FFF TMR Open Landauer Cancer Institute - Jackson, WY Varian TrueBeam #9999									
	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	0.574	0.579	0.582	0.585	0.588	0.591	0.593	0.596	0.599	0.602
21.0	0.564	0.569	0.572	0.575	0.578	0.581	0.583	0.586	0.589	0.591
21.5	0.555	0.559	0.562	0.565	0.568	0.571	0.574	0.577	0.580	0.582
22.0	0.545	0.549	0.553	0.556	0.559	0.561	0.564	0.567	0.570	0.573
22.5	0.536	0.540	0.543	0.546	0.549	0.552	0.555	0.558	0.561	0.563
23.0	0.527	0.532	0.536	0.539	0.541	0.544	0.547	0.550	0.553	0.555
23.5	0.517	0.522	0.526	0.529	0.532	0.535	0.538	0.541	0.544	0.546
24.0	0.509	0.513	0.517	0.520	0.523	0.526	0.529	0.531	0.534	0.537
24.5	0.500	0.505	0.509	0.512	0.515	0.517	0.520	0.523	0.526	0.529
25.0	0.492	0.497	0.501	0.504	0.506	0.509	0.512	0.515	0.518	0.520
25.5	0.483	0.488	0.492	0.495	0.498	0.500	0.503	0.506	0.509	0.511
26.0	0.475	0.479	0.483	0.486	0.489	0.492	0.495	0.498	0.500	0.503
26.5	0.467	0.472	0.476	0.478	0.481	0.484	0.487	0.490	0.492	0.495
27.0	0.459	0.463	0.467	0.470	0.473	0.476	0.479	0.482	0.484	0.487
27.5	0.451	0.456	0.460	0.463	0.466	0.469	0.471	0.474	0.477	0.480
28.0	0.444	0.448	0.453	0.455	0.458	0.461	0.464	0.466	0.469	0.471
28.5	0.436	0.440	0.445	0.447	0.450	0.453	0.456	0.459	0.461	0.464
29.0	0.428	0.433	0.438	0.441	0.443	0.446	0.449	0.451	0.454	0.457
29.5	0.421	0.425	0.429	0.432	0.435	0.438	0.441	0.443	0.446	0.449
30.0	0.415	0.419	0.423	0.426	0.428	0.431	0.434	0.437	0.439	0.442
30.5	0.407	0.411	0.416	0.419	0.422	0.424	0.427	0.429	0.432	0.435
31.0	0.400	0.404	0.409	0.412	0.414	0.417	0.420	0.423	0.425	0.428
31.5	0.394	0.398	0.402	0.405	0.408	0.411	0.413	0.416	0.418	0.421
32.0	0.387	0.391	0.395	0.398	0.401	0.404	0.406	0.409	0.412	0.414
32.5	0.380	0.385	0.389	0.392	0.395	0.398	0.400	0.403	0.405	0.408
33.0	0.374	0.378	0.382	0.386	0.388	0.391	0.394	0.396	0.399	0.401
33.5	0.368	0.371	0.375	0.379	0.381	0.384	0.387	0.389	0.392	0.394
34.0	0.361	0.365	0.369	0.372	0.375	0.378	0.380	0.383	0.386	0.388

Normalized to 2.4 cm	10FFF 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	0.490	0.496	0.502	0.509	0.515	0.516	0.518	0.519	0.520	0.521
0.5	0.773	0.776	0.779	0.782	0.785	0.786	0.787	0.788	0.789	0.790
1.0	0.915	0.917	0.918	0.920	0.921	0.922	0.922	0.921	0.921	0.921
1.5	0.972	0.973	0.973	0.974	0.975	0.975	0.975	0.975	0.975	0.975
2.0	0.994	0.995	0.995	0.995	0.995	0.995	0.995	0.995	0.995	0.995
2.4	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2.5	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
3.0	0.995	0.995	0.996	0.996	0.996	0.996	0.996	0.996	0.996	0.996
3.5	0.988	0.988	0.988	0.988	0.989	0.989	0.989	0.989	0.989	0.990
4.0	0.977	0.977	0.978	0.978	0.979	0.979	0.979	0.979	0.979	0.979
4.5	0.966	0.966	0.967	0.968	0.968	0.968	0.969	0.969	0.969	0.969
5.0	0.955	0.955	0.956	0.956	0.957	0.957	0.957	0.958	0.958	0.959
5.5	0.944	0.945	0.945	0.946	0.946	0.947	0.947	0.947	0.948	0.948
6.0	0.930	0.931	0.932	0.933	0.934	0.934	0.935	0.935	0.936	0.936
6.5	0.920	0.921	0.921	0.922	0.922	0.923	0.923	0.924	0.925	0.925
7.0	0.909	0.909	0.910	0.911	0.912	0.912	0.913	0.913	0.914	0.914
7.5	0.896	0.897	0.898	0.899	0.900	0.900	0.901	0.901	0.902	0.902
8.0	0.884	0.885	0.886	0.887	0.888	0.889	0.890	0.890	0.891	0.891
8.5	0.872	0.873	0.875	0.876	0.877	0.879	0.879	0.879	0.880	0.880
9.0	0.861	0.862	0.863	0.864	0.865	0.866	0.867	0.867	0.868	0.869
9.5	0.848	0.849	0.850	0.852	0.853	0.854	0.855	0.855	0.857	0.857
10.0	0.837	0.838	0.839	0.841	0.842	0.844	0.844	0.844	0.845	0.846
10.5	0.826	0.827	0.828	0.830	0.831	0.832	0.833	0.833	0.834	0.835
11.0	0.814	0.815	0.817	0.818	0.819	0.821	0.822	0.822	0.823	0.824
11.5	0.802	0.803	0.805	0.807	0.808	0.809	0.810	0.811	0.812	0.813
12.0	0.789	0.791	0.793	0.795	0.796	0.798	0.799	0.800	0.801	0.801
12.5	0.778	0.780	0.782	0.784	0.785	0.787	0.788	0.789	0.790	0.791
13.0	0.767	0.769	0.771	0.773	0.774	0.776	0.777	0.777	0.778	0.779
13.5	0.756	0.758	0.760	0.762	0.763	0.765	0.766	0.766	0.767	0.767
14.0	0.743	0.746	0.748	0.750	0.752	0.753	0.755	0.755	0.756	0.757
14.5	0.732	0.735	0.737	0.739	0.741	0.743	0.744	0.745	0.746	0.746
15.0	0.721	0.724	0.726	0.729	0.731	0.732	0.734	0.735	0.735	0.736
15.5	0.709	0.713	0.715	0.717	0.720	0.722	0.723	0.724	0.725	0.725
16.0	0.699	0.703	0.705	0.707	0.710	0.711	0.713	0.714	0.715	0.716
16.5	0.688	0.692	0.694	0.696	0.699	0.700	0.702	0.703	0.704	0.705
17.0	0.678	0.682	0.684	0.686	0.689	0.690	0.692	0.693	0.694	0.695
17.5	0.668	0.673	0.675	0.677	0.679	0.681	0.682	0.684	0.684	0.685
18.0	0.657	0.662	0.664	0.666	0.668	0.670	0.672	0.673	0.674	0.675
18.5	0.647	0.652	0.654	0.656	0.658	0.660	0.662	0.663	0.664	0.664
19.0	0.637	0.642	0.644	0.646	0.649	0.651	0.653	0.655	0.655	0.656
19.5	0.627	0.632	0.634	0.637	0.639	0.641	0.643	0.645	0.646	0.646
20.0	0.617	0.622	0.624	0.627	0.629	0.631	0.633	0.635	0.635	0.636

Normalized to 2.4 cm	10FFF 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	0.607	0.613	0.615	0.618	0.620	0.622	0.624	0.626	0.627	0.627
21.0	0.596	0.602	0.604	0.607	0.610	0.612	0.614	0.616	0.617	0.618
21.5	0.588	0.593	0.596	0.598	0.601	0.603	0.605	0.607	0.608	0.608
22.0	0.578	0.584	0.587	0.589	0.592	0.594	0.595	0.597	0.599	0.599
22.5	0.569	0.575	0.578	0.580	0.583	0.585	0.587	0.589	0.590	0.591
23.0	0.561	0.566	0.569	0.572	0.574	0.576	0.578	0.581	0.582	0.582
23.5	0.552	0.558	0.561	0.563	0.565	0.568	0.569	0.571	0.573	0.573
24.0	0.543	0.548	0.552	0.554	0.556	0.558	0.560	0.562	0.564	0.565
24.5	0.535	0.540	0.544	0.546	0.549	0.551	0.553	0.555	0.557	0.557
25.0	0.526	0.531	0.535	0.538	0.540	0.542	0.545	0.547	0.549	0.549
25.5	0.517	0.522	0.526	0.529	0.531	0.534	0.536	0.538	0.541	0.541
26.0	0.509	0.514	0.519	0.521	0.523	0.525	0.527	0.529	0.532	0.532
26.5	0.500	0.506	0.510	0.513	0.515	0.517	0.520	0.522	0.524	0.525
27.0	0.492	0.498	0.502	0.505	0.507	0.509	0.511	0.513	0.516	0.516
27.5	0.485	0.490	0.495	0.497	0.500	0.502	0.504	0.506	0.508	0.509
28.0	0.477	0.482	0.487	0.489	0.492	0.494	0.496	0.499	0.501	0.502
28.5	0.469	0.475	0.480	0.482	0.484	0.486	0.488	0.490	0.493	0.494
29.0	0.462	0.467	0.472	0.474	0.476	0.479	0.481	0.483	0.485	0.486
29.5	0.454	0.460	0.465	0.467	0.470	0.472	0.474	0.476	0.479	0.480
30.0	0.447	0.453	0.458	0.460	0.463	0.465	0.467	0.469	0.471	0.473
30.5	0.440	0.445	0.450	0.452	0.455	0.457	0.459	0.461	0.463	0.465
31.0	0.433	0.438	0.443	0.446	0.448	0.450	0.452	0.454	0.457	0.459
31.5	0.426	0.431	0.436	0.439	0.441	0.443	0.446	0.448	0.450	0.452
32.0	0.419	0.424	0.430	0.432	0.435	0.437	0.439	0.441	0.443	0.445
32.5	0.413	0.418	0.423	0.426	0.428	0.430	0.432	0.434	0.437	0.439
33.0	0.406	0.411	0.417	0.420	0.422	0.424	0.426	0.428	0.430	0.432
33.5	0.399	0.405	0.410	0.413	0.415	0.417	0.419	0.421	0.424	0.426
34.0	0.394	0.399	0.404	0.407	0.409	0.411	0.413	0.415	0.417	0.419

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



Photon Energies

10FFF PDD

Normalized to 2.4 cm	10FFF 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	40.2	40.6	41.0	41.7	42.4	43.1	43.7	44.3	44.9
0.5	74.4	74.4	74.5	74.7	75.0	75.3	75.6	76.2	76.8
1.0	92.4	91.7	91.1	91.2	91.4	91.6	91.8	92.0	92.1
1.5	98.6	98.3	97.9	97.9	97.9	98.0	98.1	98.1	98.2
2.0	100.2	100.1	100.0	99.9	99.9	100.0	100.0	100.0	100.0
2.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2.5	99.7	99.8	99.8	99.8	99.8	99.9	99.9	99.9	99.9
3.0	97.9	98.1	98.3	98.4	98.5	98.5	98.6	98.6	98.5
3.5	95.7	96.0	96.2	96.4	96.5	96.6	96.7	96.7	96.7
4.0	93.2	93.6	94.0	94.2	94.3	94.5	94.6	94.7	94.7
4.5	90.4	91.0	91.6	91.8	92.1	92.3	92.5	92.6	92.6
5.0	88.0	88.6	89.2	89.5	89.8	90.1	90.3	90.4	90.5
5.5	85.6	86.2	86.9	87.2	87.6	87.9	88.2	88.3	88.4
6.0	82.9	83.7	84.5	85.0	85.4	85.7	85.9	86.1	86.4
6.5	80.7	81.5	82.3	82.8	83.2	83.6	83.9	84.1	84.4
7.0	78.5	79.3	80.1	80.6	81.2	81.6	82.0	82.2	82.3
7.5	76.1	77.0	77.9	78.5	79.0	79.4	79.9	80.2	80.4
8.0	74.0	74.9	75.8	76.4	77.1	77.5	77.9	78.2	78.5
8.5	71.9	72.9	73.8	74.4	75.0	75.5	76.0	76.3	76.6
9.0	69.7	70.8	71.8	72.4	73.0	73.5	74.0	74.4	74.8
9.5	68.0	68.9	69.8	70.5	71.2	71.7	72.2	72.6	73.0
10.0	65.9	66.9	67.9	68.6	69.3	69.9	70.5	70.8	71.1
10.5	64.1	65.1	66.1	66.8	67.5	68.1	68.6	69.0	69.3
11.0	62.4	63.3	64.2	65.0	65.7	66.3	66.8	67.3	67.7
11.5	60.5	61.6	62.6	63.3	64.0	64.6	65.2	65.6	66.0
12.0	58.9	59.9	60.9	61.6	62.4	62.9	63.5	63.9	64.3
12.5	57.4	58.3	59.2	60.0	60.7	61.3	61.9	62.4	62.8
13.0	56.0	56.8	57.6	58.3	59.1	59.7	60.3	60.8	61.2
13.5	54.2	55.1	56.1	56.8	57.6	58.2	58.8	59.3	59.7
14.0	52.6	53.6	54.5	55.3	56.0	56.6	57.2	57.7	58.2
14.5	51.3	52.2	53.1	53.8	54.6	55.2	55.9	56.3	56.8
15.0	50.0	50.8	51.7	52.4	53.2	53.8	54.4	54.9	55.4
15.5	48.6	49.5	50.3	51.1	51.8	52.4	53.0	53.5	54.0
16.0	47.1	48.1	49.0	49.8	50.5	51.1	51.8	52.2	52.6
16.5	46.0	46.8	47.6	48.4	49.1	49.9	50.6	50.9	51.3
17.0	44.7	45.6	46.5	47.2	47.9	48.6	49.3	49.7	50.1
17.5	43.4	44.3	45.2	45.9	46.6	47.4	48.1	48.4	48.8
18.0	42.5	43.2	44.0	44.7	45.4	46.2	46.9	47.2	47.5
18.5	41.2	42.0	42.8	43.6	44.3	45.0	45.7	46.1	46.4
19.0	40.1	40.9	41.7	42.4	43.2	43.8	44.5	44.9	45.3
19.5	39.0	39.8	40.6	41.4	42.1	42.7	43.4	43.8	44.1
20.0	38.0	38.8	39.6	40.3	41.0	41.7	42.3	42.7	43.1

Normalized to 2.4 cm	10FFF 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	37.0	37.8	38.5	39.2	39.9	40.6	41.2	41.6	42.0
21.0	36.0	36.8	37.5	38.2	38.9	39.5	40.2	40.6	41.0
21.5	35.2	35.9	36.5	37.3	38.0	38.6	39.2	39.6	40.0
22.0	34.3	35.0	35.6	36.3	37.0	37.6	38.2	38.6	39.0
22.5	33.4	34.0	34.6	35.3	36.0	36.7	37.3	37.7	38.0
23.0	32.5	33.2	33.8	34.5	35.1	35.7	36.4	36.8	37.2
23.5	31.5	32.3	33.0	33.6	34.2	34.8	35.5	35.8	36.2
24.0	30.7	31.4	32.1	32.8	33.4	34.0	34.6	35.0	35.3
24.5	30.1	30.7	31.3	31.9	32.6	33.2	33.8	34.1	34.5
25.0	29.3	29.9	30.4	31.1	31.8	32.4	32.9	33.3	33.7
25.5	28.6	29.1	29.7	30.4	31.0	31.5	32.1	32.5	32.9
26.0	27.7	28.3	29.0	29.6	30.2	30.8	31.3	31.7	32.0
26.5	27.1	27.6	28.2	28.8	29.4	30.0	30.6	31.0	31.3
27.0	26.4	27.0	27.6	28.2	28.8	29.3	29.8	30.2	30.5
27.5	25.8	26.3	26.9	27.4	28.0	28.6	29.1	29.5	29.8
28.0	25.1	25.6	26.2	26.8	27.3	27.9	28.4	28.8	29.1
28.5	24.5	25.0	25.5	26.1	26.6	27.2	27.7	28.1	28.4
29.0	23.8	24.4	24.9	25.5	26.0	26.5	27.0	27.4	27.8
29.5	23.3	23.8	24.3	24.8	25.3	25.9	26.4	26.7	27.0
30.0	22.7	23.2	23.7	24.2	24.7	25.3	25.8	26.1	26.4
30.5	22.1	22.6	23.1	23.6	24.1	24.6	25.1	25.5	25.8
31.0	21.5	22.0	22.5	23.1	23.6	24.1	24.5	24.9	25.2
31.5	21.0	21.5	22.0	22.5	23.0	23.5	24.0	24.3	24.6
32.0	20.5	21.0	21.5	22.0	22.4	22.9	23.4	23.7	24.0
32.5	20.1	20.5	20.9	21.4	21.9	22.4	22.8	23.2	23.5
33.0	19.6	20.0	20.5	20.9	21.4	21.8	22.3	22.6	22.9
33.5	19.1	19.5	20.0	20.4	20.9	21.3	21.8	22.1	22.3
34.0	18.6	19.0	19.5	19.9	20.4	20.8	21.2	21.5	21.8

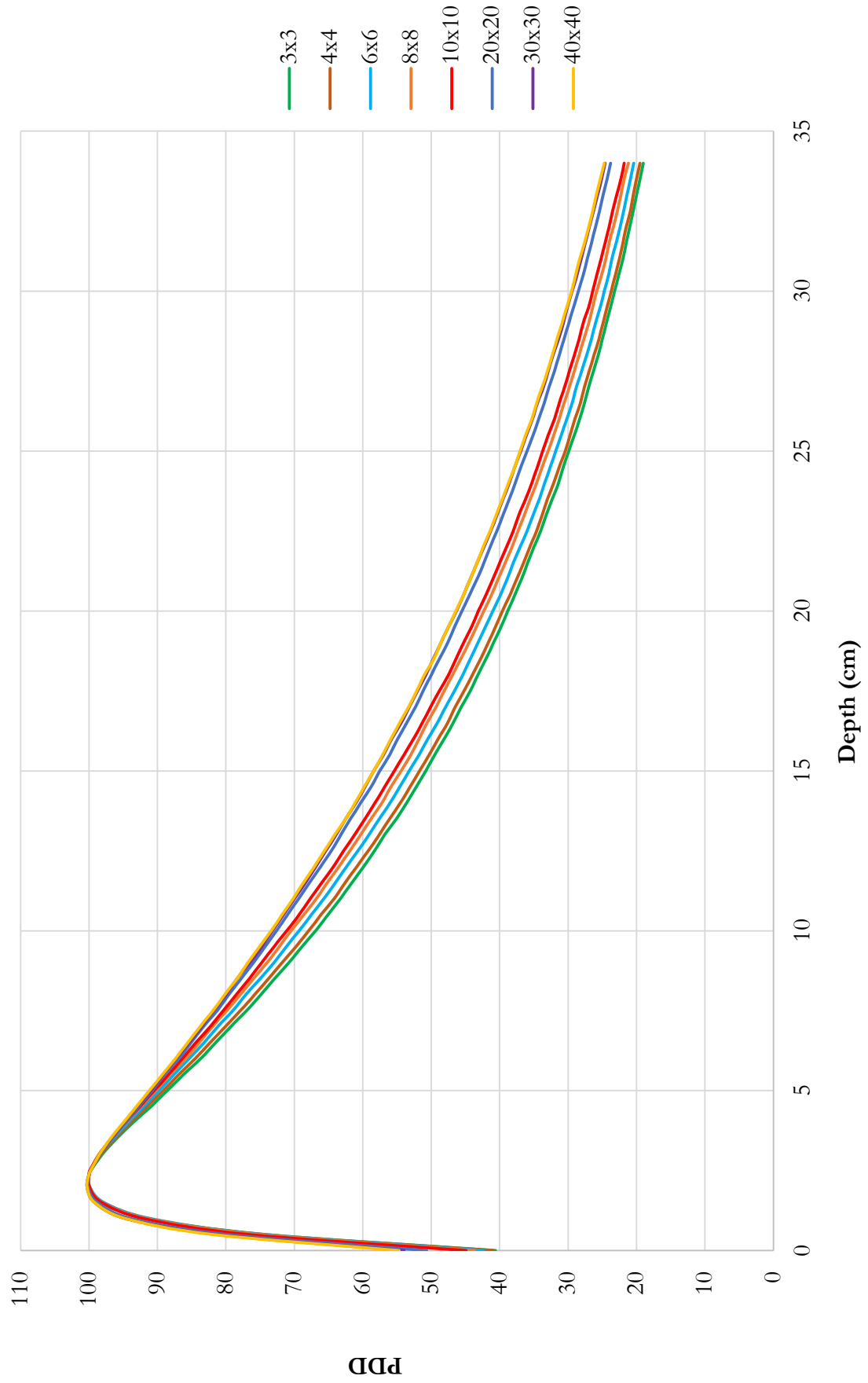
Normalized to 2.4 cm	10FFF PDD Open									
	Landauer Cancer Institute - Jackson, WY									
	Varian TrueBeam #9999									
Depth (cm)	11x11 (cm ²)	12x12 (cm ²)	13x13 (cm ²)	14x14 (cm ²)	15x15 (cm ²)	16x16 (cm ²)	17x17 (cm ²)	18x18 (cm ²)	19x19 (cm ²)	20x20 (cm ²)
0.0	45.5	46.1	46.7	47.2	47.8	48.4	49.0	49.5	50.1	50.7
0.5	77.1	77.4	77.7	78.0	78.4	78.7	79.0	79.3	79.6	79.9
1.0	92.3	92.5	92.7	92.8	93.0	93.2	93.3	93.5	93.7	93.9
1.5	98.2	98.3	98.4	98.4	98.5	98.6	98.6	98.7	98.8	98.8
2.0	100.0	100.0	100.1	100.1	100.1	100.1	100.1	100.1	100.2	100.2
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	99.8	99.8	99.8	99.8	99.8
3.0	98.5	98.5	98.5	98.5	98.5	98.4	98.4	98.4	98.4	98.4
3.5	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7
4.0	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7
4.5	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.8	92.8
5.0	90.5	90.5	90.6	90.6	90.6	90.7	90.7	90.8	90.8	90.8
5.5	88.4	88.5	88.6	88.6	88.7	88.7	88.8	88.9	88.9	89.0
6.0	86.4	86.5	86.5	86.6	86.6	86.7	86.7	86.8	86.8	86.9
6.5	84.5	84.5	84.6	84.7	84.8	84.8	84.9	85.0	85.1	85.1
7.0	82.4	82.5	82.6	82.7	82.8	82.9	83.0	83.1	83.2	83.3
7.5	80.5	80.6	80.7	80.8	80.9	81.0	81.1	81.2	81.3	81.3
8.0	78.6	78.7	78.8	78.9	79.0	79.1	79.2	79.4	79.5	79.6
8.5	76.7	76.8	77.0	77.1	77.2	77.3	77.4	77.5	77.6	77.8
9.0	74.9	75.0	75.2	75.3	75.4	75.5	75.7	75.8	75.9	76.0
9.5	73.1	73.3	73.4	73.5	73.6	73.8	73.9	74.0	74.2	74.3
10.0	71.3	71.4	71.6	71.7	71.9	72.0	72.2	72.3	72.5	72.6
10.5	69.5	69.7	69.8	70.0	70.2	70.3	70.5	70.7	70.9	71.0
11.0	67.8	68.0	68.2	68.4	68.5	68.7	68.9	69.1	69.2	69.4
11.5	66.2	66.4	66.5	66.7	66.9	67.1	67.2	67.4	67.6	67.8
12.0	64.5	64.7	64.9	65.1	65.2	65.4	65.6	65.8	66.0	66.2
12.5	63.0	63.2	63.4	63.6	63.7	63.9	64.1	64.3	64.5	64.6
13.0	61.4	61.6	61.8	62.0	62.2	62.4	62.6	62.8	63.0	63.2
13.5	59.9	60.1	60.3	60.5	60.7	60.9	61.2	61.4	61.6	61.8
14.0	58.4	58.6	58.8	59.0	59.2	59.4	59.6	59.8	60.1	60.3
14.5	57.0	57.2	57.4	57.6	57.8	58.0	58.2	58.4	58.6	58.8
15.0	55.6	55.8	56.0	56.2	56.4	56.7	56.9	57.1	57.3	57.5
15.5	54.2	54.4	54.6	54.8	55.0	55.2	55.5	55.7	55.9	56.1
16.0	52.9	53.1	53.3	53.5	53.7	54.0	54.2	54.4	54.6	54.9
16.5	51.6	51.8	52.0	52.2	52.4	52.7	52.9	53.1	53.3	53.6
17.0	50.3	50.5	50.7	51.0	51.2	51.4	51.7	51.9	52.1	52.3
17.5	49.0	49.3	49.5	49.7	50.0	50.2	50.5	50.7	50.9	51.2
18.0	47.8	48.0	48.3	48.5	48.8	49.0	49.3	49.5	49.7	50.0
18.5	46.7	46.9	47.1	47.4	47.6	47.9	48.1	48.3	48.6	48.8
19.0	45.6	45.8	46.0	46.3	46.5	46.7	46.9	47.2	47.4	47.6
19.5	44.4	44.6	44.9	45.1	45.4	45.6	45.8	46.1	46.3	46.6
20.0	43.3	43.6	43.8	44.0	44.3	44.5	44.7	45.0	45.2	45.5

Normalized to 2.4 cm	10FFF 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	42.3	42.5	42.8	43.0	43.2	43.5	43.7	44.0	44.2	44.4
21.0	41.3	41.5	41.7	41.9	42.2	42.4	42.6	42.8	43.1	43.3
21.5	40.2	40.5	40.7	40.9	41.2	41.4	41.6	41.9	42.1	42.3
22.0	39.2	39.5	39.7	39.9	40.2	40.4	40.7	40.9	41.1	41.4
22.5	38.3	38.5	38.7	39.0	39.2	39.5	39.7	39.9	40.2	40.4
23.0	37.4	37.7	37.9	38.1	38.4	38.6	38.8	39.0	39.3	39.5
23.5	36.5	36.7	37.0	37.2	37.4	37.7	37.9	38.1	38.4	38.6
24.0	35.6	35.8	36.0	36.3	36.5	36.7	37.0	37.2	37.5	37.7
24.5	34.7	35.0	35.2	35.5	35.7	35.9	36.2	36.4	36.6	36.9
25.0	33.9	34.2	34.4	34.6	34.8	35.1	35.3	35.5	35.8	36.0
25.5	33.1	33.3	33.6	33.8	34.0	34.2	34.4	34.7	34.9	35.1
26.0	32.3	32.5	32.7	33.0	33.2	33.4	33.6	33.9	34.1	34.3
26.5	31.5	31.7	32.0	32.2	32.4	32.6	32.9	33.1	33.3	33.5
27.0	30.8	31.0	31.2	31.4	31.6	31.9	32.1	32.3	32.5	32.8
27.5	30.0	30.3	30.5	30.7	30.9	31.2	31.4	31.6	31.8	32.0
28.0	29.3	29.6	29.8	30.0	30.2	30.4	30.6	30.8	31.0	31.3
28.5	28.6	28.8	29.1	29.3	29.5	29.7	29.9	30.1	30.4	30.6
29.0	28.0	28.2	28.4	28.6	28.8	29.0	29.2	29.4	29.6	29.9
29.5	27.2	27.5	27.7	27.9	28.1	28.3	28.5	28.8	29.0	29.2
30.0	26.6	26.9	27.1	27.3	27.5	27.7	27.9	28.1	28.3	28.5
30.5	26.0	26.2	26.4	26.6	26.8	27.0	27.2	27.4	27.6	27.8
31.0	25.4	25.6	25.8	26.0	26.2	26.4	26.6	26.8	27.0	27.2
31.5	24.8	25.0	25.2	25.4	25.6	25.8	26.0	26.2	26.4	26.6
32.0	24.2	24.4	24.6	24.8	25.0	25.2	25.4	25.6	25.8	26.0
32.5	23.7	23.9	24.1	24.3	24.5	24.7	24.9	25.1	25.2	25.4
33.0	23.1	23.3	23.5	23.7	23.9	24.1	24.3	24.5	24.7	24.9
33.5	22.5	22.7	22.9	23.1	23.3	23.5	23.7	23.9	24.1	24.3
34.0	22.0	22.2	22.4	22.6	22.8	23.0	23.2	23.4	23.6	23.8

Normalized to 2.4 cm	10FFF 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	51.3	52.0	52.7	53.3	54.0	54.1	54.3	54.4	54.5	54.7
0.5	80.2	80.5	80.9	81.2	81.5	81.6	81.7	81.8	81.9	82.0
1.0	94.0	94.2	94.4	94.5	94.7	94.7	94.7	94.7	94.7	94.7
1.5	98.9	99.0	99.1	99.2	99.2	99.2	99.2	99.2	99.2	99.2
2.0	100.2	100.2	100.3	100.3	100.3	100.3	100.3	100.3	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	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
3.0	98.4	98.4	98.4	98.5	98.5	98.5	98.5	98.5	98.5	98.5
3.5	96.7	96.8	96.8	96.8	96.8	96.8	96.8	96.9	96.9	96.9
4.0	94.8	94.8	94.8	94.9	94.9	94.9	94.9	94.9	94.9	95.0
4.5	92.8	92.9	92.9	93.0	93.0	93.0	93.0	93.1	93.1	93.1
5.0	90.9	90.9	91.0	91.0	91.0	91.1	91.1	91.2	91.2	91.2
5.5	89.0	89.1	89.1	89.2	89.2	89.3	89.3	89.3	89.3	89.3
6.0	86.9	87.0	87.1	87.2	87.3	87.3	87.3	87.3	87.3	87.4
6.5	85.2	85.2	85.3	85.3	85.4	85.4	85.5	85.5	85.6	85.6
7.0	83.3	83.4	83.5	83.6	83.6	83.6	83.7	83.7	83.7	83.8
7.5	81.4	81.5	81.6	81.7	81.8	81.8	81.8	81.9	81.9	81.9
8.0	79.7	79.7	79.8	79.9	80.0	80.1	80.1	80.1	80.2	80.2
8.5	77.9	78.0	78.1	78.2	78.4	78.4	78.4	78.4	78.4	78.4
9.0	76.1	76.2	76.3	76.4	76.5	76.6	76.6	76.7	76.7	76.8
9.5	74.4	74.5	74.6	74.7	74.8	74.9	74.9	75.0	75.1	75.1
10.0	72.7	72.9	73.0	73.1	73.2	73.3	73.3	73.3	73.3	73.4
10.5	71.1	71.2	71.4	71.5	71.6	71.6	71.7	71.7	71.7	71.8
11.0	69.5	69.6	69.8	69.9	70.0	70.0	70.1	70.1	70.1	70.2
11.5	67.9	68.0	68.2	68.3	68.4	68.5	68.5	68.6	68.6	68.7
12.0	66.3	66.5	66.6	66.7	66.9	66.9	67.0	67.0	67.1	67.1
12.5	64.8	64.9	65.1	65.3	65.4	65.5	65.5	65.5	65.6	65.6
13.0	63.3	63.5	63.6	63.8	63.9	63.9	64.0	64.0	64.0	64.1
13.5	61.9	62.0	62.2	62.3	62.5	62.5	62.5	62.5	62.5	62.5
14.0	60.4	60.6	60.7	60.9	61.0	61.1	61.1	61.1	61.1	61.1
14.5	59.0	59.2	59.3	59.5	59.7	59.7	59.7	59.7	59.8	59.8
15.0	57.7	57.8	58.0	58.2	58.4	58.4	58.4	58.4	58.4	58.4
15.5	56.3	56.5	56.7	56.8	57.0	57.0	57.0	57.1	57.1	57.1
16.0	55.0	55.2	55.4	55.6	55.8	55.8	55.8	55.8	55.8	55.9
16.5	53.7	53.9	54.1	54.3	54.4	54.5	54.5	54.6	54.6	54.6
17.0	52.5	52.7	52.9	53.1	53.2	53.2	53.3	53.3	53.3	53.3
17.5	51.4	51.5	51.7	51.9	52.0	52.1	52.1	52.1	52.1	52.1
18.0	50.2	50.3	50.5	50.6	50.8	50.8	50.9	50.9	50.9	51.0
18.5	49.0	49.2	49.3	49.5	49.7	49.7	49.7	49.7	49.7	49.6
19.0	47.8	48.0	48.2	48.4	48.6	48.6	48.6	48.6	48.6	48.6
19.5	46.7	46.9	47.1	47.3	47.5	47.5	47.5	47.5	47.5	47.5
20.0	45.6	45.8	46.0	46.2	46.3	46.4	46.4	46.4	46.4	46.4

Normalized to 2.4 cm	10FFF 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	44.6	44.8	45.0	45.2	45.3	45.3	45.3	45.3	45.3	45.3
21.0	43.5	43.7	43.9	44.1	44.3	44.3	44.3	44.3	44.3	44.3
21.5	42.5	42.7	42.9	43.1	43.3	43.3	43.3	43.3	43.3	43.3
22.0	41.5	41.7	41.9	42.1	42.3	42.3	42.3	42.3	42.4	42.4
22.5	40.6	40.8	41.0	41.1	41.3	41.4	41.4	41.4	41.4	41.4
23.0	39.7	39.9	40.1	40.2	40.4	40.4	40.4	40.5	40.5	40.5
23.5	38.8	39.0	39.1	39.3	39.5	39.5	39.5	39.5	39.6	39.6
24.0	37.9	38.0	38.2	38.4	38.6	38.6	38.6	38.6	38.7	38.7
24.5	37.0	37.2	37.4	37.6	37.8	37.8	37.8	37.8	37.8	37.8
25.0	36.2	36.4	36.5	36.7	36.9	36.9	36.9	37.0	37.0	37.0
25.5	35.3	35.5	35.7	35.9	36.1	36.1	36.1	36.1	36.2	36.2
26.0	34.5	34.7	34.9	35.0	35.2	35.2	35.3	35.3	35.3	35.3
26.5	33.7	33.9	34.1	34.3	34.5	34.5	34.5	34.5	34.5	34.6
27.0	32.9	33.1	33.3	33.5	33.6	33.7	33.7	33.7	33.7	33.8
27.5	32.2	32.4	32.6	32.7	32.9	32.9	33.0	33.0	33.0	33.0
28.0	31.4	31.6	31.8	32.0	32.2	32.2	32.2	32.3	32.3	32.3
28.5	30.7	30.9	31.1	31.3	31.4	31.5	31.5	31.5	31.5	31.6
29.0	30.0	30.2	30.4	30.5	30.7	30.7	30.8	30.8	30.9	30.9
29.5	29.4	29.6	29.7	29.9	30.1	30.1	30.1	30.2	30.2	30.2
30.0	28.7	28.9	29.1	29.2	29.4	29.4	29.4	29.5	29.5	29.5
30.5	28.0	28.2	28.4	28.5	28.7	28.7	28.8	28.8	28.8	28.9
31.0	27.4	27.6	27.8	27.9	28.1	28.1	28.2	28.2	28.2	28.3
31.5	26.8	27.0	27.1	27.3	27.5	27.5	27.5	27.5	27.6	27.6
32.0	26.2	26.4	26.5	26.7	26.9	26.9	26.9	26.9	27.0	27.0
32.5	25.6	25.8	25.9	26.1	26.3	26.3	26.3	26.3	26.4	26.4
33.0	25.1	25.2	25.4	25.5	25.7	25.7	25.8	25.8	25.8	25.9
33.5	24.5	24.7	24.8	25.0	25.1	25.2	25.2	25.2	25.2	25.3
34.0	24.0	24.1	24.3	24.4	24.6	24.6	24.6	24.7	24.7	24.7

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

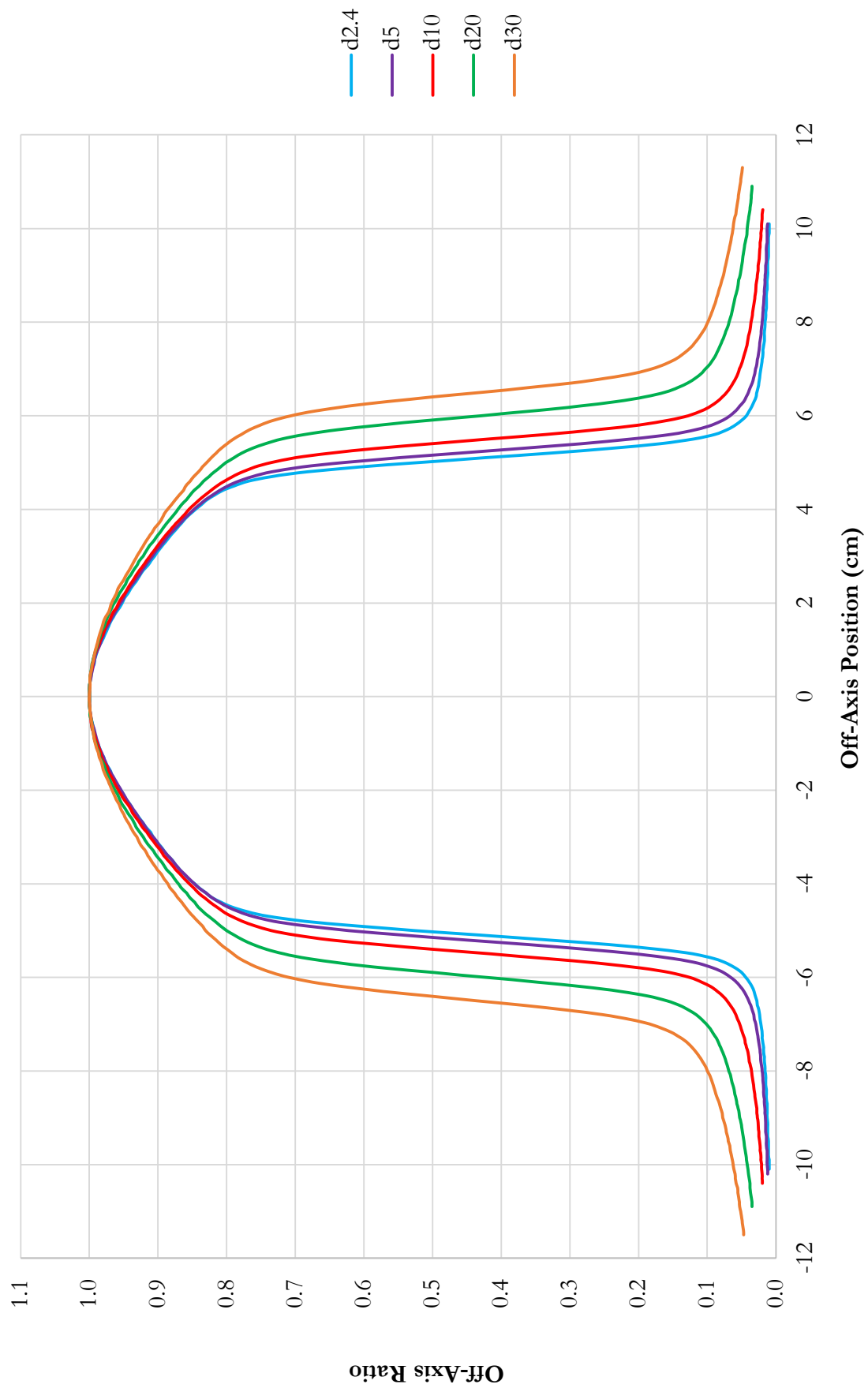


Photon Energies

10FFF Crossplane

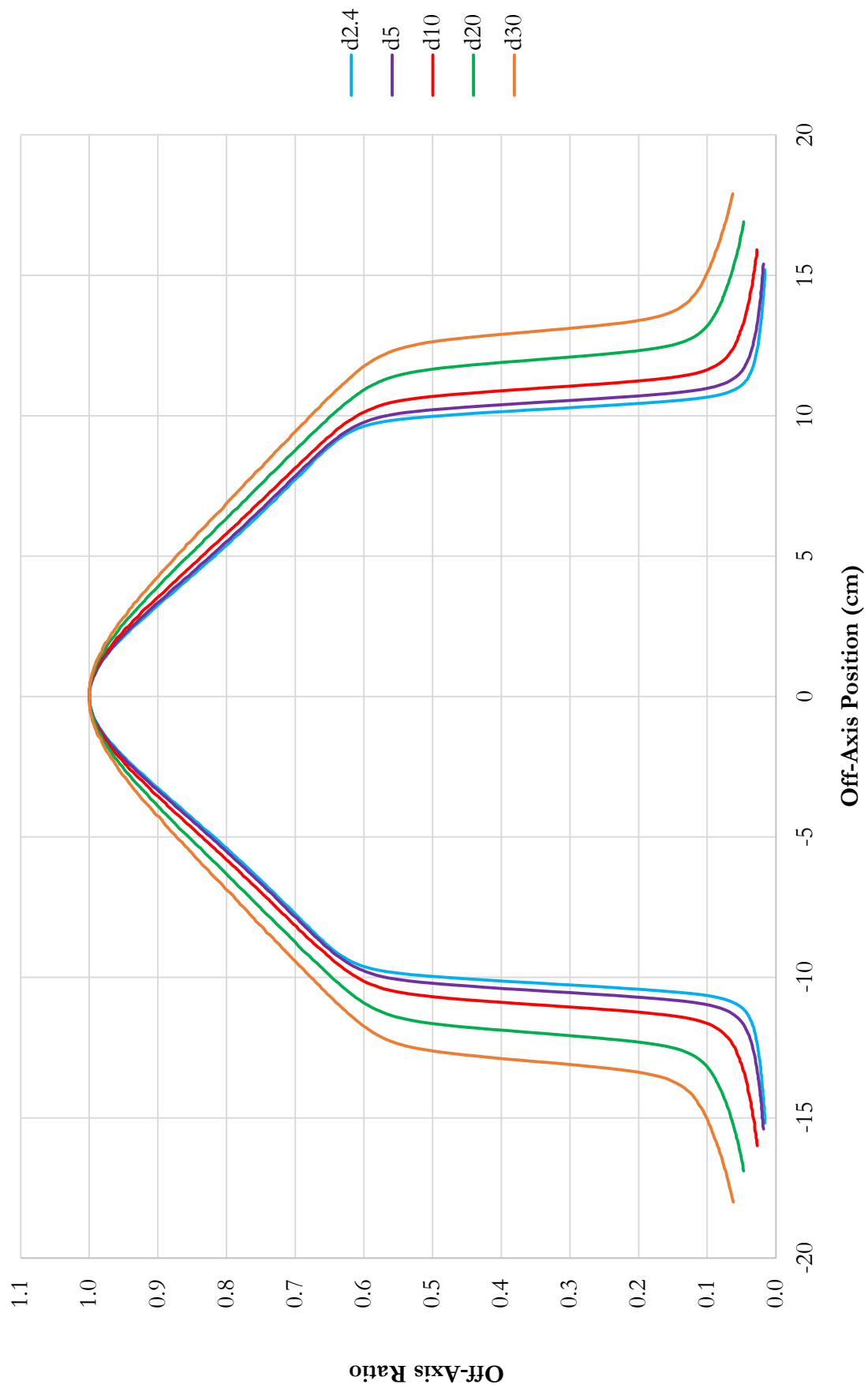
10FFF Crossplane Open 10x10 100 SSD Landauer Cancer Institute - Jackson, WY Varian TrueBeam #9999					
Off-Axis (cm)	d2.4	d5	d10	d20	d30
-7.0	0.022	0.029	0.053	0.101	0.184
-6.5	0.028	0.040	0.071	0.159	0.436
-6.0	0.044	0.066	0.126	0.423	0.710
-5.5	0.121	0.204	0.416	0.717	0.791
-5.0	0.526	0.622	0.735	0.800	0.831
-4.5	0.792	0.798	0.814	0.841	0.860
-4.0	0.847	0.847	0.854	0.870	0.886
-3.5	0.879	0.879	0.885	0.897	0.910
-3.0	0.907	0.907	0.912	0.922	0.931
-2.5	0.932	0.932	0.937	0.944	0.950
-2.0	0.954	0.954	0.958	0.963	0.967
-1.5	0.973	0.973	0.975	0.978	0.981
-1.0	0.988	0.987	0.989	0.991	0.991
-0.5	0.997	0.997	0.998	0.997	0.997
0.0	1.000	1.000	1.000	1.000	1.000
0.5	0.997	0.997	0.998	0.998	0.998
1.0	0.988	0.988	0.989	0.990	0.991
1.5	0.972	0.974	0.976	0.978	0.981
2.0	0.952	0.954	0.957	0.963	0.968
2.5	0.930	0.932	0.935	0.944	0.950
3.0	0.905	0.908	0.912	0.922	0.931
3.5	0.878	0.881	0.885	0.897	0.909
4.0	0.845	0.847	0.855	0.871	0.886
4.5	0.789	0.798	0.814	0.840	0.859
5.0	0.519	0.628	0.735	0.801	0.829
5.5	0.120	0.210	0.418	0.720	0.790
6.0	0.043	0.067	0.128	0.430	0.706
6.5	0.028	0.040	0.072	0.162	0.428
7.0	0.022	0.030	0.053	0.103	0.181

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



10FFF Crossplane Open 20x20 100 SSD Landauer Cancer Institute - Jackson, WY Varian TrueBeam #9999					
Off-Axis (cm)	d2.4	d5	d10	d20	d30
-12.0	0.030	0.041	0.076	0.340	0.585
-11.5	0.037	0.053	0.120	0.537	0.613
-11.0	0.054	0.095	0.335	0.594	0.635
-10.5	0.158	0.330	0.555	0.623	0.657
-10.0	0.482	0.569	0.610	0.647	0.677
-9.5	0.613	0.623	0.640	0.668	0.697
-9.0	0.646	0.650	0.663	0.691	0.717
-8.5	0.669	0.673	0.686	0.710	0.737
-8.0	0.690	0.694	0.707	0.731	0.757
-7.5	0.710	0.715	0.728	0.752	0.776
-7.0	0.731	0.735	0.749	0.772	0.795
-6.5	0.752	0.757	0.770	0.793	0.815
-6.0	0.774	0.779	0.792	0.813	0.835
-5.5	0.796	0.801	0.814	0.834	0.853
-5.0	0.818	0.823	0.836	0.855	0.873
-4.5	0.842	0.847	0.859	0.876	0.891
-4.0	0.865	0.870	0.881	0.896	0.910
-3.5	0.889	0.893	0.903	0.915	0.928
-3.0	0.912	0.916	0.923	0.935	0.944
-2.5	0.935	0.937	0.944	0.952	0.959
-2.0	0.955	0.958	0.963	0.968	0.973
-1.5	0.974	0.975	0.978	0.982	0.983
-1.0	0.988	0.989	0.990	0.991	0.993
-0.5	0.997	0.997	0.998	0.998	0.999
0.0	1.000	1.000	1.000	1.000	1.000
0.5	0.997	0.997	0.998	0.998	0.999
1.0	0.988	0.988	0.990	0.991	0.994
1.5	0.974	0.975	0.978	0.981	0.985
2.0	0.955	0.958	0.962	0.969	0.973
2.5	0.935	0.937	0.943	0.954	0.960
3.0	0.911	0.916	0.924	0.935	0.944
3.5	0.889	0.892	0.902	0.917	0.928
4.0	0.865	0.869	0.880	0.897	0.910
4.5	0.841	0.846	0.858	0.877	0.892
5.0	0.817	0.823	0.836	0.856	0.873
5.5	0.795	0.801	0.813	0.835	0.854
6.0	0.773	0.778	0.791	0.815	0.834
6.5	0.751	0.757	0.770	0.794	0.815
7.0	0.729	0.736	0.748	0.772	0.796
7.5	0.709	0.714	0.727	0.753	0.776
8.0	0.688	0.694	0.706	0.732	0.757
8.5	0.669	0.672	0.684	0.712	0.737
9.0	0.645	0.650	0.663	0.690	0.717
9.5	0.613	0.622	0.640	0.669	0.698
10.0	0.487	0.567	0.610	0.648	0.678
10.5	0.163	0.327	0.554	0.623	0.658
11.0	0.055	0.095	0.331	0.595	0.636
11.5	0.038	0.053	0.118	0.539	0.613
12.0	0.031	0.040	0.075	0.344	0.585

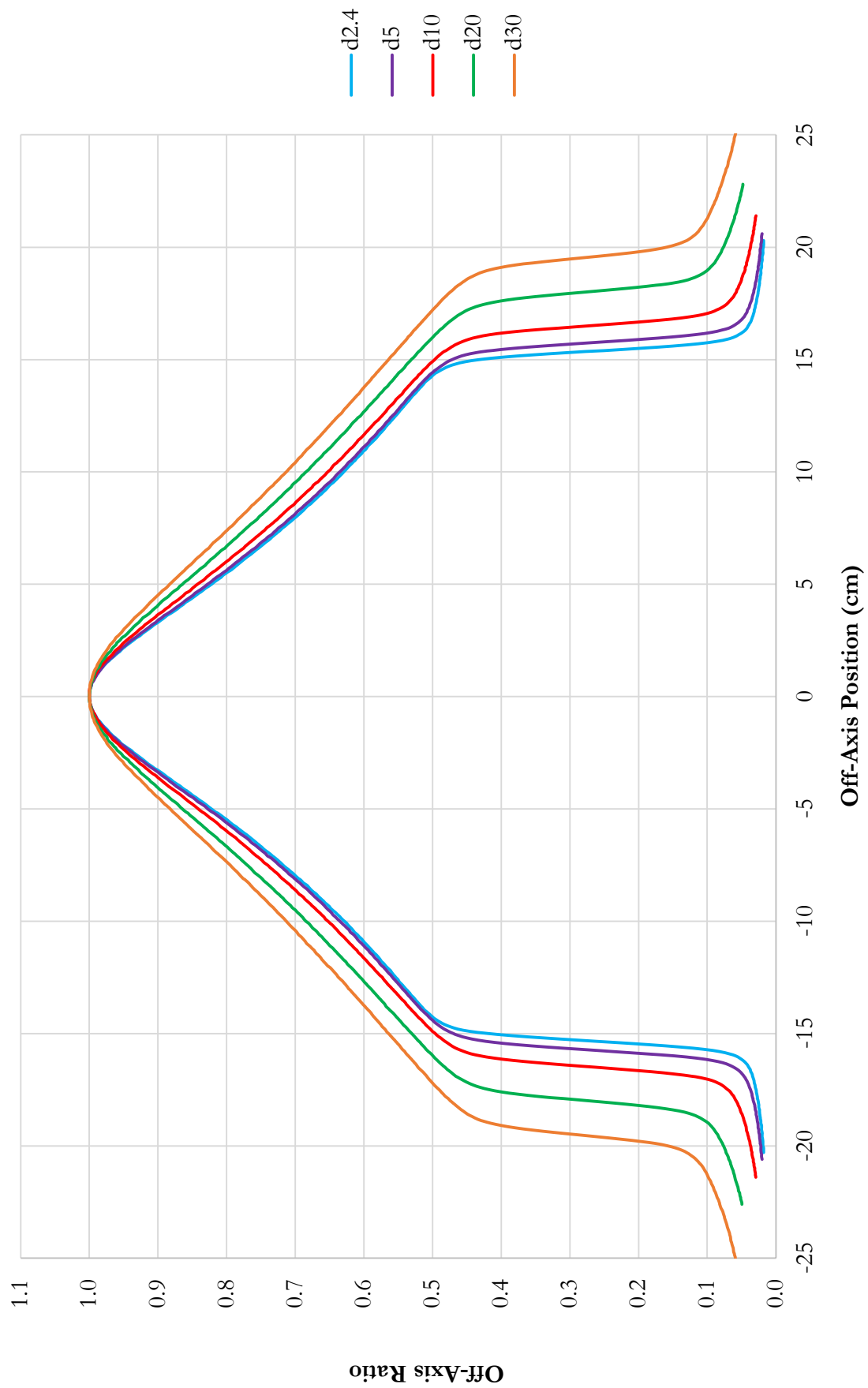
10FFF Crossplane Open 20x20 100 SSD
Landauer Cancer Institute - Jackson, WY
Varian TrueBeam #9999



10FFF Crossplane Open 30x30 100 SSD Landauer Cancer Institute - Jackson, WY Varian TrueBeam #9999					
Off-Axis (cm)	d2.4	d5	d10	d20	d30
-17.0	0.033	0.045	0.105	0.461	0.506
-16.5	0.040	0.062	0.263	0.482	0.521
-16.0	0.059	0.148	0.431	0.500	0.535
-15.5	0.184	0.376	0.475	0.516	0.549
-15.0	0.421	0.470	0.496	0.531	0.564
-14.5	0.489	0.497	0.513	0.546	0.578
-14.0	0.510	0.515	0.529	0.561	0.592
-13.5	0.525	0.530	0.544	0.576	0.607
-13.0	0.540	0.544	0.559	0.590	0.622
-12.5	0.554	0.559	0.573	0.606	0.637
-12.0	0.568	0.573	0.589	0.621	0.652
-11.5	0.582	0.588	0.604	0.637	0.667
-11.0	0.598	0.603	0.620	0.652	0.683
-10.5	0.614	0.620	0.636	0.668	0.698
-10.0	0.629	0.635	0.652	0.685	0.713
-9.5	0.646	0.652	0.669	0.700	0.729
-9.0	0.663	0.669	0.686	0.717	0.745
-8.5	0.680	0.686	0.704	0.735	0.762
-8.0	0.699	0.705	0.722	0.752	0.779
-7.5	0.718	0.724	0.741	0.770	0.795
-7.0	0.737	0.743	0.760	0.788	0.813
-6.5	0.757	0.764	0.779	0.807	0.830
-6.0	0.778	0.784	0.800	0.826	0.848
-5.5	0.799	0.805	0.820	0.845	0.865
-5.0	0.822	0.828	0.841	0.865	0.882
-4.5	0.845	0.849	0.862	0.884	0.900
-4.0	0.867	0.873	0.884	0.902	0.916
-3.5	0.890	0.895	0.904	0.921	0.934
-3.0	0.914	0.917	0.925	0.938	0.949
-2.5	0.936	0.938	0.945	0.955	0.963
-2.0	0.956	0.958	0.962	0.971	0.976
-1.5	0.973	0.975	0.977	0.983	0.986
-1.0	0.989	0.989	0.989	0.993	0.994
-0.5	0.997	0.997	0.997	0.998	0.999

10FFF 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	0.997	0.997	0.998	0.998	0.999
1.0	0.988	0.988	0.991	0.992	0.994
1.5	0.975	0.975	0.979	0.983	0.987
2.0	0.956	0.958	0.964	0.969	0.976
2.5	0.936	0.939	0.946	0.955	0.964
3.0	0.914	0.917	0.926	0.938	0.950
3.5	0.891	0.895	0.905	0.922	0.934
4.0	0.868	0.872	0.884	0.902	0.917
4.5	0.845	0.849	0.863	0.883	0.900
5.0	0.822	0.828	0.842	0.864	0.883
5.5	0.800	0.805	0.821	0.845	0.865
6.0	0.779	0.785	0.800	0.826	0.848
6.5	0.758	0.764	0.780	0.807	0.830
7.0	0.737	0.743	0.761	0.789	0.813
7.5	0.718	0.724	0.742	0.771	0.796
8.0	0.699	0.705	0.723	0.753	0.779
8.5	0.681	0.687	0.704	0.735	0.763
9.0	0.663	0.668	0.687	0.718	0.746
9.5	0.646	0.651	0.670	0.701	0.730
10.0	0.629	0.635	0.653	0.684	0.713
10.5	0.613	0.619	0.637	0.668	0.698
11.0	0.597	0.604	0.621	0.652	0.683
11.5	0.582	0.588	0.605	0.636	0.667
12.0	0.568	0.572	0.590	0.621	0.652
12.5	0.554	0.558	0.574	0.605	0.637
13.0	0.540	0.544	0.559	0.590	0.622
13.5	0.525	0.530	0.544	0.576	0.607
14.0	0.511	0.514	0.530	0.560	0.593
14.5	0.490	0.497	0.515	0.546	0.579
15.0	0.430	0.471	0.497	0.531	0.564
15.5	0.198	0.382	0.476	0.515	0.550
16.0	0.061	0.152	0.434	0.499	0.536
16.5	0.040	0.062	0.273	0.482	0.521
17.0	0.033	0.044	0.107	0.461	0.506

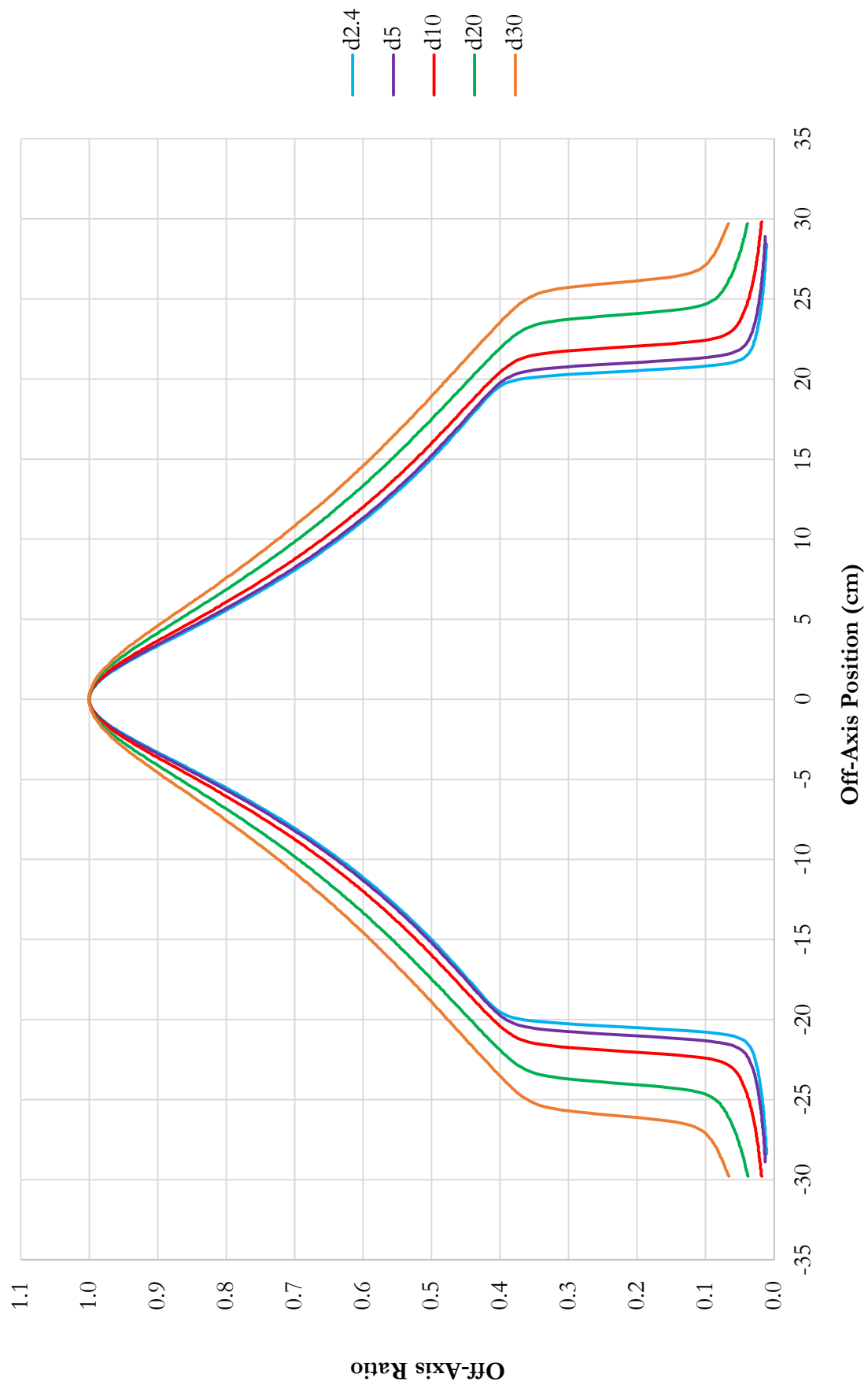
10FFF Crossplane Open 30x30 100 SSD
 Landauer Cancer Institute - Jackson, WY
 Varian TrueBeam #9999



10FFF Crossplane Open 40x40 100 SSD Landauer Cancer Institute - Jackson, WY Varian TrueBeam #9999					
Off-Axis (cm)	d2.4	d5	d10	d20	d30
-22.0	0.032	0.045	0.217	0.398	0.434
-21.5	0.039	0.073	0.349	0.410	0.445
-21.0	0.064	0.211	0.382	0.422	0.455
-20.5	0.208	0.358	0.398	0.433	0.466
-20.0	0.368	0.392	0.411	0.444	0.477
-19.5	0.401	0.407	0.423	0.455	0.487
-19.0	0.415	0.418	0.434	0.466	0.498
-18.5	0.426	0.429	0.445	0.477	0.509
-18.0	0.436	0.440	0.456	0.488	0.520
-17.5	0.447	0.450	0.466	0.500	0.531
-17.0	0.457	0.461	0.477	0.511	0.543
-16.5	0.468	0.472	0.489	0.523	0.554
-16.0	0.478	0.483	0.500	0.534	0.566
-15.5	0.489	0.494	0.511	0.546	0.578
-15.0	0.500	0.505	0.523	0.558	0.590
-14.5	0.512	0.517	0.535	0.570	0.602
-14.0	0.524	0.529	0.547	0.583	0.615
-13.5	0.536	0.541	0.560	0.595	0.627
-13.0	0.549	0.554	0.573	0.609	0.640
-12.5	0.562	0.567	0.587	0.623	0.653
-12.0	0.576	0.581	0.600	0.636	0.667
-11.5	0.590	0.595	0.614	0.650	0.680
-11.0	0.604	0.610	0.629	0.664	0.695
-10.5	0.619	0.625	0.644	0.679	0.710
-10.0	0.635	0.640	0.659	0.695	0.724
-9.5	0.651	0.656	0.675	0.710	0.739
-9.0	0.667	0.673	0.692	0.726	0.755
-8.5	0.684	0.690	0.709	0.742	0.770
-8.0	0.702	0.708	0.727	0.760	0.786
-7.5	0.720	0.727	0.745	0.776	0.803
-7.0	0.740	0.746	0.763	0.794	0.818
-6.5	0.760	0.766	0.783	0.813	0.835
-6.0	0.780	0.787	0.803	0.831	0.851
-5.5	0.801	0.808	0.822	0.849	0.869
-5.0	0.824	0.830	0.843	0.868	0.886
-4.5	0.846	0.852	0.864	0.886	0.903
-4.0	0.869	0.874	0.885	0.904	0.919
-3.5	0.892	0.896	0.907	0.922	0.935
-3.0	0.914	0.918	0.926	0.940	0.950
-2.5	0.936	0.940	0.946	0.957	0.964
-2.0	0.957	0.960	0.964	0.971	0.976
-1.5	0.975	0.976	0.978	0.983	0.986
-1.0	0.988	0.989	0.990	0.993	0.993
-0.5	0.998	0.998	0.997	0.998	0.998

10FFF 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	0.997	0.998	0.997	0.998	0.999
1.0	0.988	0.990	0.990	0.993	0.994
1.5	0.974	0.976	0.978	0.984	0.987
2.0	0.956	0.959	0.964	0.972	0.976
2.5	0.936	0.940	0.946	0.957	0.965
3.0	0.915	0.918	0.926	0.941	0.950
3.5	0.892	0.896	0.907	0.923	0.935
4.0	0.868	0.874	0.885	0.905	0.920
4.5	0.846	0.852	0.864	0.887	0.903
5.0	0.824	0.830	0.843	0.868	0.886
5.5	0.802	0.808	0.822	0.850	0.869
6.0	0.781	0.786	0.803	0.832	0.852
6.5	0.760	0.766	0.783	0.813	0.835
7.0	0.740	0.746	0.763	0.795	0.818
7.5	0.720	0.727	0.745	0.777	0.803
8.0	0.702	0.708	0.727	0.760	0.786
8.5	0.684	0.690	0.709	0.743	0.770
9.0	0.667	0.673	0.692	0.727	0.755
9.5	0.651	0.656	0.675	0.711	0.740
10.0	0.634	0.640	0.659	0.695	0.725
10.5	0.619	0.625	0.644	0.680	0.710
11.0	0.604	0.610	0.629	0.665	0.696
11.5	0.590	0.595	0.614	0.650	0.681
12.0	0.576	0.581	0.600	0.637	0.667
12.5	0.562	0.568	0.587	0.623	0.653
13.0	0.550	0.554	0.573	0.610	0.640
13.5	0.536	0.542	0.560	0.596	0.628
14.0	0.524	0.529	0.547	0.584	0.615
14.5	0.512	0.518	0.535	0.571	0.602
15.0	0.500	0.505	0.523	0.559	0.590
15.5	0.489	0.494	0.511	0.547	0.578
16.0	0.478	0.483	0.500	0.534	0.566
16.5	0.468	0.472	0.489	0.523	0.555
17.0	0.457	0.461	0.477	0.512	0.543
17.5	0.447	0.451	0.466	0.500	0.532
18.0	0.436	0.440	0.456	0.489	0.521
18.5	0.426	0.430	0.445	0.478	0.509
19.0	0.415	0.419	0.434	0.467	0.499
19.5	0.402	0.407	0.423	0.455	0.488
20.0	0.368	0.392	0.411	0.444	0.477
20.5	0.208	0.358	0.398	0.433	0.466
21.0	0.064	0.211	0.382	0.422	0.456
21.5	0.039	0.073	0.349	0.411	0.445
22.0	0.032	0.045	0.217	0.398	0.434

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



Photon Energies

10FFF Factors

10X FFF Scatter Factors dmax 100 SAD Landauer Cancer Institute - Jackson, WY Varian Truebeam #9999			
Field (cm x cm)	Scp	Sp	Sc
2x2	0.917	0.934	0.982
3x3	0.946	0.959	0.986
4x4	0.960	0.971	0.989
5x5	0.970	0.978	0.992
6x6	0.978	0.984	0.994
7x7	0.985	0.989	0.996
8x8	0.991	0.994	0.998
9x9	0.996	0.997	0.999
10x10	1.000	1.000	1.000
11x11	1.003	1.003	1.001
12x12	1.007	1.006	1.001
13x13	1.009	1.007	1.002
14x14	1.012	1.009	1.003
15x15	1.015	1.011	1.004
16x16	1.017	1.012	1.005
17x17	1.019	1.014	1.005
18x18	1.021	1.015	1.006
19x19	1.023	1.017	1.006
20x20	1.025	1.018	1.007
21x21	1.026	1.019	1.008
22x22	1.028	1.019	1.008
23x23	1.029	1.020	1.009
24x24	1.031	1.021	1.009
25x25	1.032	1.022	1.010
26x26	1.033	1.022	1.010
27x27	1.034	1.023	1.011
28x28	1.035	1.023	1.011
29x29	1.036	1.024	1.012
30x30	1.037	1.024	1.012
31x31	1.038	1.025	1.013
32x32	1.038	1.025	1.013
33x33	1.039	1.025	1.013
34x34	1.039	1.025	1.014
35x35	1.040	1.026	1.014
36x36	1.040	1.026	1.014
37x37	1.040	1.026	1.014
38x38	1.041	1.026	1.014
39x39	1.041	1.026	1.014
40x40	1.041	1.027	1.014

Photon Energies

10FFF Beam Match Verification

10FFF Eclipse Output Factors 95 SSD d5
Landauer Cancer Institute - Jackson, WY
Varian TrueBeam #9999

Verification Data Measured on TrueBeam #9999

Open Field		X (cm)							
Y (cm)	3	4	5	7	10	15	20	30	40
3	0.919							0.950	
4									
5			0.961						
7									
10					1.000				1.015
15									
20	0.958						1.029	1.043	
30									
40					1.021				1.048

Representative TrueBeam Data

Open Field		Field size X (cm)							
Field Size Y (cm)	3	4	5	7	10	15	20	30	40
3	0.921	0.932	0.937	0.943	0.946	0.950	0.951	0.952	0.952
4	0.934	0.947	0.954	0.961	0.965	0.969	0.970	0.972	0.972
5	0.940	0.955	0.962	0.970	0.976	0.980	0.982	0.983	0.984
7	0.948	0.963	0.972	0.982	0.989	0.994	0.997	0.999	1.000
10	0.953	0.970	0.980	0.991	1.000	1.007	1.011	1.014	1.014
15	0.956	0.975	0.985	0.998	1.008	1.018	1.022	1.026	1.028
20	0.958	0.977	0.988	1.002	1.013	1.023	1.029	1.034	1.035
30	0.961	0.980	0.992	1.006	1.018	1.029	1.037	1.043	1.045
40	0.962	0.982	0.993	1.008	1.020	1.032	1.040	1.047	1.048

% difference (Verification/Representative)

Open Field		X (cm)							
Y (cm)	3	4	5	7	10	15	20	30	40
3	-0.2%							-0.2%	
4									
5			-0.1%						
7									
10					0.0%				0.1%
15									
20	0.0%						0.0%		
30								0.0%	
40					0.1%				0.0%

Mephysto mcc - Report

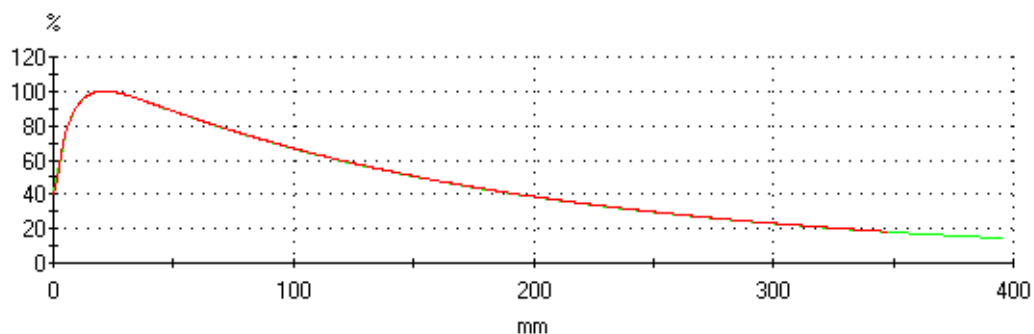
Institution: Landauer Cancer Institute
Operator:
Comment: 10FFF
Print-Date: 2020-09-01 16:19

Setup

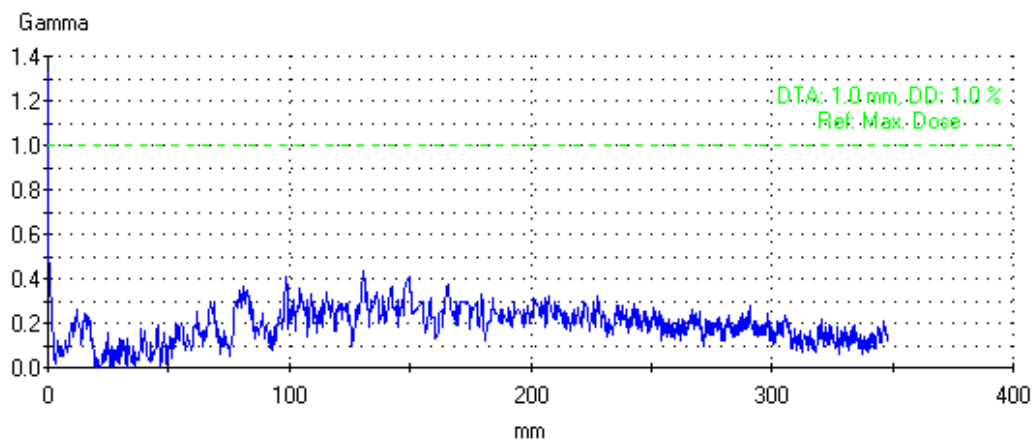
Modality: Photons
Measurement Date: *

Measurement Parameters

Energy [MV]: 10.0
Field Size Y x X [cm x cm]: 3.00 x 3.00
Depth [mm]:
Profile Type: PDD
Wedge: Open
Raw/Processed: Processed



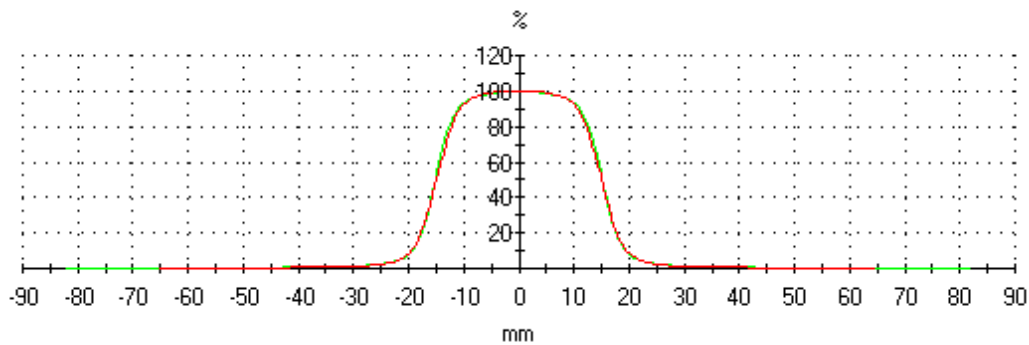
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



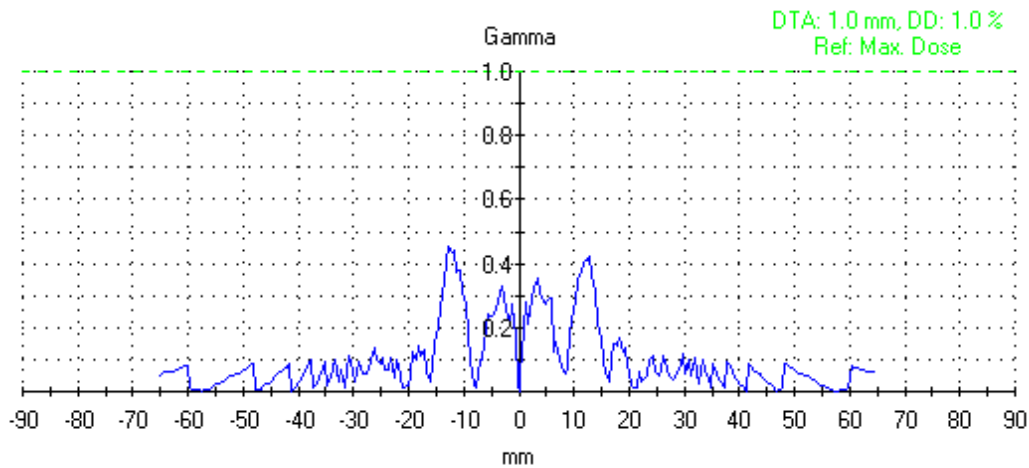
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 10FFF
Print-Date: 2020-09-01 16:34

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	10.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	3.00 x 3.00
		Depth [mm]:	24.0
		Profile Type:	X Profile
		Wedge:	Open
		Raw/Processed:	Processed



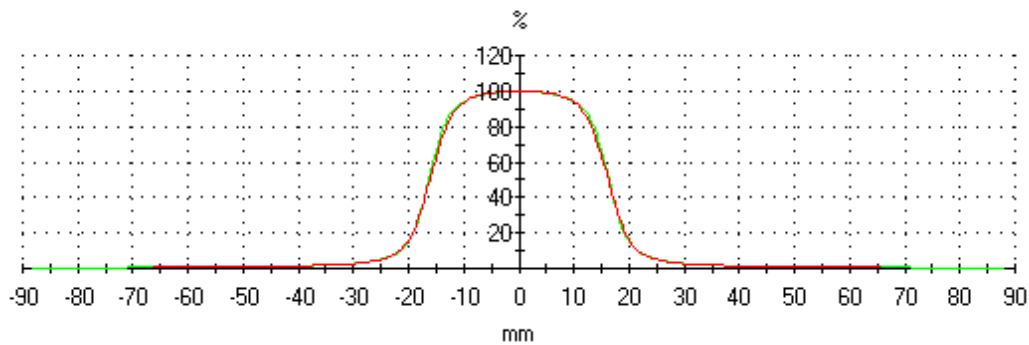
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



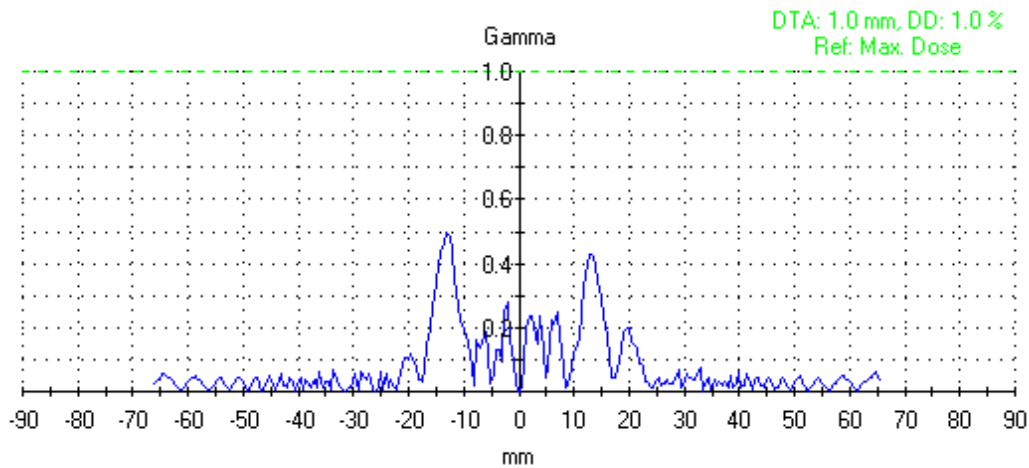
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 10FFF
Print-Date: 2020-09-01 16:35

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	10.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	3.00 x 3.00
		Depth [mm]:	100.0
		Profile Type:	X Profile
		Wedge:	Open
		Raw/Processed:	Processed



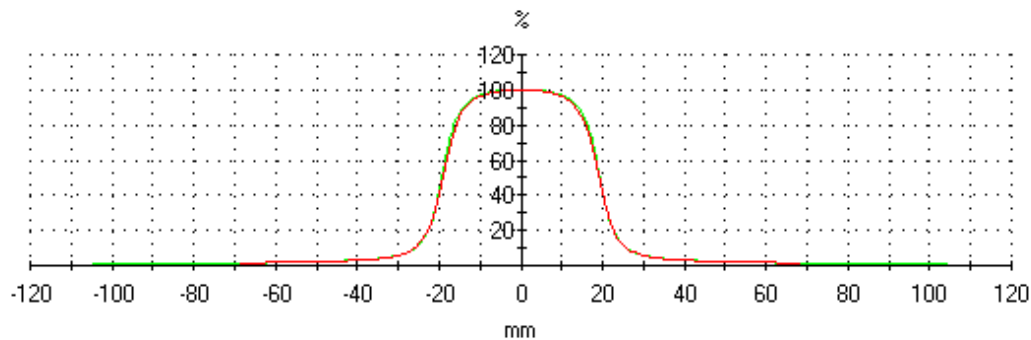
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



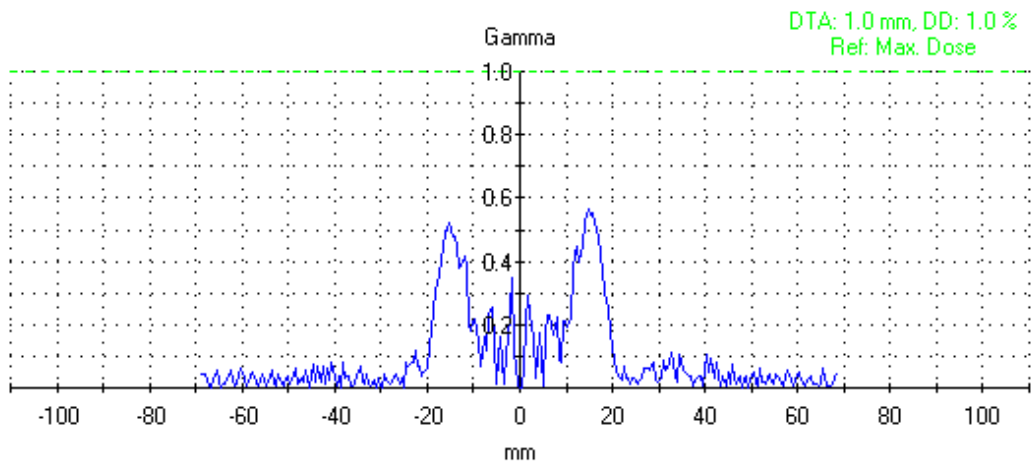
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 10FFF
Print-Date: 2020-09-01 16:35

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	10.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	3.00 x 3.00
		Depth [mm]:	300.0
		Profile Type:	X Profile
		Wedge:	Open
		Raw/Processed:	Processed



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



Mephysto mcc - Report

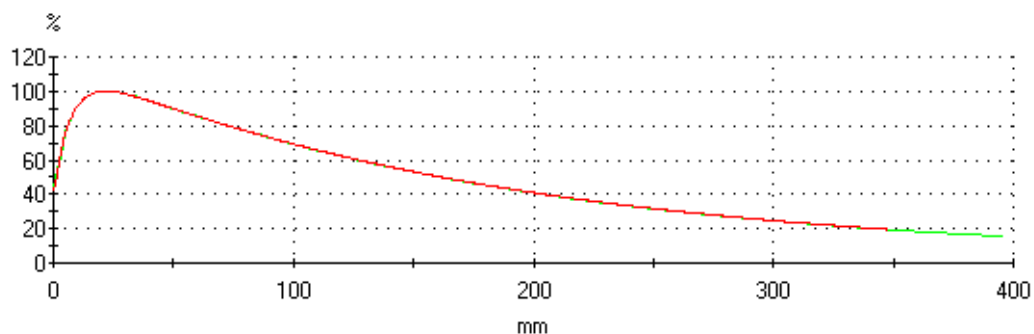
Institution: Landauer Cancer Institute
Operator:
Comment: 10FFF
Print-Date: 2020-09-01 16:19

Setup

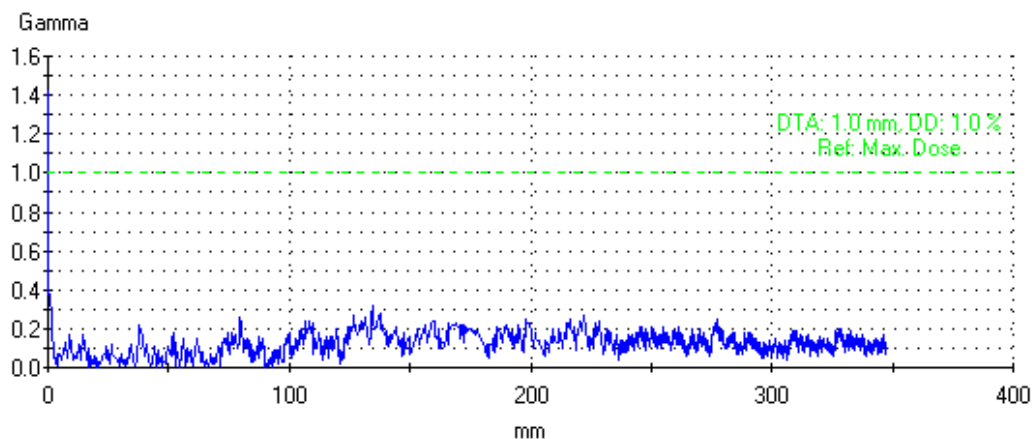
Modality: Photons
Measurement Date: *

Measurement Parameters

Energy [MV]: 10.0
Field Size Y x X [cm x cm]: 6.00 x 6.00
Depth [mm]:
Profile Type: PDD
Wedge: Open
Raw/Processed: Processed



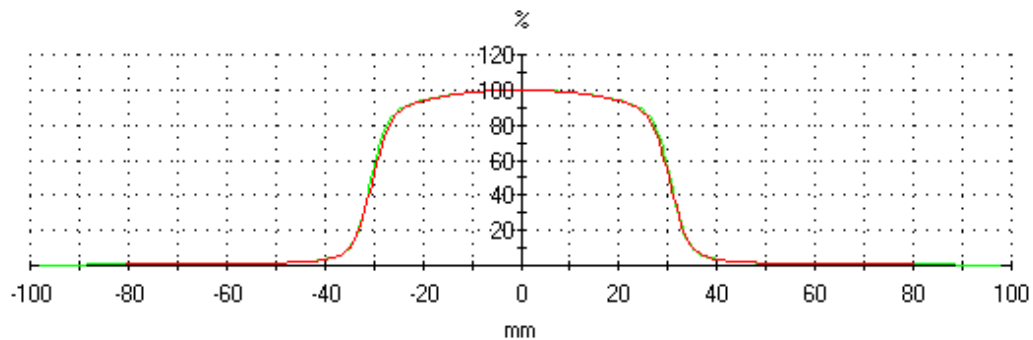
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



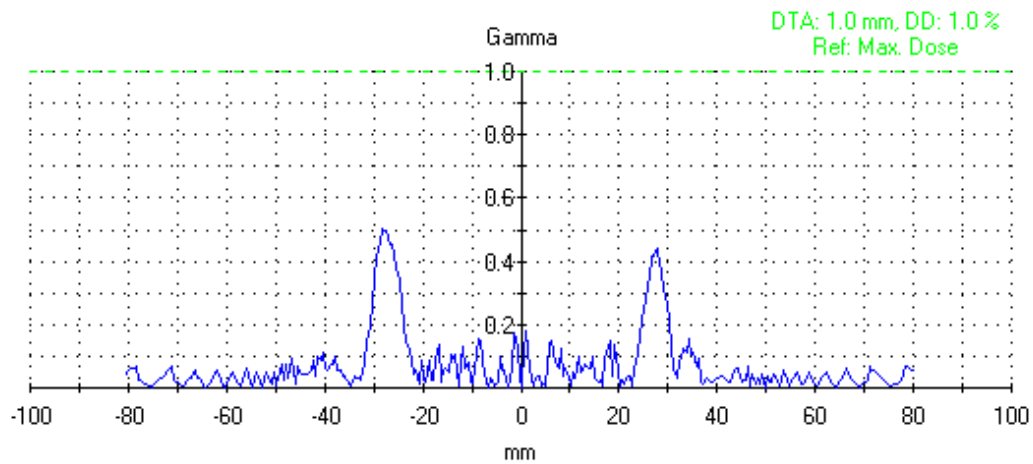
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 10FFF
Print-Date: 2020-09-01 16:35

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	10.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	6.00 x 6.00
		Depth [mm]:	24.0
		Profile Type:	X Profile
		Wedge:	Open
		Raw/Processed:	Processed



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



Mephysto mcc - Report

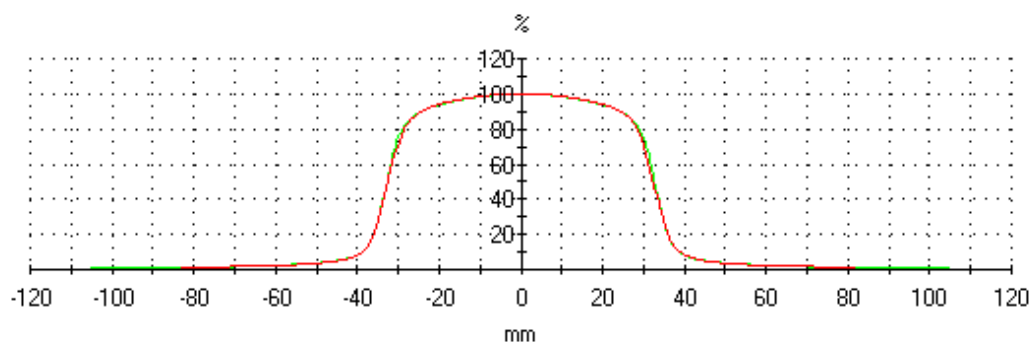
Institution: Landauer Cancer Institute
Operator:
Comment: 10FFF
Print-Date: 2020-09-01 16:36

Setup

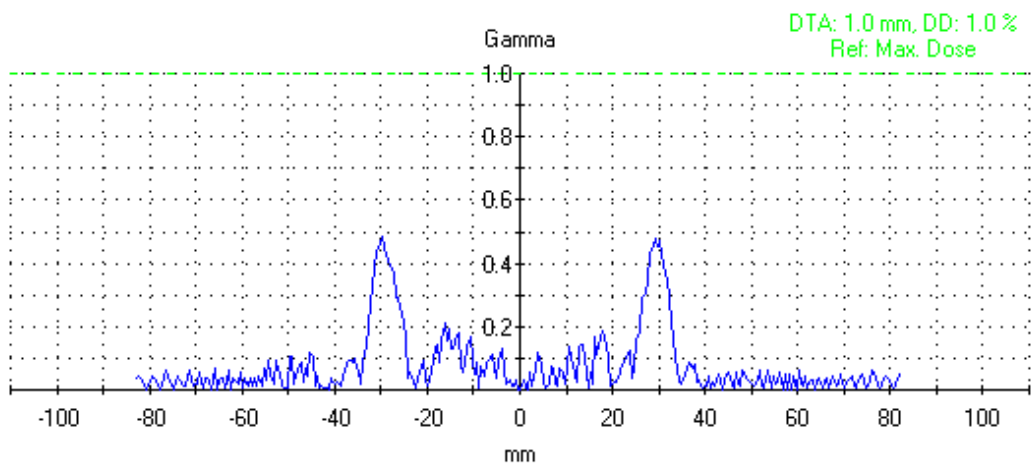
Modality: Photons
Measurement Date: *

Measurement Parameters

Energy [MV]: 10.0
Field Size Y x X [cm x cm]: 6.00 x 6.00
Depth [mm]: 100.0
Profile Type: X Profile
Wedge: Open
Raw/Processed: Processed



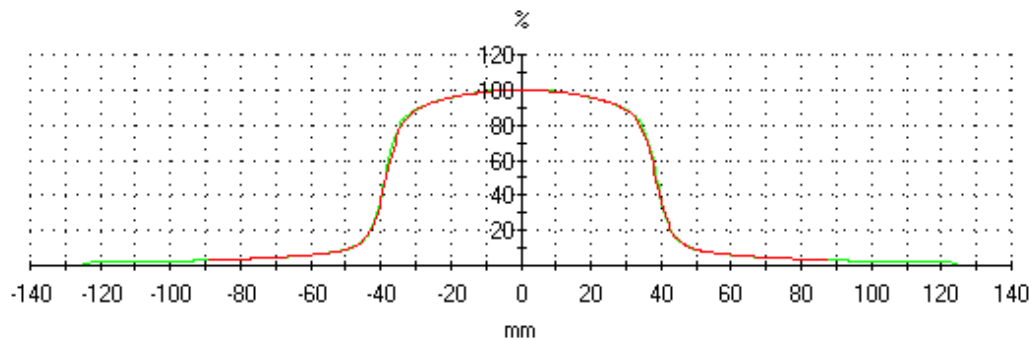
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



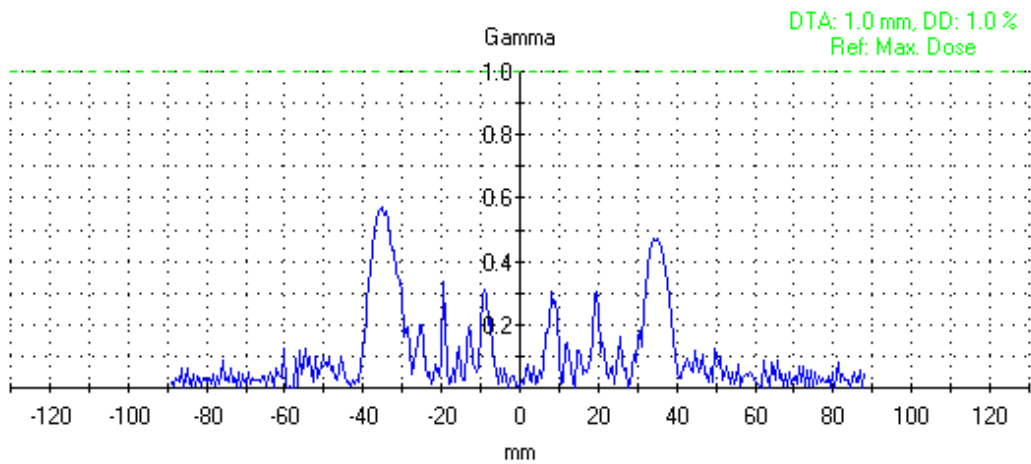
Mephysto mcc - Report

Institution: landauer Cancer Institute
Operator:
Comment: 10FFF
Print-Date: 2020-09-01 16:36

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	10.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	6.00 x 6.00
		Depth [mm]:	300.0
		Profile Type:	X Profile
		Wedge:	Open
		Raw/Processed:	Processed



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



Mephysto mcc - Report

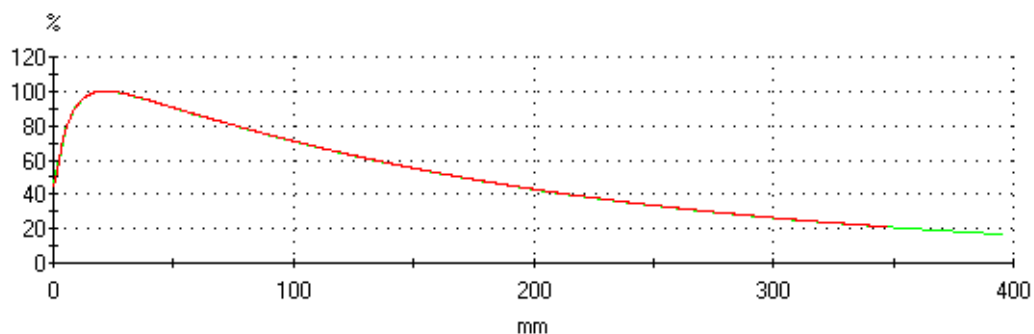
Institution: Landauer Cancer Institute
Operator:
Comment: 10FFF
Print-Date: 2020-09-01 16:19

Setup

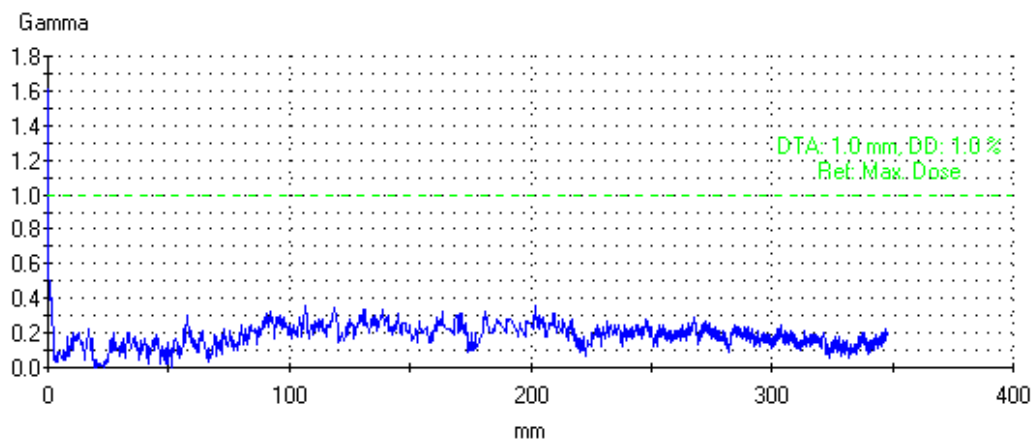
Modality: Photons
Measurement Date: *

Measurement Parameters

Energy [MV]: 10.0
Field Size Y x X [cm x cm]: 10.00 x 10.00
Depth [mm]:
Profile Type: PDD
Wedge: Open
Raw/Processed: Processed



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



Mephysto mcc - Report

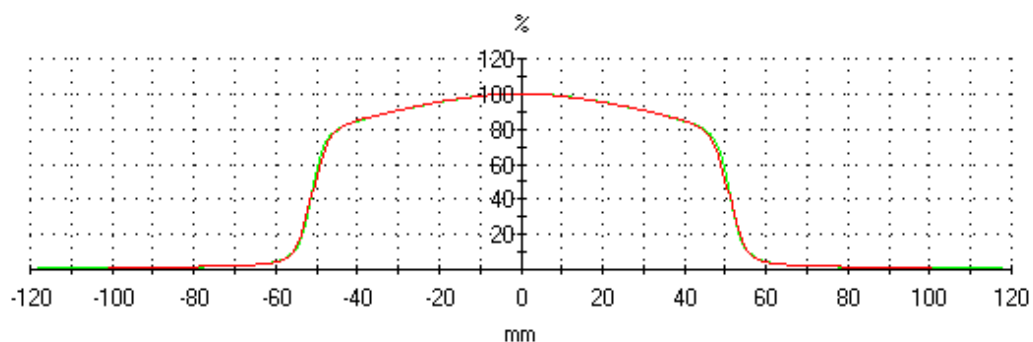
Institution: Landauer Cancer Institute
Operator:
Comment: 10FFF
Print-Date: 2020-09-01 16:38

Setup

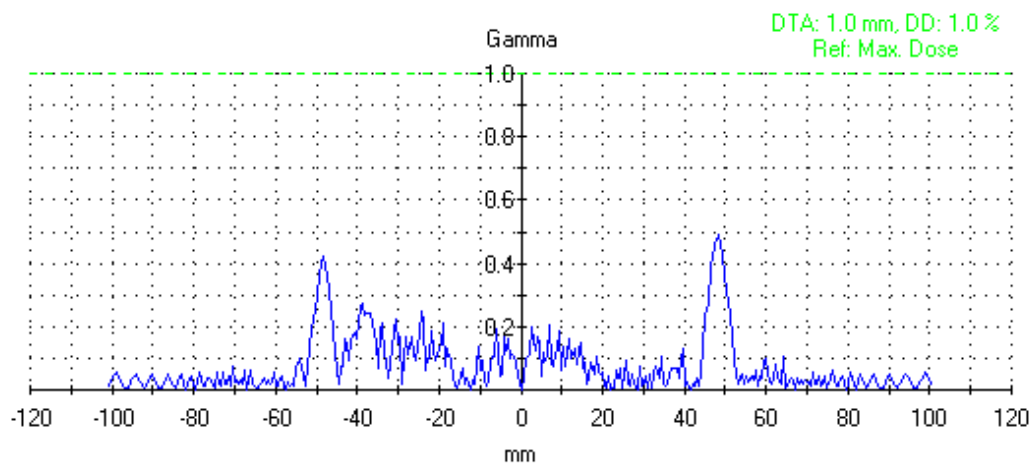
Modality: Photons
Measurement Date: *

Measurement Parameters

Energy [MV]: 10.0
Field Size Y x X [cm x cm]: 10.00 x 10.00
Depth [mm]: 24.0
Profile Type: X Profile
Wedge: Open
Raw/Processed: Processed



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



Mephysto mcc - Report

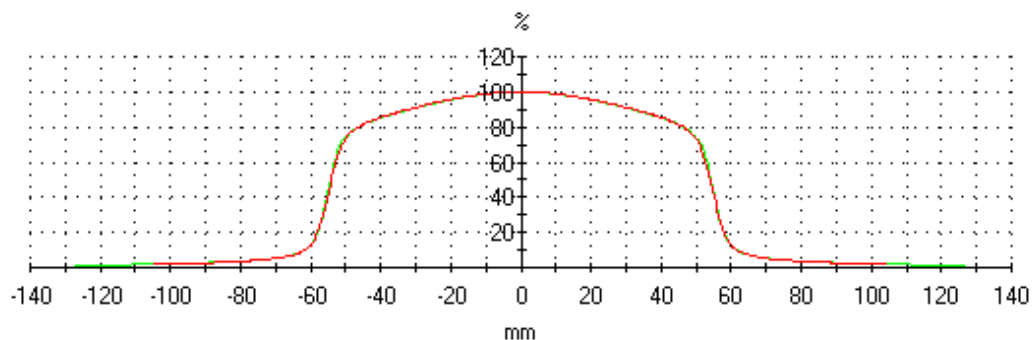
Institution: Landauer Cancer Institute
Operator:
Comment: 10FFF
Print-Date: 2020-09-01 16:38

Setup

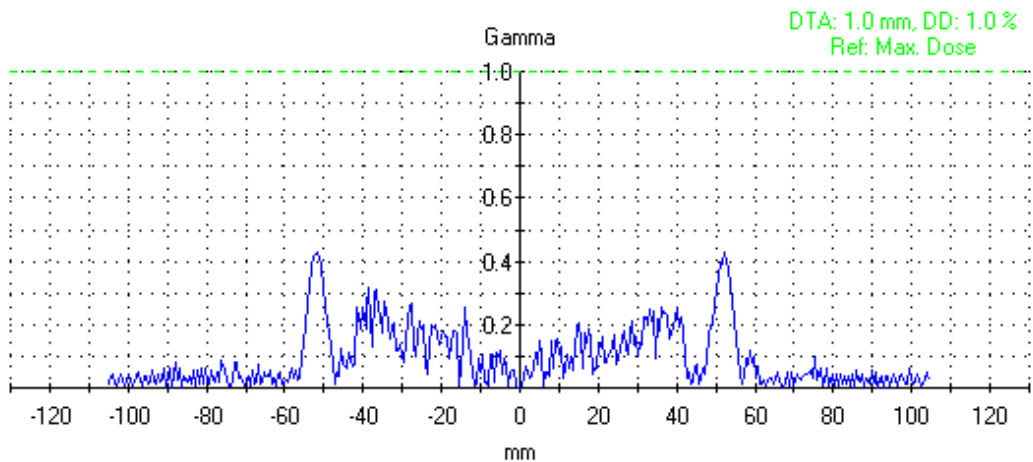
Modality: Photons
Measurement Date: *

Measurement Parameters

Energy [MV]: 10.0
Field Size Y x X [cm x cm]: 10.00 x 10.00
Depth [mm]: 100.0
Profile Type: X Profile
Wedge: Open
Raw/Processed: Processed



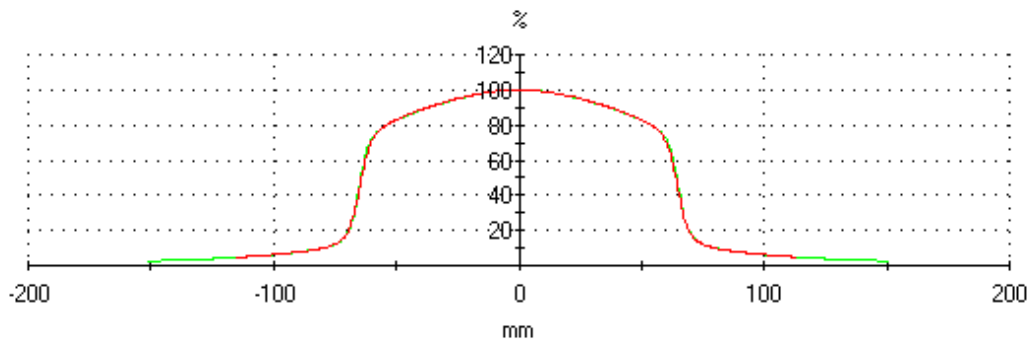
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



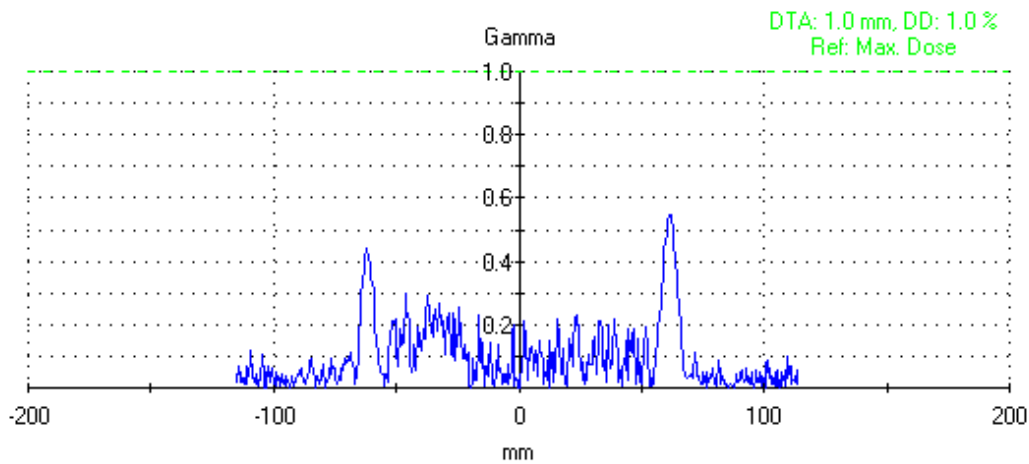
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 10FFF
Print-Date: 2020-09-01 16:38

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	10.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	10.00 x 10.00
		Depth [mm]:	300.0
		Profile Type:	X Profile
		Wedge:	Open
		Raw/Processed:	Processed



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



Mephysto mcc - Report

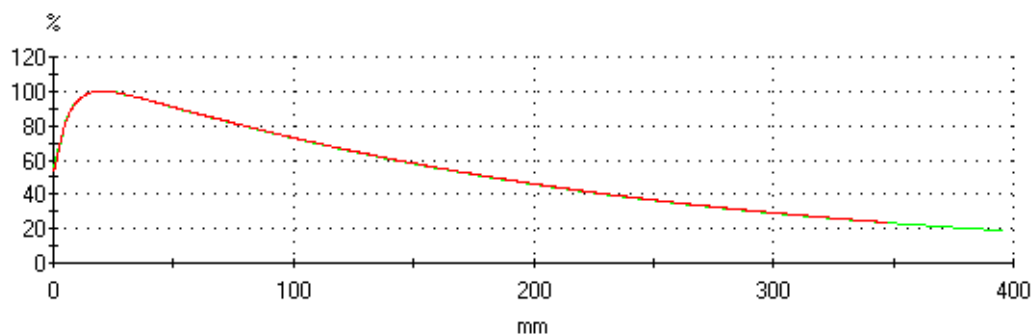
Institution: Landauer Cancer Institute
Operator:
Comment: 10FFF
Print-Date: 2020-09-01 16:20

Setup

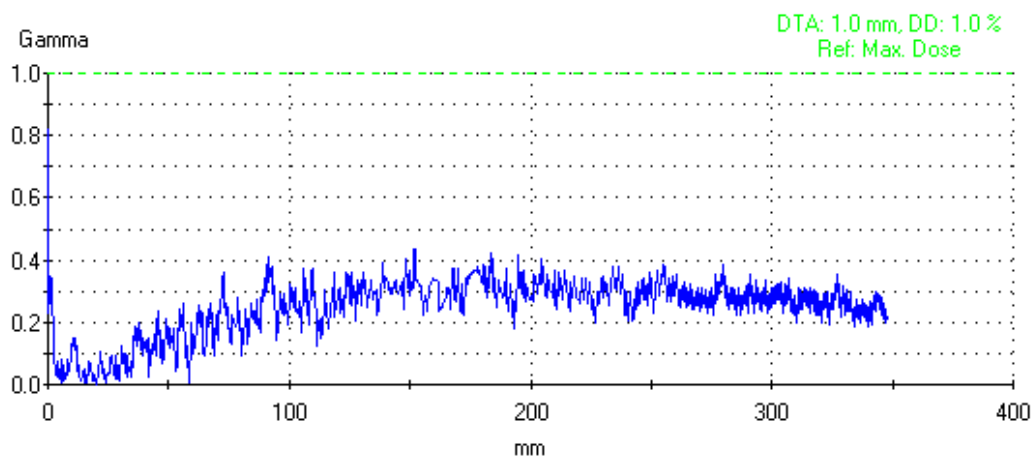
Modality: Photons
Measurement Date: *

Measurement Parameters

Energy [MV]: 10.0
Field Size Y x X [cm x cm]: 30.00 x 30.00
Depth [mm]:
Profile Type: PDD
Wedge: Open
Raw/Processed: Processed



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



Mephysto mcc - Report

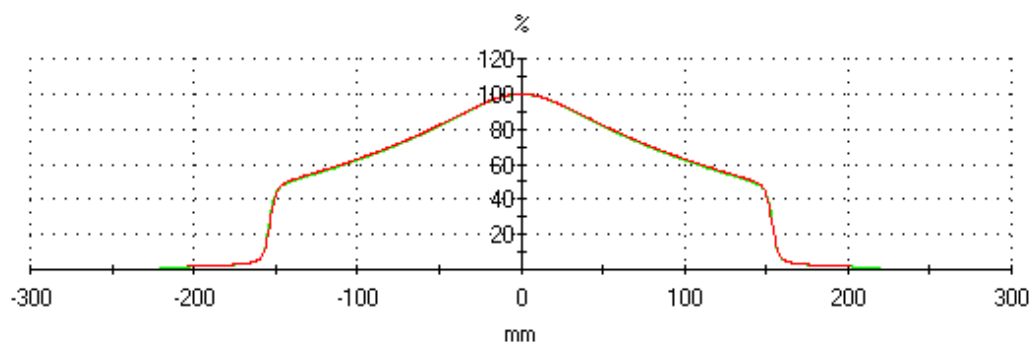
Institution: Landauer Cancer Institute
Operator:
Comment: 10FFF
Print-Date: 2020-09-01 16:39

Setup

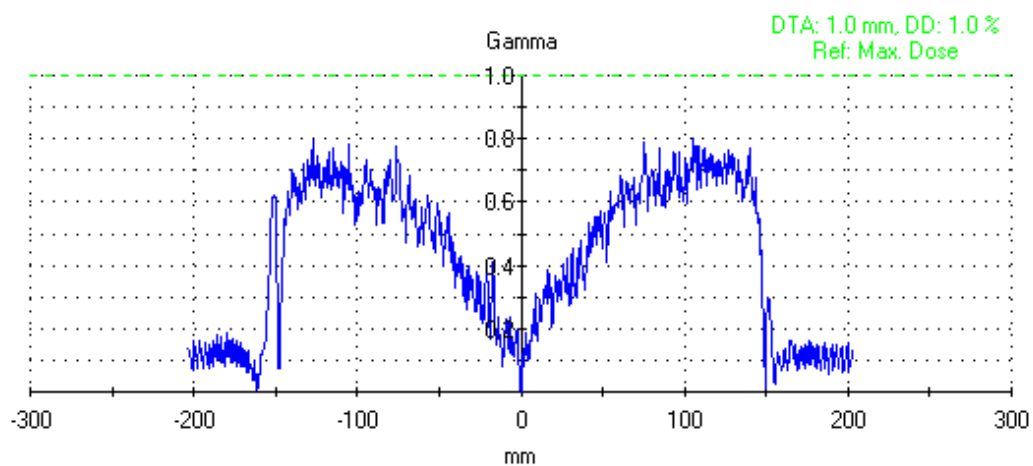
Modality: Photons
Measurement Date: *

Measurement Parameters

Energy [MV]: 10.0
Field Size Y x X [cm x cm]: 30.00 x 30.00
Depth [mm]: 24.0
Profile Type: X Profile
Wedge: Open
Raw/Processed: Processed



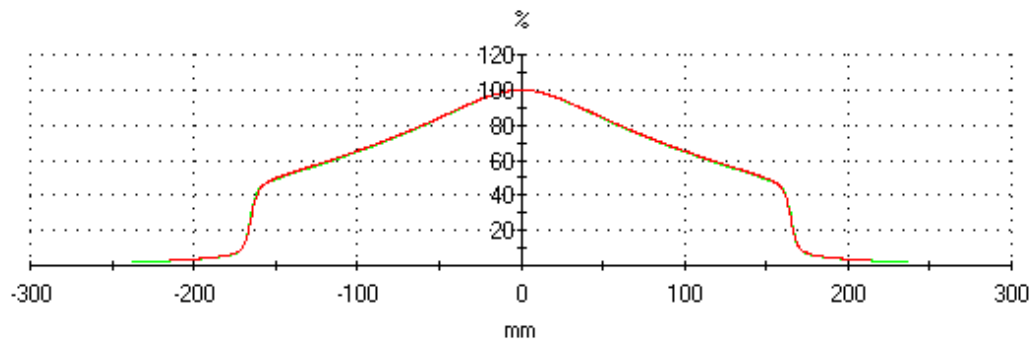
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



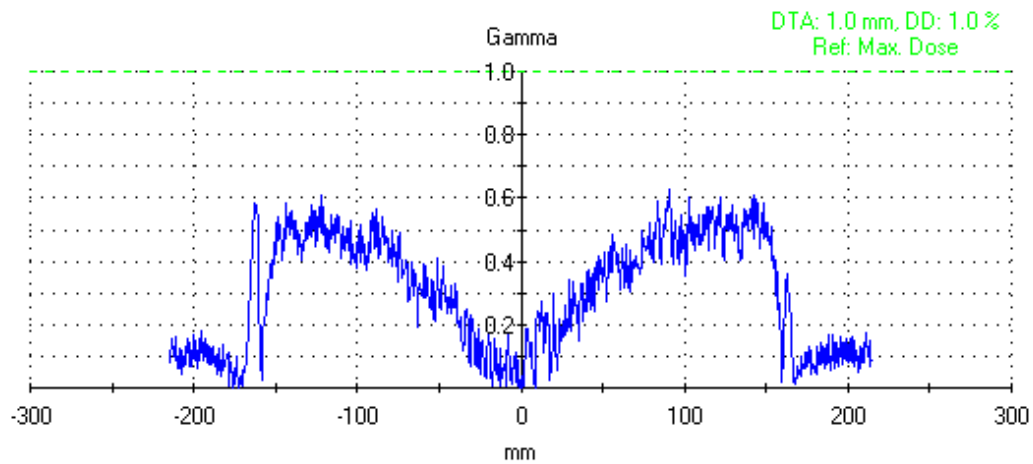
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 10FFF
Print-Date: 2020-09-01 16:39

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	10.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	30.00 x 30.00
		Depth [mm]:	100.0
		Profile Type:	X Profile
		Wedge:	Open
		Raw/Processed:	Processed



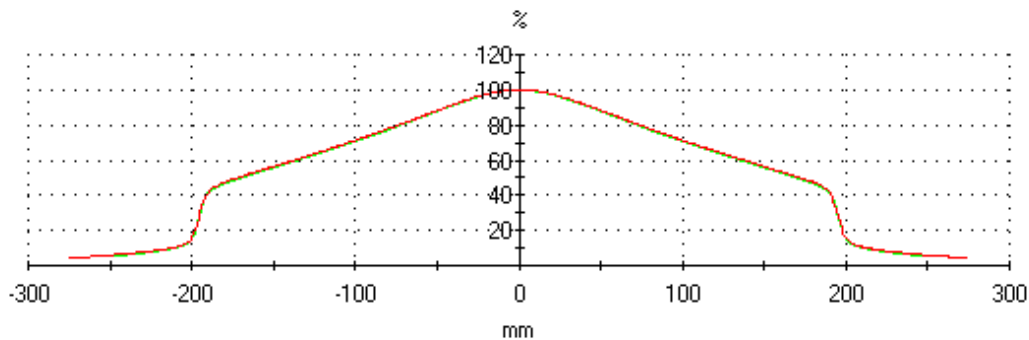
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



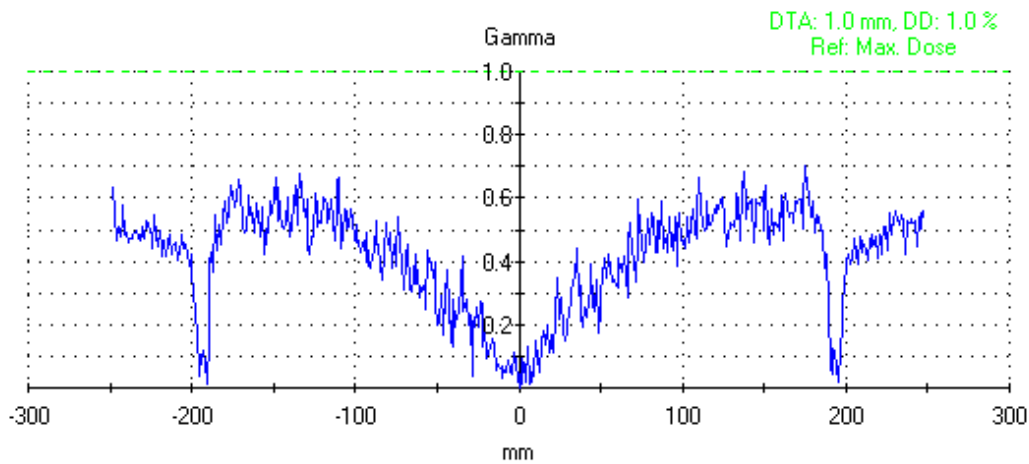
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 10FFF
Print-Date: 2020-09-01 16:40

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	10.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	30.00 x 30.00
		Depth [mm]:	300.0
		Profile Type:	X Profile
		Wedge:	Open
		Raw/Processed:	Processed



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



Mephysto mcc - Report

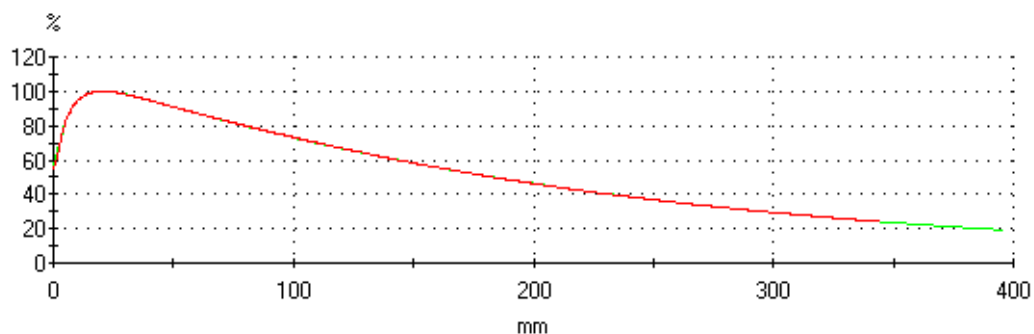
Institution: Landauer Cancer Institute
Operator:
Comment: 10FFF
Print-Date: 2020-09-01 16:20

Setup

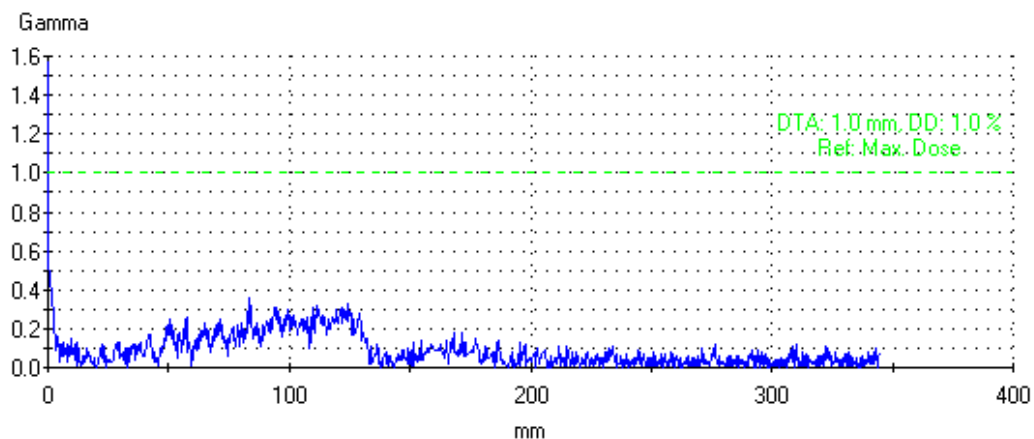
Modality: Photons
Measurement Date: *

Measurement Parameters

Energy [MV]: 10.0
Field Size Y x X [cm x cm]: 40.00 x 40.00
Depth [mm]:
Profile Type: PDD
Wedge: Open
Raw/Processed: Processed



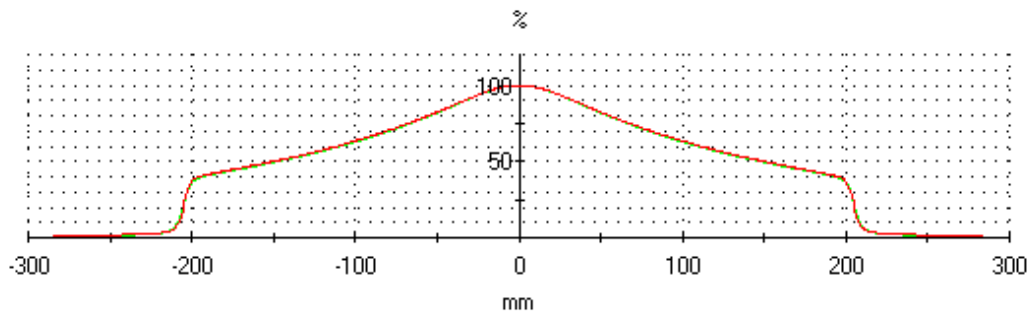
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



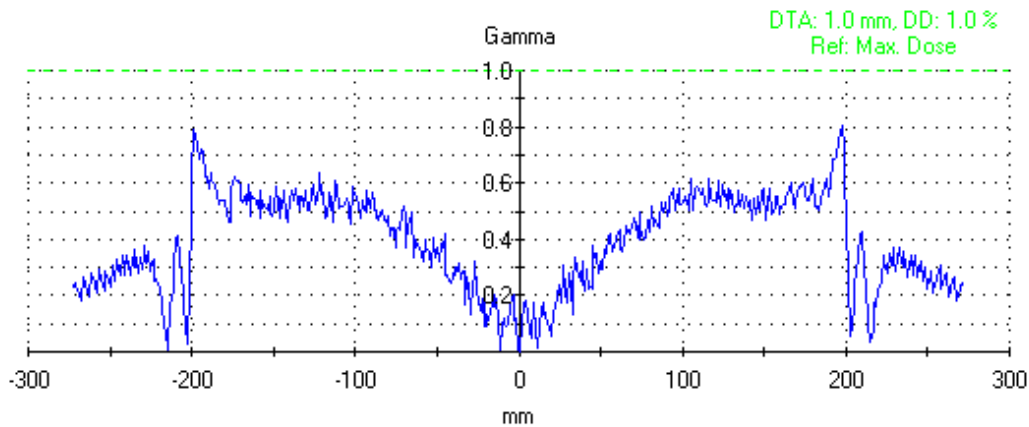
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 10FFF
Print-Date: 2020-09-03 12:54

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	10.0
		Field Size Y x X [cm x cm]:	40.00 x 40.00
		Depth [mm]:	24.0
		Profile Type:	X Profile
		Meas.Angle [°]:	0.00
		SSD [cm]:	100.0



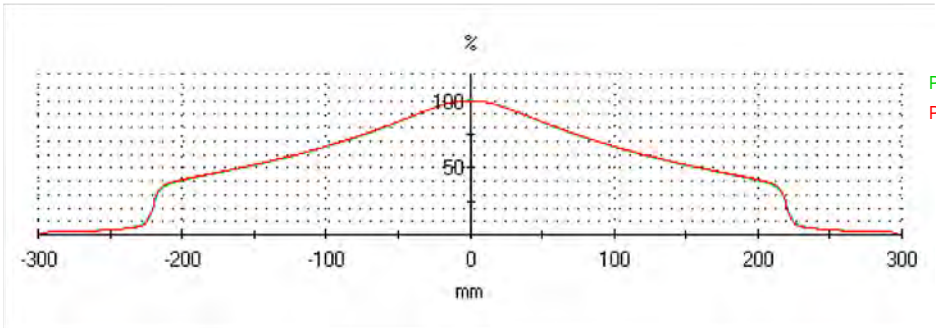
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



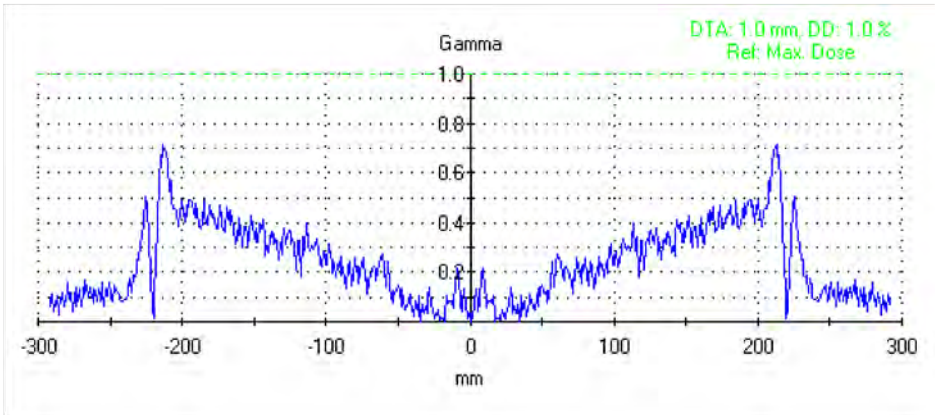
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 10FFF
Print-Date: 2020-09-03 12:54

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	10.0
		Field Size Y x X [cm x cm]:	40.00 x 40.00
		Depth [mm]:	100.0
		Profile Type:	*
		Meas.Angle [°]:	0.00
		SSD [cm]:	100.0



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



Mephysto mcc - Report

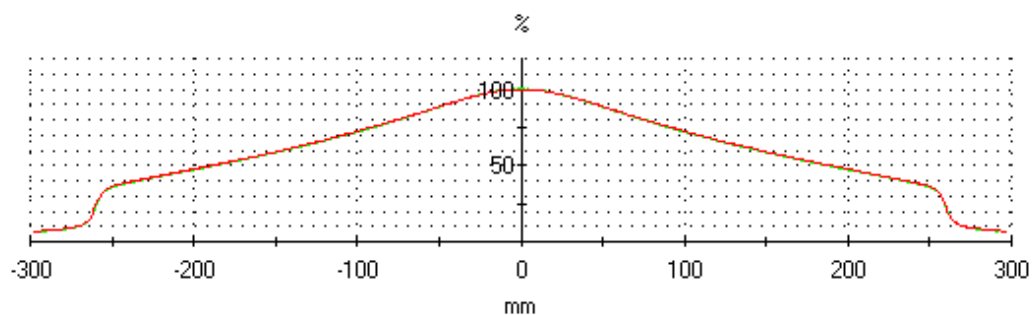
Institution: Landauer Cancer Institute
Operator:
Comment: 10FFF
Print-Date: 2020-09-03 12:55

Setup

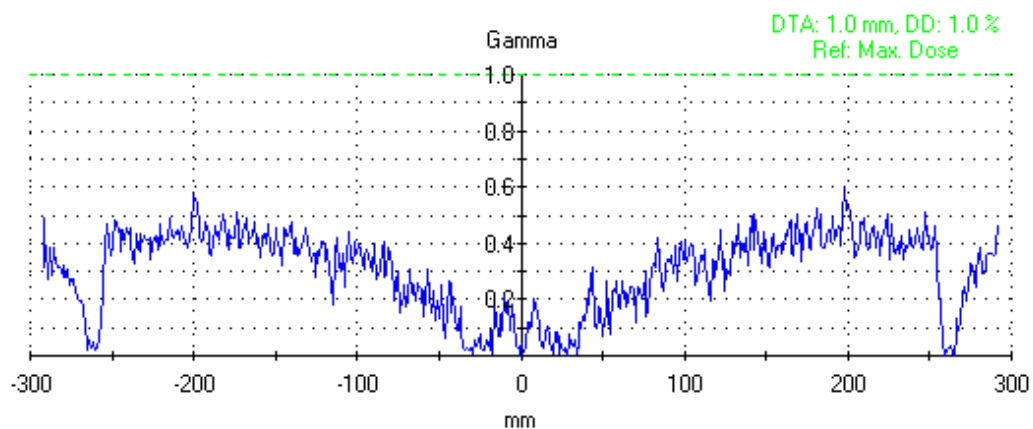
Modality: Photons

Measurement Parameters

Energy [MV]: 10.0
Field Size Y x X [cm x cm]: 40.00 x 40.00
Depth [mm]: 300.0
Profile Type: X Profile
Meas.Angle [°]: 0.00
SSD [cm]: 100.0



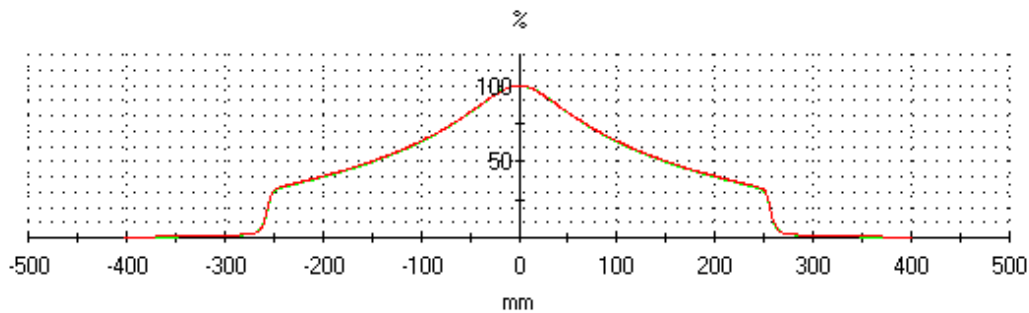
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



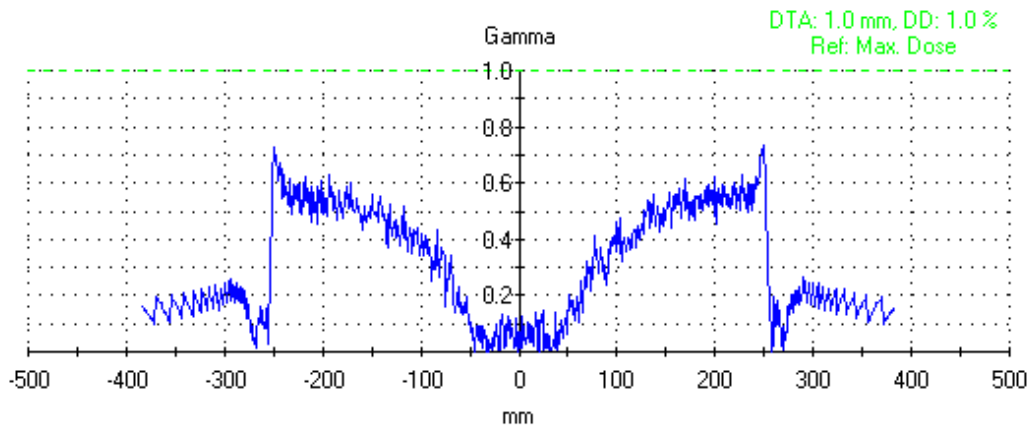
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 10FFF
Print-Date: 2020-09-03 12:51

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	10.0
		Field Size Y x X [cm x cm]:	40.00 x 40.00
		Depth [mm]:	24.0
		Profile Type:	X Profile
		Meas.Angle [°]:	Diagonal
		SSD [cm]:	100.0



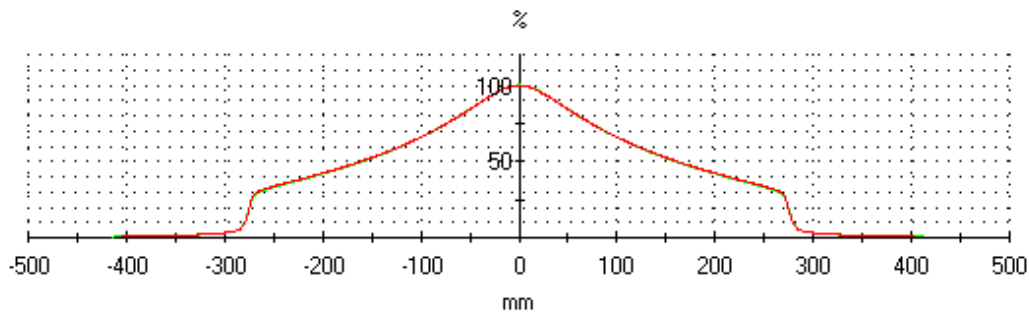
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



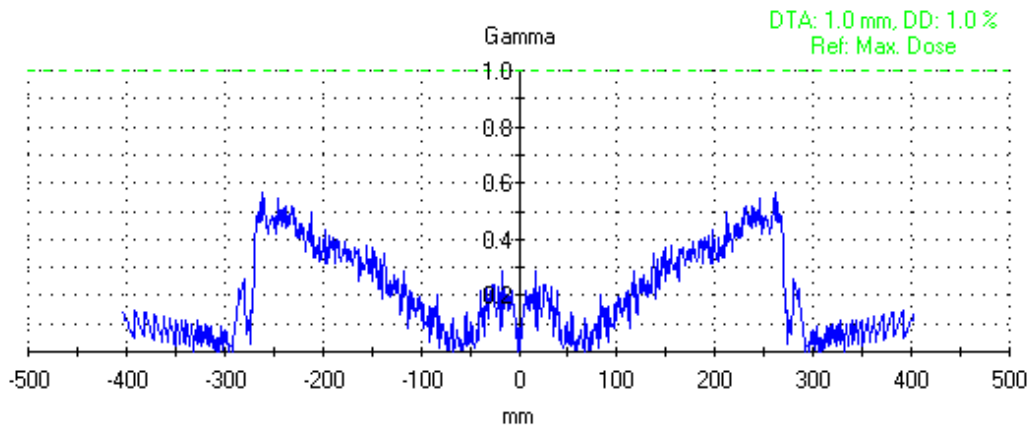
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 10FFF
Print-Date: 2020-09-03 12:52

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	10.0
		Field Size Y x X [cm x cm]:	40.00 x 40.00
		Depth [mm]:	100.0
		Profile Type:	X Profile
		Meas.Angle [°]:	Diagonal
		SSD [cm]:	100.0



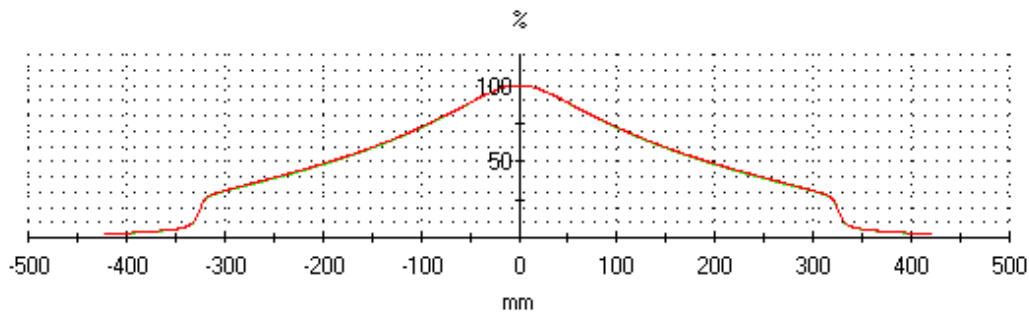
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



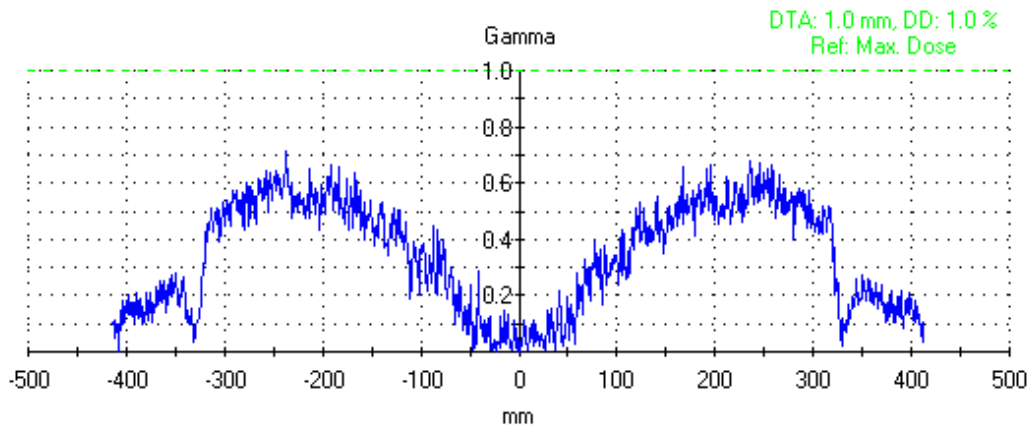
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 10FFF
Print-Date: 2020-09-03 12:53

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	10.0
		Field Size Y x X [cm x cm]:	40.00 x 40.00
		Depth [mm]:	300.0
		Profile Type:	X Profile
		Meas.Angle [°]:	Diagonal
		SSD [cm]:	100.0



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



Data

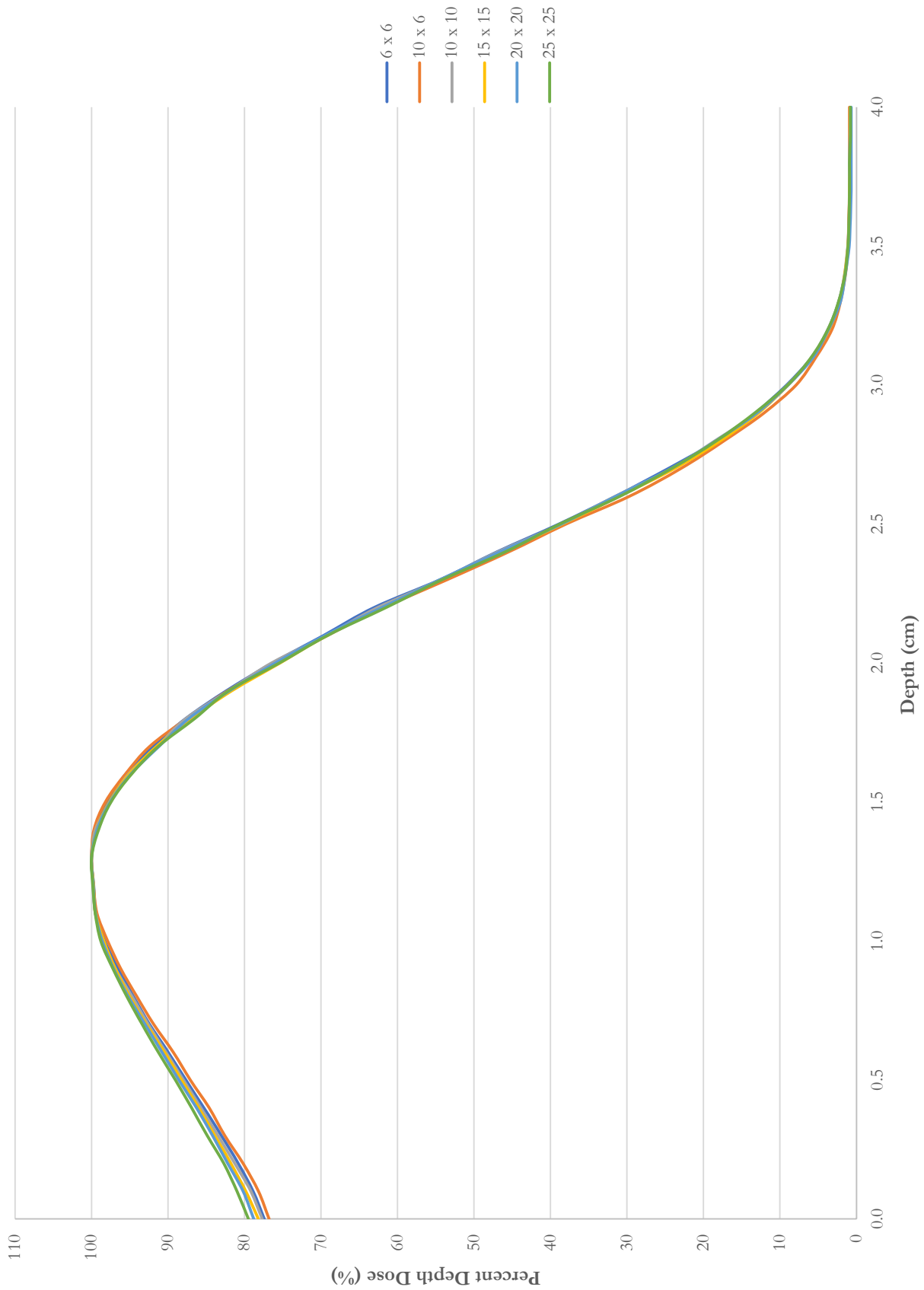
Electron Energies

Electron Energies

PDDs, Factors, & ESSD

Normalized to 1.3 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	77.4	76.8	77.7	78.2	78.8	79.5
0.1	78.9	78.2	79.2	79.9	80.2	81.0
0.2	80.8	80.2	81.3	81.8	82.2	82.7
0.3	83.0	82.6	83.5	83.9	84.2	84.9
0.4	85.3	84.6	85.7	86.0	86.3	86.9
0.5	87.7	87.1	88.0	88.3	88.6	89.1
0.6	90.0	89.4	90.3	90.5	90.8	91.3
0.7	92.4	91.9	92.6	92.8	93.0	93.4
0.8	94.5	94.1	94.7	95.0	95.2	95.4
0.9	96.5	96.2	96.9	96.9	97.1	97.2
1.0	98.3	97.9	98.5	98.4	98.6	98.8
1.1	99.4	99.3	99.5	99.5	99.5	99.5
1.2	99.7	99.8	99.8	99.8	99.8	99.9
1.3	100.0	100.0	100.0	100.0	100.0	100.0
1.4	99.5	99.7	99.5	99.4	99.3	99.1
1.5	97.9	98.2	97.6	97.7	97.6	97.5
1.6	95.6	95.6	95.2	95.1	94.9	94.8
1.7	91.9	92.4	91.4	91.5	91.2	91.3
1.8	87.7	87.6	87.7	87.0	87.3	86.6
1.9	82.4	82.2	82.1	81.7	82.0	82.1
2.0	76.4	75.9	76.5	75.4	76.0	75.5
2.1	69.6	69.1	69.3	69.2	69.5	69.1
2.2	63.0	61.8	62.6	62.0	62.0	61.5
2.3	54.4	53.5	54.3	54.3	54.4	54.2
2.4	47.0	45.5	46.9	46.3	46.6	45.9
2.5	38.9	38.0	38.6	38.5	38.6	38.8
2.6	31.5	29.7	31.6	31.0	31.5	30.9
2.7	24.6	23.0	24.2	23.8	24.3	24.2
2.8	18.2	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	9.1	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

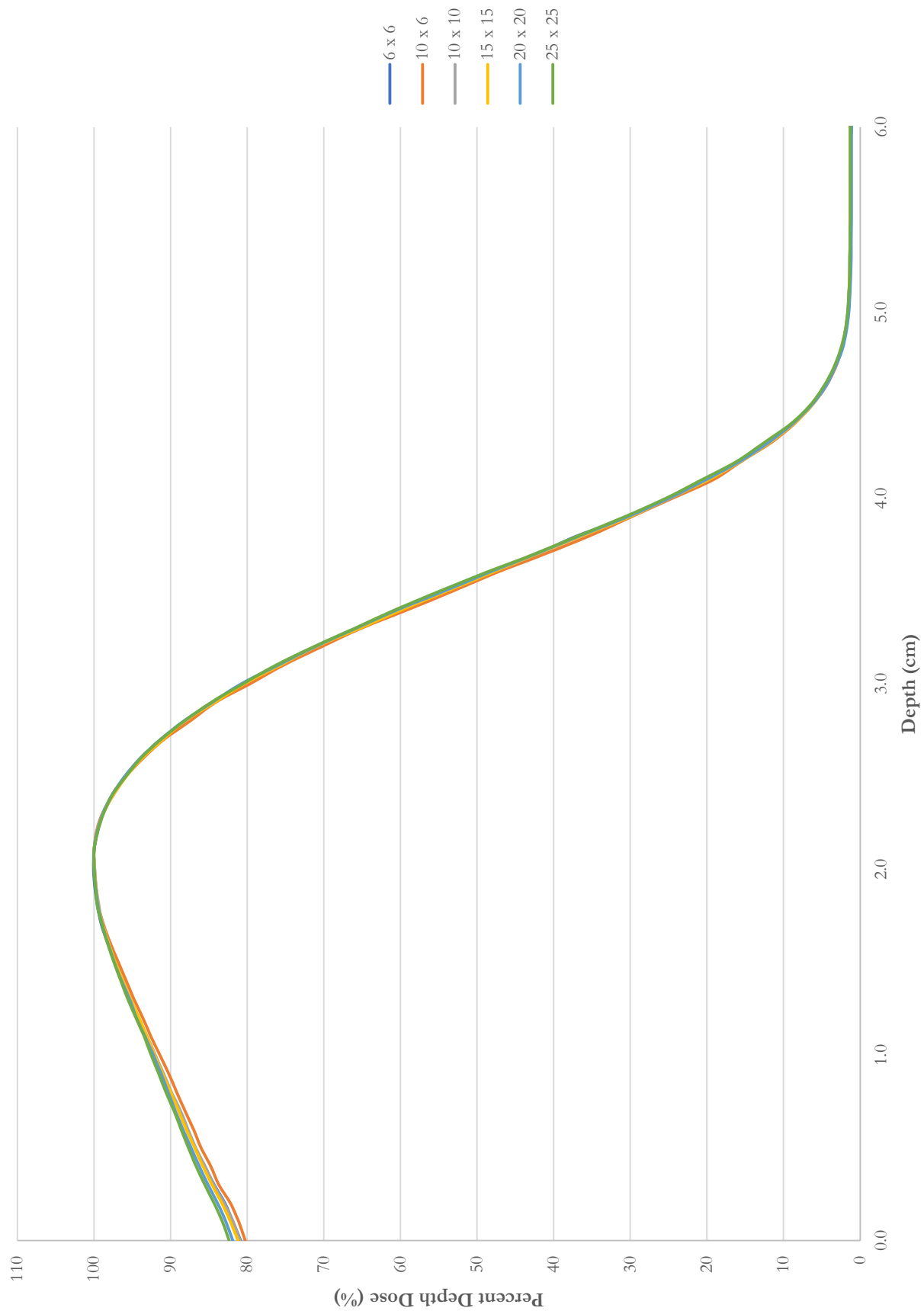
Electron PDD - 6 MeV



Normalized to 2.1 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	80.9	80.3	80.9	81.2	81.9	82.4
	0.1	81.9	81.1	81.8	82.2	82.8	83.2
	0.2	82.9	82.2	83.0	83.3	83.9	84.3
	0.3	84.3	83.7	84.4	84.6	85.1	85.5
	0.4	85.6	84.8	85.5	85.8	86.3	86.7
	0.5	86.8	86.0	86.7	86.9	87.3	87.7
	0.6	87.8	87.0	87.7	88.0	88.4	88.6
	0.7	88.9	88.1	88.7	89.0	89.4	89.6
	0.8	90.0	89.2	89.9	90.0	90.3	90.6
	0.9	91.0	90.3	90.9	91.1	91.3	91.6
	1.0	92.1	91.4	92.0	92.1	92.3	92.6
	1.1	93.2	92.6	93.1	93.1	93.4	93.5
	1.2	94.3	93.6	94.2	94.1	94.5	94.5
	1.3	95.3	94.8	95.2	95.2	95.3	95.6
	1.4	96.3	95.8	96.2	96.2	96.4	96.5
	1.5	97.3	96.8	97.2	97.2	97.4	97.4
	1.6	98.2	97.8	98.1	98.1	98.2	98.2
	1.7	99.0	98.7	98.9	98.8	98.9	99.0
	1.8	99.5	99.4	99.3	99.4	99.5	99.5
	1.9	99.9	99.7	99.7	99.7	99.8	99.8
	2.0	100.1	99.9	99.9	99.9	100.0	100.0
	2.1	100.0	100.0	100.0	100.0	100.0	100.0
	2.2	99.6	99.7	99.6	99.6	99.6	99.5
	2.3	98.9	98.9	98.9	98.8	98.8	98.8
	2.4	97.7	97.5	97.7	97.5	97.6	97.7
	2.5	96.0	95.9	96.0	95.8	96.0	95.9
	2.6	93.9	93.6	93.9	93.7	94.0	93.9
	2.7	91.4	90.9	91.3	91.0	91.3	91.3
	2.8	88.2	87.5	88.2	88.2	88.3	88.2
	2.9	84.5	84.2	84.7	84.3	84.6	84.7
	3.0	80.6	79.7	80.5	80.4	80.8	80.6
	3.1	75.8	75.3	75.9	75.7	76.0	76.3
	3.2	71.1	70.3	71.0	71.1	71.2	71.4
	3.3	65.9	65.1	65.7	65.3	65.8	66.0
	3.4	60.4	59.0	60.0	59.8	60.3	60.6
	3.5	54.4	53.2	54.3	53.9	54.3	54.9
	3.6	48.4	47.5	48.1	48.1	48.5	48.9
	3.7	42.2	41.2	42.1	42.2	42.4	42.5
	3.8	36.8	35.2	36.2	36.2	36.5	36.7
	3.9	30.1	29.9	30.2	30.1	30.4	30.8

Normalized to 2.1 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	24.8	25.0	25.0	25.4
	4.1	19.9	19.2	19.9	19.8	20.2	20.7
	4.2	15.9	15.5	15.5	15.6	15.7	16.1
	4.3	11.9	11.7	11.9	11.8	12.0	12.6
	4.4	8.8	8.6	8.8	8.7	8.9	9.1
	4.5	6.5	6.3	6.4	6.3	6.4	6.6
	4.6	4.8	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

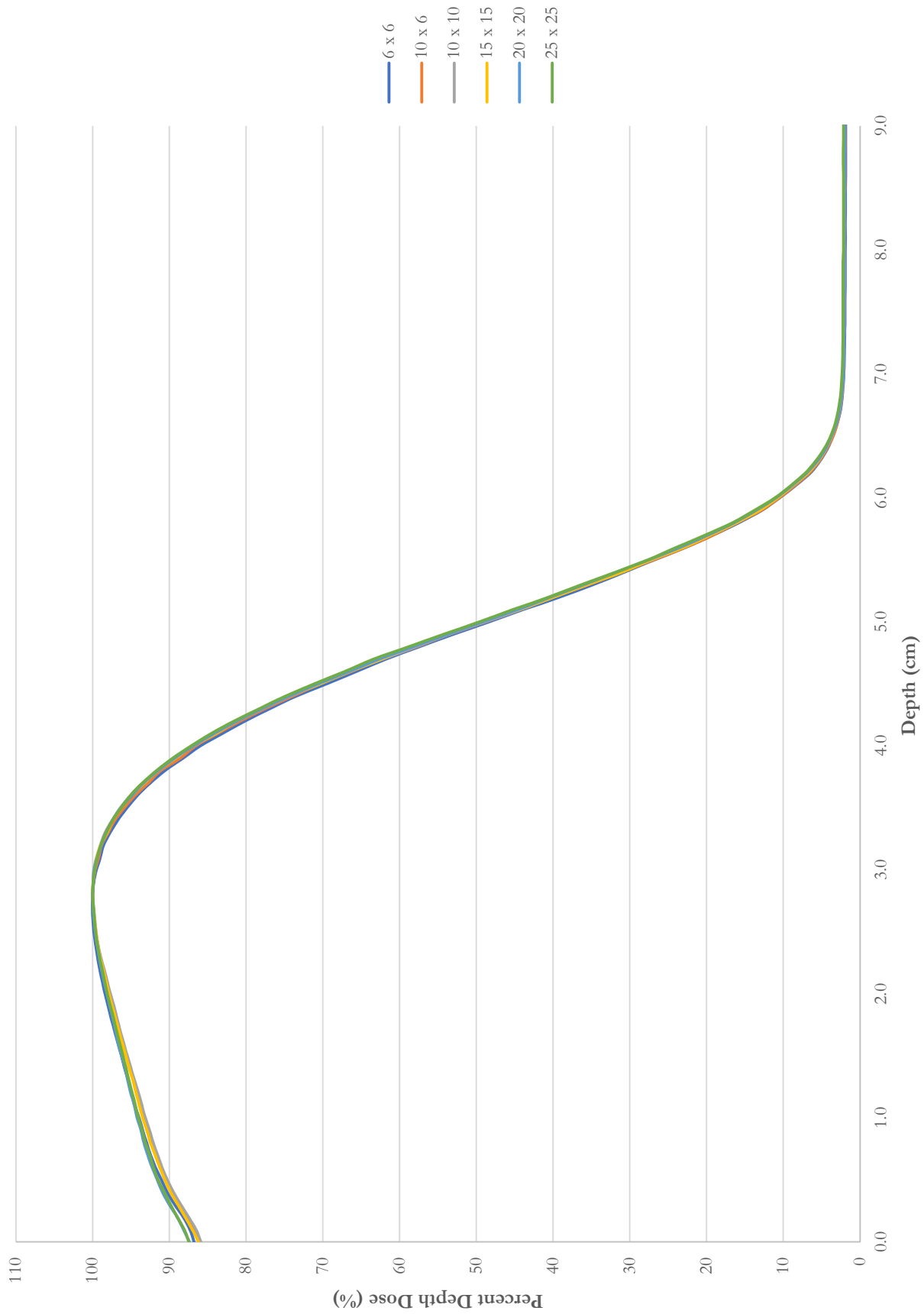


Normalized to 2.8 cm	Electron PDD - 12 MeV Landauer Cancer Institute - Jackson, WY Varian TrueBeam #9999						
	Depth (cm)	6 x 6	10 x 6	10 x 10	15 x 15	20 x 20	25 x 25
	0.0	86.8	86.1	85.9	86.2	87.4	87.5
	0.1	87.3	86.8	86.5	87.0	88.2	88.1
	0.2	88.2	87.7	87.5	87.9	89.0	89.0
	0.3	89.3	88.8	88.5	88.9	90.0	89.9
	0.4	90.3	89.7	89.5	89.9	90.9	90.7
	0.5	91.0	90.6	90.3	90.6	91.6	91.5
	0.6	91.8	91.1	91.0	91.3	92.2	92.1
	0.7	92.4	91.7	91.5	91.9	92.8	92.6
	0.8	93.0	92.4	92.1	92.5	93.3	93.1
	0.9	93.5	92.9	92.6	92.9	93.7	93.6
	1.0	94.0	93.3	93.1	93.5	94.2	94.0
	1.1	94.5	93.8	93.6	93.9	94.6	94.4
	1.2	94.9	94.3	94.0	94.3	95.0	94.8
	1.3	95.4	94.7	94.5	94.7	95.4	95.3
	1.4	95.8	95.1	95.0	95.2	95.8	95.7
	1.5	96.2	95.7	95.5	95.7	96.2	96.1
	1.6	96.7	96.1	95.9	96.1	96.7	96.5
	1.7	97.1	96.6	96.4	96.6	97.0	96.9
	1.8	97.6	97.1	96.8	97.0	97.4	97.3
	1.9	98.0	97.5	97.2	97.4	97.7	97.7
	2.0	98.4	97.9	97.7	97.9	98.1	98.1
	2.1	98.7	98.3	98.1	98.3	98.5	98.4
	2.2	99.1	98.7	98.5	98.6	98.8	98.8
	2.3	99.4	99.0	99.0	99.0	99.2	99.1
	2.4	99.6	99.4	99.3	99.3	99.4	99.4
	2.5	99.8	99.6	99.6	99.6	99.7	99.6
	2.6	100.0	99.8	99.7	99.8	99.8	99.8
	2.7	100.0	99.9	99.9	99.9	100.0	99.9
	2.8	100.0	100.0	100.0	100.0	100.0	100.0
	2.9	99.9	99.9	100.0	99.9	99.9	99.9
	3.0	99.5	99.7	99.9	99.7	99.8	99.7
	3.1	99.0	99.2	99.5	99.5	99.4	99.4
	3.2	98.6	98.8	99.0	98.9	98.9	98.9
	3.3	97.7	98.0	98.4	98.1	98.2	98.3
	3.4	96.8	97.1	97.5	97.4	97.4	97.4
	3.5	95.5	95.9	96.4	96.3	96.3	96.3
	3.6	94.2	94.5	95.1	94.9	94.9	95.1
	3.7	92.5	92.8	93.5	93.3	93.4	93.5
	3.8	90.6	91.2	91.6	91.5	91.5	91.7
	3.9	88.3	88.6	89.4	89.2	89.3	89.6

Normalized to 2.8 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	86.0	86.6	86.9	86.9	86.9	87.2
4.1	83.1	83.8	84.1	84.0	84.2	84.6	
4.2	80.2	80.8	81.2	81.3	81.2	81.6	
4.3	76.9	77.5	77.9	78.0	78.0	78.3	
4.4	73.5	74.0	74.4	74.5	74.4	74.9	
4.5	69.6	70.4	70.5	70.4	70.7	71.2	
4.6	65.6	66.3	66.5	66.5	66.6	67.1	
4.7	61.8	62.4	62.2	62.3	62.6	63.4	
4.8	57.5	57.8	57.9	58.4	58.3	58.8	
4.9	53.0	53.6	53.6	53.8	53.8	54.3	
5.0	48.3	48.8	48.9	49.3	49.2	49.6	
5.1	43.9	44.2	44.2	44.4	44.6	45.2	
5.2	39.2	40.0	40.0	39.9	40.4	40.6	
5.3	34.8	35.4	35.6	35.5	36.0	36.3	
5.4	30.7	31.1	31.3	31.0	31.8	31.9	
5.5	26.9	26.9	27.2	27.3	27.6	27.7	
5.6	22.8	22.8	23.1	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	10.7	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	6.8	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 2.8 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
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

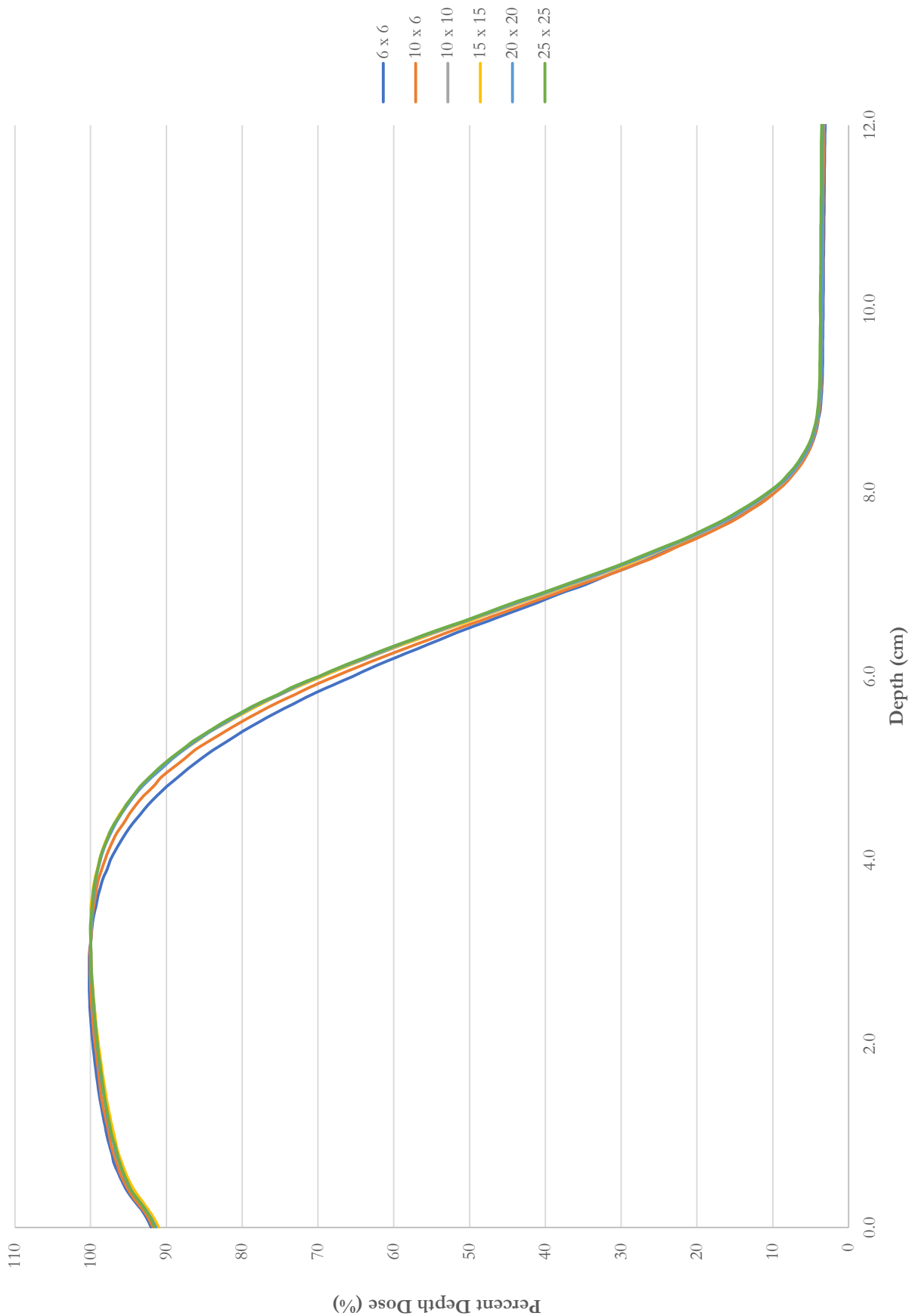


Normalized to 3.1 cm	Electron PDD - 16 MeV Landauer Cancer Institute - Jackson, WY Varian TrueBeam #9999						
	Depth (cm)	6 x 6	10 x 6	10 x 10	15 x 15	20 x 20	25 x 25
	0.0	92.0	91.8	91.4	91.0	91.4	91.6
	0.1	92.6	92.4	92.0	91.6	92.0	92.1
	0.2	93.4	93.1	92.8	92.5	92.8	92.9
	0.3	94.3	94.1	93.7	93.3	93.7	93.7
	0.4	95.2	95.0	94.5	94.2	94.6	94.6
	0.5	95.8	95.6	95.2	94.9	95.3	95.2
	0.6	96.4	96.2	95.8	95.4	95.7	95.7
	0.7	96.9	96.5	96.2	95.9	96.1	96.2
	0.8	97.2	97.0	96.6	96.3	96.6	96.5
	0.9	97.5	97.3	96.9	96.6	96.9	96.8
	1.0	97.9	97.5	97.2	96.9	97.2	97.2
	1.1	98.1	97.8	97.5	97.2	97.5	97.5
	1.2	98.3	98.1	97.7	97.4	97.8	97.7
	1.3	98.6	98.3	97.9	97.7	97.9	97.9
	1.4	98.8	98.6	98.1	97.9	98.2	98.1
	1.5	99.0	98.7	98.3	98.1	98.4	98.3
	1.6	99.1	98.8	98.5	98.3	98.5	98.5
	1.7	99.3	99.0	98.7	98.5	98.7	98.6
	1.8	99.4	99.1	98.8	98.6	98.9	98.8
	1.9	99.6	99.3	98.9	98.8	99.0	99.0
	2.0	99.7	99.4	99.1	99.0	99.1	99.1
	2.1	99.8	99.6	99.2	99.1	99.3	99.2
	2.2	99.9	99.7	99.3	99.3	99.4	99.4
	2.3	100.0	99.8	99.4	99.4	99.5	99.5
	2.4	100.1	99.9	99.5	99.5	99.6	99.6
	2.5	100.1	99.9	99.6	99.6	99.7	99.7
	2.6	100.2	100.0	99.7	99.7	99.8	99.8
	2.7	100.2	100.0	99.8	99.8	99.9	99.9
	2.8	100.2	100.0	99.9	99.9	99.9	99.9
	2.9	100.2	100.1	99.9	99.9	100.0	100.0
	3.0	100.2	100.1	100.0	100.0	100.0	100.0
	3.1	100.0	100.0	100.0	100.0	100.0	100.0
	3.2	99.9	99.9	100.0	100.0	100.0	100.0
	3.3	99.8	99.9	99.9	100.0	99.9	100.0
	3.4	99.6	99.8	99.9	100.0	99.9	99.9
	3.5	99.3	99.6	99.9	100.0	99.8	99.8
	3.6	99.1	99.4	99.7	99.8	99.6	99.7
	3.7	98.7	99.2	99.5	99.6	99.5	99.6
	3.8	98.4	98.9	99.4	99.4	99.3	99.3
	3.9	97.8	98.5	99.1	99.1	99.0	99.1

Normalized to 3.1 cm	Electron PDD - 16 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	97.4	98.1	98.7	98.8	98.7	98.8
4.1	96.8	97.7	98.4	98.5	98.4	98.5
4.2	96.1	97.1	98.0	98.0	97.9	98.0
4.3	95.3	96.5	97.4	97.5	97.3	97.5
4.4	94.4	95.7	96.7	96.8	96.7	96.9
4.5	93.4	94.9	96.1	96.2	96.0	96.0
4.6	92.4	94.0	95.2	95.3	95.1	95.3
4.7	91.2	93.0	94.3	94.4	94.2	94.4
4.8	90.0	91.7	93.2	93.4	93.2	93.5
4.9	88.5	90.7	92.0	92.2	92.0	92.3
5.0	87.1	89.2	90.6	90.8	90.6	91.0
5.1	85.5	87.7	89.3	89.4	89.3	89.6
5.2	83.8	86.2	87.7	87.8	87.7	88.0
5.3	81.8	84.3	86.0	85.9	86.0	86.4
5.4	79.9	82.2	84.2	84.3	84.2	84.4
5.5	77.9	80.2	82.0	82.0	82.2	82.5
5.6	75.7	78.0	79.9	79.8	80.1	80.3
5.7	73.3	75.7	77.6	77.5	77.8	78.0
5.8	70.9	73.1	75.0	75.1	75.2	75.4
5.9	68.2	70.6	72.4	72.4	72.7	73.0
6.0	65.4	67.8	69.5	69.4	69.8	69.9
6.1	62.8	64.8	66.5	66.6	66.9	67.1
6.2	59.9	61.8	63.4	63.6	63.7	64.1
6.3	56.9	58.6	60.3	60.5	60.7	61.0
6.4	53.9	55.4	57.1	57.0	57.5	57.7
6.5	51.0	52.2	53.7	53.9	54.1	54.4
6.6	47.6	48.8	50.2	50.1	50.6	50.8
6.7	44.5	45.4	46.9	47.0	47.3	47.6
6.8	41.2	42.1	43.4	43.5	43.9	44.3
6.9	38.2	38.7	39.9	40.1	40.4	40.7
7.0	34.7	35.4	36.5	36.7	37.0	37.4
7.1	31.9	31.9	33.2	33.4	33.5	34.0
7.2	28.6	28.7	29.9	29.9	30.3	30.7
7.3	25.7	25.5	26.8	26.9	27.2	27.6
7.4	23.1	22.9	23.9	24.0	24.2	24.7
7.5	20.4	20.1	21.1	21.2	21.3	21.6
7.6	17.8	17.5	18.3	18.6	18.7	19.0
7.7	15.5	15.1	16.0	16.2	16.2	16.6
7.8	13.5	13.2	13.9	14.1	14.1	14.5
7.9	11.6	11.3	12.0	12.1	12.2	12.5

Normalized to 3.1 cm	Electron PDD - 16 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	10.1	9.8	10.3	10.4	10.5	10.7
8.1	8.6	8.4	8.8	8.8	8.9	9.1
8.2	7.4	7.3	7.6	7.7	7.7	8.0
8.3	6.5	6.3	6.7	6.7	6.7	6.9
8.4	5.6	5.6	5.9	5.9	5.9	6.1
8.5	5.0	5.0	5.2	5.3	5.2	5.4
8.6	4.6	4.6	4.7	4.8	4.7	4.9
8.7	4.2	4.3	4.4	4.4	4.4	4.6
8.8	4.0	4.0	4.2	4.2	4.1	4.3
8.9	3.8	3.9	4.0	4.0	4.0	4.1
9.0	3.7	3.7	3.9	3.9	3.8	4.0
9.1	3.6	3.7	3.8	3.8	3.7	3.9
9.2	3.5	3.6	3.7	3.8	3.7	3.8
9.3	3.5	3.6	3.7	3.7	3.6	3.8
9.4	3.4	3.6	3.7	3.7	3.6	3.8
9.5	3.4	3.6	3.6	3.7	3.6	3.8
9.6	3.4	3.5	3.6	3.7	3.6	3.8
9.7	3.4	3.5	3.6	3.7	3.6	3.8
9.8	3.4	3.5	3.6	3.7	3.6	3.7
9.9	3.4	3.5	3.6	3.7	3.6	3.7
10.0	3.4	3.5	3.6	3.6	3.5	3.7
10.1	3.4	3.5	3.6	3.6	3.5	3.7
10.2	3.3	3.5	3.6	3.6	3.5	3.7
10.3	3.3	3.5	3.5	3.6	3.5	3.7
10.4	3.3	3.4	3.5	3.6	3.5	3.7
10.5	3.3	3.4	3.5	3.6	3.5	3.7
10.6	3.3	3.4	3.5	3.6	3.5	3.7
10.7	3.3	3.4	3.5	3.6	3.5	3.7
10.8	3.3	3.4	3.5	3.6	3.5	3.7
10.9	3.3	3.4	3.5	3.6	3.5	3.7
11.0	3.3	3.4	3.5	3.6	3.5	3.7
11.1	3.2	3.4	3.5	3.6	3.5	3.7
11.2	3.2	3.4	3.5	3.5	3.5	3.6
11.3	3.2	3.4	3.5	3.5	3.5	3.6
11.4	3.2	3.3	3.5	3.5	3.5	3.6
11.5	3.2	3.3	3.5	3.5	3.5	3.6
11.6	3.2	3.3	3.4	3.5	3.5	3.6
11.7	3.2	3.3	3.4	3.5	3.5	3.6
11.8	3.2	3.3	3.4	3.5	3.4	3.6
11.9	3.1	3.3	3.4	3.5	3.4	3.6
12.0	3.1	3.3	3.4	3.4	3.4	3.6

Electron PDD - 16 MeV

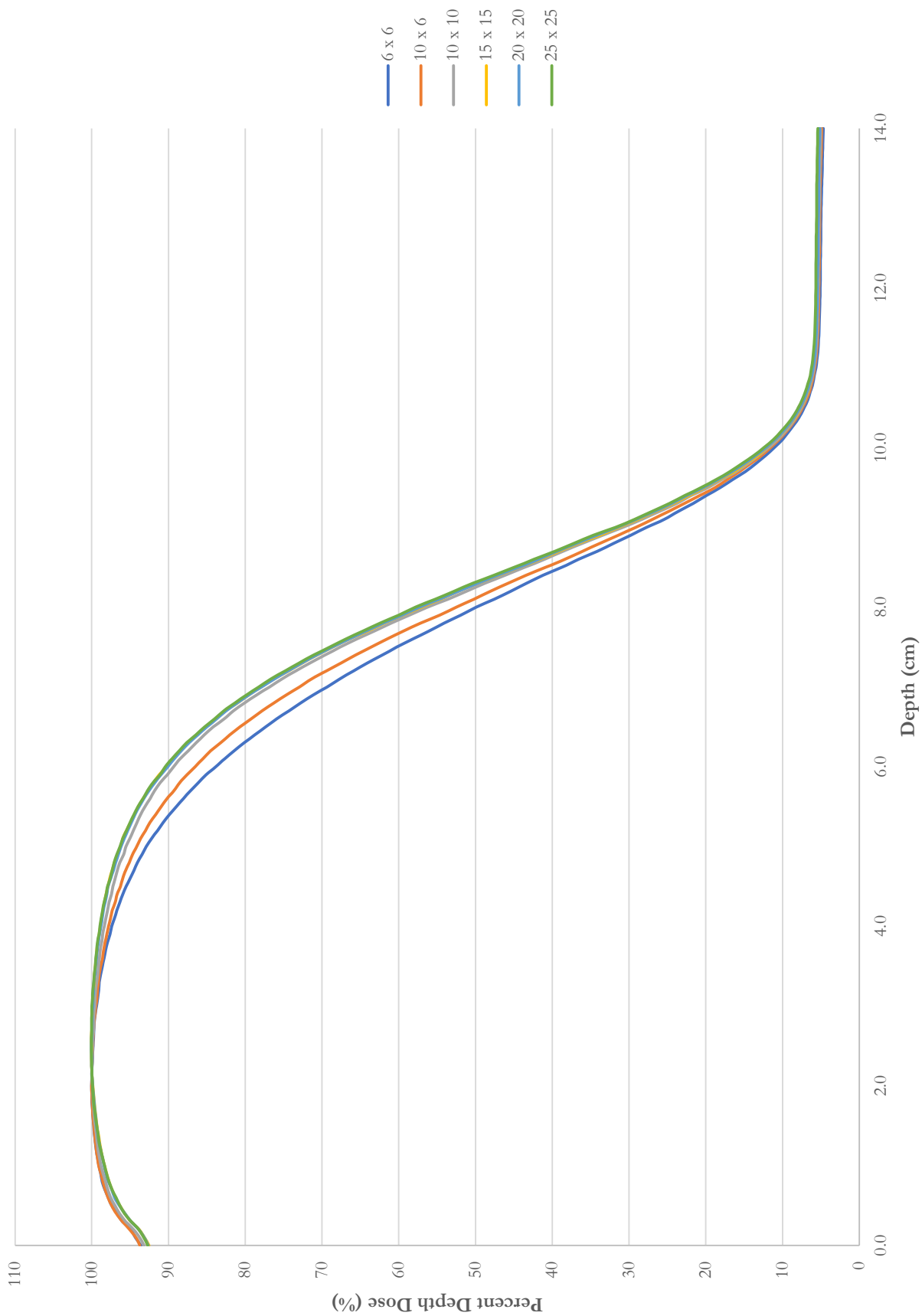


Normalized to 2.2 cm	Electron PDD - 20 MeV Landauer Cancer Institute - Jackson, WY Varian TrueBeam #9999						
	Depth (cm)	6 x 6	10 x 6	10 x 10	15 x 15	20 x 20	25 x 25
	0.0	93.6	93.7	93.2	92.5	92.7	92.7
	0.1	94.3	94.3	93.8	93.1	93.2	93.2
	0.2	94.9	95.1	94.6	93.8	93.9	93.9
	0.3	96.0	96.0	95.6	94.9	94.9	94.8
	0.4	96.7	96.8	96.4	95.7	95.7	95.7
	0.5	97.4	97.4	97.0	96.4	96.4	96.3
	0.6	97.8	97.9	97.5	96.9	97.0	96.8
	0.7	98.3	98.3	97.9	97.4	97.4	97.4
	0.8	98.6	98.6	98.2	97.7	97.8	97.8
	0.9	98.8	98.8	98.5	98.1	98.1	98.1
	1.0	99.1	99.1	98.8	98.3	98.4	98.3
	1.1	99.3	99.3	99.0	98.6	98.6	98.6
	1.2	99.4	99.4	99.2	98.8	98.9	98.9
	1.3	99.5	99.5	99.3	99.0	99.1	99.1
	1.4	99.7	99.6	99.4	99.2	99.2	99.2
	1.5	99.8	99.7	99.6	99.3	99.4	99.4
	1.6	99.8	99.8	99.7	99.5	99.5	99.5
	1.7	99.9	99.9	99.8	99.6	99.6	99.7
	1.8	100.0	100.0	99.8	99.7	99.7	99.8
	1.9	100.0	100.0	99.9	99.8	99.8	99.8
	2.0	100.0	100.0	99.9	99.9	99.9	99.9
	2.1	100.0	100.0	100.0	100.0	100.0	100.0
	2.2	100.0	100.0	100.0	100.0	100.0	100.0
	2.3	99.9	100.0	99.9	100.0	100.0	100.0
	2.4	99.9	99.9	99.9	100.0	100.0	100.1
	2.5	99.8	99.9	99.9	100.0	100.1	100.1
	2.6	99.8	99.8	99.9	100.1	100.0	100.0
	2.7	99.7	99.8	99.8	100.0	100.0	100.0
	2.8	99.7	99.7	99.7	100.0	100.0	100.0
	2.9	99.6	99.6	99.7	100.0	100.0	100.0
	3.0	99.4	99.5	99.6	99.9	99.9	100.0
	3.1	99.2	99.3	99.6	99.8	99.8	99.9
	3.2	99.1	99.3	99.5	99.8	99.8	99.9
	3.3	99.0	99.1	99.4	99.7	99.7	99.8
	3.4	98.8	99.0	99.2	99.6	99.6	99.7
	3.5	98.6	98.8	99.1	99.5	99.5	99.5
	3.6	98.4	98.6	99.0	99.4	99.4	99.5
	3.7	98.2	98.5	98.9	99.3	99.3	99.3
	3.8	98.0	98.3	98.7	99.2	99.1	99.3
	3.9	97.6	98.1	98.6	99.0	99.0	99.1

Normalized to 2.2 cm	Electron PDD - 20 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	97.4	97.8	98.4	98.9	98.8	98.9
4.1	97.0	97.6	98.2	98.7	98.6	98.8	
4.2	96.7	97.3	98.0	98.6	98.5	98.6	
4.3	96.4	97.0	97.7	98.4	98.3	98.4	
4.4	96.0	96.7	97.5	98.1	98.0	98.1	
4.5	95.5	96.3	97.2	97.9	97.9	97.9	
4.6	95.0	96.0	97.0	97.7	97.5	97.6	
4.7	94.5	95.6	96.7	97.4	97.2	97.3	
4.8	94.1	95.1	96.3	97.0	96.9	97.1	
4.9	93.4	94.7	95.9	96.7	96.5	96.7	
5.0	92.9	94.1	95.6	96.3	96.2	96.3	
5.1	92.2	93.6	95.1	96.0	95.8	96.0	
5.2	91.4	93.0	94.6	95.5	95.3	95.5	
5.3	90.7	92.4	94.1	95.0	94.9	95.0	
5.4	89.9	91.7	93.7	94.4	94.4	94.5	
5.5	89.0	91.0	93.1	93.9	93.8	94.0	
5.6	88.1	90.2	92.4	93.3	93.2	93.3	
5.7	87.1	89.3	91.8	92.6	92.6	92.7	
5.8	86.1	88.5	91.1	92.0	91.8	92.0	
5.9	85.1	87.6	90.2	91.2	91.0	91.1	
6.0	83.8	86.5	89.3	90.3	90.1	90.4	
6.1	82.7	85.5	88.5	89.4	89.3	89.6	
6.2	81.4	84.5	87.4	88.4	88.3	88.6	
6.3	80.1	83.2	86.4	87.5	87.3	87.6	
6.4	78.8	82.0	85.3	86.3	86.2	86.4	
6.5	77.3	80.7	84.2	85.1	85.0	85.3	
6.6	75.9	79.2	82.8	83.8	83.8	84.0	
6.7	74.3	77.8	81.5	82.6	82.5	82.8	
6.8	72.8	76.3	80.1	81.0	81.1	81.4	
6.9	71.1	74.6	78.5	79.5	79.5	79.8	
7.0	69.3	72.9	76.9	77.9	77.9	78.3	
7.1	67.7	71.4	75.2	76.2	76.2	76.7	
7.2	65.9	69.5	73.5	74.4	74.4	74.8	
7.3	64.1	67.5	71.6	72.6	72.6	73.0	
7.4	62.1	65.6	69.6	70.6	70.7	71.1	
7.5	60.3	63.6	67.7	68.6	68.7	69.0	
7.6	58.2	61.5	65.5	66.5	66.5	66.9	
7.7	56.1	59.4	63.2	64.1	64.3	64.7	
7.8	54.1	57.1	61.0	61.9	62.0	62.4	
7.9	52.0	54.7	58.6	59.5	59.6	60.0	

Normalized to 2.2 cm	Electron PDD - 20 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	49.9	52.5	56.3	57.0	57.3	57.8
8.1	47.6	50.2	53.6	54.6	54.7	55.3	
8.2	45.4	48.1	51.2	52.2	52.2	52.8	
8.3	43.3	45.7	48.7	49.6	49.7	50.3	
8.4	41.2	43.4	46.2	47.0	47.1	47.6	
8.5	38.7	40.8	43.6	44.3	44.4	44.9	
8.6	36.6	38.4	41.0	41.6	41.8	42.4	
8.7	34.1	36.1	38.6	39.1	39.4	39.7	
8.8	32.0	33.8	36.1	36.6	36.8	37.2	
8.9	29.8	31.4	33.5	33.8	34.2	34.7	
9.0	27.7	29.2	30.9	31.4	31.6	31.8	
9.1	25.4	27.0	28.3	28.8	29.1	29.3	
9.2	23.6	24.9	26.1	26.5	26.7	27.0	
9.3	21.7	22.8	23.8	24.2	24.4	24.8	
9.4	19.9	20.8	21.9	22.1	22.4	22.7	
9.5	18.1	18.8	19.7	20.1	20.3	20.6	
9.6	16.5	17.2	17.9	18.2	18.4	18.6	
9.7	14.9	15.6	16.0	16.3	16.6	16.9	
9.8	13.5	14.2	14.5	14.8	15.0	15.3	
9.9	12.3	12.8	13.1	13.3	13.5	13.8	
10.0	11.1	11.6	11.8	12.1	12.2	12.4	
10.1	10.0	10.5	10.7	10.9	11.0	11.2	
10.2	9.2	9.5	9.7	9.9	10.0	10.2	
10.3	8.4	8.7	8.8	9.0	9.1	9.3	
10.4	7.7	8.0	8.2	8.2	8.3	8.6	
10.5	7.2	7.4	7.5	7.7	7.7	7.9	
10.6	6.7	6.9	7.1	7.2	7.2	7.4	
10.7	6.4	6.5	6.7	6.8	6.8	7.0	
10.8	6.1	6.2	6.4	6.5	6.5	6.7	
10.9	5.9	6.0	6.1	6.2	6.2	6.4	
11.0	5.7	5.8	5.9	6.1	6.0	6.2	
11.1	5.5	5.7	5.8	5.9	5.9	6.1	
11.2	5.4	5.6	5.7	5.8	5.8	6.0	
11.3	5.4	5.5	5.6	5.7	5.7	5.9	
11.4	5.3	5.4	5.5	5.7	5.6	5.8	
11.5	5.3	5.4	5.5	5.6	5.6	5.8	
11.6	5.2	5.3	5.5	5.6	5.6	5.8	
11.7	5.2	5.3	5.4	5.6	5.5	5.7	
11.8	5.2	5.3	5.4	5.5	5.5	5.7	
11.9	5.1	5.3	5.4	5.5	5.5	5.7	
12.0	5.1	5.3	5.4	5.5	5.5	5.7	

Electron PDD - 20 MeV



Electron Applicator Output Factors 100 SSD Landauer Cancer Institute Varian TrueBeam #9999 Normalized to 15x15					
Applicator	MeV				
	6	9	12	16	20
6 x 6 cm	0.945	0.990	0.952	0.982	1.020
10 x 6 cm	0.809	0.950	0.972	0.991	1.018
10 x 10 cm	0.998	1.003	0.996	1.007	1.020
15 x 15 cm	1.000	1.000	1.000	1.000	1.000
20 x 20 cm	1.040	1.012	1.000	0.996	0.991
25 x 25 cm	1.059	1.009	0.988	0.983	0.975
dmax (cm) nominal	1.3	2.1	2.8	3.1	2.2

Electron Applicator Output Factors 105 SSD Normalized to 15x15 at 100 SSD					
Applicator	MeV				
	6	9	12	16	20
6 x 6 cm	0.828	0.882	0.852	0.879	0.905
10 x 6 cm	0.716	0.848	0.869	0.884	0.907
10 x 10 cm	0.894	0.903	0.896	0.906	0.912
15 x 15 cm	0.898	0.905	0.903	0.904	0.902
20 x 20 cm	0.939	0.915	0.905	0.903	0.898
25 x 25 cm	0.955	0.917	0.894	0.895	0.886

Electron Applicator Output Factors 110 SSD Normalized to 15x15 at 100 SSD					
Applicator	MeV				
	6	9	12	16	20
6 x 6 cm	0.723	0.789	0.763	0.792	0.810
10 x 6 cm	0.629	0.760	0.783	0.798	0.814
10 x 10 cm	0.799	0.813	0.807	0.818	0.821
15 x 15 cm	0.806	0.817	0.818	0.820	0.814
20 x 20 cm	0.847	0.830	0.822	0.820	0.812
25 x 25 cm	0.861	0.830	0.811	0.811	0.803

Electron Effective SSD					
Landauer Cancer Institute Varian TrueBeam #9999					
Applicator	MeV				
	6	9	12	16	20
6 x 6 cm	68.5	81.2	82.7	85.3	79.9
10 x 6 cm	73.2	82.4	84.7	84.3	82.3
10 x 10 cm	83.6	88.1	87.4	88.0	85.2
15 x 15 cm	86.5	91.7	91.9	92.7	90.0
20 x 20 cm	91.6	94.1	94.0	94.6	93.4
25 x 25 cm	90.6	95.9	93.8	95.5	96.1

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

* As defined by Kahn

Electron Energies

PDD and In-Air Profile Beam Data
Match Verification

Mephysto mcc - Report

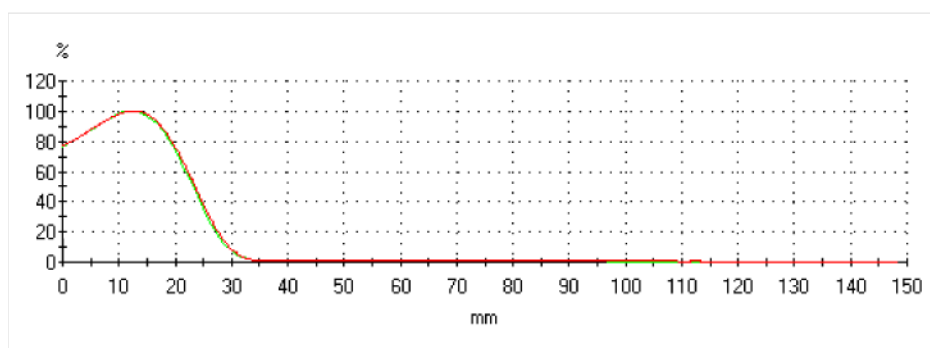
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Operator:
Comment:
Print-Date: 2020-09-01 17:12

Setup

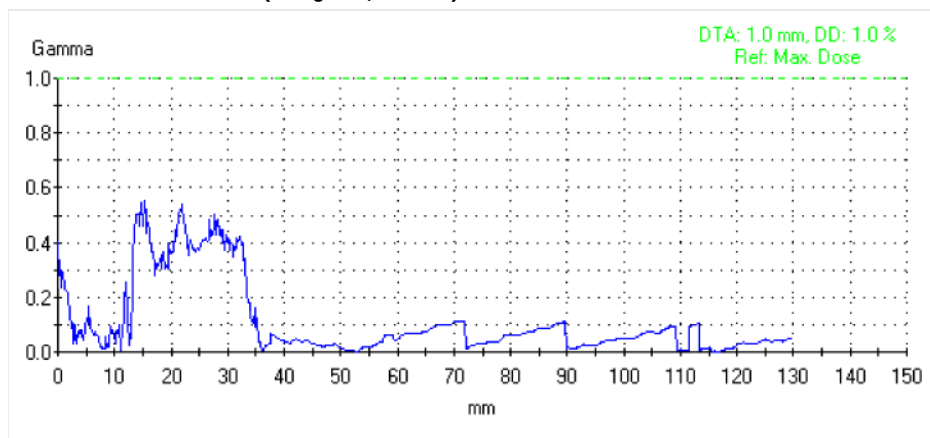
Modality: Electrons
Measurement Date: *

Measurement Parameters

Energy [MeV]: 6.0
Field Size Y x X [cm x cm]: 6.00 x 6.00
Depth [mm]:
Profile Type: PDD
Applicator: *
Raw/Processed: Processed



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



Mephysto mcc - Report

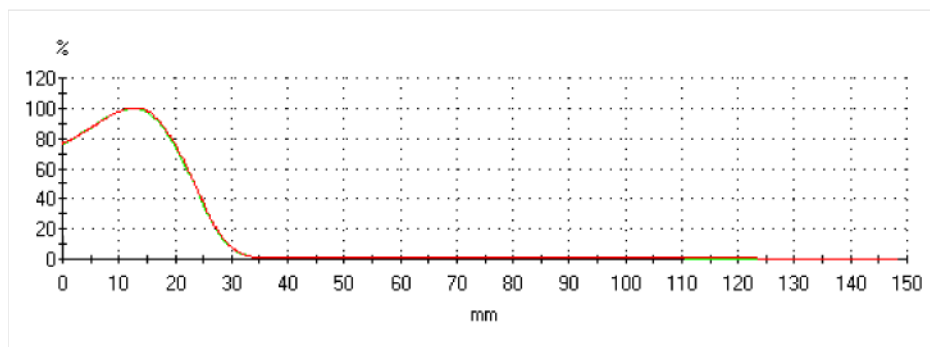
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Setup

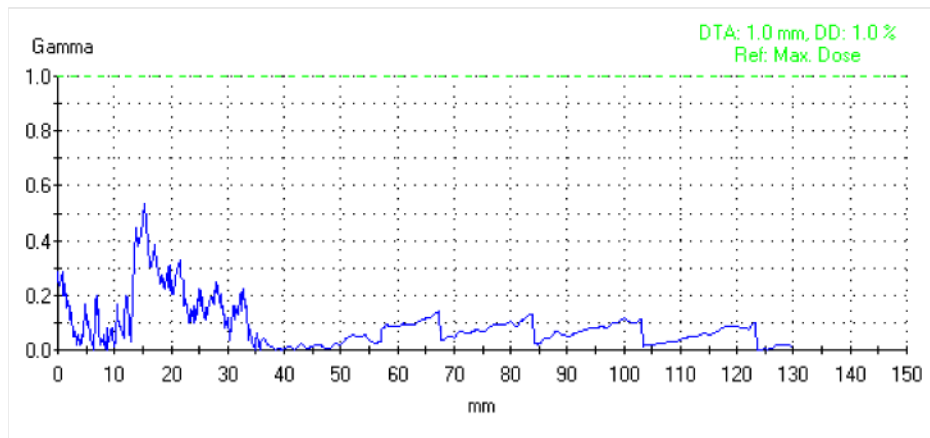
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Measurement Date: *

Measurement Parameters

Energy [MeV]: 6.0
Field Size Y x X [cm x cm]: 10.00 x 6.00
Depth [mm]:
Profile Type: PDD
Applicator: *
Raw/Processed: Processed



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



Mephysto mcc - Report

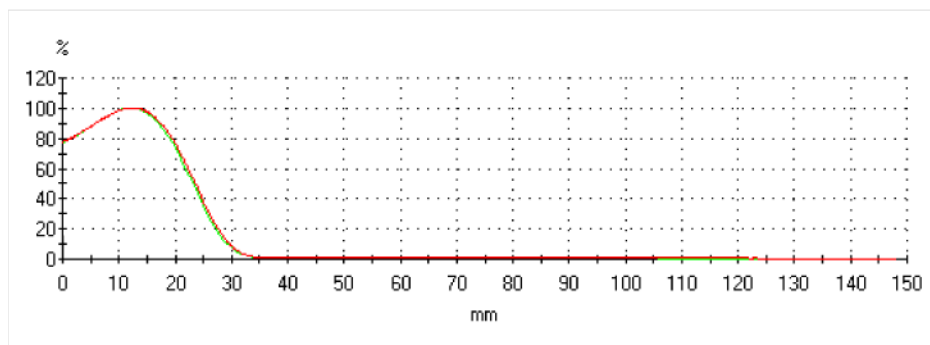
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Comment:
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Setup

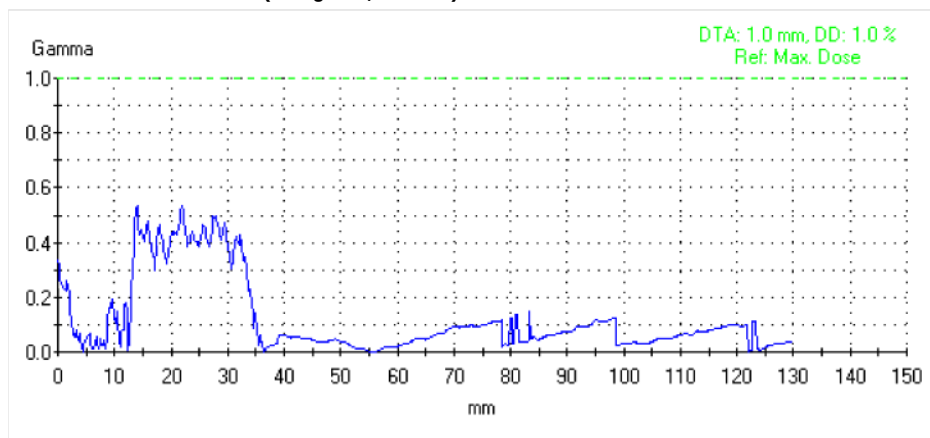
Modality: Electrons
Measurement Date: *

Measurement Parameters

Energy [MeV]: 6.0
Field Size Y x X [cm x cm]: 10.00 x 10.00
Depth [mm]:
Profile Type: PDD
Applicator: *
Raw/Processed: Processed



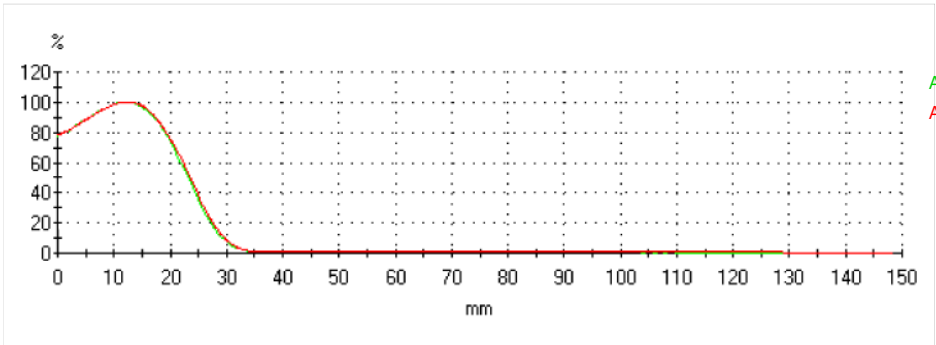
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



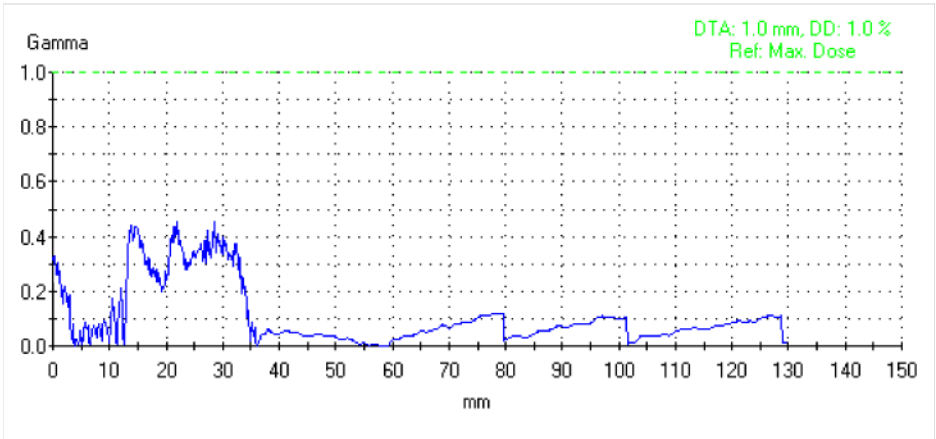
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 17:14

Setup		Measurement Parameters	
Modality:	Electrons	Energy [MeV]:	6.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	15.00 x 15.00
		Depth [mm]:	
		Profile Type:	PDD
		Applicator:	*
		Raw/Processed:	Processed



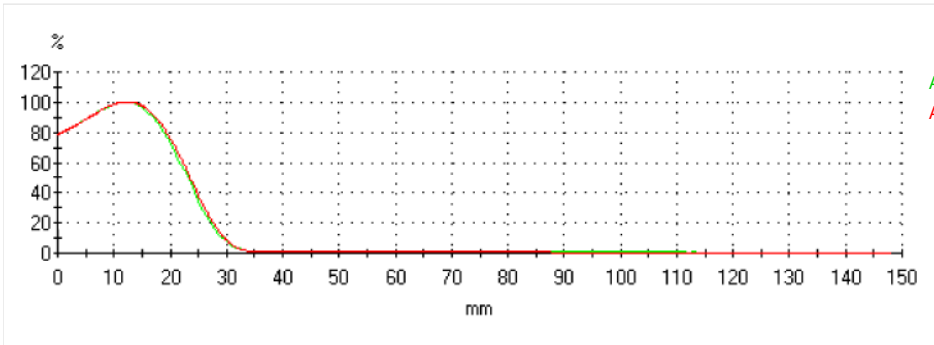
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



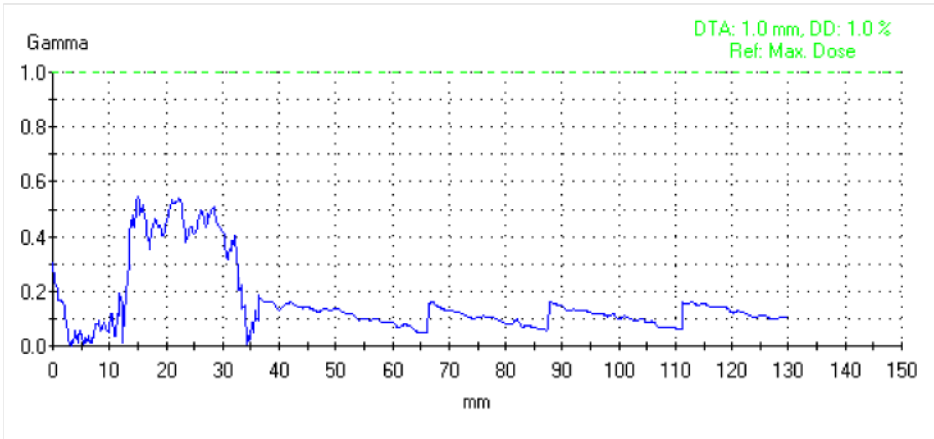
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 17:15

Setup		Measurement Parameters	
Modality:	Electrons	Energy [MeV]:	6.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	20.00 x 20.00
		Depth [mm]:	
		Profile Type:	PDD
		Applicator:	*
		Raw/Processed:	Processed



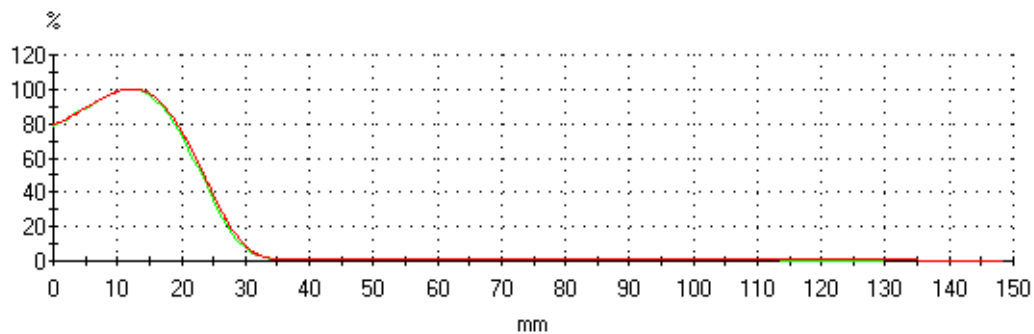
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



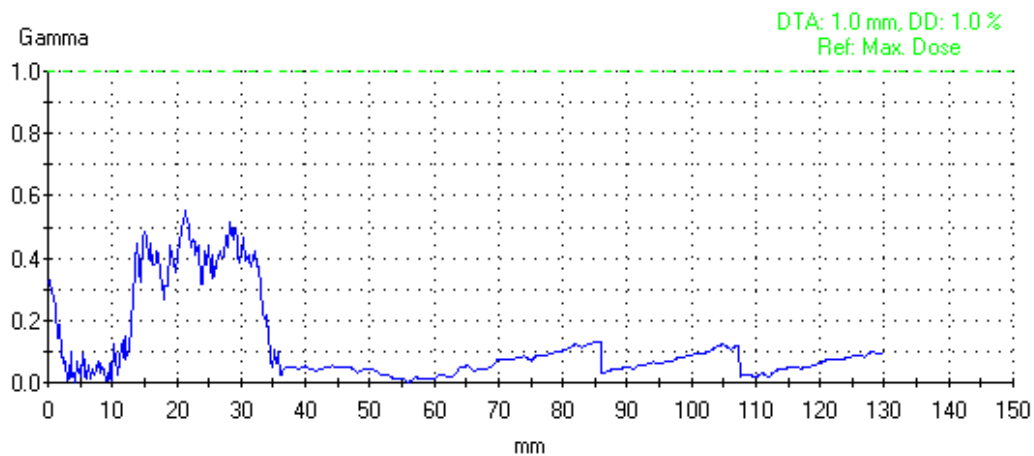
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 17:15

Setup		Measurement Parameters	
Modality:	Electrons	Energy [MeV]:	6.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	25.00 x 25.00
		Depth [mm]:	
		Profile Type:	PDD
		Applicator:	25
		Raw/Processed:	Processed



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



Mephysto mcc - Report

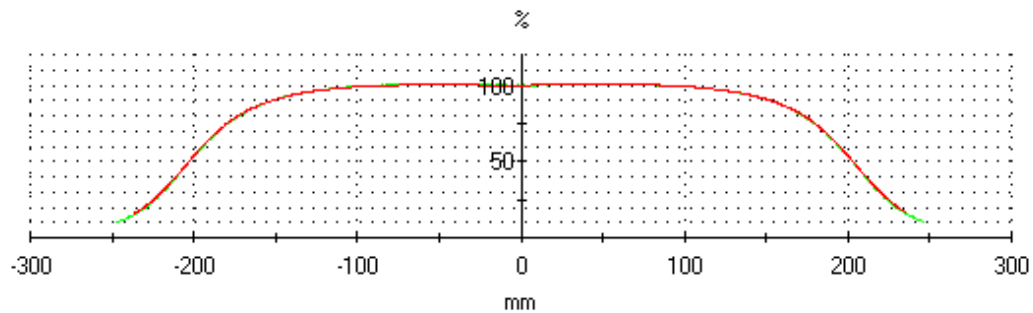
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Operator:
Comment:
Print-Date: 2020-09-03 13:49

Setup

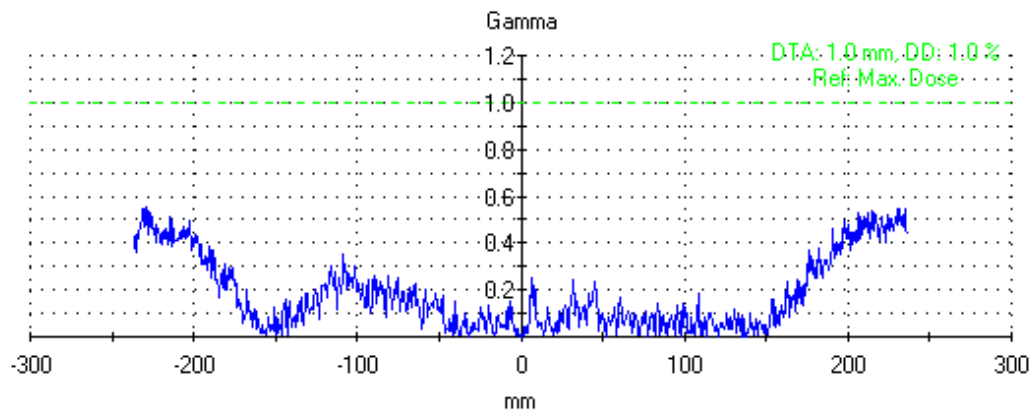
Modality: Electrons

Measurement Parameters

Energy [MeV]: 6.0
Field Size Y x X [cm x cm]: 40.00 x 40.00
Depth [mm]: 0.0
Profile Type: X Profile
Meas.Angle [°]: 0.00
SSD [cm]: 95.0



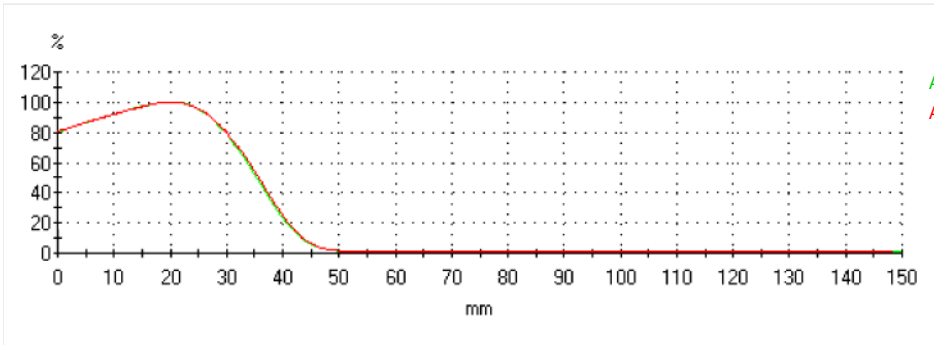
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



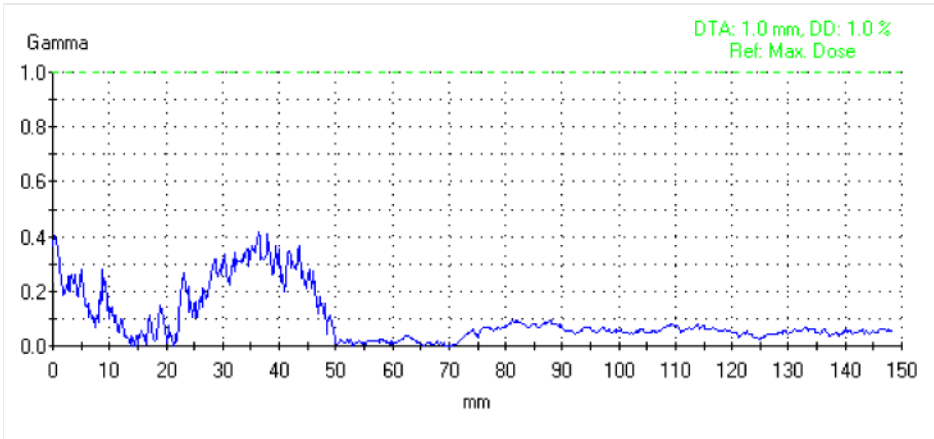
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 17:16

Setup		Measurement Parameters	
Modality:	Electrons	Energy [MeV]:	9.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	6.00 x 6.00
		Depth [mm]:	
		Profile Type:	PDD
		Applicator:	*
		Raw/Processed:	Processed



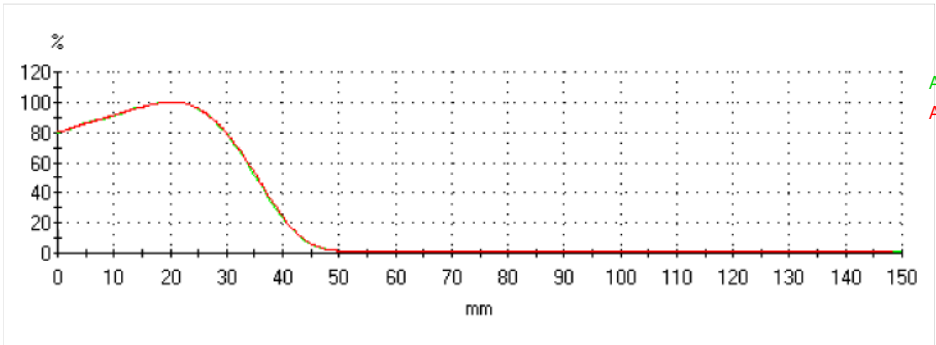
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



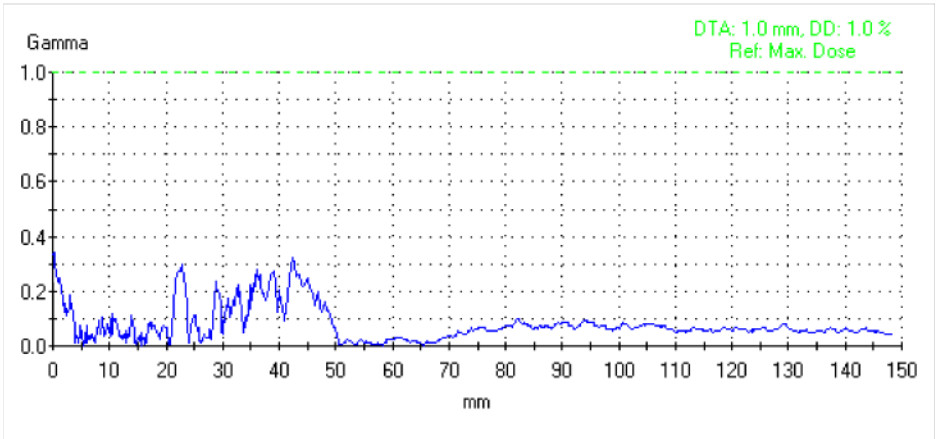
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 17:17

Setup		Measurement Parameters	
Modality:	Electrons	Energy [MeV]:	9.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	10.00 x 6.00
		Depth [mm]:	
		Profile Type:	PDD
		Applicator:	*
		Raw/Processed:	Processed



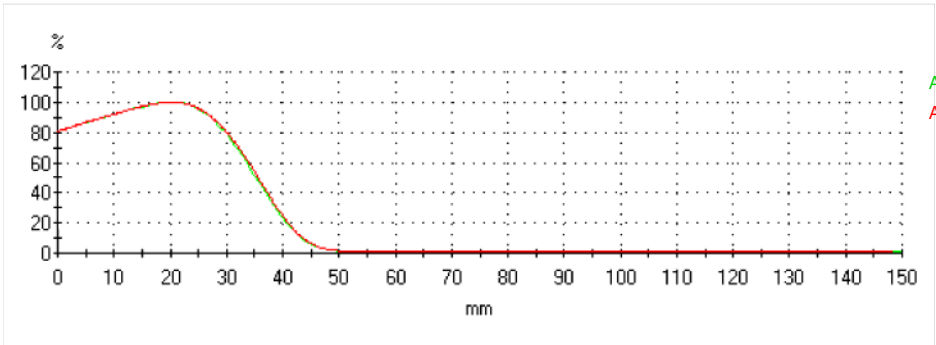
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



Mephysto mcc - Report

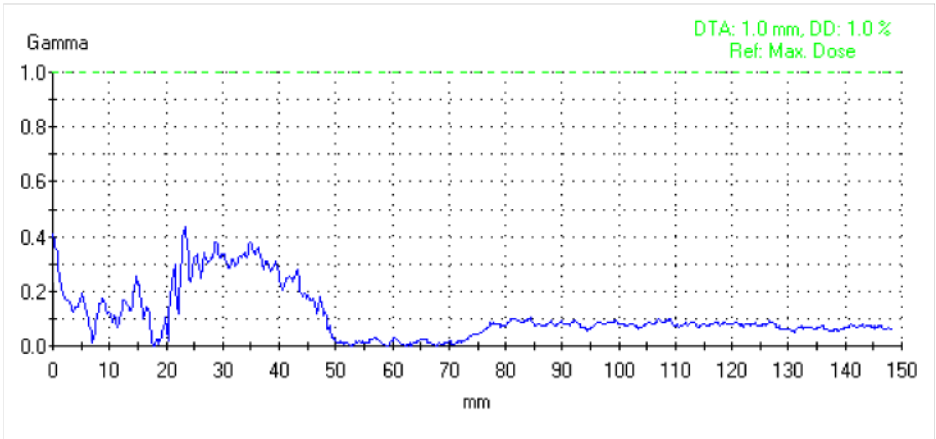
Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 17:17

Setup		Measurement Parameters	
Modality:	Electrons	Energy [MeV]:	9.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	10.00 x 10.00
		Depth [mm]:	
		Profile Type:	PDD
		Applicator:	*
		Raw/Processed:	Processed



Applicator: App10x10
Applicator: 10

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



Mephysto mcc - Report

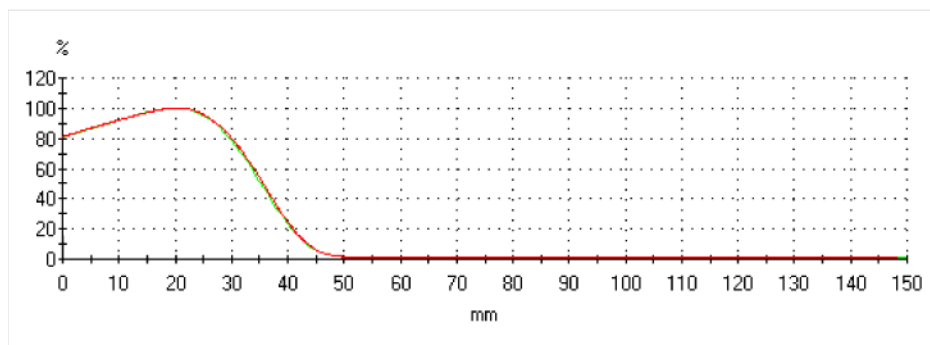
Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 17:17

Setup

Modality: Electrons
Measurement Date: *

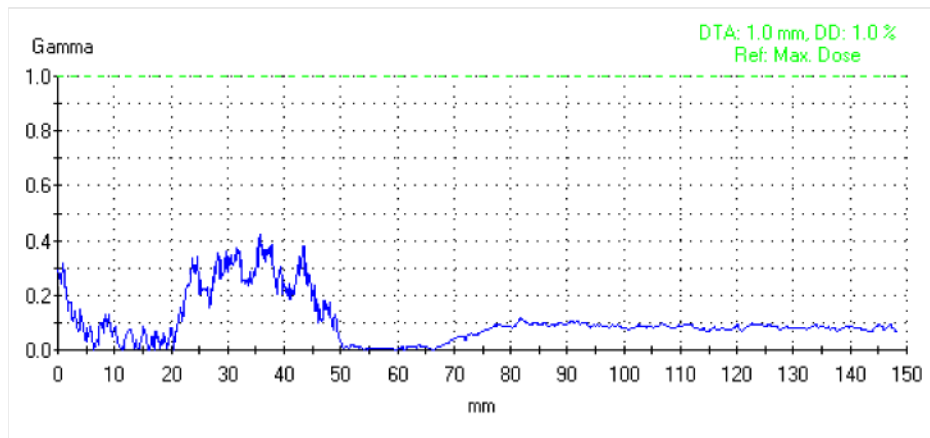
Measurement Parameters

Energy [MeV]: 9.0
Field Size Y x X [cm x cm]: 15.00 x 15.00
Depth [mm]:
Profile Type: PDD
Applicator: *
Raw/Processed: Processed



Applicator: App15x15
Applicator: 15

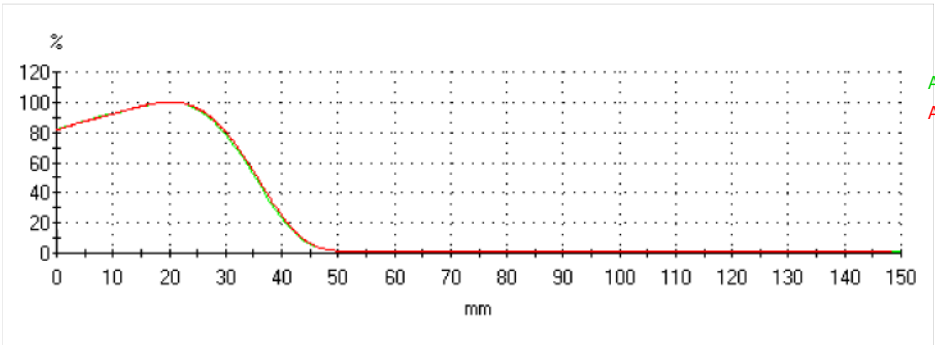
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



Mephysto mcc - Report

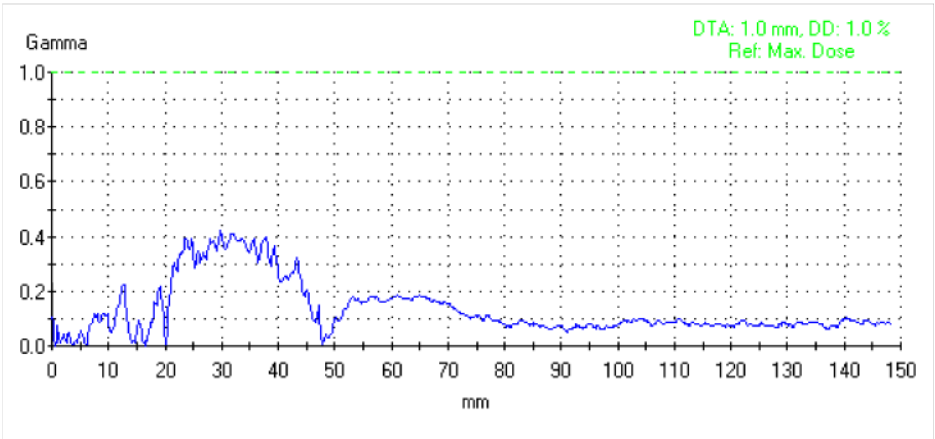
Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 17:18

Setup		Measurement Parameters	
Modality:	Electrons	Energy [MeV]:	9.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	20.00 x 20.00
		Depth [mm]:	
		Profile Type:	PDD
		Applicator:	*
		Raw/Processed:	Processed



Applicator: App20x20
Applicator: 20

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



Mephysto mcc - Report

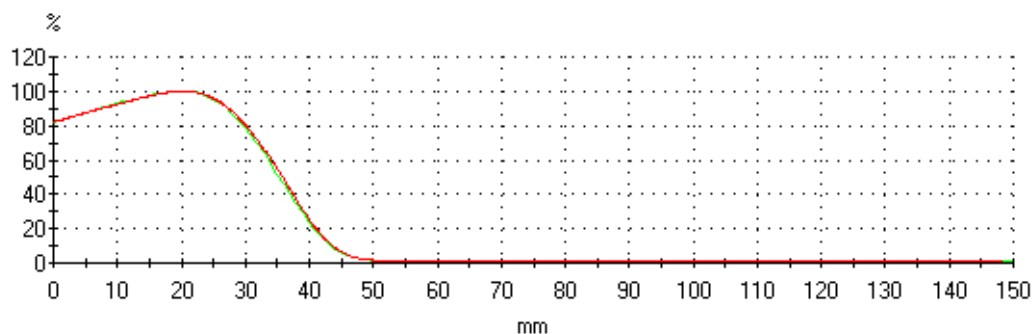
Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 17:18

Setup

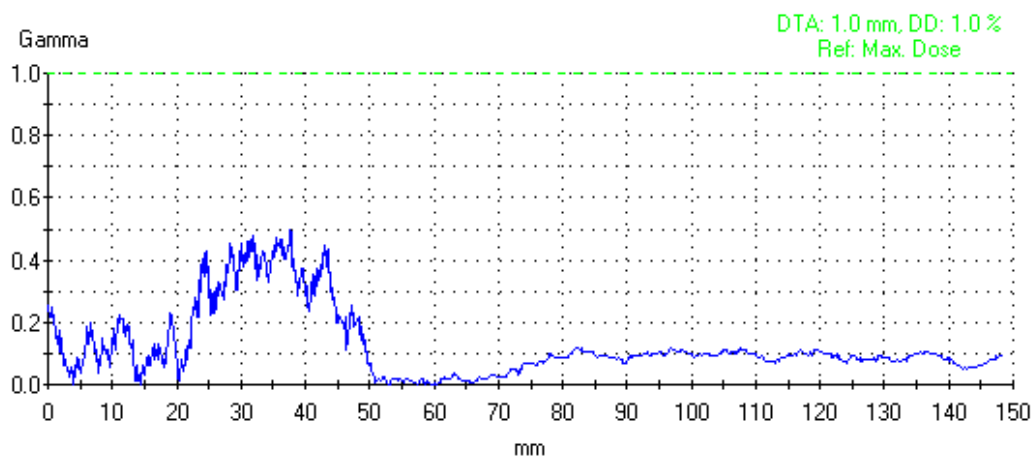
Modality: Electrons
Measurement Date: *

Measurement Parameters

Energy [MeV]: 9.0
Field Size Y x X [cm x cm]: 25.00 x 25.00
Depth [mm]:
Profile Type: PDD
Applicator: 25
Raw/Processed: Processed



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



Mephysto mcc - Report

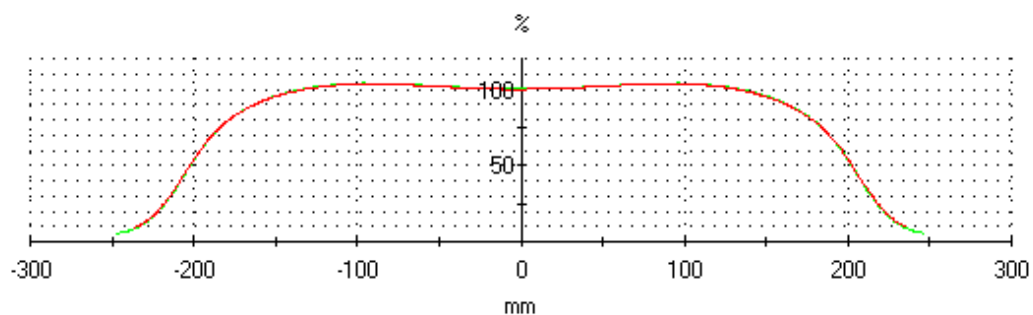
Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-03 13:51

Setup

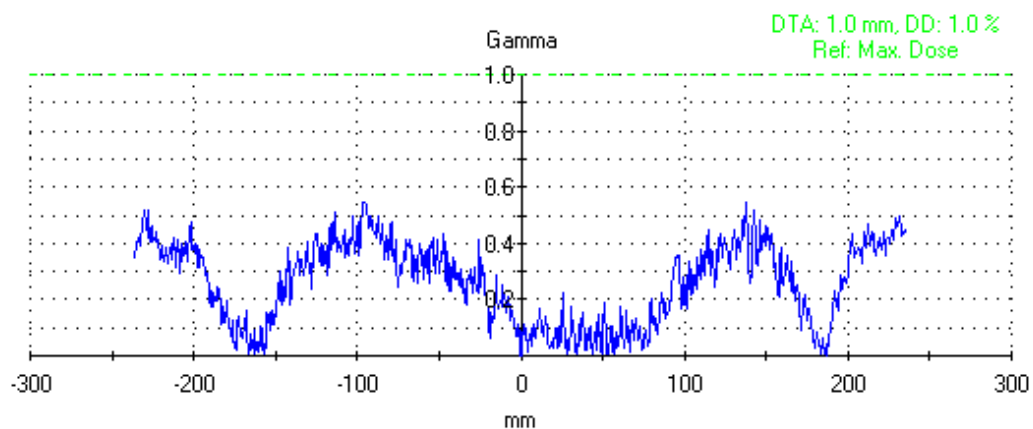
Modality: Electrons

Measurement Parameters

Energy [MeV]: 9.0
Field Size Y x X [cm x cm]: 40.00 x 40.00
Depth [mm]: 0.0
Profile Type: X Profile
Meas.Angle [°]: 0.00
SSD [cm]: 95.0



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



Mephysto mcc - Report

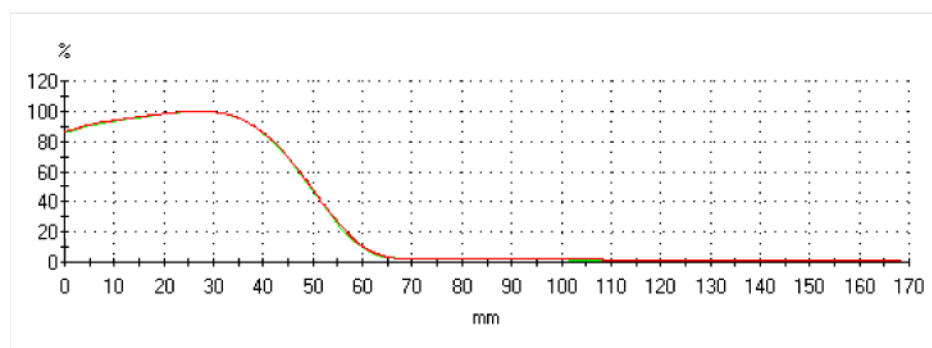
Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 17:19

Setup

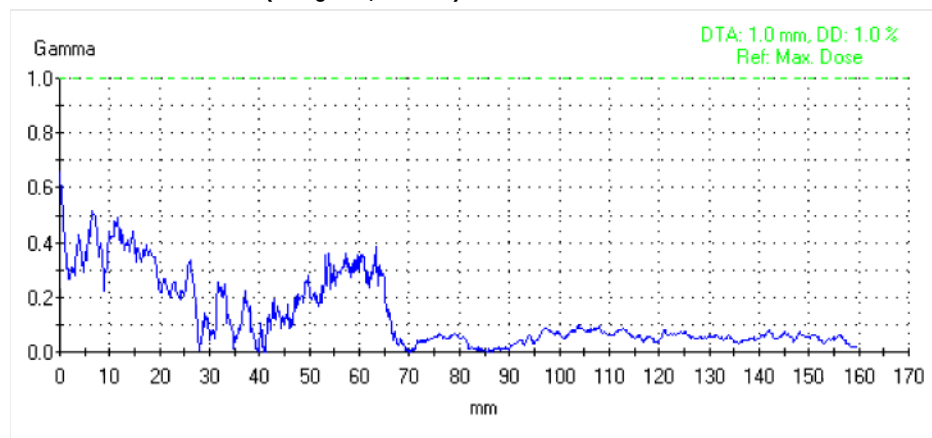
Modality: Electrons
Measurement Date: *

Measurement Parameters

Energy [MeV]: 12.0
Field Size Y x X [cm x cm]: 6.00 x 6.00
Depth [mm]:
Profile Type: PDD
Applicator: *
Raw/Processed: Processed



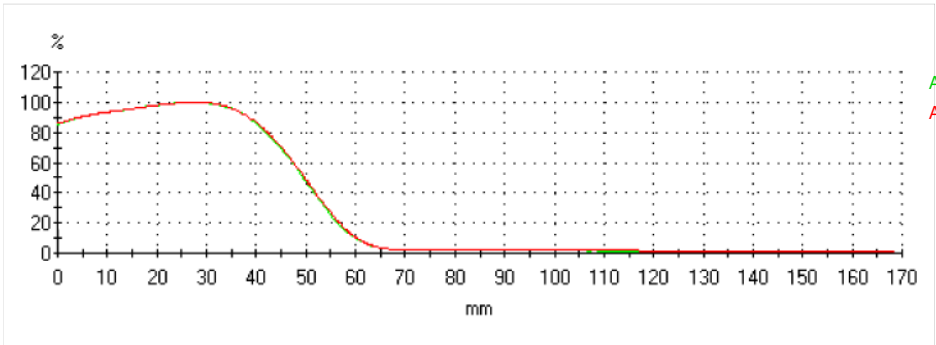
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



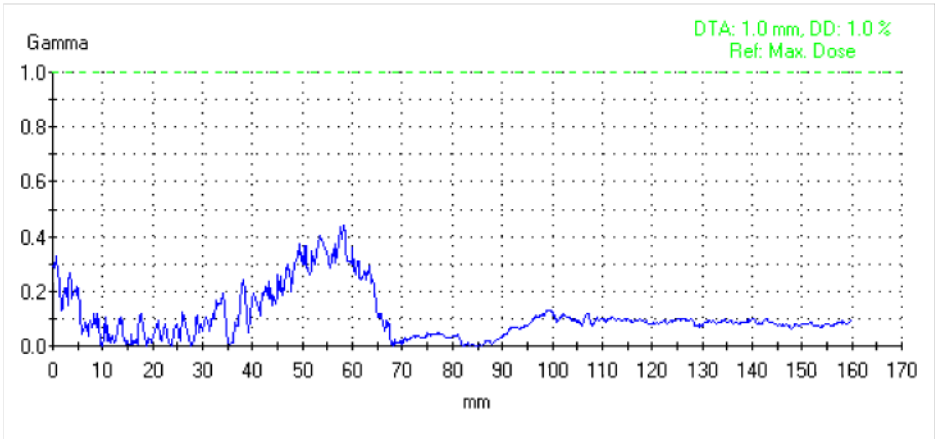
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 17:20

Setup		Measurement Parameters	
Modality:	Electrons	Energy [MeV]:	12.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	10.00 x 6.00
		Depth [mm]:	
		Profile Type:	PDD
		Applicator:	*
		Raw/Processed:	Processed



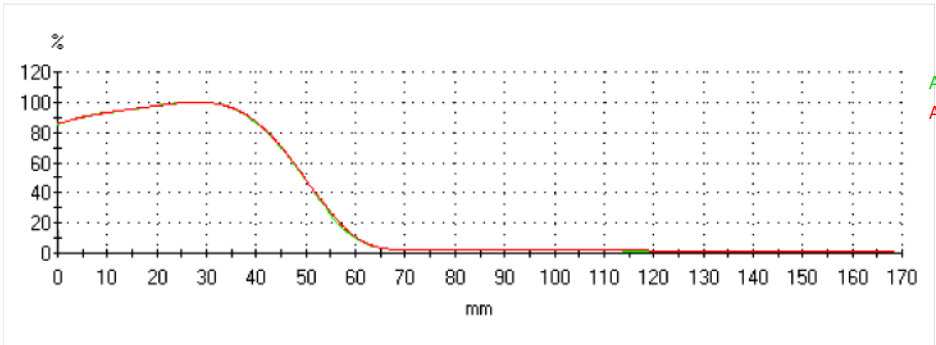
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



Mephysto mcc - Report

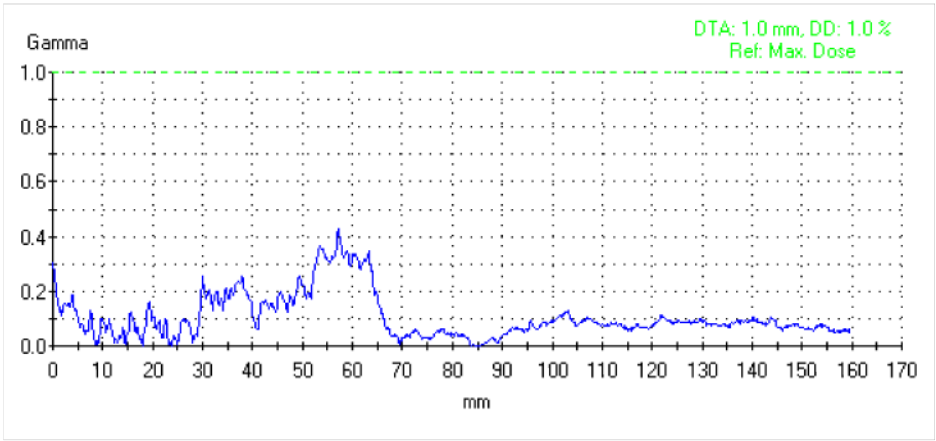
Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 17:30

Setup		Measurement Parameters	
Modality:	Electrons	Energy [MeV]:	12.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	10.00 x 10.00
		Depth [mm]:	
		Profile Type:	PDD
		Applicator:	*
		Raw/Processed:	Processed



Applicator: App10x10
Applicator: 10

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



Mephysto mcc - Report

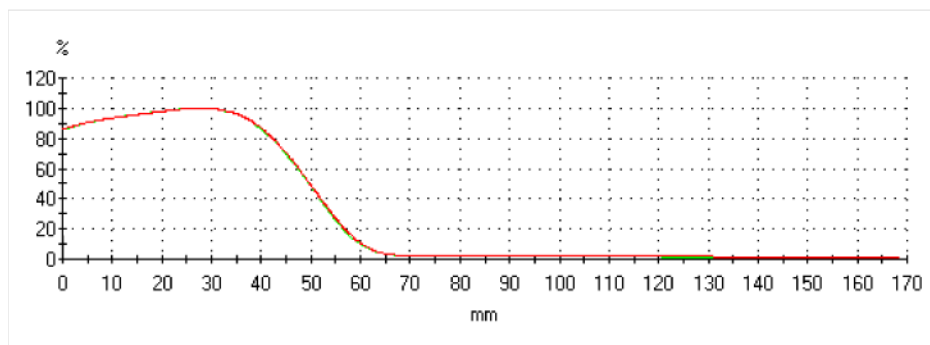
Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 17:22

Setup

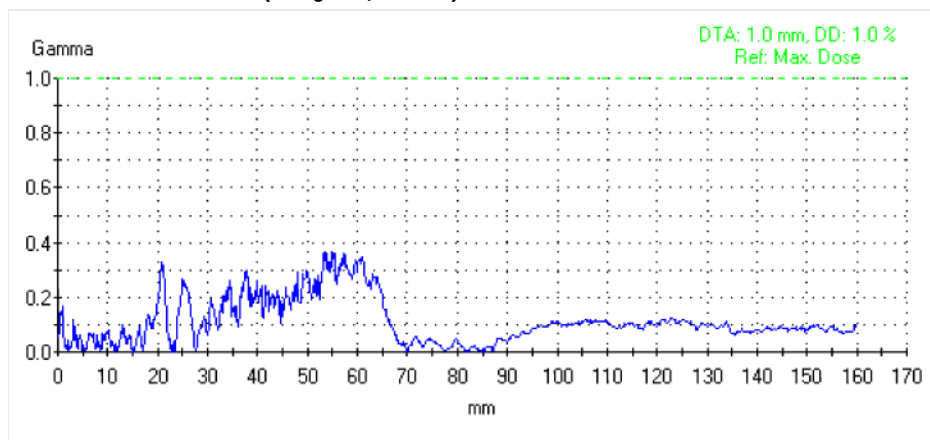
Modality: Electrons
Measurement Date: *

Measurement Parameters

Energy [MeV]: 12.0
Field Size Y x X [cm x cm]: 15.00 x 15.00
Depth [mm]:
Profile Type: PDD
Applicator: *
Raw/Processed: Processed



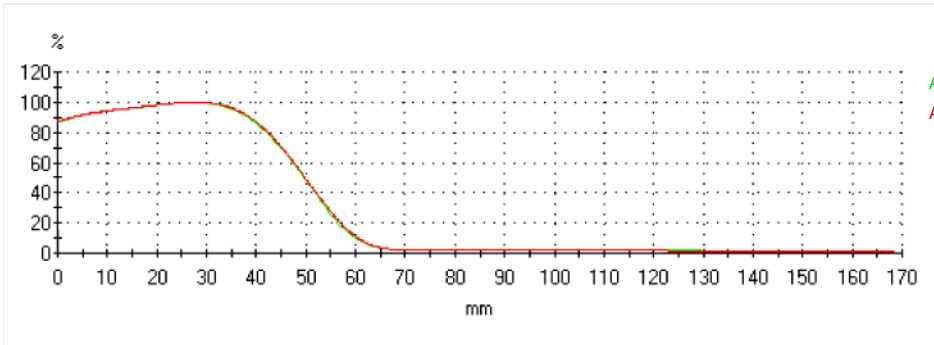
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



Mephysto mcc - Report

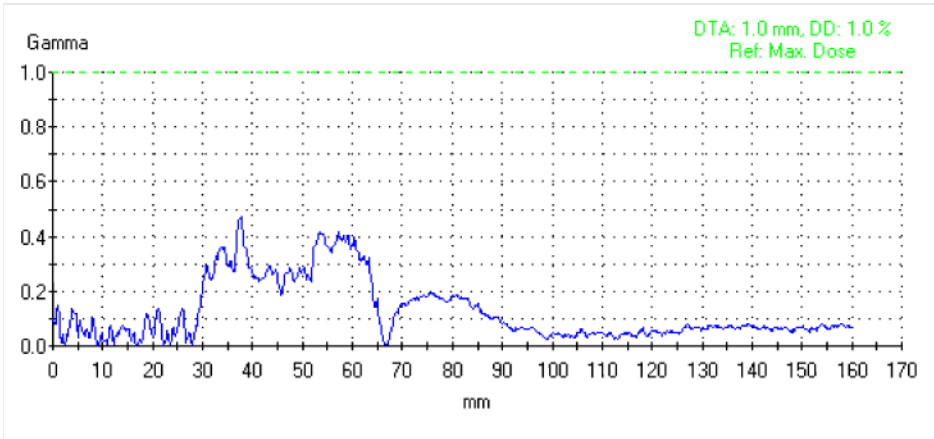
Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 17:22

Setup		Measurement Parameters	
Modality:	Electrons	Energy [MeV]:	12.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	20.00 x 20.00
		Depth [mm]:	
		Profile Type:	PDD
		Applicator:	*
		Raw/Processed:	Processed



Applicator: App20x20
Applicator: 20

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



Mephysto mcc - Report

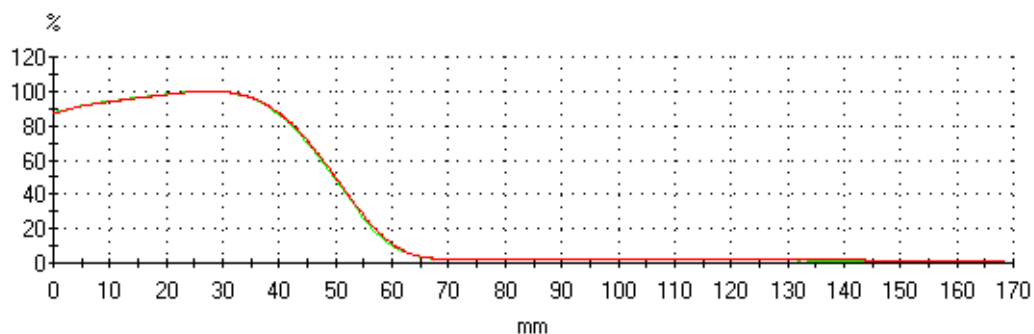
Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 17:23

Setup

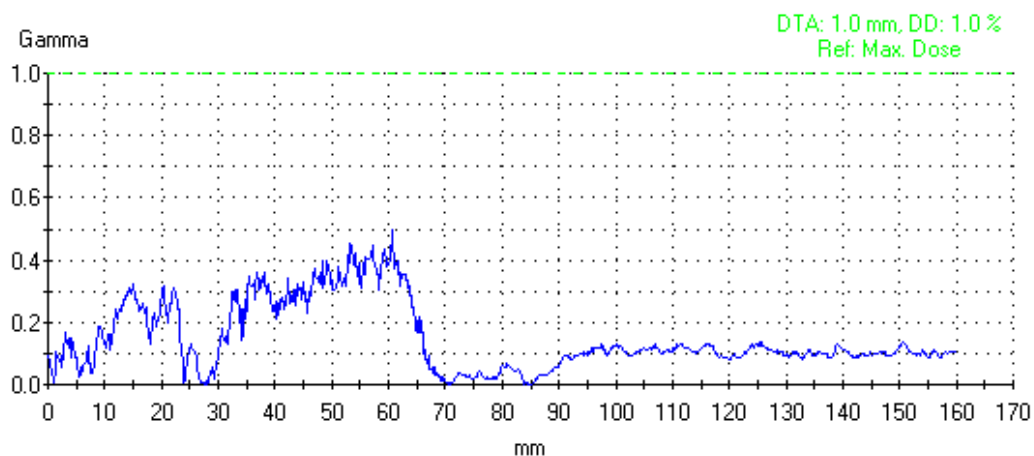
Modality: Electrons
Measurement Date: *

Measurement Parameters

Energy [MeV]: 12.0
Field Size Y x X [cm x cm]: 25.00 x 25.00
Depth [mm]:
Profile Type: PDD
Applicator: 25
Raw/Processed: Processed



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



Mephysto mcc - Report

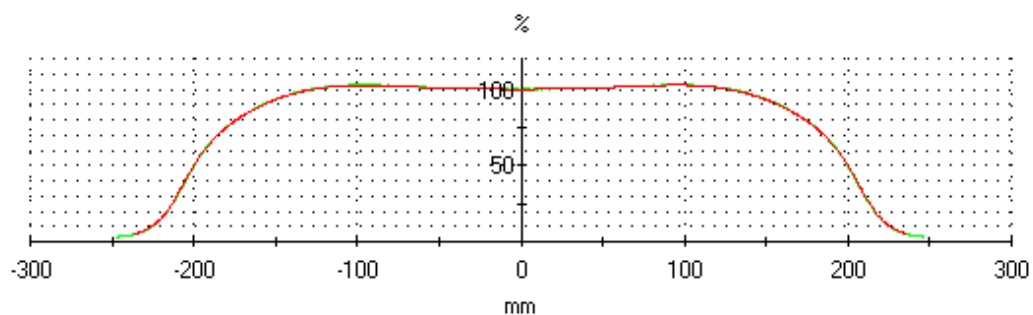
Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-03 13:51

Setup

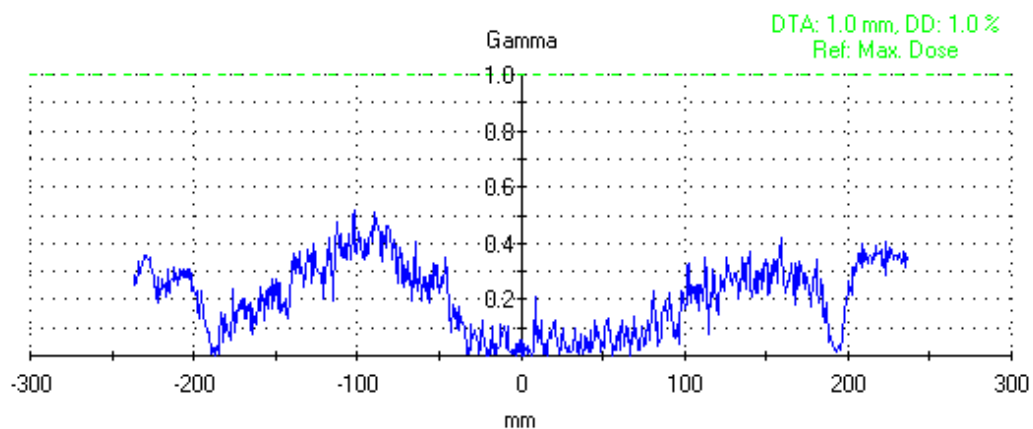
Modality: Electrons

Measurement Parameters

Energy [MeV]: 12.0
Field Size Y x X [cm x cm]: 40.00 x 40.00
Depth [mm]: 0.0
Profile Type: X Profile
Meas.Angle [°]: 0.00
SSD [cm]: 95.0



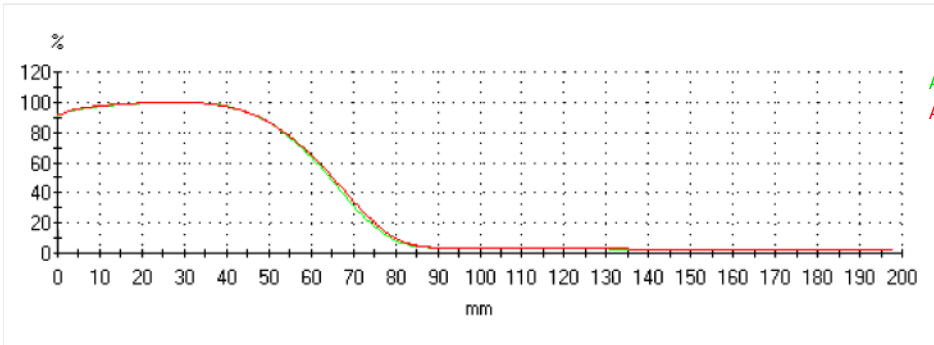
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



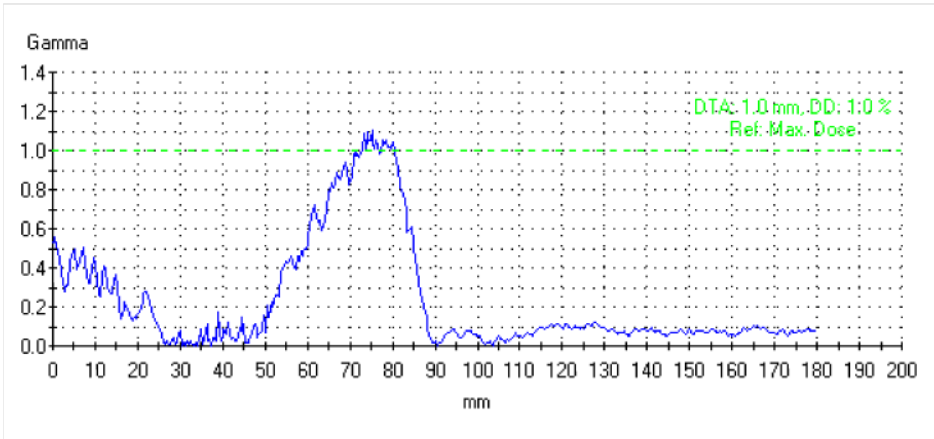
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 17:23

Setup		Measurement Parameters	
Modality:	Electrons	Energy [MeV]:	16.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	6.00 x 6.00
		Depth [mm]:	
		Profile Type:	PDD
		Applicator:	*
		Raw/Processed:	Processed



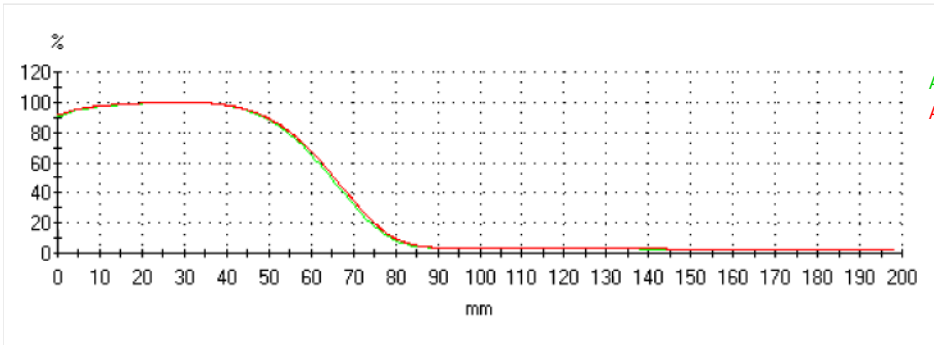
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



Mephysto mcc - Report

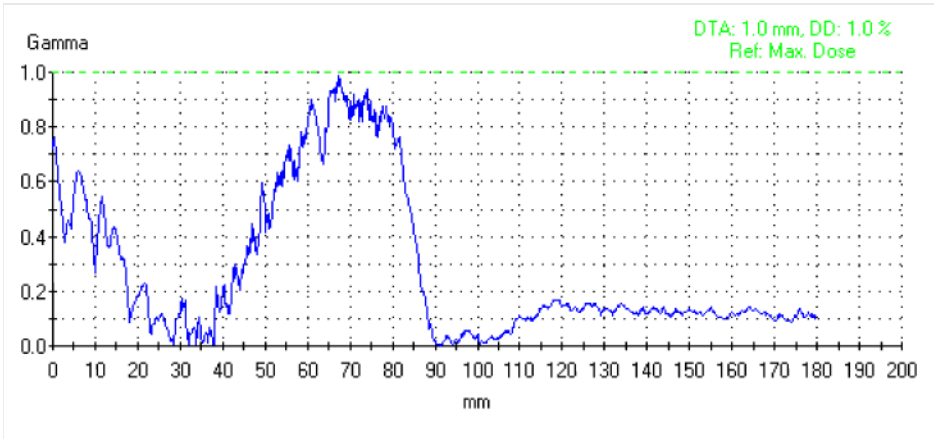
Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 17:25

Setup		Measurement Parameters	
Modality:	Electrons	Energy [MeV]:	16.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	10.00 x 6.00
		Depth [mm]:	
		Profile Type:	PDD
		Applicator:	*
		Raw/Processed:	Processed



Applicator: 10x6
Applicator: 106

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



Mephysto mcc - Report

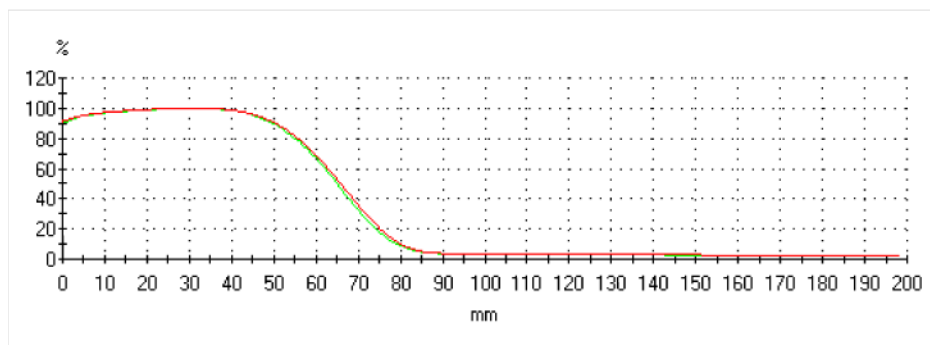
Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 17:25

Setup

Modality: Electrons
Measurement Date: *

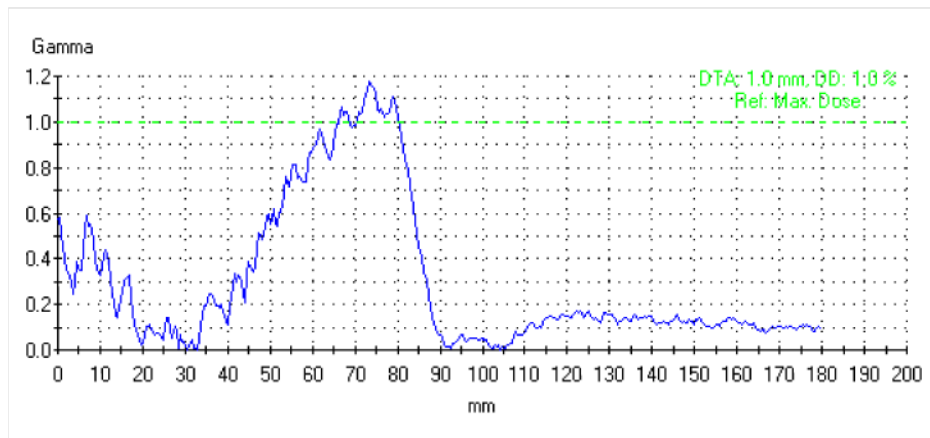
Measurement Parameters

Energy [MeV]: 16.0
Field Size Y x X [cm x cm]: 10.00 x 10.00
Depth [mm]:
Profile Type: PDD
Applicator: *
Raw/Processed: Processed



Applicator: App10x10
Applicator: 10

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



Mephysto mcc - Report

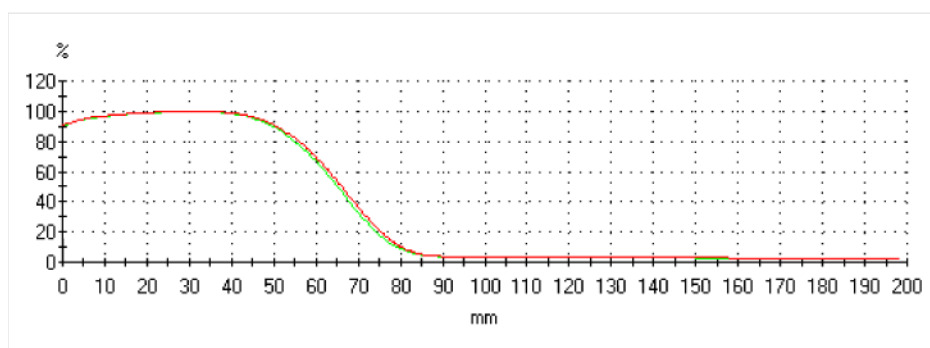
Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 17:25

Setup

Modality: Electrons
Measurement Date: *

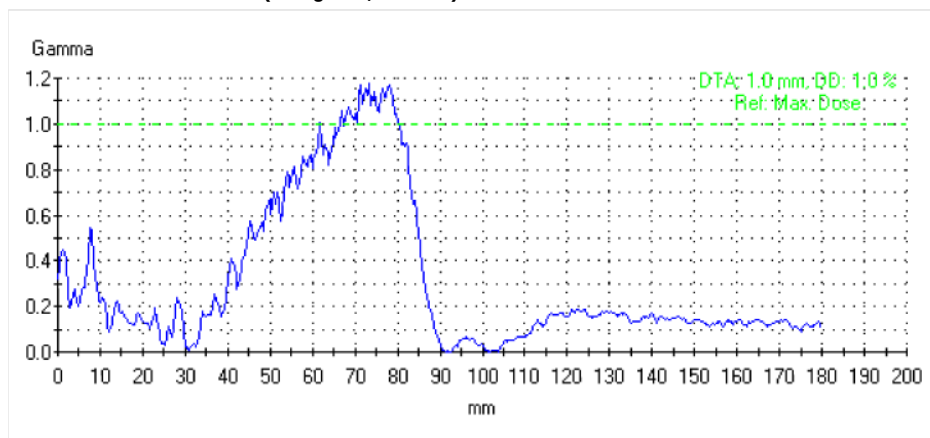
Measurement Parameters

Energy [MeV]: 16.0
Field Size Y x X [cm x cm]: 15.00 x 15.00
Depth [mm]:
Profile Type: PDD
Applicator: *
Raw/Processed: Processed



Applicator: App15x15
Applicator: 15

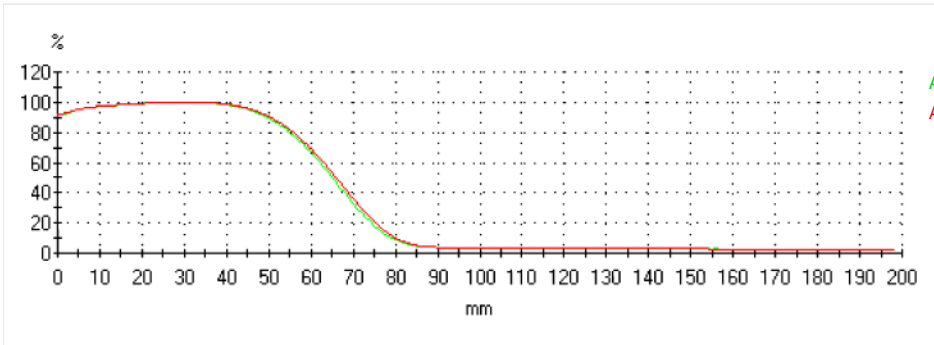
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



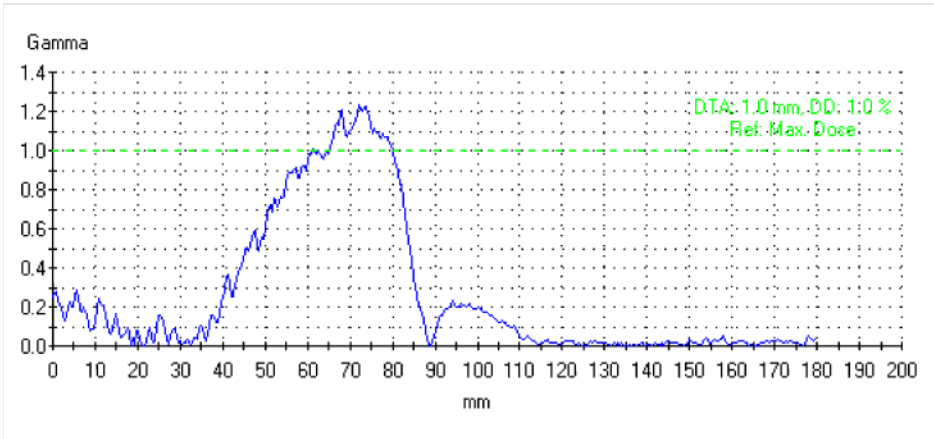
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 17:25

Setup		Measurement Parameters	
Modality:	Electrons	Energy [MeV]:	16.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	20.00 x 20.00
		Depth [mm]:	
		Profile Type:	PDD
		Applicator:	*
		Raw/Processed:	Processed



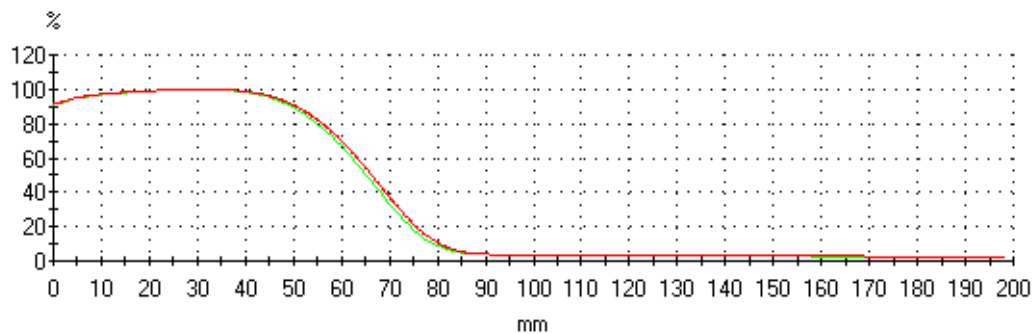
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



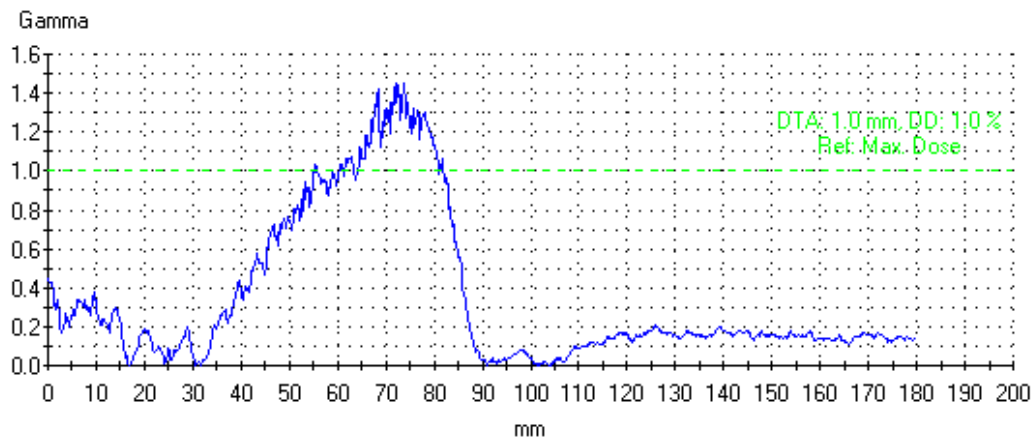
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 17:26

Setup		Measurement Parameters	
Modality:	Electrons	Energy [MeV]:	16.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	25.00 x 25.00
		Depth [mm]:	
		Profile Type:	PDD
		Applicator:	25
		Raw/Processed:	Processed



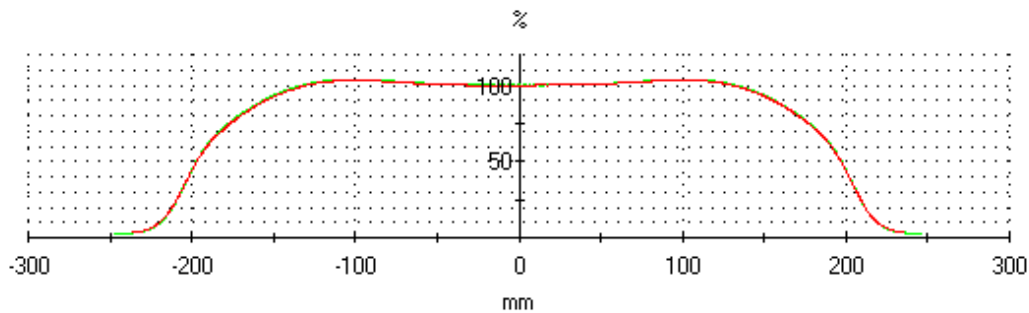
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



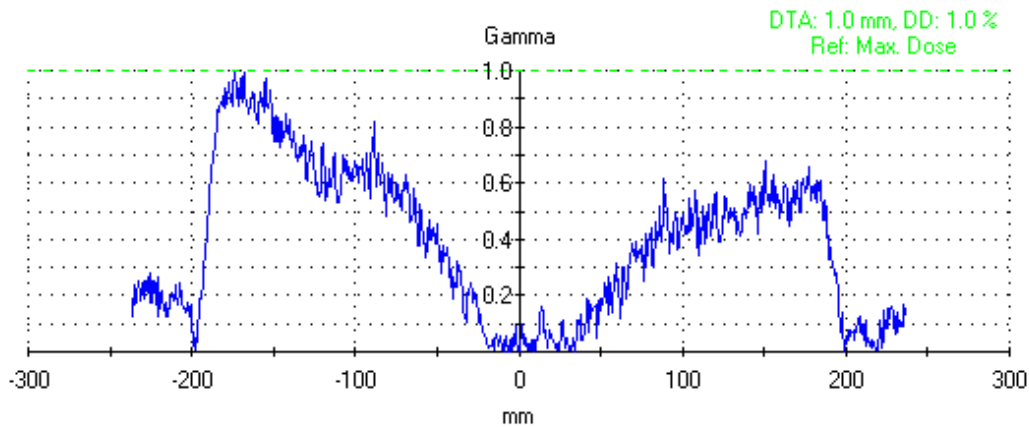
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-03 13:52

Setup		Measurement Parameters	
Modality:	Electrons	Energy [MeV]:	16.0
		Field Size Y x X [cm x cm]:	40.00 x 40.00
		Depth [mm]:	0.0
		Profile Type:	X Profile
		Meas.Angle [°]:	0.00
		SSD [cm]:	95.0



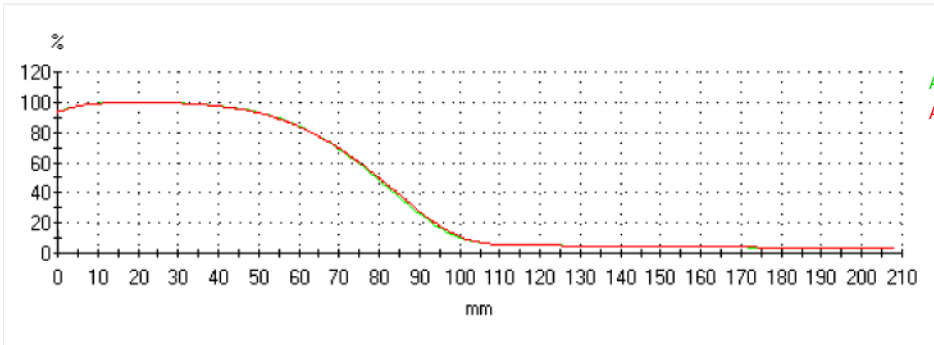
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



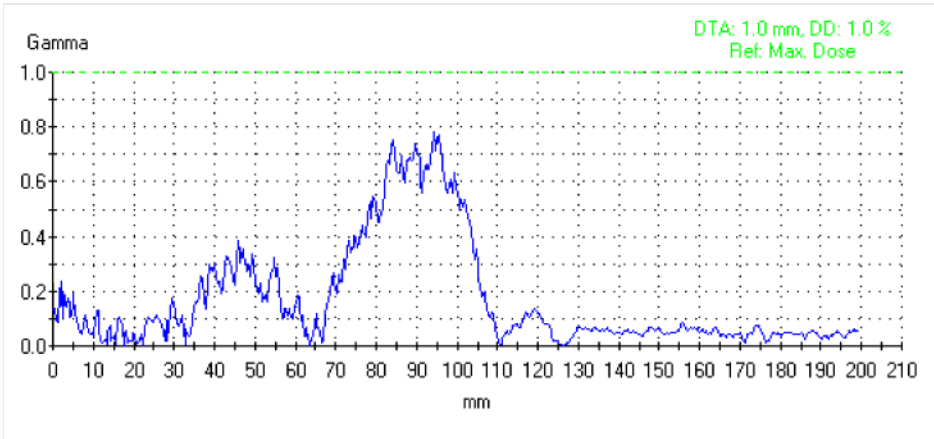
Mephysto mcc - Report

Institution: landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 17:26

Setup		Measurement Parameters	
Modality:	Electrons	Energy [MeV]:	20.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	6.00 x 6.00
		Depth [mm]:	
		Profile Type:	PDD
		Applicator:	*
		Raw/Processed:	Processed



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



Mephysto mcc - Report

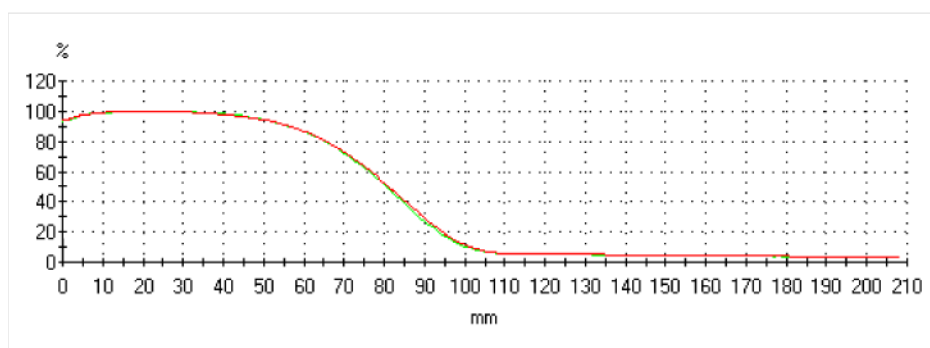
Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 17:27

Setup

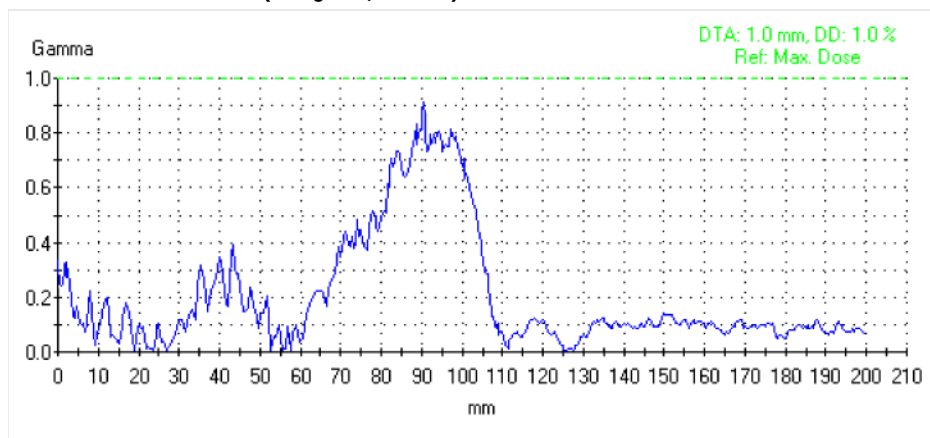
Modality: Electrons
Measurement Date: *

Measurement Parameters

Energy [MeV]: 20.0
Field Size Y x X [cm x cm]: 10.00 x 6.00
Depth [mm]:
Profile Type: PDD
Applicator: *
Raw/Processed: Processed



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



Mephysto mcc - Report

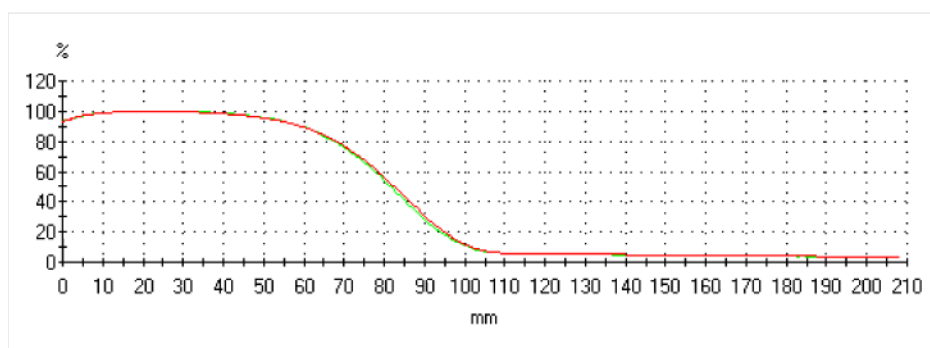
Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 17:27

Setup

Modality: Electrons
Measurement Date: *

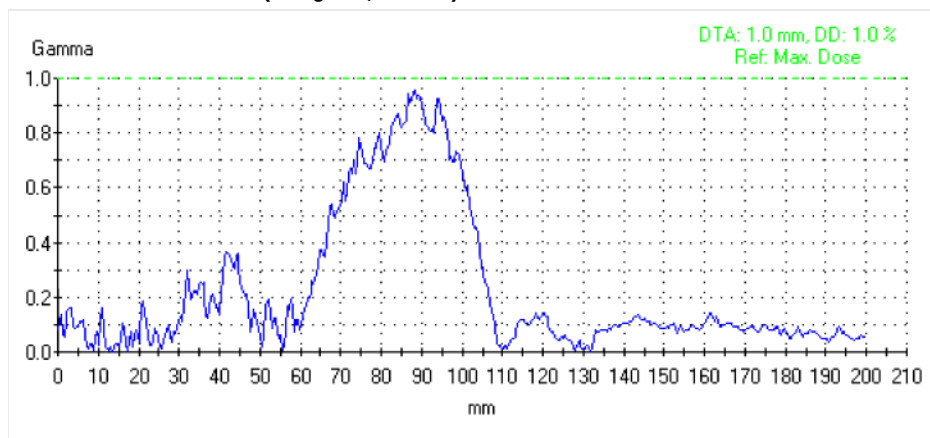
Measurement Parameters

Energy [MeV]: 20.0
Field Size Y x X [cm x cm]: 10.00 x 10.00
Depth [mm]:
Profile Type: PDD
Applicator: *
Raw/Processed: Processed



Applicator: App10x10
Applicator: 10

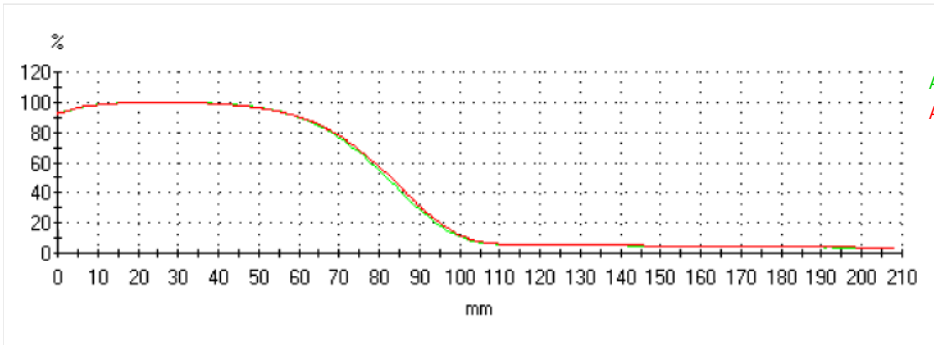
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



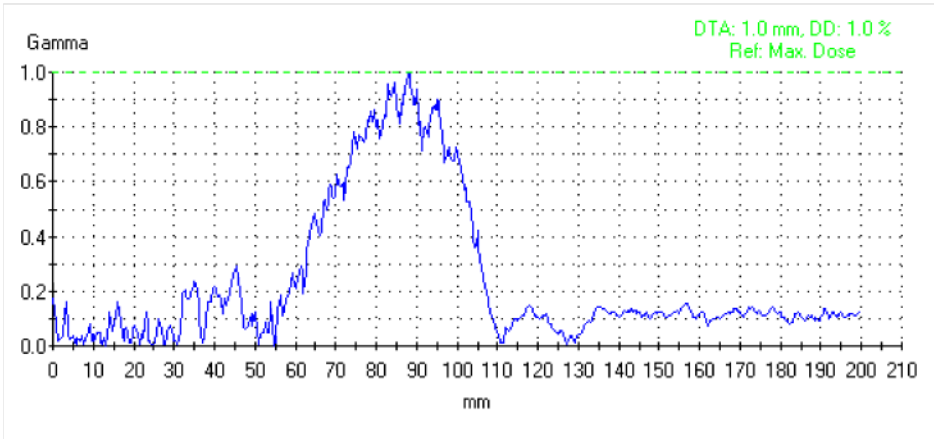
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 17:27

Setup		Measurement Parameters	
Modality:	Electrons	Energy [MeV]:	20.0
Measurement Date:	*	Field Size Y x X [cm x cm]:	15.00 x 15.00
		Depth [mm]:	
		Profile Type:	PDD
		Applicator:	*
		Raw/Processed:	Processed



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



Mephysto mcc - Report

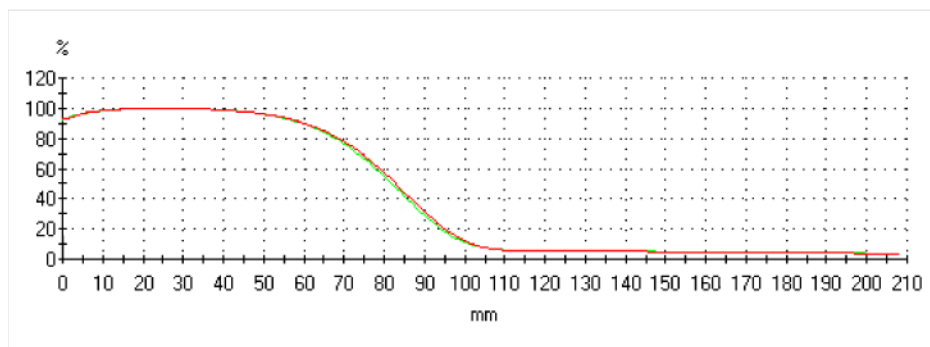
Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 17:28

Setup

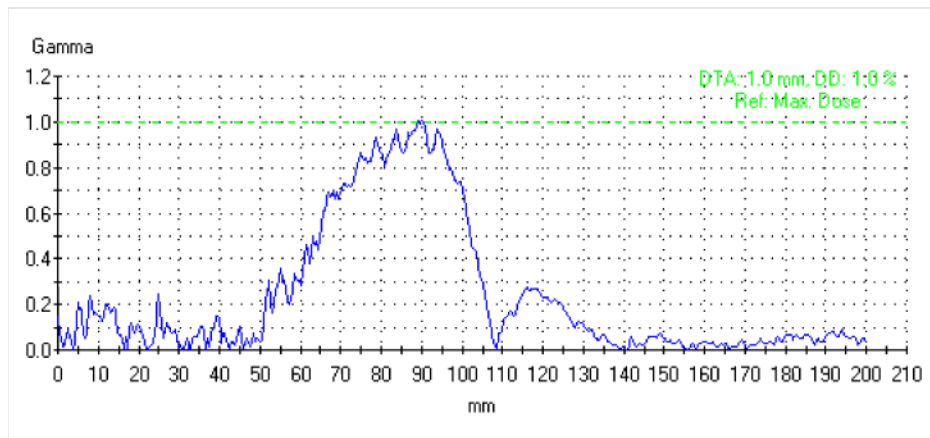
Modality: Electrons
Measurement Date: *

Measurement Parameters

Energy [MeV]: 20.0
Field Size Y x X [cm x cm]: 20.00 x 20.00
Depth [mm]:
Profile Type: PDD
Applicator: *
Raw/Processed: Processed



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



Mephysto mcc - Report

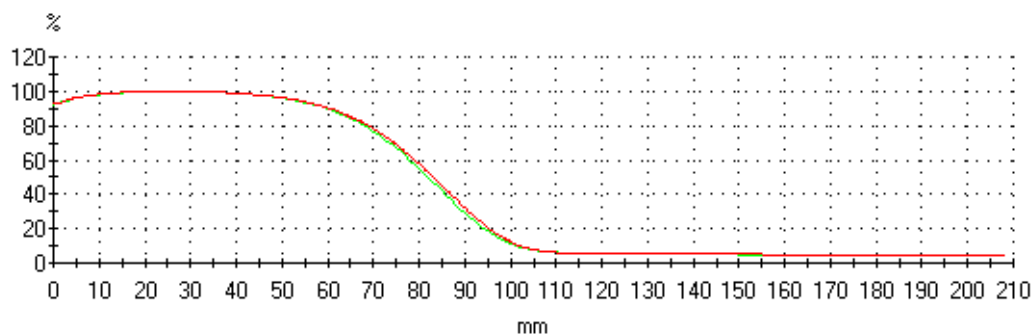
Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-01 17:28

Setup

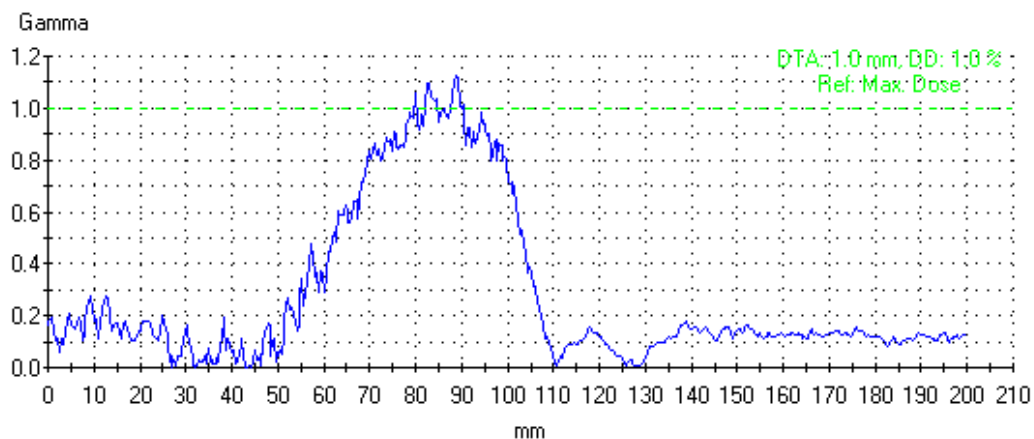
Modality: Electrons
Measurement Date: *

Measurement Parameters

Energy [MeV]: 20.0
Field Size Y x X [cm x cm]: 25.00 x 25.00
Depth [mm]:
Profile Type: PDD
Applicator: 25
Raw/Processed: Processed



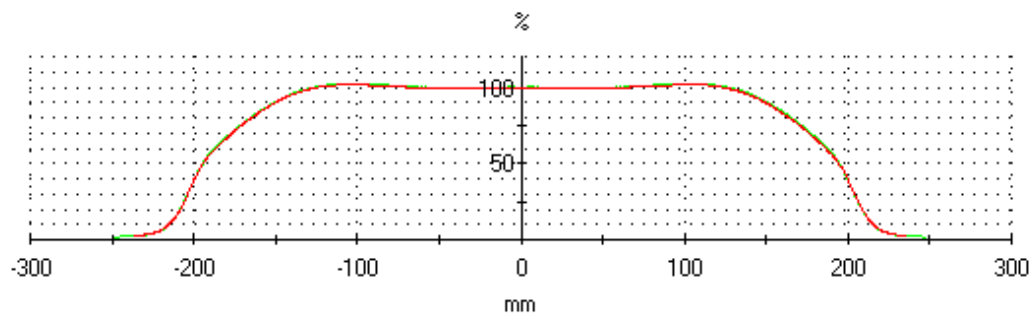
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



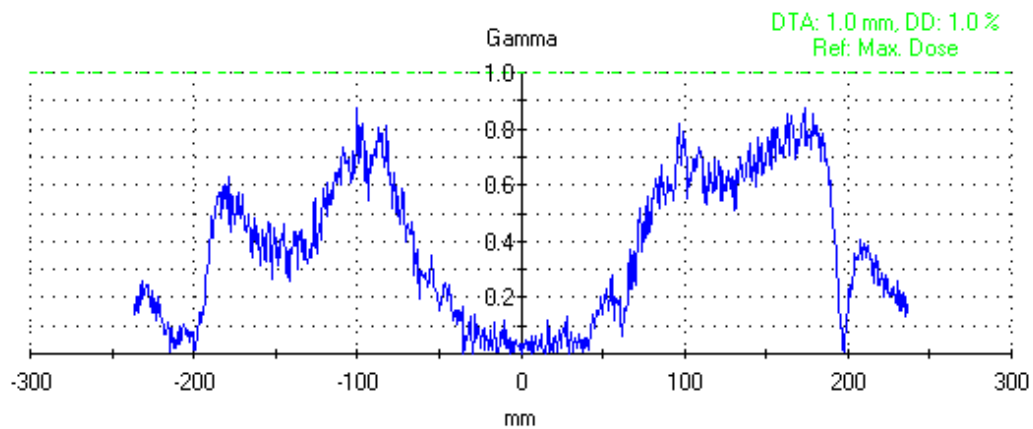
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment:
Print-Date: 2020-09-03 13:53

Setup		Measurement Parameters	
Modality:	Electrons	Energy [MeV]:	20.0
		Field Size Y x X [cm x cm]:	40.00 x 40.00
		Depth [mm]:	0.0
		Profile Type:	X Profile
		Meas.Angle [°]:	0.00
		SSD [cm]:	95.0



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 **TB_9999** in RT Administration.
2. Beam models were configured using Varian TrueBeam Representative beam data. Verified measured scans and output factors against Varian Representative beam data prior to configuring beam models **AAA_15606**, **AXB_15606**, **PO_15606**, and **EMC_15606**. **CDC_15605** was also configured for 6FFF.
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: LMP999999**).
4. Completed verification of selected EDW profiles against MapCHECK measurements.

Modeling Specifications

Energies Modeled	
Photons (MV)	6, 10, 15, 6FFF, 10FFF
Electrons (MeV)	6, 9, 12, 16, 20
Calibration Specifications	
Photons	1 cGy/MU at 100 cm SSD, 10x10 cm ² field size at dmax depth
Electrons	1 cGy/MU at 100 cm SSD, 15x15 cm ² applicator at dmax depth

Absolute Dose Calibration for Photons

Energy (MV)	6	10	15	6FFF	10FFF
Calibration depth (cm)	1.5	2.4	3.0	1.5	2.4
Output factor SSD (cm)	95	95	95	95	95
Output factor depth (cm)	5	5	5	5	5
Open Field Dose Cal (MU/ Gy)	105.923	99.366	96.544	107.909	100.774

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

Best regards,
Robert Staton, Ph.D., DABR
Medical Physicist – Commissioning Division
LANDAUER Medical Physics

Verification Testing

TPS Point Dose Calculations

Facility: Landauer Cancer Institute

Jackson, WY

Linac: S/N: 9999

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

TPS Commissioning

Water Phantom

Calibration Geometry:

SSD

PTW 0.125cc chamber

Start

Temperature (°C)	24.8
Pressure (mm Hg)	740.4

TMR(10x10,D10) 0.7675

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

-0.1%

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 Acuros	TPS Difference
6	10	10	1.5	SSD		3345	1.000	100.00	100.0	0.00%	100.0	0.00%
6	10	10	1.5	SAD		3450	1.031	97.0	97.2	-0.25%	97.9	-0.97%
6	5	5	5	SAD		2923	0.874	114.4	113.9	0.47%	114.1	0.29%
6	10	10	5	SAD		3157	0.944	106.0	105.7	0.24%	105.9	0.05%
6	20	20	5	SAD		3372	1.008	99.2	99.1	0.10%	99.0	0.20%
6	5	5	10	SAD		2368	0.708	141.3	140.2	0.75%	140.9	0.25%
6	10	10	10	SAD		2648	0.792	126.3	125.5	0.65%	125.8	0.41%
6	20	20	10	SAD		2925	0.874	114.4	113.6	0.66%	113.8	0.49%
6	5	20	10	SAD		2561	0.766	130.6	129.8	0.62%	130.4	0.16%
6	20	5	10	SAD		2522	0.754	132.6	131.5	0.85%	132.2	0.33%
6	20	20	10	SAD	Chamber oa 4cm Pat Left (+C)	2966	0.887	112.8	113.6	-0.73%	113.6	-0.73%
6	20	20	10	SAD	30EDW toe in coll 90 - oa 4cm heel (+C)	1810	0.541	184.8	184.5	0.17%	184.5	0.17%
6	5	5	20	SAD		1522	0.455	219.8	219.3	0.22%	217.3	1.13%
6	10	10	20	SAD		1771	0.529	188.9	187.2	0.89%	189.8	-0.49%
6	20	20	20	SAD		2080	0.622	160.8	159.9	0.57%	160.5	0.20%

Enter TPS MU Here

Enter TPS MU Here

Enter TPS MU Here

Enter TPS MU Here

TMR(10x10,D10) 0.8417

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

0.0%

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 Acuros	TPS Difference
10	10	10	2.4	SSD		3356	1.000	100.00	100.7	-0.70%	100.9	-0.90%
10	10	10	2.4	SAD		3519	1.049	95.4	96.1	-0.77%	96.3	-0.98%
10	5	5	5	SAD		3158	0.941	106.3	106.1	0.16%	106.3	-0.03%
10	10	10	5	SAD		3379	1.007	99.3	99.2	0.12%	99.4	-0.08%
10	20	20	5	SAD		3568	1.063	94.1	93.9	0.17%	93.9	0.17%
10	5	5	10	SAD		2701	0.805	124.3	123.9	0.28%	124.2	0.04%
10	10	10	10	SAD		2962	0.883	113.3	113.0	0.27%	113.0	0.27%
10	20	20	10	SAD		3196	0.952	105.0	104.5	0.48%	104.6	0.39%
10	5	20	10	SAD		2888	0.861	116.2	116.0	0.18%	116.2	0.00%
10	10	5	10	SAD		2838	0.846	118.3	118.0	0.21%	118.3	-0.04%
10	20	20	10	SAD	Chamber oa 4cm Pat Left (+C)	3248	0.968	103.3	103.9	-0.56%	103.7	-0.36%
10	20	20	10	SAD	30EDW toe in coll 90 - oa 4cm heel (+C)	2147	0.640	156.3	156.1	0.14%	155.9	0.26%
10	5	5	20	SAD		1942	0.579	172.8	173.2	-0.22%	172.3	0.30%
10	10	10	20	SAD		2198	0.655	152.7	152.7	-0.01%	154.1	-0.93%
10	20	20	20	SAD		2476	0.738	135.5	135.8	-0.19%	135.9	-0.26%

Enter TPS MU Here

Enter TPS MU Here

Enter TPS MU Here

Enter TPS MU Here

TMR(10x10,D10)
Check of SSD/dmax and SAD/dmax readings vs. inverse square

0.8683

0.0%

Energy (MV)	X	Y	depth (cm)	Setup	Wedge	Rdg (pC)	Factor (cGy/MU)	MU to deliver 100cGy to point	Enter TPS MU Here		Enter TPS MU Here	
									TPS MU AAA	TPS MU Difference	TPS MU Acuros	TPS Difference
15	10	10	3	SSD		3349	1.000	100.00	100.5	-0.50%	101.0	-1.00%
15	10	10	3	SAD		3554	1.061	94.2	94.9	-0.71%	95.2	-1.03%
15	5	5	5	SAD		3256	0.972	102.9	102.7	0.15%	102.8	0.05%
15	10	10	5	SAD		3474	1.037	96.4	96.4	0.00%	96.6	-0.21%
15	20	20	5	SAD		3648	1.089	91.8	91.8	0.00%	91.8	0.00%
15	5	5	10	SAD		2833	0.846	118.2	117.7	0.43%	117.9	0.27%
15	10	10	10	SAD		3086	0.921	108.5	108.2	0.30%	108.2	0.30%
15	20	20	10	SAD		3296	0.984	101.6	101.3	0.30%	101.4	0.20%
15	5	20	10	SAD		3016	0.901	111.0	110.7	0.31%	110.9	0.13%
15	20	5	10	SAD		2960	0.884	113.1	112.7	0.39%	112.9	0.21%
15	20	20	10	SAD	Chamber oa 4cm Pat Left (+C)	3407	1.017	98.3	98.7	-0.41%	98.7	-0.41%
15	20	20	10	SAD	30EDW toe ln coll 90 - oa 4cm heel (+C)	2323	0.694	144.2	144.1	0.05%	144.0	0.12%
15	5	5	20	SAD		2103	0.628	159.2	158.9	0.22%	158.0	0.78%
15	10	10	20	SAD		2357	0.704	142.1	141.9	0.13%	142.7	-0.43%
15	20	20	20	SAD		2611	0.780	128.3	128.1	0.13%	128.4	-0.11%

TMR(10x10,D10)
Check of SSD/dmax and SAD/dmax readings vs. inverse square

0.7302

-0.1%

Energy (MV)	X	Y	depth (cm)	Setup	Wedge	Rdg (pC)	Factor (cGy/MU)	MU to deliver 100cGy to point	Enter TPS MU Here		Enter TPS MU Here	
									TPS MU AAA	TPS MU Difference	TPS MU Acuros	TPS Difference
6FFF	10	10	1.5	SSD		3350	1.000	100.00	100.1	-0.10%	100.7	-0.70%
6FFF	10	10	1.5	SAD		3455	1.031	97.0	97.6	-0.66%	98.0	-1.07%
6FFF	5	5	5	SAD		2913	0.870	115.0	114.4	0.52%	114.7	0.26%
6FFF	10	10	5	SAD		3102	0.926	108.0	107.6	0.37%	107.7	0.27%
6FFF	20	20	5	SAD		3262	0.974	102.7	102.6	0.10%	102.7	0.00%
6FFF	5	5	10	SAD		2280	0.681	146.9	145.8	0.77%	146.5	0.29%
6FFF	10	10	10	SAD		2523	0.753	132.8	132.1	0.51%	132.4	0.29%
6FFF	20	20	10	SAD		2736	0.817	122.4	121.9	0.44%	122.2	0.20%
6FFF	5	20	10	SAD		2443	0.729	137.1	136.8	0.24%	137.4	-0.20%
6FFF	20	5	10	SAD		2417	0.721	138.6	137.8	0.58%	138.4	0.15%
6FFF	20	20	10	SAD		2562	0.765	130.8	131.2	-0.34%	131.0	-0.19%
6FFF	5	5	20	SAD	Chamber oa 4cm Pat Left (+C)	1390	0.415	241.0	239.6	0.58%	237.5	1.46%
6FFF	10	10	20	SAD		1599	0.477	209.5	208.2	0.62%	210.8	-0.62%
6FFF	20	20	20	SAD		1836	0.548	182.5	182.9	-0.24%	183.5	-0.57%

TMR(10x10,D10)
 Check of SSD/dmax and SAD/dmax readings vs. inverse square

0.8110

0.0%

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 Acuros	TPS Difference
10FFF				2.4									
10FFF		10	10	2.4	SSD		3368	1.000	100.00	100.0	0.00%	100.7	-0.70%
10FFF		10	10	2.4	SAD		3530	1.048	95.4	95.6	-0.20%	96.2	-0.83%
10FFF		5	5	5	SAD		3217	0.955	104.7	104.5	0.19%	104.7	-0.01%
10FFF		10	10	5	SAD		3346	0.993	100.7	100.5	0.16%	100.7	-0.04%
10FFF		20	20	5	SAD		3446	1.023	97.7	97.7	0.04%	97.8	-0.06%
10FFF		5	5	10	SAD		2683	0.797	125.5	125.3	0.18%	125.7	-0.13%
10FFF		10	10	10	SAD		2863	0.850	117.6	117.6	0.03%	117.7	-0.05%
10FFF		20	20	10	SAD		2999	0.890	112.3	112.1	0.18%	112.3	0.00%
10FFF		5	20	10	SAD		2800	0.831	120.3	120.2	0.07%	120.5	-0.18%
10FFF		20	5	10	SAD		2780	0.825	121.2	120.9	0.21%	121.3	-0.12%
10FFF		20	20	10	SAD	Chamber oa 4cm Pat Left (+C)	2577	0.765	130.7	130.4	0.23%	130.1	0.45%
10FFF		5	5	20	SAD		1848	0.549	182.3	182.6	-0.19%	181.4	0.47%
10FFF		10	10	20	SAD		2026	0.602	166.2	166.3	-0.04%	167.6	-0.82%
10FFF		20	20	20	SAD		2190	0.650	153.8	153.8	-0.01%	154.2	-0.27%

Rev 6 31-Mar-14

Landauer Cancer Institute

Varian TrueBeam #9999

Algorithm: eMC**Measured MU/100cGy**

100 SSD					
Applicator	MeV				
	6	9	12	16	20
6 x 6 cm	105.9	101.0	105.0	101.9	98.1
10 x 6 cm	123.6	105.3	102.9	100.9	98.2
10 x 10 cm	100.2	99.7	100.4	99.3	98.1
15 x 15 cm	100.0	100.0	100.0	100.0	100.0
20 x 20 cm	96.2	98.8	100.0	100.4	100.9
25 x 25 cm	94.4	99.1	101.3	101.7	102.6

TPS MU/100cGy

100 SSD					
Applicator	MeV				
	6	9	12	16	20
6 x 6 cm	106.2	100.8	103.7	101.1	98.6
10 x 6 cm	122.1	106.3	103.2	101.0	96.7
10 x 10 cm	99.7	100.5	100.0	98.9	97.2
15 x 15 cm	99.5	100.2	98.3	99.7	99.9
20 x 20 cm	95.7	97.8	100.7	99.5	99.3
25 x 25 cm	93.8	99.8	101.5	100.7	102.1

105 SSD					
Applicator	MeV				
	6	9	12	16	20
6 x 6 cm	120.7	113.3	117.4	113.8	110.5
10 x 6 cm	139.7	118.0	115.0	113.1	110.3
10 x 10 cm	111.8	110.7	111.6	110.3	109.6
15 x 15 cm	111.4	110.5	110.8	110.6	110.9
20 x 20 cm	106.5	109.3	110.5	110.8	111.4
25 x 25 cm	104.7	109.1	111.9	111.7	112.9

105 SSD					
Applicator	MeV				
	6	9	12	16	20
6 x 6 cm	119.9	112.9	116.3	114.4	109.8
10 x 6 cm	139.3	118.7	115.1	111.6	109.2
10 x 10 cm	112.1	111.8	111.5	109.8	109.4
15 x 15 cm	110.3	111.9	111.1	111.0	111.2
20 x 20 cm	105.3	108.7	112.1	110.5	109.6
25 x 25 cm	105.8	109.7	112.7	112.0	113.3

110 SSD					
Applicator	MeV				
	6	9	12	16	20
6 x 6 cm	138.4	126.8	131.0	126.2	123.4
10 x 6 cm	159.0	131.7	127.8	125.3	122.9
10 x 10 cm	125.2	123.0	123.9	122.2	121.8
15 x 15 cm	124.1	122.5	122.2	122.0	122.9
20 x 20 cm	118.0	120.4	121.7	122.0	123.1
25 x 25 cm	116.1	120.4	123.3	123.4	124.5

110 SSD					
Applicator	MeV				
	6	9	12	16	20
6 x 6 cm	136.6	126.3	128.6	124.3	122.1
10 x 6 cm	158.0	130.9	128.0	123.7	122.0
10 x 10 cm	125.6	124.4	125.1	121.1	121.5
15 x 15 cm	123.2	122.9	122.3	121.9	123.1
20 x 20 cm	119.5	120.8	122.9	121.9	122.0
25 x 25 cm	116.3	121.0	123.1	122.1	126.0

% diff (Measured - TPS)/Measured

100 SSD					
Applicator	MeV				
	6	9	12	16	20
6 x 6 cm	-0.31%	0.25%	1.25%	0.76%	-0.54%
10 x 6 cm	1.18%	-0.97%	-0.28%	-0.07%	1.57%
10 x 10 cm	0.47%	-0.85%	0.35%	0.37%	0.89%
15 x 15 cm	0.50%	-0.20%	1.70%	0.30%	0.10%
20 x 20 cm	0.49%	1.02%	-0.70%	0.87%	1.59%
25 x 25 cm	0.67%	-0.66%	-0.24%	0.97%	0.46%

MU diff (Measured - TPS)

100 SSD					
Applicator	MeV				
	6	9	12	16	20
6 x 6 cm	-0.3	0.2	1.3	0.8	-0.5
10 x 6 cm	1.5	-1.0	-0.3	-0.1	1.5
10 x 10 cm	0.5	-0.8	0.4	0.4	0.9
15 x 15 cm	0.5	-0.2	1.7	0.3	0.1
20 x 20 cm	0.5	1.0	-0.7	0.9	1.6
25 x 25 cm	0.6	-0.7	-0.2	1.0	0.5

105 SSD					
Applicator	MeV				
	6	9	12	16	20
6 x 6 cm	0.67%	0.38%	0.96%	-0.52%	0.61%
10 x 6 cm	0.29%	-0.63%	-0.05%	1.32%	0.96%
10 x 10 cm	-0.25%	-0.97%	0.12%	0.49%	0.19%
15 x 15 cm	0.98%	-1.25%	-0.30%	-0.39%	-0.26%
20 x 20 cm	1.09%	0.52%	-1.40%	0.27%	1.58%
25 x 25 cm	-1.03%	-0.59%	-0.75%	-0.26%	-0.33%

105 SSD					
Applicator	MeV				
	6	9	12	16	20
6 x 6 cm	0.8	0.4	1.1	-0.6	0.7
10 x 6 cm	0.4	-0.7	-0.1	1.5	1.1
10 x 10 cm	-0.3	-1.1	0.1	0.5	0.2
15 x 15 cm	1.1	-1.4	-0.3	-0.4	-0.3
20 x 20 cm	1.2	0.6	-1.6	0.3	1.8
25 x 25 cm	-1.1	-0.6	-0.8	-0.3	-0.4

110 SSD					
Applicator	MeV				
	6	9	12	16	20
6 x 6 cm	1.28%	0.36%	1.85%	1.52%	1.05%
10 x 6 cm	0.60%	0.58%	-0.18%	1.31%	0.70%
10 x 10 cm	-0.35%	-1.16%	-1.01%	0.94%	0.24%
15 x 15 cm	0.71%	-0.36%	-0.04%	0.06%	-0.20%
20 x 20 cm	-1.27%	-0.32%	-0.97%	0.06%	0.92%
25 x 25 cm	-0.18%	-0.48%	0.17%	1.02%	-1.21%

110 SSD					
Applicator	MeV				
	6	9	12	16	20
6 x 6 cm	1.8	0.5	2.4	1.9	1.3
10 x 6 cm	1.0	0.8	-0.2	1.6	0.9
10 x 10 cm	-0.4	-1.4	-1.2	1.1	0.3
15 x 15 cm	0.9	-0.4	-0.1	0.1	-0.2
20 x 20 cm	-1.5	-0.4	-1.2	0.1	1.1
25 x 25 cm	-0.2	-0.6	0.2	1.3	-1.5

Verification Testing

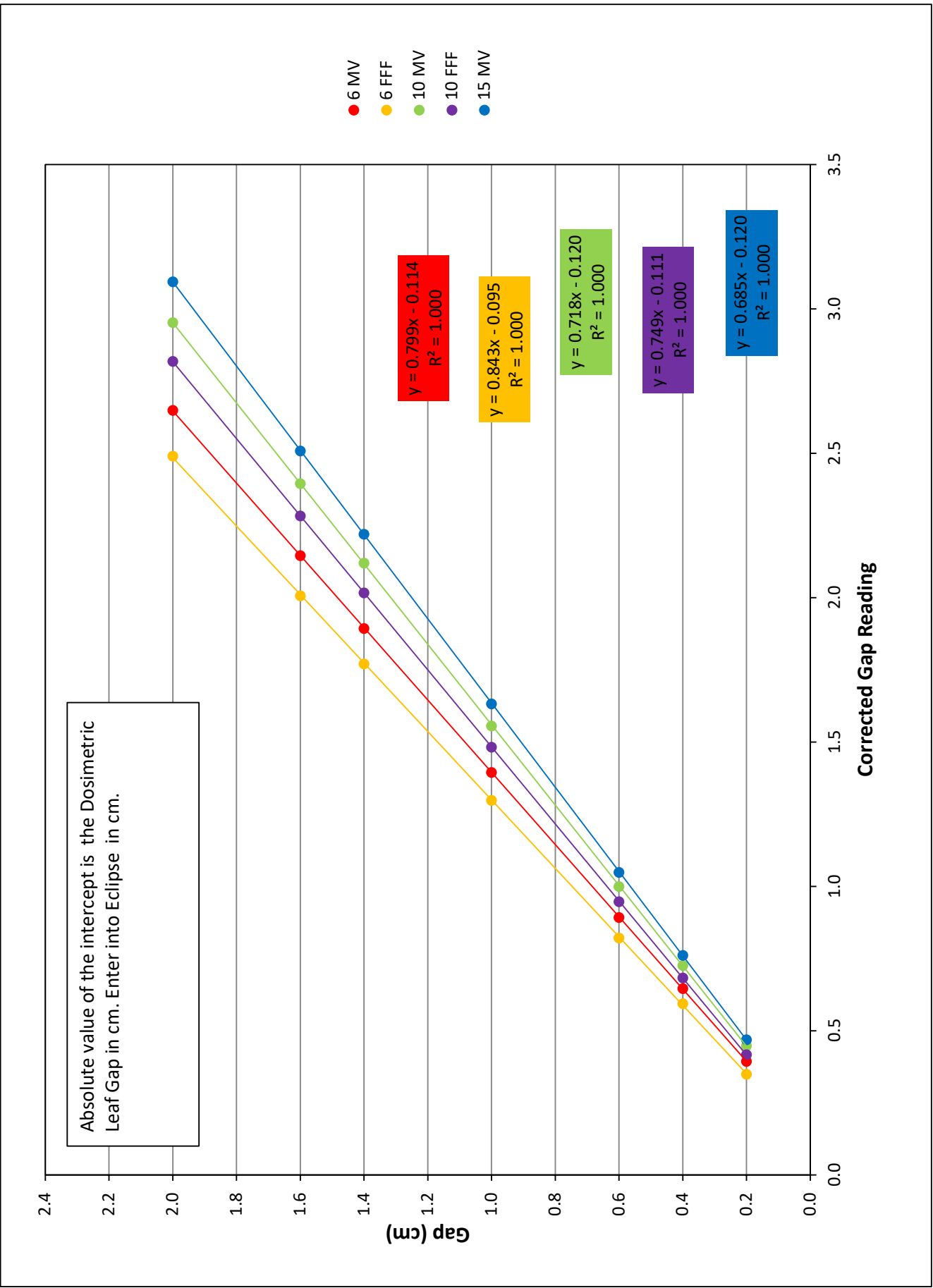
Dosimetric Leaf Gap

Facility: Landauer Cancer Institute

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	10 FFF	15 MV
R (Open)		15.090	14.300	16.760	16.020	17.530
R _{T,A} (Transmission, Bank A)		0.199	0.172	0.277	0.235	0.281
R _{T,B} (Transmission, Bank B)		0.213	0.172	0.278	0.238	0.282
R _T (Transmission, Average)		0.206	0.172	0.278	0.237	0.282
	Gap (mm)	Raw gap readings, R _g				
R _g (Gap=2mm)	2	0.596	0.518	0.720	0.649	0.745
R _g (Gap=4mm)	4	0.845	0.760	0.994	0.911	1.033
R _g (Gap=6mm)	6	1.088	0.984	1.263	1.171	1.316
R _g (Gap=10mm)	10	1.583	1.455	1.810	1.699	1.890
R _g (Gap=14mm)	14	2.075	1.922	2.365	2.225	2.468
R _g (Gap=16mm)	16	2.324	2.155	2.635	2.488	2.752
R _g (Gap=20mm)	20	2.820	2.633	3.184	3.015	3.329
	Gap (cm)	Corrected gap readings, R _g '				
R _g ' (Gap=2mm)	0.2	0.393	0.349	0.447	0.416	0.468
R _g ' (Gap=4mm)	0.4	0.646	0.594	0.726	0.682	0.761
R _g ' (Gap=6mm)	0.6	0.892	0.821	0.999	0.946	1.049
R _g ' (Gap=10mm)	1.0	1.394	1.297	1.556	1.482	1.632
R _g ' (Gap=14mm)	1.4	1.893	1.770	2.120	2.016	2.219
R _g ' (Gap=16mm)	1.6	2.145	2.006	2.395	2.283	2.508
R _g ' (Gap=20mm)	2.0	2.648	2.490	2.953	2.818	3.094
MLC Transmission		0.014	0.012	0.017	0.015	0.016
Dosimetric Leaf Gap (cm)		0.114	0.095	0.120	0.111	0.120



Verification Testing

TG-51

TG-51 Dose to Water
Photon Beams

Landauer Cancer Institute - Jackson, WY									
Site Data									
Physicist:	RJS	RJS	RJS	RJS	RJS	RJS	RJS	RJS	RJS
Date:	3-Sep-20	3-Sep-20	3-Sep-20	3-Sep-20	3-Sep-20	3-Sep-20	3-Sep-20	3-Sep-20	3-Sep-20
Linac Make/Model:	TrueBeam	TrueBeam	TrueBeam	TrueBeam	TrueBeam	TrueBeam	TrueBeam	TrueBeam	TrueBeam
Linac Serial Number:	9999	9999	9999	9999	9999	9999	9999	9999	9999
Nominal Photon Energy (MV):	6 MV	10 MV	15 MV	6FFF	10FFF	10FFF	10FFF	10FFF	10FFF
Instrumentation Data									
Chamber Model:	PTW N30013	PTW N30013	PTW N30013	PTW N30013	PTW N30013	PTW N30013	PTW N30013	PTW N30013	PTW N30013
Chamber Serial Number:	0562	0562	0562	0562	0562	0562	0562	0562	0562
Cavity Inner Radius (cm):	0.305	0.305	0.305	0.305	0.305	0.305	0.305	0.305	0.305
$N_{0,w} (^{60}\text{Co}) \times 10^7 \text{ Gy/C}$:	5.368	5.368	5.368	5.368	5.368	5.368	5.368	5.368	5.368
Date of Calibration:	9-Apr-20	9-Apr-20	9-Apr-20	9-Apr-20	9-Apr-20	9-Apr-20	9-Apr-20	9-Apr-20	9-Apr-20
Electrometer Model:	SuperMax	SuperMax	SuperMax	SuperMax	SuperMax	SuperMax	SuperMax	SuperMax	SuperMax
Electrometer Serial Number:	R163026	R163026	R163026	R163026	R163026	R163026	R163026	R163026	R163026
P_{acc} :	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999
Date of Calibration:	8-Apr-20	8-Apr-20	8-Apr-20	8-Apr-20	8-Apr-20	8-Apr-20	8-Apr-20	8-Apr-20	8-Apr-20
Measurement Conditions									
Setup (SSD or SAD):	SSD	SSD	SSD	SSD	SSD	SSD	SSD	SSD	SSD
Field Size (cm ²):	10x10	10x10	10x10	10x10	10x10	10x10	10x10	10x10	10x10
Number of MU:	100	100	100	100	100	100	100	100	100
Beam Quality									
Method to Determine %dd(10) _x :	Equation	Equation	Equation	Equation	Equation	Equation	Equation	Equation	Equation
%dd(10) _x :	66.2	73.4	76.7	63.9	71.4	71.4	63.9	71.4	71.4
%dd(10) _{ph} :	66.2	73.4	77.1	63.9	71.4	71.4	63.9	71.4	71.4
k_Q :	0.992	0.981	0.974	0.995	0.984	0.984	0.995	0.984	0.984
Temperature (°C):	22.3	22.3	22.3	22.3	22.3	22.3	22.3	22.3	22.3
Pressure (mmHg):	741.6	741.6	741.6	741.6	741.6	741.6	741.6	741.6	741.6
Operating Voltage (-300 or +300 V):	-300	-300	-300	-300	-300	-300	-300	-300	-300
P_{TP} :	1.026	1.026	1.026	1.026	1.026	1.026	1.026	1.026	1.026
P_{pol} :	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
P_{ion} :	1.003	1.003	1.006	1.005	1.011	1.011	1.005	1.011	1.011
P_{rp} :	1.000	1.000	1.000	1.003	1.006	1.006	1.003	1.006	1.006
M_{raw} (nC):	12.60	13.96	14.53	11.99	13.44	13.44	11.99	13.44	13.44
Corrected Ion Chamber R _{dq} , M (nC):	12.95	14.35	14.99	12.39	14.01	14.01	12.39	14.01	14.01
Dose to Water at 10 cm depth (cGy):	68.93	75.58	78.37	66.18	74.02	74.02	66.18	74.02	74.02
Clinical %dd(10):	66.400	73.470	76.670	63.530	71.050	71.050	63.530	71.050	71.050
Dose (cGy) / MU at d_{max}:	1.038	1.029	1.022	1.042	1.042	1.042	1.042	1.042	1.042
Output Adjustment									
M_{raw} (nC):	12.14	13.58	14.23	11.52	12.91	12.91	11.52	12.91	12.91
Dose (cGy) / MU at d_{max}:	1.000	1.001	1.001	1.001	1.000	1.000	1.001	1.001	1.000

$$M = P_{acc} * P_{TP} * P_{dec} * P_{pol} * P_{rp} * M_{raw}$$

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

Photon Correction Factors									
	6 MV	10 MV	15 MV	6FFF	10FFF	10FFF	10FFF	10FFF	10FFF
V_H (V)	-300	-300	-300	-300	-300	-300	-300	-300	-300
M (High)	12.60	13.96	14.53	11.99	13.44	13.44	11.99	13.44	13.44
V_L (V)	-150	-150	-150	-150	-150	-150	-150	-150	-150
M (Low)	12.56	13.91	14.45	11.93	13.29	13.29	11.93	13.30	13.30
	12.56	13.92	14.44	11.93	13.30	13.30	11.93	13.30	13.30
	12.57	13.92	14.45	11.93	13.30	13.30	11.93	13.30	13.30
Average	12.56	13.92	14.45	11.93	13.30	13.30	11.93	13.30	13.30
$M+$	12.59	13.96	14.54	11.98	13.44	13.44	11.98	13.44	13.44
	12.59	13.96	14.53	12.00	13.44	13.44	12.00	13.44	13.44
	12.59	13.97	14.54	11.99	13.44	13.44	11.99	13.44	13.44
Average	12.59	13.96	14.54	11.99	13.44	13.44	11.99	13.44	13.44
$M-$	12.60	13.96	14.53	11.99	13.44	13.44	11.99	13.44	13.44
	12.60	13.96	14.53	11.99	13.44	13.44	11.99	13.44	13.44
	12.60	13.96	14.54	12.00	13.44	13.44	12.00	13.44	13.44
Average	12.60	13.96	14.53	11.99	13.44	13.44	11.99	13.44	13.44
Output Adjustment									
M (Adjusted)	12.14	13.58	14.23	11.52	12.91	12.91	11.52	12.91	12.91
	12.14	13.58	14.23	11.52	12.91	12.91	11.52	12.91	12.91
	12.14	13.58	14.23	11.52	12.91	12.91	11.52	12.91	12.91
Average	12.14	13.58	14.23	11.52	12.91	12.91	11.52	12.91	12.91

TG-51 Dose to Water
Electron Beams

Landauer Cancer Institute - Jackson, WY									
Site Data									
Physicist:	RJS	RJS	RJS	RJS	RJS	RJS	RJS	RJS	RJS
Date:	3-Sep-20	3-Sep-20	3-Sep-20	3-Sep-20	3-Sep-20	3-Sep-20	3-Sep-20	3-Sep-20	3-Sep-20
Linac Make/Model:	TrueBeam	TrueBeam	TrueBeam	TrueBeam	TrueBeam	TrueBeam	TrueBeam	TrueBeam	TrueBeam
Linac Serial Number:	9999	9999	9999	9999	9999	9999	9999	9999	9999
Nominal Electron Energy (MeV):	6 MeV	9 MeV	12 MeV	16 MeV	20 MeV				
Instrumentation Data									
Chamber Model:	PTW N30013	PTW N30013	PTW N30013	PTW N30013	PTW N30013	PTW N30013	PTW N30013	PTW N30013	PTW N30013
Chamber Serial Number:	0562	0562	0562	0562	0562	0562	0562	0562	0562
Cavity Inner Radius (cm):	0.305	0.305	0.305	0.305	0.305	0.305	0.305	0.305	0.305
$N_{D,w}(^{60}\text{Co}) \times 10^7 \text{ Gy/C}$:	5.368	5.368	5.368	5.368	5.368	5.368	5.368	5.368	5.368
Date of Calibration:	9-Apr-20	9-Apr-20	9-Apr-20	9-Apr-20	9-Apr-20	9-Apr-20	9-Apr-20	9-Apr-20	9-Apr-20
Electrometer Model:	SuperMax	SuperMax	SuperMax	SuperMax	SuperMax	SuperMax	SuperMax	SuperMax	SuperMax
Electrometer Serial Number:	R163026	R163026	R163026	R163026	R163026	R163026	R163026	R163026	R163026
P_{elec} :	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999
Date of Calibration:	8-Apr-20	8-Apr-20	8-Apr-20	8-Apr-20	8-Apr-20	8-Apr-20	8-Apr-20	8-Apr-20	8-Apr-20
Measurement Conditions									
Distance SSD (cm):	100	100	100	100	100	100	100	100	100
Field Size on Surface (cm ²):	15x15	15x15	15x15	15x15	15x15	15x15	15x15	15x15	15x15
Number of MU:	100	100	100	100	100	100	100	100	100
Beam Quality									
I_{50} (mm):	23.0 mm	35.0 mm	49.1 mm	64.4 mm	80.5 mm				
R_{50} (mm):	23.1 mm	35.5 mm	49.9 mm	65.6 mm	82.2 mm				
Reference Depth, d_{ref} (mm):	12.9 mm	20.3 mm	28.9 mm	38.4 mm	48.3 mm				
k_{ref} :	0.897	0.897	0.897	0.897	0.897				
k_{cal} :	1.0283	1.0175	1.0087	1.0024	0.9981				
k_{R50} :	22.2	22.2	22.2	22.2	22.1				
Temperature (°C):	741.6	741.6	741.6	741.6	741.6				
Pressure (mmHg):	-300	-300	-300	-300	-300				
Operating Voltage (-300 or +300 V):	P_{TP} :	1.026	1.026	1.026	1.025				
	P_{pol} :	1.002	1.001	1.001	1.001				
	P_{ion} :	1.011	1.011	1.011	1.010				
	P_{gr}^Q (cyl):	1.000	1.002	0.998	0.995				
	M_{raw} (nC):	19.39	19.49	19.07	18.12				
	M (nC):	20.12	20.20	19.76	18.75				
Corrected Ion Chamber Rdg, M (nC):									
Dose to Water at d_{ref} (cGy):	99.67	99.14	95.82	90.02	88.18				
Clinical %dd(d_{ref}):	100.0	99.9	100.0	99.3	96.9				
Dose (cGy) / MU at d_{max} :	0.997	0.992	0.958	0.907	0.910				
Output Adjustment									
M_{raw} (nC):	19.45	19.65	19.91	20.00	19.63				
Dose (cGy) / MU at d_{max} :	1.000	1.001	1.001	1.001	1.001				

Board Certified Physicist: Robert Staton, PhD, DABR

3-Sep-20

Electron Correction Factors									
	6 MeV	9 MeV	12 MeV	16 MeV	20 MeV				
d_{ref} (mm)	12.9 mm	20.3 mm	28.9 mm	38.4 mm	48.3 mm				
V_{14} (V)	-300	-300	-300	-300	-300				
M(High)	19.39	19.49	19.07	18.12	17.84				
V_L (V)	-150	-150	-150	-150	-150				
M(Low)	19.17	19.27	18.85	17.94	17.67				
Average	19.17	19.28	18.87	17.94	17.66				
M+	19.45	19.51	19.09	18.13	17.87				
Average	19.45	19.51	19.09	18.13	17.87				
M-	19.38	19.48	19.07	18.12	17.84				
Average	19.38	19.48	19.07	18.12	17.84				
Average	19.39	19.49	19.06	18.12	17.84				
$d_{\text{ref}}+0.5r_{\text{cav}}$ (mm)	14.4 mm	21.8 mm	30.5 mm	39.9 mm	49.9 mm				
M($d_{\text{ref}}+0.5r_{\text{cav}}$)	19.39	19.52	19.03	18.02	17.73				
Average	19.39	19.52	19.03	18.02	17.73				
Average	19.39	19.52	19.03	18.02	17.73				
Output Adjustment									
M(Adjusted)	19.46	19.65	19.91	20.01	19.63				
Average	19.46	19.65	19.92	20.00	19.63				
Average	19.44	19.66	19.91	19.99	19.62				
Average	19.45	19.65	19.91	20.00	19.63				

$$M = P_{\text{ion}} * P_{\text{TP}} * P_{\text{elec}} * P_{\text{pol}} * M_{\text{raw}}$$

$$\text{Dose to Water at } d_{\text{ref}} = M * P_{\text{O}}^Q * k_{\text{R50}}^Q * k_{\text{cal}} * N_{\text{DW}}(^{60}\text{Co})$$

14-Jul-14
Rev 3 (VS)

Verification Testing

RapidArc

RapidArc Commissioning

Location: Landauer Cancer Institute
Machine Type: Varian TrueBeam 9999
Date: 9/4/2020

RapidArc Quality Assurance Plans

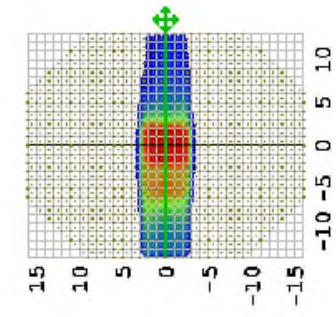
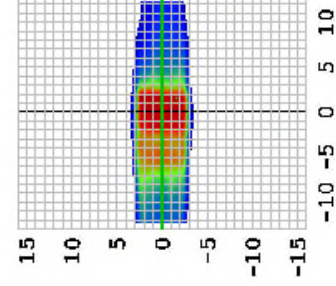
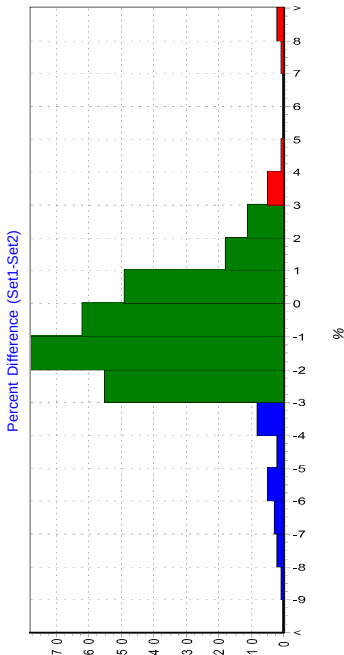
RapidArc plans were made in Eclipse to verify the functionality of the planning system and the TrueBeam. The plans were made on the RPC head and neck phantom with a two full-rotation RapidArc template. The plans can be found in patient **H/N Phantom**. The RapidArc plans were measured with a MapCHECK2 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	AXB
Energy (MV)	3%/2mm	3%/2mm
6	100%	98.3%
10	97.8%	98.1%
15	97.8%	97.8%
6FFF	99.3%	97.2%
10FFF	100%	99.0%

Date: 9/4/2020

MapCHECK 2 QA of Dose Distribution

Hospital Name:

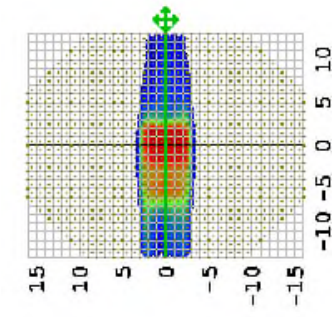
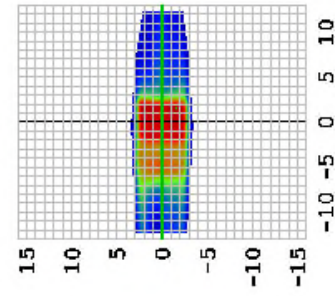
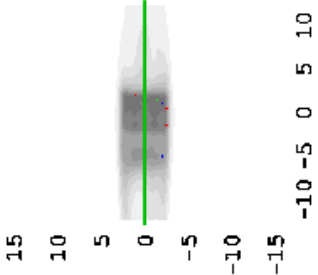
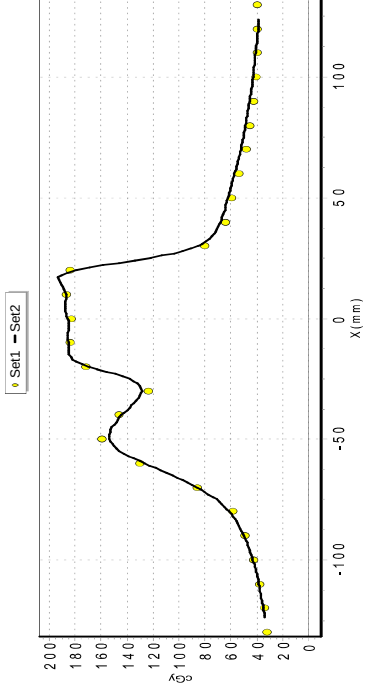
QA File Parameter Patient Name : H\N PHANTOM Patient ID : 999999998 Plan Date : 9/4/2020 SSD : SDD : Depth : Energy : 6 MV Angle : Absolute Dose Comparison Difference (%) : 3 Distance (mm) : 2.0 Threshold (%) : 10.0 Meas Uncertainty : Yes Use Global % : Yes Summary (Gamma Analysis) Total Points : 303 Passed : 303 Failed : 0 % Passed : 100 Dose Values in cGy CAX Norm Sel Max MapCHECK2 179.48 191.40 179.48 191.40 Plan 184.58 191.49 184.58 198.98 MapCHECK2 -5.10 -0.09 -5.10 -7.58 -Plan % Diff -2.66 -0.05 -2.66 -3.96 DTA(mm) 0.00 0.00 NA Coords (y,x) cm 0.0 -1.5,1.5 0.0 Notes 6 MV AAA	MapCHECK2  C:\Users\Owne\Fortive\F...16X AAA DLG1.txt	Plan  ...\\RD.999999998.PlanDose_6x_AAA_DLG...	 Percent Difference (Set1-Set2) %
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Reviewed By :

Date: 9/4/2020

MapCHECK 2 QA of Dose Distribution

Hospital Name:

QA File Parameter Patient Name : H/N PHANTOM Patient ID : 999999998 Plan Date : 9/4/2020 SSD : SDD : Depth : Energy : 6 MV Angle : Absolute Dose Comparison Difference (%) : 3 Distance (mm) : 2.0 Threshold (%) : 10.0 Meas Uncertainty : Yes Use Global % : Yes Summary (Gamma Analysis) Total Points : 300 Passed : 295 Failed : 5 % Passed : 98.3	MapCHECK2	Plan
	 C:\Users\Owne\Fortive\F...16X AXB DLG1.txt	 ...\\RD.999999998.PlaneDose_6x_AXB_DLG...
Dose Values in cGy CAX Norm Sel Max MapCHECK2 182.89 199.74 182.89 199.74 Plan 185.77 200.57 185.77 201.36 MapCHECK2 -2.88 -0.83 -2.88 -1.61 -Plan % Diff -1.44 -0.41 -1.44 -0.80 DTA(mm) 0.00 0.00 NA Coords 0.0 -1.5,1.5 0.0 (y,x) cm Notes 6 MV AXB	MapCHECK2-Plan	 
Reviewed By :		

Date: 9/4/2020

QA File Parameter

Patient Name

: H\N PHANTOM

Patient ID

: 999999998

Plan Date

: 9/4/2020

SSD

:

SDD

:

Depth

:

Energy

: 10 MV

Angle

:

Absolute Dose Comparison

Difference (%)

: 3

Distance (mm)

: 2.0

Threshold (%)

: 10.0

Meas Uncertainty

: Yes

Use Global %

: Yes

Summary (Gamma Analysis)

Total Points

: 313

Passed

: 306

Failed

: 7

% Passed

: 97.8

Dose Values in cGy

CAX

Norm

Sel

Max

MapCHECK2

186.83

199.51

186.83

199.51

Plan

192.30

202.17

192.30

202.90

MapCHECK2

-5.47

-2.66

-5.47

-3.39

-Plan

% Diff

-2.71

-1.31

-2.71

-1.68

DTA(mm)

0.00

0.00

NA

Coords

0.0

-1.5

1.5

0.0

(y-x) cm

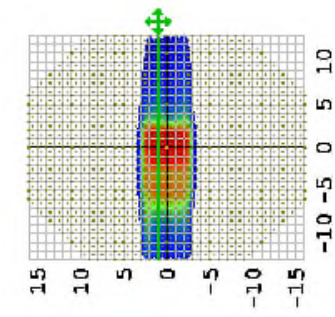
Notes

10 MV AAA

Reviewed By :

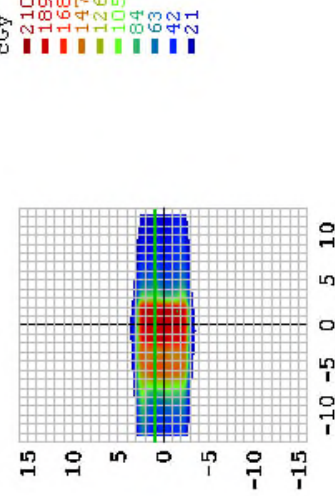
MapCHECK 2 QA of Dose Distribution

MapCHECK2



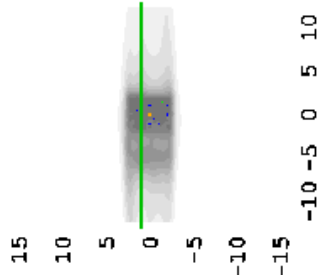
C:\Users\Owne\Fo...10x AAA Original DLG.txt

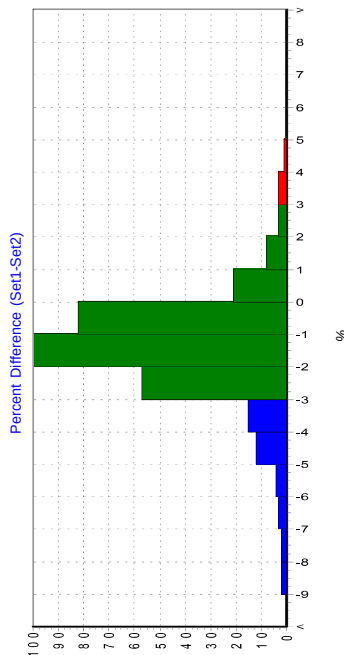
Plan



C:\...RD.999999998.PlaneDose_10x_AAA.dcm

MapCHECK2-Plan





Date: 9/4/2020

MapCHECK 2 QA of Dose Distribution

Hospital Name:

QA File Parameter

Patient Name : H/N PHANTOM

Patient ID : 999999998

Plan Date : 9/4/2020

SSD :

SDD :

Depth :

Energy : 10 MV

Angle :

Absolute Dose Comparison

Difference (%) : 3

Distance (mm) : 2.0

Threshold (%) : 10.0

Meas Uncertainty : Yes

Use Global % : Yes

Summary (Gamma Analysis)

Total Points : 310

Passed : 304

Failed : 6

% Passed : 98.1

Dose Values in cGy

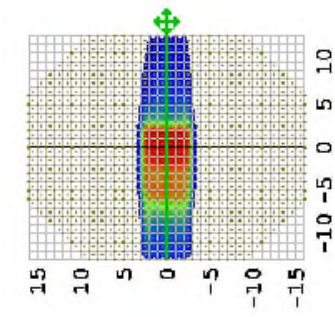
CAX	Norm	Sel	Max
MapCHECK2	187.67	199.38	187.67
Plan	191.98	202.95	191.98
MapCHECK2 -Plan	-4.31	-3.56	-4.31

% Diff	-2.12	-1.76	-2.12	-3.31
DTA(mm)	0.00	0.00	NA	
Coords (y,x) cm	0.0	-1.5	1.5	0.0

Notes

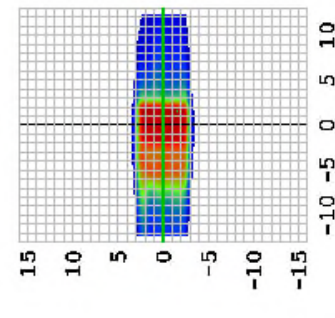
10 MV AXB

MapCHECK2



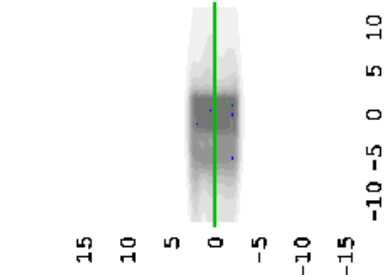
C:\Users\Owne\F...110X AXB Original DLG.txt

Plan

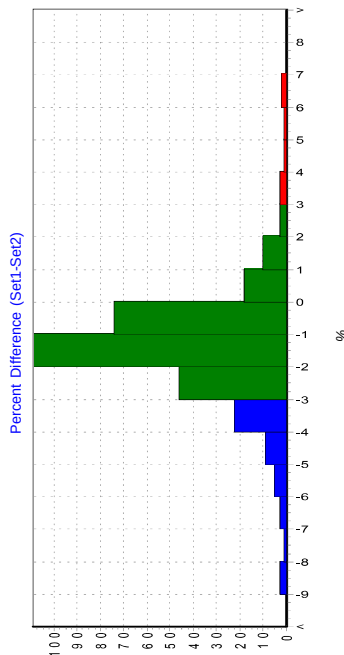


C:\...RD.999999998.PlaneDose_10x_AXB.dcm

MapCHECK2-Plan



Plan



Reviewed By :

Date: 9/4/2020

MapCHECK 2 QA of Dose Distribution

Hospital Name:

QA File Parameter

Patient Name : H\N PHANTOM

Patient ID : 999999998

Plan Date : 9/4/2020

SSD :

SDD :

Depth :

Energy : 15 MV

Angle :

Absolute Dose Comparison

Difference (%) : 3

Distance (mm) : 2.0

Threshold (%) : 10.0

Meas Uncertainty : Yes

Use Global % : Yes

Summary (Gamma Analysis)

Total Points : 318

Passed : 311

Failed : 7

% Passed : 97.8

Dose Values in cGy

CAX	Norm	Sel	Max
MapCHECK2	183.53	190.50	183.53
Plan	191.11	195.68	191.11
MapCHECK2	-7.58	-5.18	-7.58
-Plan			
% Diff	-3.87	-2.65	-3.87
DTA(mm)	>10	0.00	NA
Coords (y-x) cm	0.0	-0.5,1.5	0.0

Notes

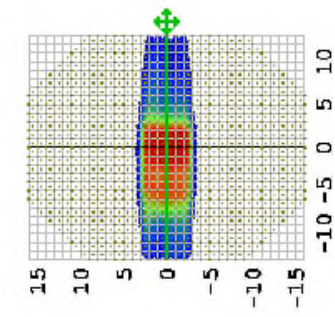
15 MV AAA

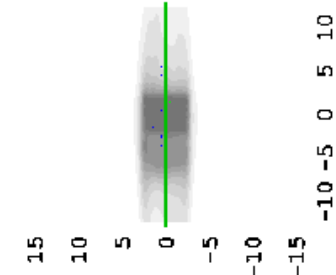
Reviewed By :

MapCHECK2

C:\Users\Owne\Fort...\15 AAA original DLG.txt

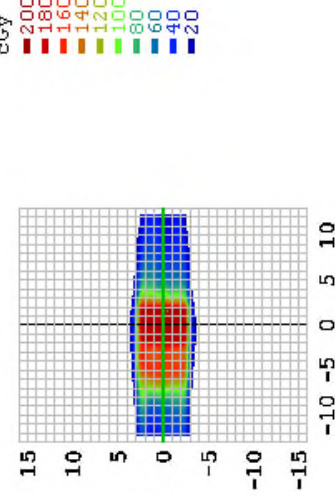
MapCHECK2-Plan

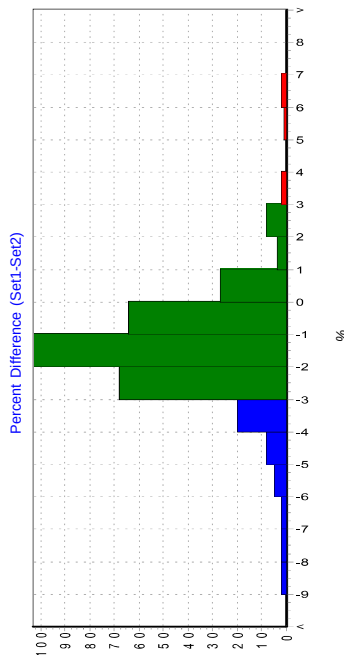




Plan

C:\...RD.999999998.PlaneDose_15x_AAA.dcm





Date: 9/4/2020

MapCHECK 2 QA of Dose Distribution

Hospital Name:

QA File Parameter

Patient Name : HIN PHANTOM
Patient ID : 999999998
Plan Date : 9/4/2020
SSD :
SDD :
Depth :
Energy : 0
Angle :

Absolute Dose Comparison

Difference (%) : 3
Distance (mm) : 2.0
Threshold (%) : 10.0
Meas Uncertainty : Yes
Use Global % : Yes

Summary (Gamma Analysis)

Total Points : 316
Passed : 309
Failed : 7
% Passed : 97.8

Dose Values in cGy

CAX	Norm	Sel	Max
MapCHECK2	186.46	194.48	186.46
Plan	191.69	199.64	191.69
MapCHECK2	-5.24	-5.16	-5.24
-Plan			-7.66

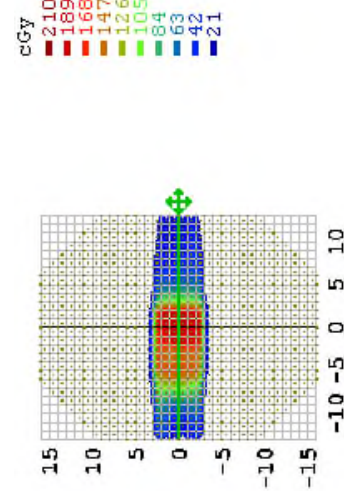
% Diff : -2.62 : -2.59 : -2.62 : -3.83
DTA(mm) : 0.00 : 0.00 : NA
Coords : 0.0 : 2.1 : 0.0
(y,x) cm

Notes

15 MV AXB

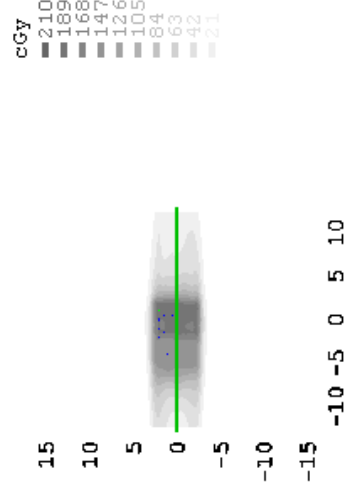
Reviewed By :

MapCHECK2

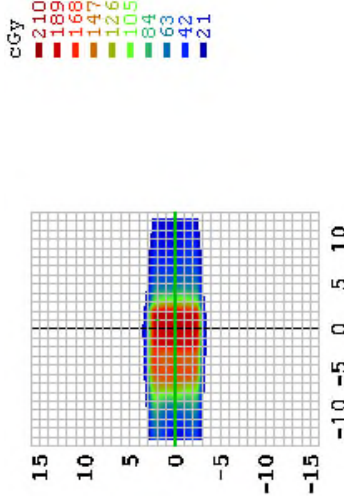


C:\Users\Owne\Fortive\FLK-LM...15 AXB.txt

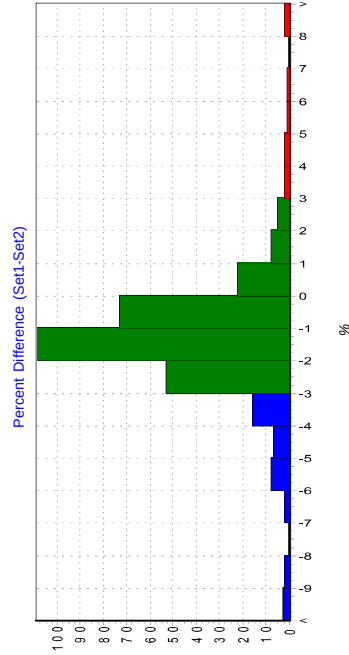
MapCHECK2-Plan



Plan



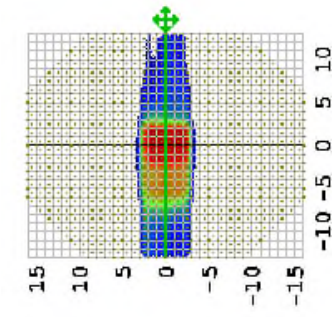
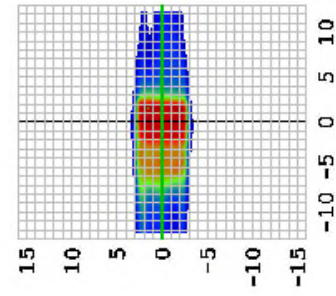
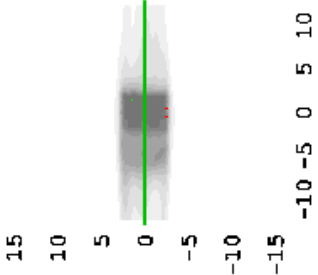
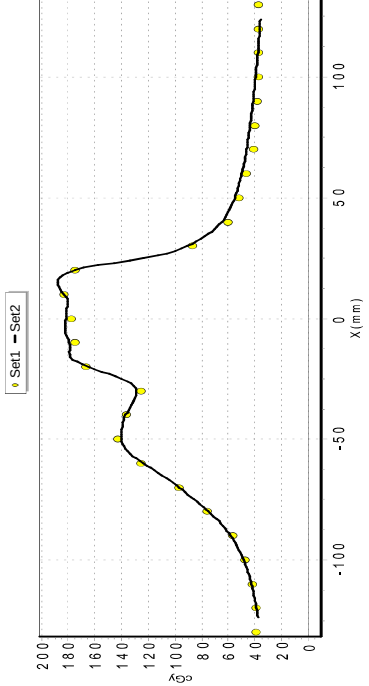
C:\...RD.999999998.PlaneDose_15x_AXB.dcm



Date: 9/4/2020

MapCHECK 2 QA of Dose Distribution

Hospital Name:

QA File Parameter Patient Name : H\N PHANTOM Patient ID : 999999998 Plan Date : 9/4/2020 SSD : SDD : Depth : Energy : 6FFF Angle : Absolute Dose Comparison Difference (%) : 3 Distance (mm) : 2.0 Threshold (%) : 10.0 Meas Uncertainty : Yes Use Global % : Yes Summary (Gamma Analysis) Total Points : 290 Passed : 288 Failed : 2 % Passed : 99.3	MapCHECK2	Plan
		
	C:\Users\Owner\Fortive\FLK-L\16FFF AAA.txt	...\\RD.999999998.PlanDose_6FFF_AAA_D...
Dose Values in cGy CAX Norm Sel Max MapCHECK2 177.24 196.28 177.24 196.28 Plan 181.64 194.44 181.64 197.95 MapCHECK2 -4.40 1.84 -4.40 -1.66 -Plan % Diff -2.26 0.95 -2.26 -0.86 DTA(mm) 0.00 0.00 NA Coords 0.0 1.5,1.5 0.0 (y,x) cm Notes 6 FFF AAA	MapCHECK2-Plan	
Reviewed By :		

Date: 9/4/2020

MapCHECK 2 QA of Dose Distribution

Hospital Name:

QA File Parameter

Patient Name : H\N PHANTOM
Patient ID : 999999998
Plan Date : 9/4/2020
SSD :
SDD :
Depth :
Energy : 6FFF
Angle :

Absolute Dose Comparison

Difference (%) : 3
Distance (mm) : 2.0
Threshold (%) : 10.0
Meas Uncertainty : Yes
Use Global % : Yes

Summary (Gamma Analysis)

Total Points : 290
Passed : 282
Failed : 8
% Passed : 97.2

Dose Values in cGy

	CAX	Norm	Sel	Max
MapCHECK2	178.44	196.35	178.44	200.41
Plan	180.36	193.46	180.36	199.78
MapCHECK2 -Plan	-1.92	2.89	-1.92	0.63

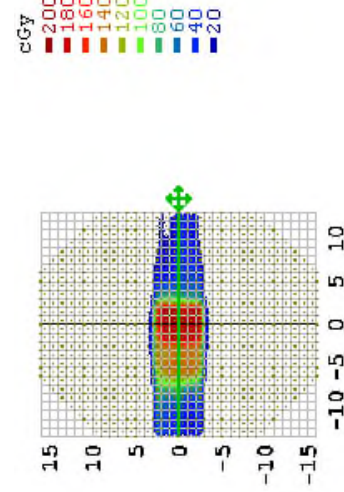
% Diff : -0.99 1.49 -0.99 0.33
DTA(mm) : 0.00 0.00 NA
Coords : 0.0 1.5,1.5 0.0
(y,x) cm

Notes

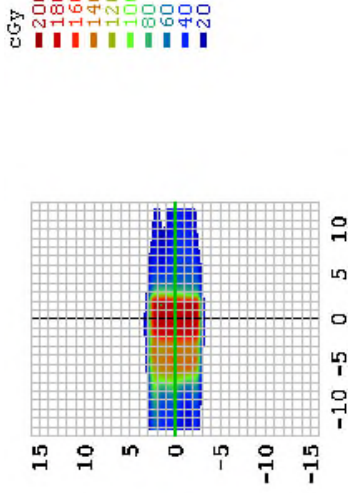
6 FFF AXB

Reviewed By :

MapCHECK2



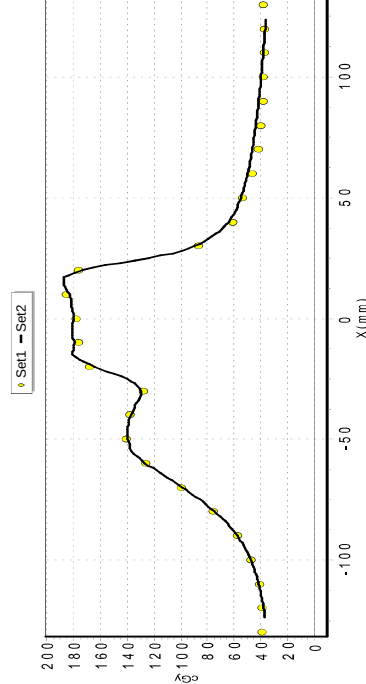
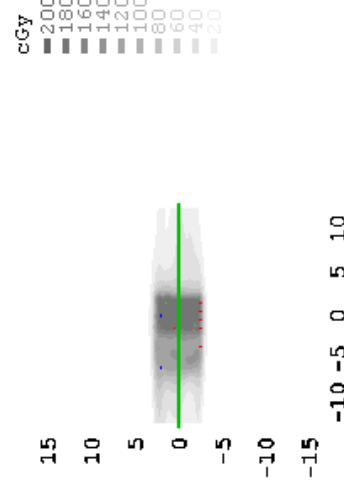
Plan



C:\Users\Owmen\Fortive\FLK-L...6FFF AXB.txt

...RD.999999998.PlanDose_6FFF_AXB_D...

MapCHECK2-Plan



Date: 9/4/2020

MapCHECK 2 QA of Dose Distribution

Hospital Name:

QA File Parameter

Patient Name : H\N PHANTOM

Patient ID : 999999998

Plan Date : 9/4/2020

SSD :

SDD :

Depth :

Energy : 10 FFF

Angle :

Absolute Dose Comparison

Difference (%) : 3

Distance (mm) : 2.0

Threshold (%) : 10.0

Meas Uncertainty : Yes

Use Global % : Yes

Summary (Gamma Analysis)

Total Points : 305

Passed : 305

Failed : 0

% Passed : 100

Dose Values in cGy

CAX	Norm	Sel	Max
MapCHECK2	190.09	194.14	190.09
Plan	193.09	195.41	193.09
MapCHECK2	-3.00	-1.27	-3.00
-Plan			-0.40

% Diff : -1.54 -0.65 -1.54 -0.21

DTA(mm) : 0.00 0.00 NA

Coords : 0.0 0.1 0.0

(y-x) cm

Notes

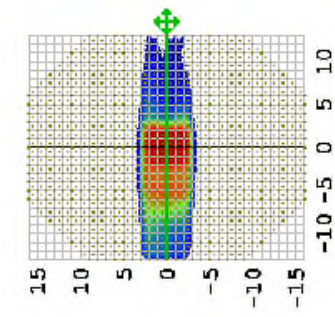
10FFF AAA

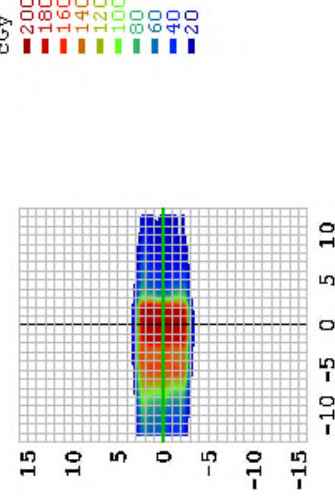
Reviewed By :

MapCHECK2

MapCHECK2

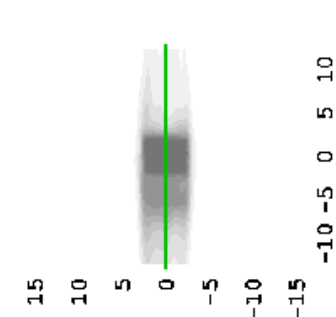
Plan

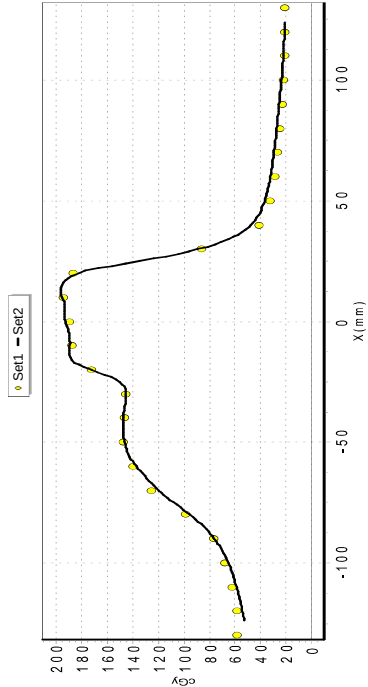




C:\Users\Owmen\Fortiv...\10FFF AAA DLG1.txt

...\\RD.999999998.PlaneDose_10FFF_AAAD...

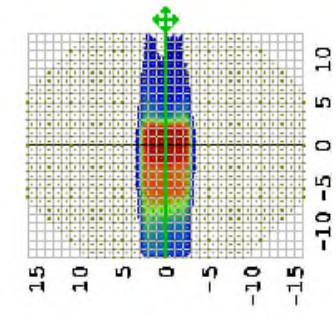
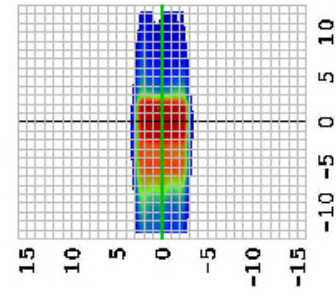
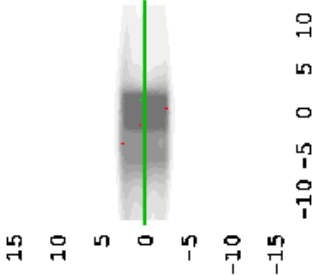
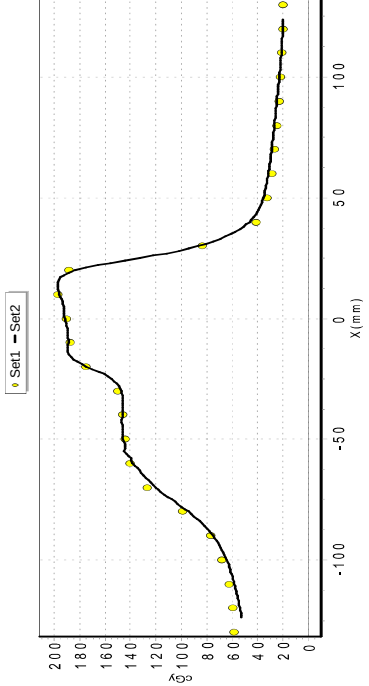




Date: 9/4/2020

MapCHECK 2 QA of Dose Distribution

Hospital Name:

QA File Parameter Patient Name : H/N PHANTOM Patient ID : 999999998 Plan Date : 9/4/2020 SSD : SDD : Depth : Energy : 10FFF Angle : Absolute Dose Comparison Difference (%) : 3 Distance (mm) : 2.0 Threshold (%) : 10.0 Meas Uncertainty : Yes Use Global % : Yes Summary (Gamma Analysis) Total Points : 300 Passed : 297 Failed : 3 % Passed : 99	MapCHECK2	 C:\Users\Owne\Fortiv...\10FFF AXB DLG1.txt	Plan	 ...\\RD.999999998.PlanDose_10FFF_AXBD...
Dose Values in cGy CAX Norm Sel Max MapCHECK2 190.61 199.07 190.61 200.59 Plan 191.61 197.56 191.61 200.31 MapCHECK2 -0.99 1.51 -0.99 0.28 -Plan % Diff -0.50 0.76 -0.50 0.14 DTA(mm) 0.00 0.00 NA Coords 0.0 0.5,1.5 0.0 (y,x) cm Notes 10FFF AXB	MapCHECK2-Plan			
Reviewed By :				

Verification Testing

Portal Dosimetry

Portal Dosimetry Configuration

Portal Dosimetry configuration for Varian TrueBeam #9999 at Landauer Cancer Institute Center for energies 6, 6FFF, 10, 10FFF, and 15MV 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_15606 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 the MapCHECK2. The Portal Dosimetry results are presented below (3%/2mm Gamma Analysis).

Portal Dosimetry Test Results

Portal Dosimetry Pass % for H/N VMAT Plan	
	2 Arc
Energy (MV)	3%/2mm
6 AAA	96.1%, 96.4%
6 AXB	100%, 100%
10 AAA	97.7%, 98.6%
10 AXB	99.9%, 100%
15 AAA	97.5%, 96.2%
15 AXB	99.8%, 99.9%
6FFF AAA	97.6%, 99.2%
6FFF AXB	100%, 100%
10FFF AAA	97.0%, 97.9%
10FFF AXB	99.9%, 100%

Plan: 6x_AAA_DLG1

Patient: H/N PHANTOM, ID: 999999998

Session: Friday, September 04, 2020 3:48 PM

Plan Summary Result: **Passed****Field**

Analysis done by

Analysis Date

Portal Dose ID

Reference Dose ID

Type of Analysis

Analysis Result

Field 1

Staton, Robert

Friday, September 04, 2020 3:56 PM

MV_179_0a

Field 1

Analysis

Passed

Detailed test results:

	Test	Value	Tol.
	Area Gamma < 1.0	96.1 %	95.0 %
	Maximum Gamma	4.70	
	Average Gamma	0.31	
	Area Gamma > 0.8	7.7 %	
	Area Gamma > 1.2	2.3 %	

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

Test	Value	Tol.
Max. Dose Difference	0.27 CU	
Avg. Dose Difference	0.03 CU	
Area Dose Diff > 0.50 CU	0.0 %	
Area Dose Diff > 0.80 CU	0.0 %	

Field

Analysis done by

Analysis Date

Portal Dose ID

Reference Dose ID

Type of Analysis

Analysis Result

Field 2

Staton, Robert

Friday, September 04, 2020 3:56 PM

MV_181_0a

Field 2

Analysis

Passed

Detailed test results:

	Test	Value	Tol.
	Area Gamma < 1.0	96.4 %	95.0 %
	Maximum Gamma	3.31	
	Average Gamma	0.28	
	Area Gamma > 0.8	6.7 %	
	Area Gamma > 1.2	2.0 %	

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

Test	Value	Tol.
Max. Dose Difference	0.31 CU	
Avg. Dose Difference	0.03 CU	
Area Dose Diff > 0.50 CU	0.0 %	
Area Dose Diff > 0.80 CU	0.0 %	

Plan: 6x_AXB_DLG1

Patient: H/N PHANTOM, ID: 999999998

Session: Friday, September 04, 2020 3:51 PM

Plan Summary Result: **Passed****Field**

Analysis done by
Analysis Date
Portal Dose ID
Reference Dose ID
Type of Analysis
Analysis Result

Field 1

Staton, Robert
Friday, September 04, 2020 3:56 PM
MV_179_0a
Field 1
Analysis
Passed

Detailed test results:

	Test	Value	Tol.	Test	Value	Tol.
	Area Gamma < 1.0	100.0 %	95.0 %	Max. Dose Difference	0.16 CU	
	Maximum Gamma	1.32		Avg. Dose Difference	0.02 CU	
	Average Gamma	0.17		Area Dose Diff > 0.50 CU	0.0 %	
	Area Gamma > 0.8	0.2 %		Area Dose Diff > 0.80 CU	0.0 %	
	Area Gamma > 1.2	0.0 %				

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

Field

Analysis done by
Analysis Date
Portal Dose ID
Reference Dose ID
Type of Analysis
Analysis Result

Field 2

Staton, Robert
Friday, September 04, 2020 3:56 PM
MV_181_0a
Field 2
Analysis
Passed

Detailed test results:

	Test	Value	Tol.	Test	Value	Tol.
	Area Gamma < 1.0	100.0 %	95.0 %	Max. Dose Difference	0.18 CU	
	Maximum Gamma	1.26		Avg. Dose Difference	0.03 CU	
	Average Gamma	0.18		Area Dose Diff > 0.50 CU	0.0 %	
	Area Gamma > 0.8	0.1 %		Area Dose Diff > 0.80 CU	0.0 %	
	Area Gamma > 1.2	0.0 %				

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

Plan: 10x_AAA

Patient: H/N PHANTOM, ID: 999999998

Session: Friday, September 04, 2020 10:56 AM

Plan Summary Result: **Passed****Field**

Analysis done by

Analysis Date

Portal Dose ID

Reference Dose ID

Type of Analysis

Analysis Result

Field 1

Staton, Robert

Friday, September 04, 2020 11:10 AM

MV_179_0a

Field 1

Analysis

Passed

Detailed test results:

	Test	Value	Tol.
	Area Gamma < 1.0	97.7 %	95.0 %
	Maximum Gamma	2.73	
	Average Gamma	0.24	
	Area Gamma > 0.8	4.6 %	
	Area Gamma > 1.2	1.3 %	

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

Test	Value	Tol.
Max. Dose Difference	0.13 CU	
Avg. Dose Difference	0.02 CU	
Area Dose Diff > 0.50 CU	0.0 %	
Area Dose Diff > 0.80 CU	0.0 %	

Field

Analysis done by

Analysis Date

Portal Dose ID

Reference Dose ID

Type of Analysis

Analysis Result

Field 2

Staton, Robert

Friday, September 04, 2020 11:10 AM

MV_181_0a

Field 2

Analysis

Passed

Detailed test results:

	Test	Value	Tol.
	Area Gamma < 1.0	98.6 %	95.0 %
	Maximum Gamma	2.87	
	Average Gamma	0.22	
	Area Gamma > 0.8	2.2 %	
	Area Gamma > 1.2	0.9 %	

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

Test	Value	Tol.
Max. Dose Difference	0.26 CU	
Avg. Dose Difference	0.03 CU	
Area Dose Diff > 0.50 CU	0.0 %	
Area Dose Diff > 0.80 CU	0.0 %	

Plan: 10x_AXB

Patient: H/N PHANTOM, ID: 999999998

Session: Thursday, September 03, 2020 7:38 PM

Plan Summary Result: **Passed****Field**

Analysis done by

Analysis Date

Portal Dose ID

Reference Dose ID

Type of Analysis

Analysis Result

Detailed test results:

	Test	Value	Tol.
	Area Gamma < 1.0	99.9 %	95.0 %
	Maximum Gamma	1.28	
	Average Gamma	0.17	
	Area Gamma > 0.8	0.2 %	
	Area Gamma > 1.2	0.0 %	

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

Field 1

Staton, Robert

Friday, September 04, 2020 9:47 AM

MV_179_0a

Field 1

Analysis

Passed

Test	Value	Tol.
Max. Dose Difference	0.13 CU	
Avg. Dose Difference	0.02 CU	
Area Dose Diff > 0.50 CU	0.0 %	
Area Dose Diff > 0.80 CU	0.0 %	

Field

Analysis done by

Analysis Date

Portal Dose ID

Reference Dose ID

Type of Analysis

Analysis Result

Detailed test results:

	Test	Value	Tol.
	Area Gamma < 1.0	100.0 %	95.0 %
	Maximum Gamma	1.08	
	Average Gamma	0.17	
	Area Gamma > 0.8	0.3 %	
	Area Gamma > 1.2	0.0 %	

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

Field 2

Staton, Robert

Friday, September 04, 2020 9:47 AM

MV_181_0a

Field 2

Analysis

Passed

Test	Value	Tol.
Max. Dose Difference	0.15 CU	
Avg. Dose Difference	0.02 CU	
Area Dose Diff > 0.50 CU	0.0 %	
Area Dose Diff > 0.80 CU	0.0 %	

Plan: 15x_AAA

Patient: H/N PHANTOM, ID: 999999998

Session: Friday, September 04, 2020 11:00 AM

Plan Summary Result: **Passed****Field**

Analysis done by

Analysis Date

Portal Dose ID

Reference Dose ID

Type of Analysis

Analysis Result

Field 1

Staton, Robert

Friday, September 04, 2020 11:10 AM

MV_179_0a

Field 1

Analysis

Passed

Detailed test results:

	Test	Value	Tol.
	Area Gamma < 1.0	97.5 %	95.0 %
	Maximum Gamma	4.13	
	Average Gamma	0.27	
	Area Gamma > 0.8	4.9 %	
	Area Gamma > 1.2	1.7 %	

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

Test	Value	Tol.
Max. Dose Difference	0.19 CU	
Avg. Dose Difference	0.02 CU	
Area Dose Diff > 0.50 CU	0.0 %	
Area Dose Diff > 0.80 CU	0.0 %	

Field

Analysis done by

Analysis Date

Portal Dose ID

Reference Dose ID

Type of Analysis

Analysis Result

Field 2

Staton, Robert

Friday, September 04, 2020 11:10 AM

MV_181_0a

Field 2

Analysis

Passed

Detailed test results:

	Test	Value	Tol.
	Area Gamma < 1.0	96.2 %	95.0 %
	Maximum Gamma	3.36	
	Average Gamma	0.29	
	Area Gamma > 0.8	7.5 %	
	Area Gamma > 1.2	2.2 %	

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

Test	Value	Tol.
Max. Dose Difference	0.33 CU	
Avg. Dose Difference	0.03 CU	
Area Dose Diff > 0.50 CU	0.0 %	
Area Dose Diff > 0.80 CU	0.0 %	

Plan: 15x_AXB

Patient: H/N PHANTOM, ID: 999999998

Session: Thursday, September 03, 2020 8:08 PM

Plan Summary Result: **Passed****Field**

Analysis done by

Analysis Date

Portal Dose ID

Reference Dose ID

Type of Analysis

Analysis Result

Field 1

Staton, Robert

Friday, September 04, 2020 9:03 AM

MV_179_0a

Field 1

Analysis

Passed

Detailed test results:

	Test	Value	Tol.
	Area Gamma < 1.0	99.8 %	95.0 %
	Maximum Gamma	1.51	
	Average Gamma	0.18	
	Area Gamma > 0.8	0.7 %	
	Area Gamma > 1.2	0.0 %	

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

Test	Value	Tol.
Max. Dose Difference	0.15 CU	
Avg. Dose Difference	0.02 CU	
Area Dose Diff > 0.50 CU	0.0 %	
Area Dose Diff > 0.80 CU	0.0 %	

Field

Analysis done by

Analysis Date

Portal Dose ID

Reference Dose ID

Type of Analysis

Analysis Result

Field 2

Staton, Robert

Friday, September 04, 2020 9:03 AM

MV_181_0a

Field 2

Analysis

Passed

Detailed test results:

	Test	Value	Tol.
	Area Gamma < 1.0	99.9 %	95.0 %
	Maximum Gamma	1.51	
	Average Gamma	0.19	
	Area Gamma > 0.8	0.3 %	
	Area Gamma > 1.2	0.0 %	

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

Test	Value	Tol.
Max. Dose Difference	0.19 CU	
Avg. Dose Difference	0.02 CU	
Area Dose Diff > 0.50 CU	0.0 %	
Area Dose Diff > 0.80 CU	0.0 %	

Plan: 6FFF_AAA_DLG2

Patient: H/N PHANTOM, ID: 999999998

Session: Friday, September 04, 2020 11:56 AM

Plan Summary Result: **Passed****Field**

Analysis done by

Analysis Date

Portal Dose ID

Reference Dose ID

Type of Analysis

Analysis Result

Field 1

Staton, Robert

Friday, September 04, 2020 12:02 PM

MV_179_0a

Field 1

Analysis

Passed

Detailed test results:

	Test	Value	Tol.
	Area Gamma < 1.0	97.6 %	95.0 %
	Maximum Gamma	2.78	
	Average Gamma	0.24	
	Area Gamma > 0.8	4.2 %	
	Area Gamma > 1.2	1.3 %	

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

Test	Value	Tol.
Max. Dose Difference	0.23 CU	
Avg. Dose Difference	0.03 CU	
Area Dose Diff > 0.50 CU	0.0 %	
Area Dose Diff > 0.80 CU	0.0 %	

Field

Analysis done by

Analysis Date

Portal Dose ID

Reference Dose ID

Type of Analysis

Analysis Result

Field 2

Staton, Robert

Friday, September 04, 2020 12:02 PM

MV_181_0a

Field 2

Analysis

Passed

Detailed test results:

	Test	Value	Tol.
	Area Gamma < 1.0	99.2 %	95.0 %
	Maximum Gamma	2.26	
	Average Gamma	0.20	
	Area Gamma > 0.8	1.6 %	
	Area Gamma > 1.2	0.4 %	

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

Test	Value	Tol.
Max. Dose Difference	0.33 CU	
Avg. Dose Difference	0.03 CU	
Area Dose Diff > 0.50 CU	0.0 %	
Area Dose Diff > 0.80 CU	0.0 %	

Plan: 6FFF_AXB_DLG2

Patient: H/N PHANTOM, ID: 999999998

Session: Friday, September 04, 2020 12:45 PM

Plan Summary Result: **Passed****Field**

Analysis done by

Analysis Date

Portal Dose ID

Reference Dose ID

Type of Analysis

Analysis Result

Field 1

Staton, Robert

Friday, September 04, 2020 12:51 PM

MV_179_0a

Field 1

Analysis

Passed

Detailed test results:

	Test	Value	Tol.	Test	Value	Tol.
	Area Gamma < 1.0	100.0 %	95.0 %	Max. Dose Difference	0.19 CU	
	Maximum Gamma	1.01		Avg. Dose Difference	0.02 CU	
	Average Gamma	0.12		Area Dose Diff > 0.50 CU	0.0 %	
	Area Gamma > 0.8	0.1 %		Area Dose Diff > 0.80 CU	0.0 %	
	Area Gamma > 1.2	0.0 %				

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

Field

Analysis done by

Analysis Date

Portal Dose ID

Reference Dose ID

Type of Analysis

Analysis Result

Field 2

Staton, Robert

Friday, September 04, 2020 12:51 PM

MV_181_0a

Field 2

Analysis

Passed

Detailed test results:

	Test	Value	Tol.	Test	Value	Tol.
	Area Gamma < 1.0	100.0 %	95.0 %	Max. Dose Difference	0.19 CU	
	Maximum Gamma	0.88		Avg. Dose Difference	0.02 CU	
	Average Gamma	0.11		Area Dose Diff > 0.50 CU	0.0 %	
	Area Gamma > 0.8	0.0 %		Area Dose Diff > 0.80 CU	0.0 %	
	Area Gamma > 1.2	0.0 %				

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

Plan: 10FFF_AAADLG1

Patient: H/N PHANTOM, ID: 999999998

Session: Friday, September 04, 2020 5:04 PM

Plan Summary Result: **Passed****Field**

Analysis done by

Analysis Date

Portal Dose ID

Reference Dose ID

Type of Analysis

Analysis Result

Field 1

Staton, Robert

Friday, September 04, 2020 8:31 PM

MV_179_0a

Field 1

Analysis

Passed

Detailed test results:

	Test	Value	Tol.
	Area Gamma < 1.0	97.0 %	95.0 %
	Maximum Gamma	3.34	
	Average Gamma	0.27	
	Area Gamma > 0.8	5.2 %	
	Area Gamma > 1.2	2.2 %	

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

Test	Value	Tol.
Max. Dose Difference	0.24 CU	
Avg. Dose Difference	0.03 CU	
Area Dose Diff > 0.50 CU	0.0 %	
Area Dose Diff > 0.80 CU	0.0 %	

Field

Analysis done by

Analysis Date

Portal Dose ID

Reference Dose ID

Type of Analysis

Analysis Result

Field 2

Staton, Robert

Friday, September 04, 2020 8:31 PM

MV_181_0a

Field 2

Analysis

Passed

Detailed test results:

	Test	Value	Tol.
	Area Gamma < 1.0	97.9 %	95.0 %
	Maximum Gamma	2.62	
	Average Gamma	0.26	
	Area Gamma > 0.8	4.5 %	
	Area Gamma > 1.2	0.9 %	

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

Test	Value	Tol.
Max. Dose Difference	0.30 CU	
Avg. Dose Difference	0.03 CU	
Area Dose Diff > 0.50 CU	0.0 %	
Area Dose Diff > 0.80 CU	0.0 %	

Plan: 10FFF_AXBDLG1

Patient: H/N PHANTOM, ID: 999999998

Session: Friday, September 04, 2020 5:07 PM

Plan Summary Result: **Passed****Field**

Analysis done by
Analysis Date
Portal Dose ID
Reference Dose ID
Type of Analysis
Analysis Result

Field 1

Staton, Robert
Friday, September 04, 2020 8:31 PM
MV_179_0a
Field 1
Analysis
Passed

Detailed test results:

	Test	Value	Tol.	Test	Value	Tol.
	Area Gamma < 1.0	99.9 %	95.0 %	Max. Dose Difference	0.15 CU	
	Maximum Gamma	1.40		Avg. Dose Difference	0.02 CU	
	Average Gamma	0.17		Area Dose Diff > 0.50 CU	0.0 %	
	Area Gamma > 0.8	0.4 %		Area Dose Diff > 0.80 CU	0.0 %	
	Area Gamma > 1.2	0.1 %				

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

Field

Analysis done by
Analysis Date
Portal Dose ID
Reference Dose ID
Type of Analysis
Analysis Result

Field 2

Staton, Robert
Friday, September 04, 2020 8:31 PM
MV_181_0a
Field 2
Analysis
Passed

Detailed test results:

	Test	Value	Tol.	Test	Value	Tol.
	Area Gamma < 1.0	100.0 %	95.0 %	Max. Dose Difference	0.14 CU	
	Maximum Gamma	0.94		Avg. Dose Difference	0.02 CU	
	Average Gamma	0.19		Area Dose Diff > 0.50 CU	0.0 %	
	Area Gamma > 0.8	0.2 %		Area Dose Diff > 0.80 CU	0.0 %	
	Area Gamma > 1.2	0.0 %				

[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: Phantom, GPS ID: 99999999. 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.

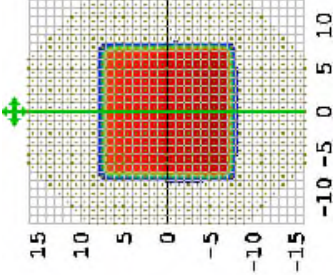
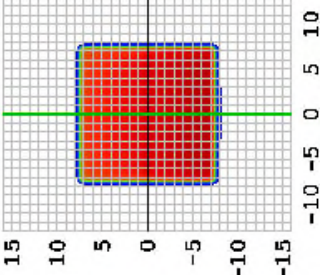
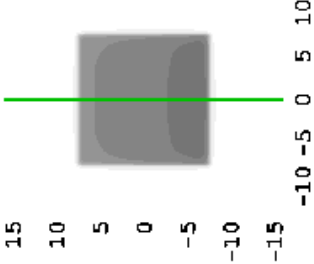
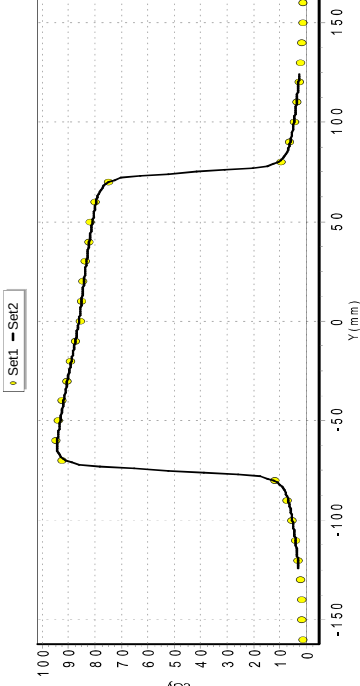
Eclipse EDW Plan MapCheck Verification Results

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 90°	99.8 %
10MV EDW 15°	100 %
10MV EDW 30°	100 %
10MV EDW 45°	100 %
10MV EDW 60°	100 %
15MV EDW 15°	99.8 %
15MV EDW 30°	99.4 %
15MV EDW 45°	99.0 %
15MV EDW 60°	97.3 %

Date: 9/4/2020

MapCHECK 2 QA of Dose Distribution

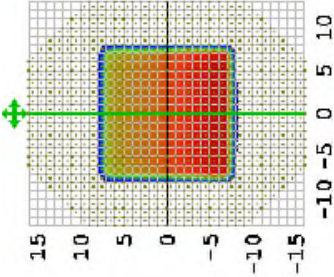
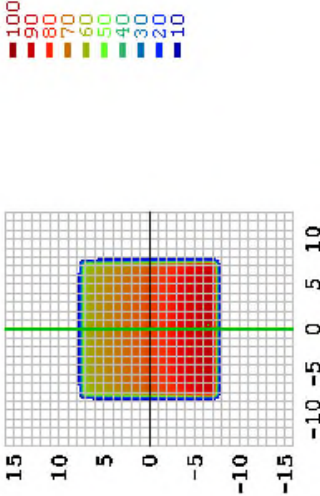
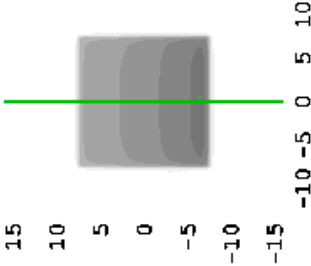
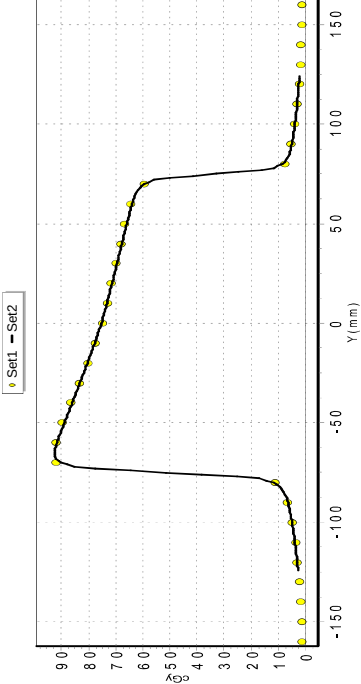
Hospital Name:

QA File Parameter Patient Name : Phantom, GPS Patient ID : 999999999 Plan Date : 9/4/2020 SSD : SDD : Depth : Energy : 6 MV Angle : Absolute Dose Comparison Difference (%) : 2.0 Distance (mm) : 2.0 Threshold (%) : 10.0 Meas Uncertainty : Yes Use Global % : Yes Summary (Gamma Analysis) Total Points : 529 Passed : 529 Failed : 0 % Passed : 100	MapCHECK2	Plan
		
	C:\Users\Ownei\Fortive\FLK...16 MV 15 out.txt	C:\...IRD.999999999.PlaneDose_6x 15out.dcm
Dose Values in cGy CAX Norm Sel Max MapCHECK2 85.69 94.73 85.69 95.10 Plan 86.02 94.17 86.02 94.23 MapCHECK2 -0.33 0.56 -0.33 0.87 -Plan % Diff -0.35 0.59 -0.35 0.92 DTA(mm) 0.00 0.00 NA Coords 0.0 -6.0 0.0 (y,x) cm Notes 6 MV 15 out	MapCHECK2-Plan	
Reviewed By :		

Date: 9/4/2020

MapCHECK 2 QA of Dose Distribution

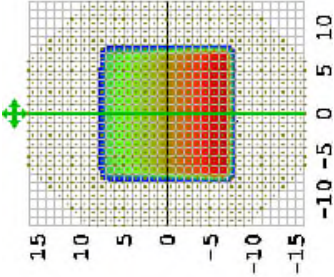
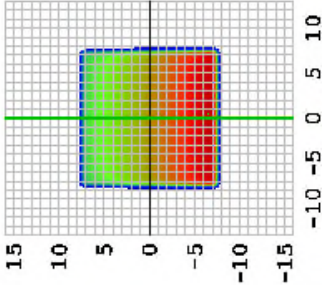
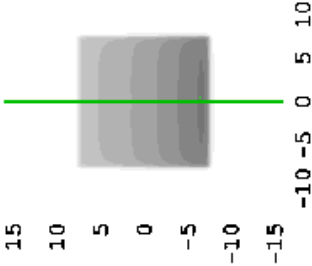
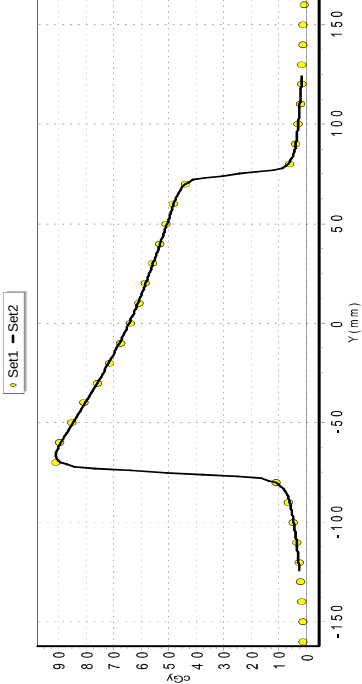
Hospital Name:

QA File Parameter Patient Name : Phantom, GPS Patient ID : 999999999 Plan Date : 9/4/2020 SSD : SDD : Depth : Energy : 6 MV Angle : Absolute Dose Comparison Difference (%) : 2.0 Distance (mm) : 2.0 Threshold (%) : 10.0 Meas Uncertainty : Yes Use Global % : Yes Summary (Gamma Analysis) Total Points : 511 Passed : 511 Failed : 0 % Passed : 100		MapCHECK2	Plan
Dose Values in cGy CAX Norm Sel Max MapCHECK2 74.89 93.00 74.89 93.22 Plan 75.32 92.46 75.32 92.47 MapCHECK2 -0.43 0.55 -0.43 0.75 -Plan % Diff -0.47 0.59 -0.47 0.81 DTA(mm) 0.00 0.00 NA Coords 0.0 -6.5,0.5 0.0 (y,x) cm Notes 6 MV 30 out			
MapCHECK2-Plan			
Reviewed By :		C:\Users\Owneet\Fortive\FLK...16 MV 30 Out.txt C:\...IRD.999999999.PlanDose_6x 30out.dcm	

Date: 9/4/2020

MapCHECK 2 QA of Dose Distribution

Hospital Name:

QA File Parameter Patient Name : Phantom, GPS Patient ID : 999999999 Plan Date : 9/4/2020 SSD : SDD : Depth : Energy : 6 MV Angle : Absolute Dose Comparison Difference (%) : 2.0 Distance (mm) : 2.0 Threshold (%) : 10.0 Meas Uncertainty : Yes Use Global % : Yes Summary (Gamma Analysis) Total Points : 501 Passed : 501 Failed : 0 % Passed : 100	MapCHECK2	Plan
		
	C:\Users\Owneet\Fortive\FLK...16 MV 45 Out.txt	C:\...IRD.999999999.PlaneDose_6x 45out.dcm
Dose Values in cGy CAX Norm Sel Max MapCHECK2 63.93 91.44 63.93 91.62 Plan 64.37 90.85 64.37 90.98 MapCHECK2 -0.44 0.59 -0.44 0.64 -Plan % Diff -0.48 0.65 -0.48 0.70 DTA(mm) 0.00 0.00 NA Coords 0.0 -6.5,0.5 0.0 (y,x) cm Notes 6 MV 45 out	MapCHECK2-Plan	
Reviewed By :		

Date: 9/4/2020

MapCHECK 2 QA of Dose Distribution

Hospital Name:

QA File Parameter

Patient Name : Phantom, GPS
Patient ID : 999999999
Plan Date : 9/4/2020
SSD :
SDD :
Depth :
Energy : 6 MV
Angle :

Absolute Dose Comparison

Difference (%) : 2.0
Distance (mm) : 2.0
Threshold (%) : 10.0
Meas Uncertainty : Yes
Use Global % : Yes

Summary (Gamma Analysis)

Total Points : 492
Passed : 492
Failed : 0
% Passed : 100

Dose Values in cGy

CAX	Norm	Sel	Max
MapCHECK2	50.95	89.42	50.95
Plan	51.41	88.95	51.41
MapCHECK2	-0.46	0.48	-0.46
-Plan			

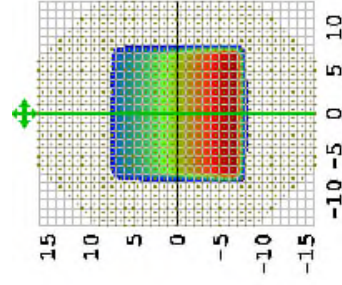
% Diff : -0.51 0.54 -0.51 0.69
DTA(mm) : 0.00 0.00 NA
Coords : 0.0 -6.5,0.5 0.0
(y,x) cm

Notes

6 MV 60 out

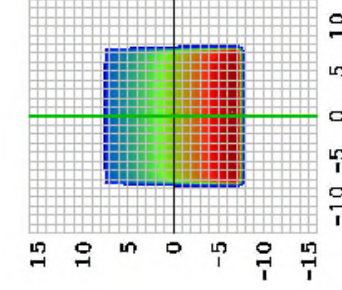
Reviewed By :

MapCHECK2



cGy
90
81
72
63
54
45
36
27
18
9

Plan

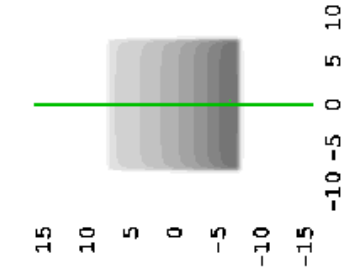


cGy
90
81
72
63
54
45
36
27
18
9

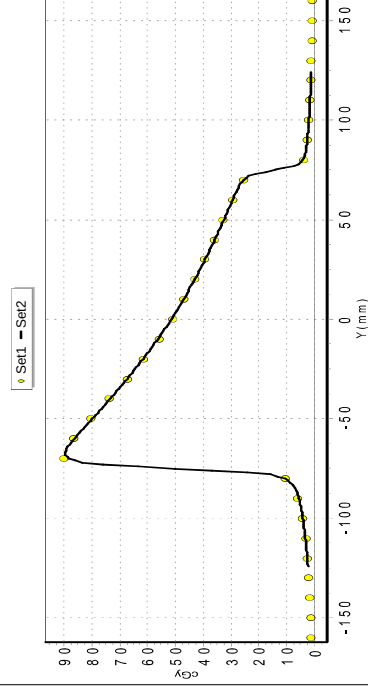
C:\Users\Owne\Fortive\FLK...16 MV 60 Out.txt

C:\...IRD.999999999.PlanDose_6x 60out.dcm

MapCHECK2-Plan



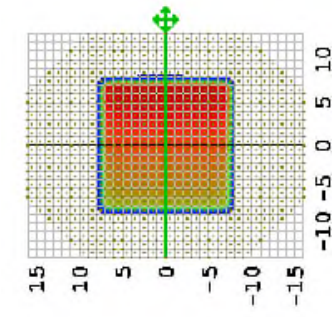
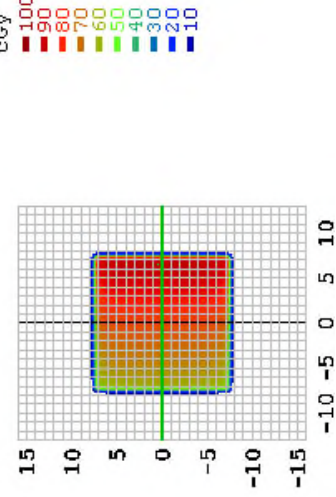
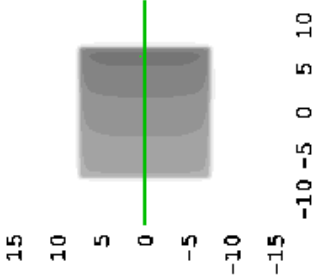
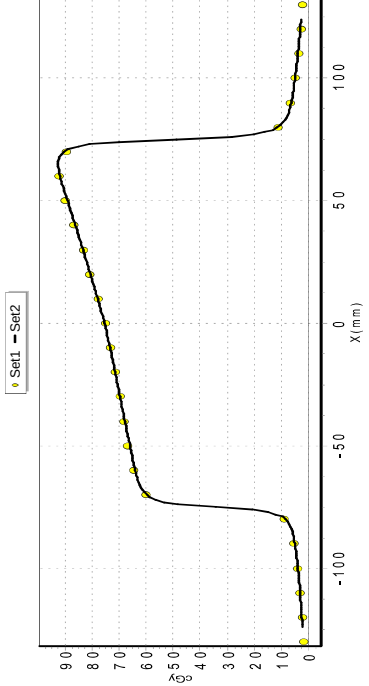
cGy
90
81
72
63
54
45
36
27
18
9



Date: 9/4/2020

MapCHECK 2 QA of Dose Distribution

Hospital Name:

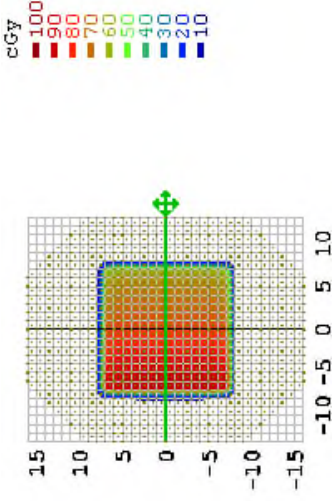
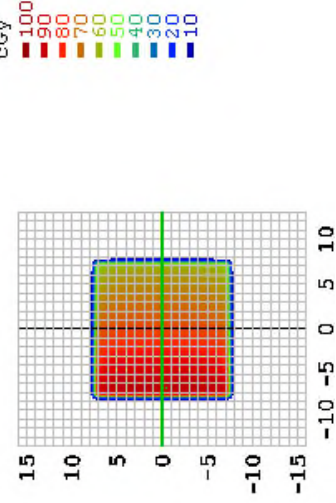
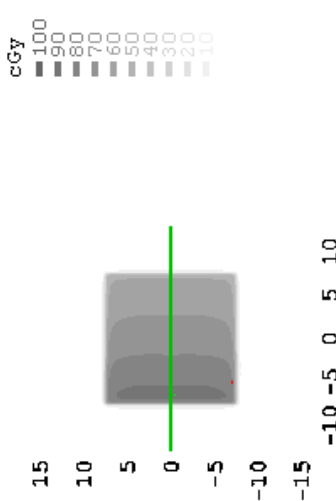
QA File Parameter : Phantom, GPS Patient Name : 999999999 Plan Date : 9/4/2020 SSD : SDD : Depth : Energy : 6 MV Angle : Absolute Dose Comparison Difference (%) : 2.0 Distance (mm) : 2.0 Threshold (%) : 10.0 Meas Uncertainty : Yes Use Global % : Yes Summary (Gamma Analysis) Total Points : 509 Passed : 509 Failed : 0 % Passed : 100 Dose Values in cGy CAX Norm Sel Max MapCHECK2 74.96 92.29 74.96 92.29 Plan 75.35 92.48 75.35 92.55 MapCHECK2 -0.40 -0.19 -0.40 -0.27 -Plan % Diff -0.43 -0.21 -0.43 -0.29 DTA(mm) 0.00 0.00 NA NA Coords 0.0 0.5 6.5 0.0 (y,x) cm Notes 6 MV 30 out Coll 90	MapCHECK2  C:\Users\Owne\Fori... 6 MV 30 Out Coll 90.txt	Plan  ...RD.999999999.PlaneDose_6x 30o Coll90....	MapCHECK2-Plan  
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Reviewed By :

Date: 9/4/2020

MapCHECK 2 QA of Dose Distribution

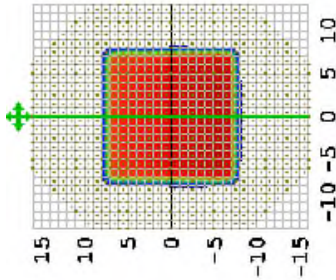
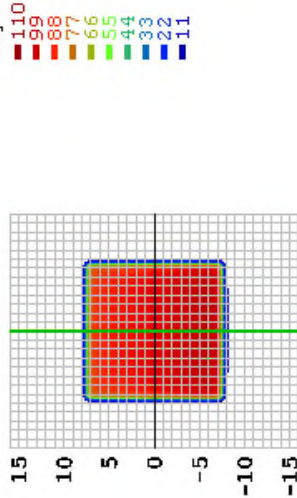
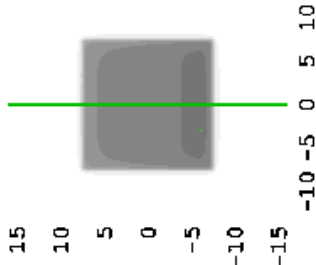
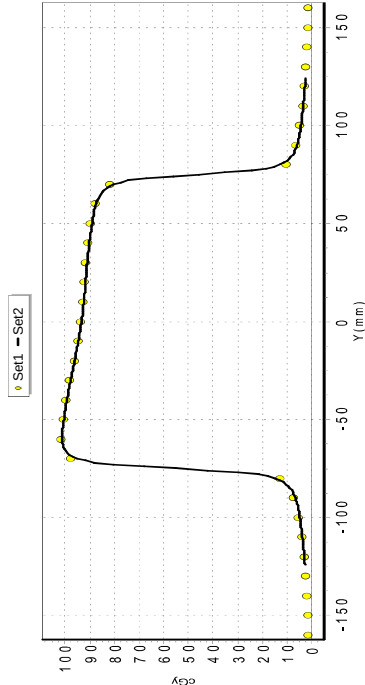
Hospital Name:

QA File Parameter Patient Name : Phantom, GPS Patient ID : 999999999 Plan Date : 9/4/2020 SSD : SDD : Depth : Energy : 6 MV Angle : Absolute Dose Comparison Difference (%) : 2.0 Distance (mm) : 2.0 Threshold (%) : 10.0 Meas Uncertainty : Yes Use Global % : Yes Summary (Gamma Analysis) Total Points : 512 Passed : 511 Failed : 1 % Passed : 99.8	MapCHECK2	Plan
	 C:\Users\Owmen\F...16 MV 30 Out Couch 90.txt	 ...\\RD.999999999.PlaneDose_6x 30oCouch9 ...
Dose Values in cGy CAX Norm Sel Max MapCHECK2 75.39 92.77 75.39 92.77 Plan 75.32 92.47 75.32 92.55 MapCHECK2 0.07 0.30 0.07 0.22 -Plan % Diff 0.08 0.32 0.08 0.24 DTA(mm) 0.00 0.00 NA Coords 0.0 -0.5,-6.5 0.0 (y,x) cm Notes 6 MV 30 Out Couch 90	MapCHECK2-Plan	 Set1 - Set2
Reviewed By :		

Date: 9/4/2020

MapCHECK 2 QA of Dose Distribution

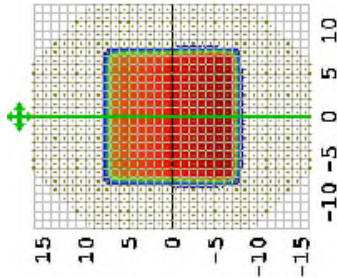
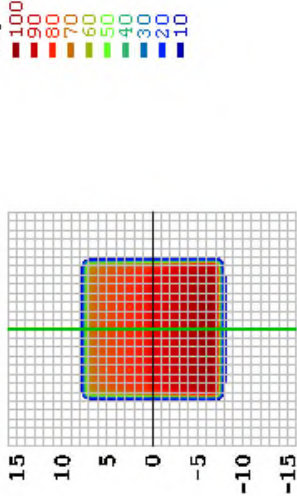
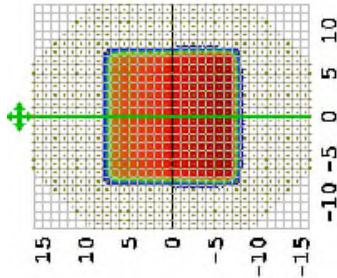
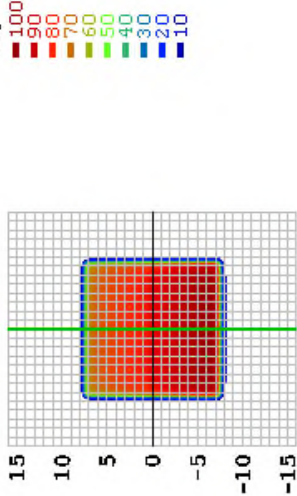
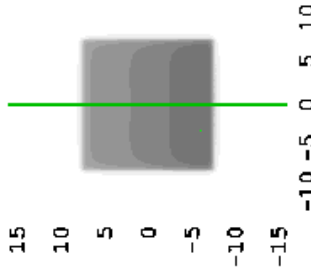
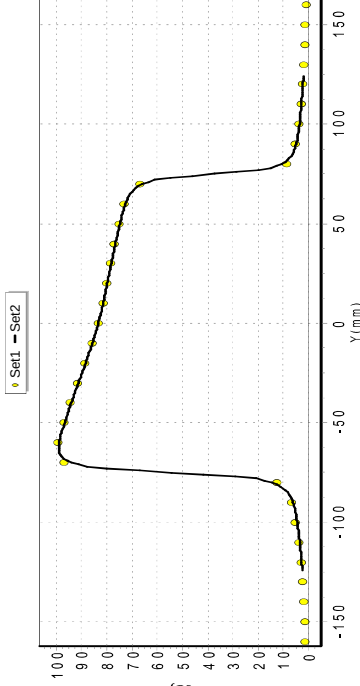
Hospital Name:

QA File Parameter Patient Name : Phantom, GPS Patient ID : 999999999 Plan Date : 9/4/2020 SSD : SDD : Depth : Energy : 10 MV Angle : Absolute Dose Comparison Difference (%) : 2.0 Distance (mm) : 2.0 Threshold (%) : 10.0 Meas Uncertainty : Yes Use Global % : Yes Summary (Gamma Analysis) Total Points : 537 Passed : 537 Failed : 0 % Passed : 100 Dose Values in cGy <table><tr><th></th><th>CAX</th><th>Norm</th><th>Sel</th><th>Max</th></tr><tr><td>MapCHECK2</td><td>93.51</td><td>101.70</td><td>93.51</td><td>101.71</td></tr><tr><td>Plan</td><td>93.30</td><td>101.17</td><td>93.30</td><td>101.22</td></tr><tr><td>MapCHECK2</td><td>0.21</td><td>0.53</td><td>0.21</td><td>0.49</td></tr></table> -Plan % Diff 0.21 0.52 0.21 0.48 DTA(mm) 0.00 0.00 NA Coords 0.0 -6,-3 0.0 (y,x) cm Notes 10 MV 15out		CAX	Norm	Sel	Max	MapCHECK2	93.51	101.70	93.51	101.71	Plan	93.30	101.17	93.30	101.22	MapCHECK2	0.21	0.53	0.21	0.49	MapCHECK2  C:\Users\Ownein\Fortive\FL...10 MV 15out.txt	Plan  C:\RD.999999999.PlanDose_10x 15out.dcm
	CAX	Norm	Sel	Max																		
MapCHECK2	93.51	101.70	93.51	101.71																		
Plan	93.30	101.17	93.30	101.22																		
MapCHECK2	0.21	0.53	0.21	0.49																		
Reviewed By :	MapCHECK2-Plan 																					

Date: 9/4/2020

MapCHECK 2 QA of Dose Distribution

Hospital Name:

QA File Parameter Patient Name : Phantom, GPS Patient ID : 999999999 Plan Date : 9/4/2020 SSD : SDD : Depth : Energy : 10 MV Angle :	MapCHECK2	 	Plan	 C:\Users\Ownein\Fortive\FL...10 MV 30 out.txt	 C:\RD.999999999.PlanDose_10x 30out.dcm																		
Absolute Dose Comparison Difference (%) : 2.0 Distance (mm) : 2.0 Threshold (%) : 10.0 Meas Uncertainty : Yes Use Global % : Yes Summary (Gamma Analysis) Total Points : 530 Passed : 530 Failed : 0 % Passed : 100 Dose Values in cGy <table><tr><th></th><th>CAX</th><th>Norm</th><th>Sel</th><th>Max</th></tr><tr><td>MapCHECK2</td><td>83.49</td><td>99.28</td><td>83.49</td><td>99.51</td></tr><tr><td>Plan</td><td>83.42</td><td>99.00</td><td>83.42</td><td>99.10</td></tr><tr><td>MapCHECK2</td><td>0.07</td><td>0.28</td><td>0.07</td><td>0.41</td></tr></table> -Plan % Diff 0.070.280.070.41 DTA(mm) 0.000.00NA Coords 0.0-6,-30.0 (y-x) cm Notes 10 MV 30 out		CAX	Norm	Sel	Max	MapCHECK2	83.49	99.28	83.49	99.51	Plan	83.42	99.00	83.42	99.10	MapCHECK2	0.07	0.28	0.07	0.41	MapCHECK2-Plan	 	
	CAX	Norm	Sel	Max																			
MapCHECK2	83.49	99.28	83.49	99.51																			
Plan	83.42	99.00	83.42	99.10																			
MapCHECK2	0.07	0.28	0.07	0.41																			
Reviewed By :																							

Date: 9/4/2020

MapCHECK 2 QA of Dose Distribution

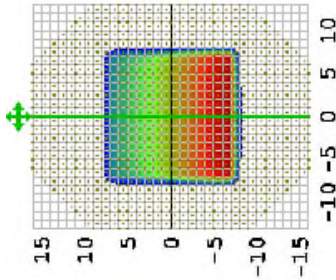
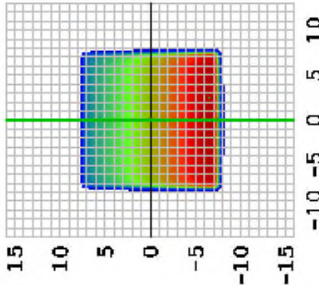
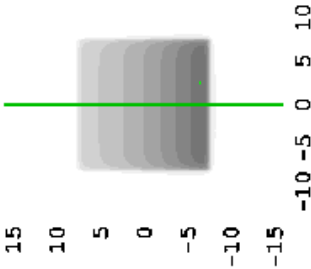
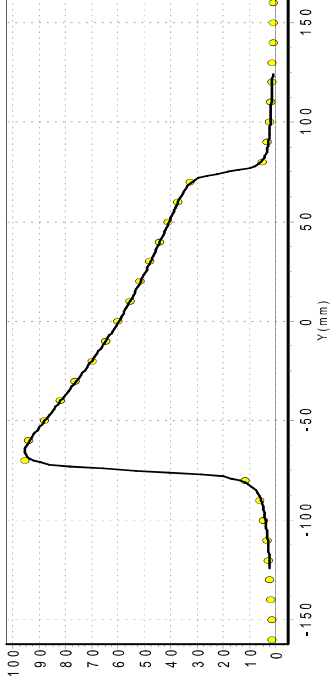
Hospital Name:

QA File Parameter Patient Name : Phantom, GPS Patient ID : 999999999 Plan Date : 9/4/2020 SSD : SDD : Depth : Energy : 10 MV Angle : Absolute Dose Comparison Difference (%) : 2.0 Distance (mm) : 2.0 Threshold (%) : 10.0 Meas Uncertainty : Yes Use Global % : Yes Summary (Gamma Analysis) Total Points : 513 Passed : 513 Failed : 0 % Passed : 100 Dose Values in cGy <table><tr><th>CAX</th><th>Norm</th><th>Sel</th><th>Max</th></tr><tr><td>MapCHECK2</td><td>72.84</td><td>97.62</td><td>72.84</td></tr><tr><td>Plan</td><td>72.86</td><td>97.29</td><td>72.86</td></tr><tr><td>MapCHECK2</td><td>-0.02</td><td>0.33</td><td>-0.02</td></tr><tr><td>-Plan</td><td></td><td></td><td></td></tr><tr><td>% Diff</td><td>-0.02</td><td>0.34</td><td>-0.02</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,-1.5</td><td>0,0</td></tr></table> Notes 10 MV 45 out	CAX	Norm	Sel	Max	MapCHECK2	72.84	97.62	72.84	Plan	72.86	97.29	72.86	MapCHECK2	-0.02	0.33	-0.02	-Plan				% Diff	-0.02	0.34	-0.02	DTA(mm)	0.00	0.00	NA	Coords (y,x) cm	0,0	-6.5,-1.5	0,0	MapCHECK2 C:\Users\Ownein\Fortive\FL...10 MV 45 Out.txt	Plan C:\RD.999999999.PlanDose_10x 45out.dcm
CAX	Norm	Sel	Max																															
MapCHECK2	72.84	97.62	72.84																															
Plan	72.86	97.29	72.86																															
MapCHECK2	-0.02	0.33	-0.02																															
-Plan																																		
% Diff	-0.02	0.34	-0.02																															
DTA(mm)	0.00	0.00	NA																															
Coords (y,x) cm	0,0	-6.5,-1.5	0,0																															
	MapCHECK2-Plan 																																	
		Reviewed By :																																

Date: 9/4/2020

MapCHECK 2 QA of Dose Distribution

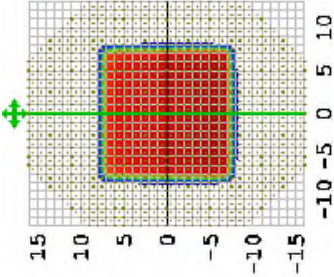
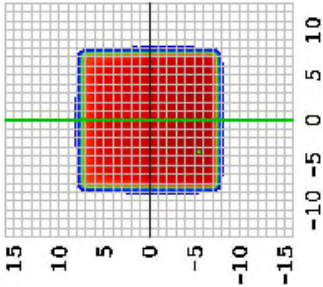
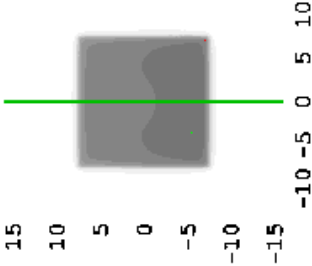
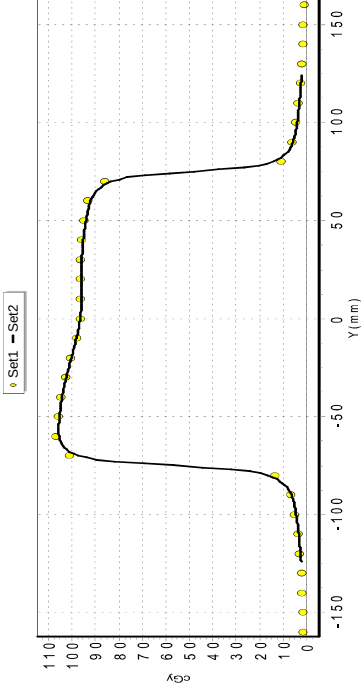
Hospital Name:

QA File Parameter Patient Name : Phantom, GPS Patient ID : 999999999 Plan Date : 9/4/2020 SSD : SDD : Depth : Energy : 10 MV Angle : Absolute Dose Comparison Difference (%) : 2.0 Distance (mm) : 2.0 Threshold (%) : 10.0 Meas Uncertainty : Yes Use Global % : Yes Summary (Gamma Analysis) Total Points : 506 Passed : 506 Failed : 0 % Passed : 100	MapCHECK2	Plan
		
	C:\Users\Ownein\Fortive\FL...10 MV 60 out.txt	C:\RD.999999999.PlaneDose_10x 60out.dcm
Dose Values in cGy CAX Norm Sel Max MapCHECK2 59.80 96.03 59.80 96.18 Plan 59.71 95.41 59.71 95.42 MapCHECK2 0.09 0.62 0.09 0.75 -Plan % Diff 0.09 0.65 0.09 0.79 DTA(mm) 0.00 0.00 NA Coords 0.0 -6.5,2.5 0.0 (y-x) cm Notes 10 MV 60 out	MapCHECK2-Plan	
		

Date: 9/4/2020

MapCHECK 2 QA of Dose Distribution

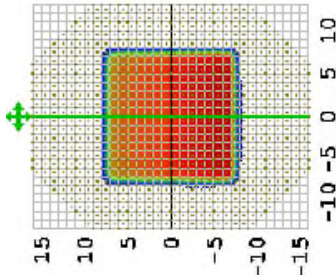
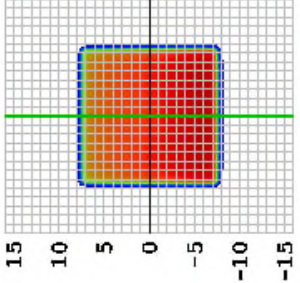
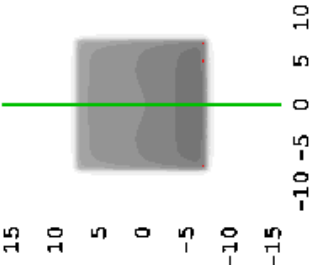
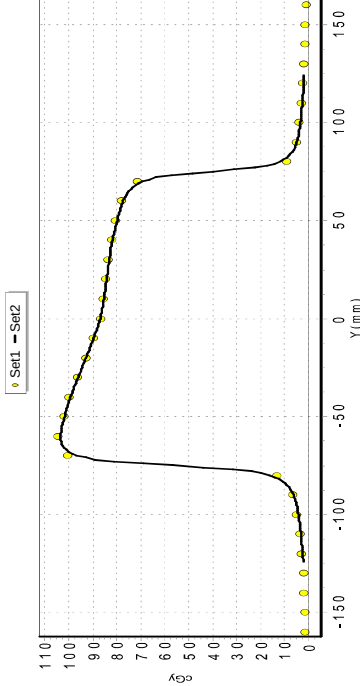
Hospital Name:

QA File Parameter Patient Name : Phantom, GPS Patient ID : 999999999 Plan Date : 9/4/2020 SSD : SDD : Depth : Energy : 15 MV Angle : Absolute Dose Comparison Difference (%) : 2.0 Distance (mm) : 2.0 Threshold (%) : 10.0 Meas Uncertainty : Yes Use Global % : Yes Summary (Gamma Analysis) Total Points : 540 Passed : 539 Failed : 1 % Passed : 99.8		MapCHECK2	Plan
Dose Values in cGy CAX Norm Sel Max MapCHECK2 96.67 105.58 96.67 107.09 Plan 96.53 105.75 96.53 105.76 MapCHECK2 0.14 -0.16 0.14 1.32 -Plan % Diff 0.13 -0.15 0.13 1.25 DTA(mm) 0.00 0.00 NA Coords 0.0 -5.5,-3.5 0.0 (y,x) cm Notes 15 MV 15 out		 C:\Users\Owne\Fortive\FL...15 MV 15 Out.txt	 C:\RD.999999999.PlanDose_15x_15out.dcm
Reviewed By :		 MapCHECK2-Plan	

Date: 9/4/2020

MapCHECK 2 QA of Dose Distribution

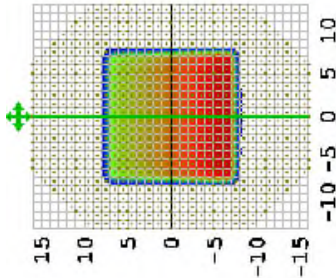
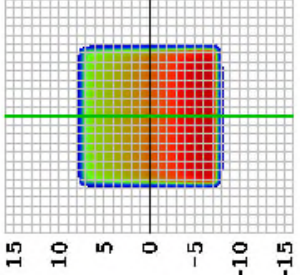
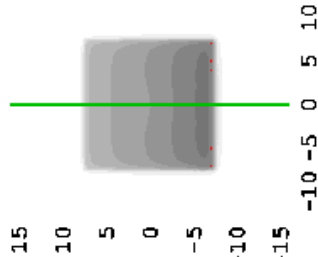
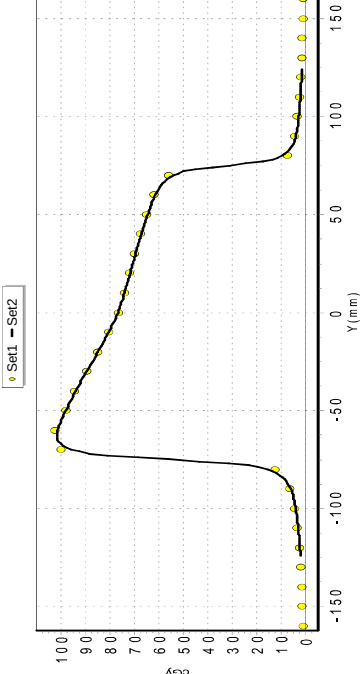
Hospital Name:

QA File Parameter Patient Name : Phantom, GPS Patient ID : 999999999 Plan Date : 9/4/2020 SSD : SDD : Depth : Energy : 15 MV Angle : Absolute Dose Comparison Difference (%) : 2.0 Distance (mm) : 2.0 Threshold (%) : 10.0 Meas Uncertainty : Yes Use Global % : Yes Summary (Gamma Analysis) Total Points : 537 Passed : 534 Failed : 3 % Passed : 99.4 Dose Values in cGy <table><tr><th>CAX</th><th>Norm</th><th>Sel</th><th>Max</th></tr><tr><td>MapCHECK2</td><td>86.86</td><td>104.62</td><td>86.86</td><td>104.74</td></tr><tr><td>Plan</td><td>86.99</td><td>103.50</td><td>86.99</td><td>103.50</td></tr><tr><td>MapCHECK2</td><td>-0.13</td><td>1.12</td><td>-0.13</td><td>1.24</td></tr><tr><td>-Plan</td><td></td><td></td><td></td><td></td></tr><tr><td>% Diff</td><td>-0.13</td><td>1.08</td><td>-0.13</td><td>1.19</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>-6.0</td><td>0.0</td><td></td></tr></table> Notes 15 MV 30 out	CAX	Norm	Sel	Max	MapCHECK2	86.86	104.62	86.86	104.74	Plan	86.99	103.50	86.99	103.50	MapCHECK2	-0.13	1.12	-0.13	1.24	-Plan					% Diff	-0.13	1.08	-0.13	1.19	DTA(mm)	0.00	0.00	NA		Coords (y,x) cm	0.0	-6.0	0.0		MapCHECK2  C:\Users\Owne\Fortive\FL...15 MV 30 out.txt	Plan  C:\RD.999999999.PlaneDose_15x 30out.dcm	
CAX	Norm	Sel	Max																																							
MapCHECK2	86.86	104.62	86.86	104.74																																						
Plan	86.99	103.50	86.99	103.50																																						
MapCHECK2	-0.13	1.12	-0.13	1.24																																						
-Plan																																										
% Diff	-0.13	1.08	-0.13	1.19																																						
DTA(mm)	0.00	0.00	NA																																							
Coords (y,x) cm	0.0	-6.0	0.0																																							
	MapCHECK2-Plan  Reviewed By :																																									

Date: 9/4/2020

MapCHECK 2 QA of Dose Distribution

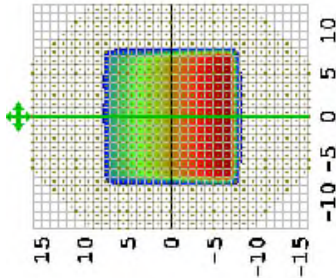
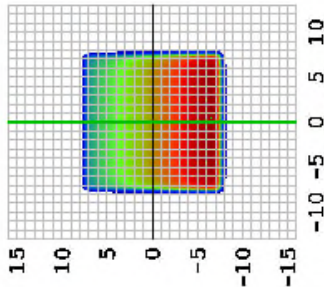
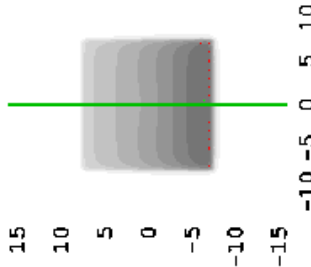
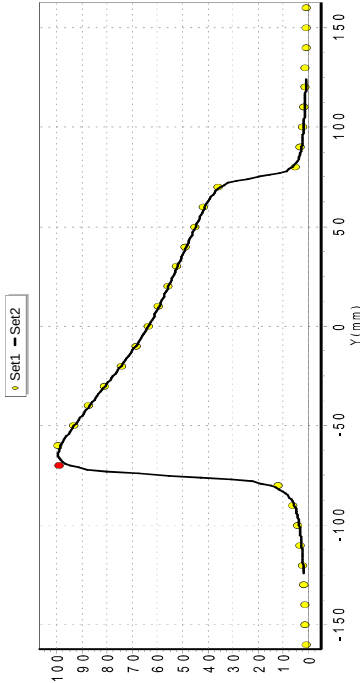
Hospital Name:

QA File Parameter Patient Name : Phantom, GPS Patient ID : 999999999 Plan Date : 9/4/2020 SSD : SDD : Depth : Energy : 15 MV Angle : Absolute Dose Comparison Difference (%) : 2.0 Distance (mm) : 2.0 Threshold (%) : 10.0 Meas Uncertainty : Yes Use Global % : Yes Summary (Gamma Analysis) Total Points : 517 Passed : 512 Failed : 5 % Passed : 99	MapCHECK2	Plan																																							
	 C:\Users\Ownein\Fortive\FL...\15 MV 45 out.txt	 C:...RD.999999999.PlanDose_15x 45out.dcm																																							
Dose Values in cGy <table><tr><th>CAX</th><th>Norm</th><th>Sel</th><th>Max</th></tr><tr><td>MapCHECK2</td><td>76.48</td><td>102.38</td><td>76.48</td><td>102.65</td></tr><tr><td>Plan</td><td>76.62</td><td>101.21</td><td>76.62</td><td>101.47</td></tr><tr><td>MapCHECK2</td><td>-0.14</td><td>1.17</td><td>-0.14</td><td>1.18</td></tr><tr><td>-Plan</td><td></td><td></td><td></td><td></td></tr><tr><td>% Diff</td><td>-0.14</td><td>1.16</td><td>-0.14</td><td>1.17</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>-6.0</td><td>0.0</td><td></td></tr></table> Notes 15 MV 45 out	CAX	Norm	Sel	Max	MapCHECK2	76.48	102.38	76.48	102.65	Plan	76.62	101.21	76.62	101.47	MapCHECK2	-0.14	1.17	-0.14	1.18	-Plan					% Diff	-0.14	1.16	-0.14	1.17	DTA(mm)	0.00	0.00	NA		Coords (y-x) cm	0.0	-6.0	0.0		MapCHECK2-Plan	
CAX	Norm	Sel	Max																																						
MapCHECK2	76.48	102.38	76.48	102.65																																					
Plan	76.62	101.21	76.62	101.47																																					
MapCHECK2	-0.14	1.17	-0.14	1.18																																					
-Plan																																									
% Diff	-0.14	1.16	-0.14	1.17																																					
DTA(mm)	0.00	0.00	NA																																						
Coords (y-x) cm	0.0	-6.0	0.0																																						
Reviewed By :																																									

Date: 9/4/2020

MapCHECK 2 QA of Dose Distribution

Hospital Name:

QA File Parameter Patient Name : Phantom, GPS Patient ID : 999999999 Plan Date : 9/4/2020 SSD : SDD : Depth : Energy : 15 MV Angle : Absolute Dose Comparison Difference (%) : 2.0 Distance (mm) : 2.0 Threshold (%) : 10.0 Meas Uncertainty : Yes Use Global % : Yes Summary (Gamma Analysis) Total Points : 510 Passed : 496 Failed : 14 % Passed : 97.3	MapCHECK2	Plan																																							
																																									
	C:\Users\Ownein\Fortive\FL...\15 MV 60 Out.txt	C:\RD.999999999.PlanDose_15x 60out.dcm																																							
Dose Values in cGy <table><tr><th>CAX</th><th>Norm</th><th>Sel</th><th>Max</th></tr><tr><td>MapCHECK2</td><td>63.45</td><td>100.44</td><td>63.45</td><td>100.86</td></tr><tr><td>Plan</td><td>63.46</td><td>99.28</td><td>63.46</td><td>99.30</td></tr><tr><td>MapCHECK2</td><td>-0.01</td><td>1.16</td><td>-0.01</td><td>1.56</td></tr><tr><td>-Plan</td><td></td><td></td><td></td><td></td></tr><tr><td>% Diff</td><td>-0.01</td><td>1.17</td><td>-0.01</td><td>1.57</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>-6.5,0.5</td><td>0.0</td><td></td></tr></table> Notes 15 MV 60 out	CAX	Norm	Sel	Max	MapCHECK2	63.45	100.44	63.45	100.86	Plan	63.46	99.28	63.46	99.30	MapCHECK2	-0.01	1.16	-0.01	1.56	-Plan					% Diff	-0.01	1.17	-0.01	1.57	DTA(mm)	0.00	0.00	NA		Coords (y,x) cm	0.0	-6.5,0.5	0.0		MapCHECK2-Plan	
CAX	Norm	Sel	Max																																						
MapCHECK2	63.45	100.44	63.45	100.86																																					
Plan	63.46	99.28	63.46	99.30																																					
MapCHECK2	-0.01	1.16	-0.01	1.56																																					
-Plan																																									
% Diff	-0.01	1.17	-0.01	1.57																																					
DTA(mm)	0.00	0.00	NA																																						
Coords (y,x) cm	0.0	-6.5,0.5	0.0																																						
																																									
Reviewed By :																																									

Data

Small Field Dosimetry

6MV Scp Factors - Eclipse
Landauer Cancer Institute
Varian TrueBeam #9999

Length (Y)	Width (X)										
	1	2	3	4	5	7	10	15	20	30	40
1	0.766	0.795	0.803	0.806	0.810	0.812	0.815	0.817	0.818	0.820	0.820
2	0.808	0.851	0.862	0.870	0.875	0.881	0.886	0.890	0.893	0.896	0.896
3	0.816	0.865	0.880	0.891	0.899	0.908	0.915	0.920	0.923	0.926	0.926
4	0.820	0.873	0.892	0.906	0.915	0.927	0.936	0.943	0.946	0.950	0.951
5	0.824	0.879	0.901	0.917	0.928	0.942	0.952	0.961	0.966	0.970	0.971
7	0.829	0.889	0.913	0.932	0.946	0.963	0.977	0.988	0.995	1.001	1.003
10	0.832	0.896	0.924	0.946	0.962	0.983	1.000	1.015	1.024	1.032	1.035
15	0.836	0.902	0.932	0.956	0.974	0.999	1.020	1.039	1.052	1.063	1.067
20	0.838	0.906	0.936	0.961	0.980	1.007	1.031	1.053	1.067	1.082	1.086
30	0.840	0.908	0.941	0.967	0.987	1.016	1.043	1.069	1.086	1.104	1.110
40	0.842	0.911	0.943	0.970	0.990	1.020	1.048	1.076	1.095	1.113	1.119

10MV Scp Factors - Eclipse
Landauer Cancer Institute
Varian TrueBeam #9999

Length (Y)	Width (X)										
	1	2	3	4	5	7	10	15	20	30	40
1	0.698	0.750	0.760	0.764	0.767	0.769	0.772	0.773	0.774	0.775	0.776
2	0.770	0.846	0.863	0.871	0.876	0.882	0.885	0.888	0.890	0.892	0.893
3	0.783	0.866	0.883	0.897	0.904	0.912	0.917	0.921	0.924	0.926	0.926
4	0.788	0.875	0.898	0.914	0.923	0.933	0.941	0.946	0.949	0.952	0.952
5	0.791	0.882	0.907	0.925	0.935	0.947	0.956	0.963	0.966	0.970	0.970
7	0.796	0.889	0.918	0.939	0.952	0.967	0.979	0.987	0.992	0.997	0.998
10	0.799	0.897	0.928	0.952	0.966	0.985	1.000	1.011	1.018	1.024	1.026
15	0.803	0.903	0.936	0.962	0.979	1.000	1.019	1.033	1.043	1.051	1.054
20	0.805	0.906	0.940	0.967	0.984	1.008	1.028	1.045	1.056	1.067	1.069
30	0.807	0.909	0.945	0.973	0.991	1.016	1.038	1.058	1.072	1.085	1.089
40	0.810	0.912	0.947	0.975	0.994	1.020	1.043	1.064	1.079	1.093	1.097

6FFF Scp Factors - Eclipse
Landauer Cancer Institute
Varian TrueBeam #9999

Length (Y)	Width (X)										
	1	2	3	4	5	7	10	15	20	30	40
1	0.787	0.815	0.822	0.825	0.827	0.831	0.834	0.835	0.835	0.836	0.836
2	0.824	0.864	0.877	0.885	0.890	0.896	0.900	0.904	0.906	0.907	0.908
3	0.832	0.879	0.896	0.907	0.914	0.922	0.928	0.932	0.934	0.937	0.937
4	0.837	0.888	0.907	0.921	0.929	0.940	0.947	0.953	0.956	0.958	0.959
5	0.840	0.894	0.914	0.930	0.940	0.952	0.962	0.969	0.972	0.975	0.976
7	0.845	0.902	0.925	0.943	0.955	0.970	0.982	0.991	0.996	1.000	1.001
10	0.848	0.907	0.933	0.953	0.967	0.985	1.000	1.012	1.018	1.024	1.025
15	0.850	0.912	0.938	0.960	0.975	0.996	1.013	1.029	1.038	1.046	1.048
20	0.851	0.914	0.941	0.963	0.979	1.001	1.020	1.038	1.049	1.058	1.060
30	0.853	0.916	0.944	0.967	0.983	1.006	1.028	1.048	1.061	1.072	1.075
40	0.854	0.918	0.945	0.968	0.985	1.009	1.031	1.052	1.065	1.078	1.080

10FFF Scp Factors - Eclipse
Landauer Cancer Institute
Varian TrueBeam #9999

Length (Y)	Width (X)										
	1	2	3	4	5	7	10	15	20	30	40
1	0.751	0.798	0.808	0.811	0.813	0.814	0.815	0.817	0.818	0.818	0.819
2	0.817	0.886	0.902	0.908	0.911	0.916	0.918	0.920	0.922	0.923	0.923
3	0.829	0.905	0.921	0.932	0.937	0.943	0.946	0.950	0.951	0.952	0.952
4	0.833	0.913	0.934	0.947	0.954	0.961	0.965	0.969	0.970	0.972	0.972
5	0.835	0.917	0.940	0.955	0.962	0.970	0.976	0.980	0.982	0.983	0.984
7	0.839	0.923	0.948	0.963	0.972	0.982	0.989	0.994	0.997	0.999	1.000
10	0.841	0.926	0.953	0.970	0.980	0.991	1.000	1.007	1.011	1.014	1.014
15	0.843	0.930	0.956	0.975	0.985	0.998	1.008	1.018	1.022	1.026	1.028
20	0.844	0.931	0.958	0.977	0.988	1.002	1.013	1.023	1.029	1.034	1.035
30	0.846	0.934	0.961	0.980	0.992	1.006	1.018	1.029	1.037	1.043	1.045
40	0.847	0.935	0.962	0.982	0.993	1.008	1.020	1.032	1.040	1.047	1.048

Facility: Landauer Cancer Institute - Varian TrueBeam #9999

Setup: 6MV 95cm SSD, d5cm

Output at Setup (cGy/MU):

0.944
742.4
23.4

pressure

temp

Millenium 120 MLC

ENTER MEASUREMENTS IN GREEN CELLS

MLC Field Size (cm x cm)	Edge (nC)	0.125cc (pC)	Output Factor	MU to deliver 100cGy to point	Enter TPS MU Here		Enter TPS MU Here	
					TPS MU AAA	TPS Difference	TPS MU Acuros XB	TPS Difference
0.8 x 0.8	26.83		0.694	152.7	149.1	2.36%	153.2	-0.33%
1 x 1	29.92		0.766	138.3	143.1	-3.46%	141.1	-2.01%
2 x 2	32.39		0.853	124.2	125.0	-0.67%	124.2	-0.03%
3 x 3	33.58	2840	0.888	119.4	119.1	0.24%	119.4	-0.01%
4 x 4	34.44	2921	0.913	116.1	115.7	0.32%	116.1	-0.02%
6 x 6		3047	0.952	111.3	111.0	0.25%	111.2	0.07%
10 x 10		3196	0.999	106.1	105.8	0.27%	105.9	0.18%
RETRACTED	37.80	3200	1.000					

* Output factors for fields 2x2 cm² and smaller are corrected using TRS-483 small field correction factors for the Sun Nuclear Edge diode

	0.125cc	Edge
4x4	0.913	0.911
Crossover factor	1.002	

Facility: Landauer Cancer Institute - Varian TrueBeam #9999

Setup: 10 MV 95cm SSD, d5cm

Output at Setup (cGy/MU):

1.007

COPY AND PASTE FROM TPS VALIDATION

pressure 742.4

temp 23.4

Millenium 120 MLC

ENTER MEASUREMENTS IN GREEN CELLS

			Enter TPS MU Here		Enter TPS MU Here	
MLC Field Size (cm x cm)	Edge (nC)	0.125cc (pC)	Output Factor	MU to deliver 100cGy to point	TPS MU AAA	TPS Difference Acuros XB
0.8 x 0.8	24.64		0.618	160.7	153.7	162.2
1 x 1	29.41		0.713	139.3	145.5	142.9
2 x 2	34.16		0.852	116.6	119.1	117.5
3 x 3	35.82	3053	0.893	111.2	111.5	111.2
4 x 4	36.76	3153	0.922	107.7	107.7	107.8
6 x 6		3275	0.958	103.7	103.5	103.6
10 x 10		3411	0.998	99.5	99.3	99.5
RETRACTED	39.78	3418	1.000			
						TPS Difference
						-0.93%
						-2.58%
						-0.81%
						-0.01%
						-0.12%
						0.05%
						0.02%

* Output factors for fields 2x2 cm² and smaller are corrected using TRS-483 small field corection factors for the Sun Nuclear Edge diode

	0.125cc	Edge
4x4	0.922	0.924
Crossover factor	0.998	

Facility: Landauer Cancer Institute - Varian TrueBeam #9999

Setup: 6FFF 95cm SSD, d5cm

Output at Setup (cGy/MU):

0.926

COPY AND PASTE FROM TPS VALIDATION

pressure 742.4

temp 23.4

Millenium 120 MLC

ENTER MEASUREMENTS IN GREEN CELLS

			Enter TPS MU Here		Enter TPS MU Here		Enter TPS MU Here	
MLC Field Size (cm x cm)	Edge (nC)	0.125cc (pC)	Output Factor	MU to deliver 100cGy to point	TPS MU AAA	TPS Difference	TPS MU Acuros XB	TPS Difference
0.8 x 0.8	27.36		0.715	151.1	148.2	1.94%	149.5	1.08%
1 x 1	30.35		0.779	138.6	142.1	-2.51%	140.5	-1.36%
2 x 2	32.66		0.863	125.2	125.6	-0.33%	124.8	0.31%
3 x 3	33.81	2825	0.898	120.3	119.8	0.39%	120.1	0.14%
4 x 4	34.7	2901	0.922	117.1	116.6	0.44%	117.0	0.10%
6 x 6		3010	0.957	112.9	112.5	0.33%	112.7	0.15%
10 x 10		3139	0.998	108.2	107.8	0.40%	107.9	0.31%
RETRACTED	37.76	3146	1.000					

* Output factors for fields 2x2 cm² and smaller are corrected using TRS-483 small field corection factors for the Sun Nuclear Edge diode

	0.125cc	Edge
4x4	0.922	0.919
Crossover factor	1.003	

Facility: Landauer Cancer Institute - Varian TrueBeam #9999

Setup: 10FFF 95cm SSD, d5cm

Output at Setup (cGy/MU):

0.993

COPY AND PASTE FROM TPS VALIDATION

pressure

742.4

temp

23.4

Millenium 120 MLC

ENTER MEASUREMENTS IN GREEN CELLS

			Enter TPS MU Here		Enter TPS MU Here		Enter TPS MU Here	
MLC Field Size (cm x cm)	Edge (nC)	0.125cc (pC)	Output Factor	MU to deliver 100cGy to point	TPS MU AAA	TPS Difference	TPS MU Acuros XB	TPS Difference
0.8 x 0.8	26.81		0.671	149.9	145.8	2.76%	151.6	-1.11%
1 x 1	31.75		0.760	132.4	138.1	-4.29%	136.6	-3.15%
2 x 2	36.09		0.889	113.2	115.5	-2.02%	114.7	-1.31%
3 x 3	37.56	3136	0.927	108.6	109.1	-0.47%	109.1	-0.47%
4 x 4	38.31	3212	0.949	106.0	106.1	-0.08%	106.3	-0.27%
6 x 6		3294	0.974	103.4	103.3	0.08%	103.4	-0.02%
10 x 10		3380	0.999	100.7	100.7	0.05%	100.7	0.05%
RETRACTED	40.34	3383	1.000					

* Output factors for fields 2x2 cm² and smaller are corrected using TRS-483 small field corection factors for the Sun Nuclear Edge diode

	0.125cc	Edge
4x4	0.949	0.950
Crossover factor	1.000	

Data

SRS

Facility: Landauer Cancer Institute, Jackson, WY - Varian TrueBeam #9999

SRS Cones Output Factors

Energy: 6FFF

Detector: Sun Nuclear Edge

Setup: 95cm SSD, d5cm

ENTER MEASUREMENTS IN GREEN CELLS

Cone Size (mm)	Jaw Field Size (cm x cm)	Reading1 (nC)	Reading2 (nC)	Reading3 (nC)	Average (nC)	Output Factor	Correction Factor*	Corr Output Factor
4	5 x 5	21.24	21.24	21.24	21.24	0.611	0.945	0.578
5	5 x 5	23.24	23.25	23.26	23.25	0.669	0.943	0.631
7.5	5 x 5	26.16	26.18	26.15	26.16	0.753	0.958	0.721
10	5 x 5	27.72	27.73	27.72	27.72	0.798	0.957	0.764
12.5	5 x 5	28.68	28.68	28.69	28.68	0.826	0.986	0.814
15	5 x 5	29.34	29.33	29.32	29.33	0.844	0.986	0.832
17.5	5 x 5	29.79	29.78	29.80	29.79	0.858	0.986	0.846
OPEN	5 x 5	32.61	32.63	32.63	32.62			
OPEN	10 x 10	34.89	34.90	34.89	34.89			

*"Small fields output factors measurements and correction factors determination for several detectors for a CyberKnife® and linear accelerators equipped with microMLC and circular cones", C. Bassinet et al, Medical Physics 40, 071725 (2013).

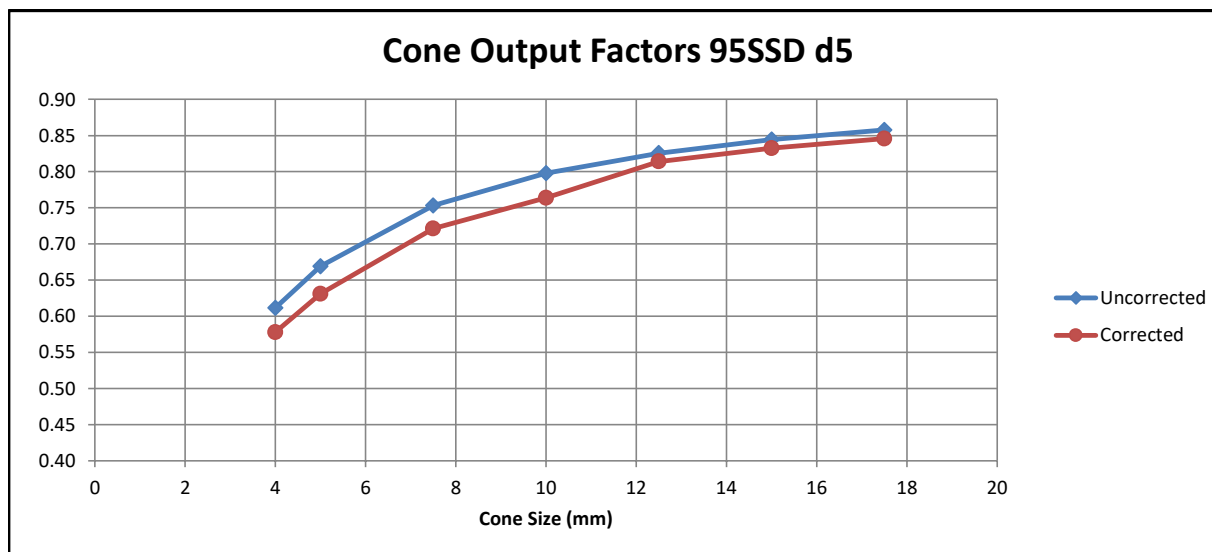
ENTER RATIO OF 5X5 AND 10X10 READINGS AT 95SSD d5 FROM TPS VALIDATION IN CELL I26

Crossover factor

0.125cc
5x5 **0.9391** Edge 0.9349
1.0044

Output factor entered into Eclipse: 0 = uncorrected OF, 1 = corrected OF

1



Corrected output factors entered into Eclipse

Facility: Landauer Cancer Institute, Jackson, WY - Varian TrueBeam #9999

SRS Cones TPS Validation

Energy: 6FFF
 Detector: Sun Nuclear Edge
 Setup: 90cm SSD, d10cm
 Output at Setup (cGy/MU):

0.753 COPY AND PASTE FROM TPS VALIDATION

ENTER MEASUREMENTS IN GREEN CELLS

Cone Size (mm)	Jaw Field Size (cm x cm)	Reading1 (nC)	Reading2 (nC)	Reading3 (nC)	Average (nC)	Output Factor	Correction Factor*	Corr Output Factor**	MU to deliver 100cGy to point	Enter TPS MU Here	
										TPS MU	TPS Difference
4	5 x 5	15.71	15.70	15.72	15.71	0.555	0.945	0.525	253.1	250.1	1.18%
5	5 x 5	17.28	17.30	17.28	17.29	0.611	0.943	0.576	230.5	228.1	1.03%
7.5	5 x 5	19.63	19.62	19.62	19.62	0.694	0.958	0.664	199.9	198.1	0.88%
10	5 x 5	20.88	20.87	20.87	20.87	0.738	0.957	0.706	188.1	185.9	1.16%
12.5	5 x 5	21.66	21.66	21.68	21.67	0.766	0.986	0.755	175.9	173.8	1.18%
15	5 x 5	22.22	22.19	22.22	22.21	0.785	0.986	0.774	171.6	169.5	1.21%
17.5	5 x 5	22.63	22.62	22.63	22.63	0.800	0.986	0.789	168.4	166.2	1.31%
OPEN	5 x 5	25.57	25.57	25.56	25.57						
OPEN	10 x 10	28.46	28.48	28.46	28.47						

**Small fields output factors measurements and correction factors determination for several detectors for a CyberKnife® and linear accelerators equipped with microMLC and circular cones”, C. Bassinet et al, Medical Physics 40, 071725 (2013).

**Corrected output factor. THIS IS THE FACTOR THAT WAS ENTERED INTO ECLIPSE.

ENTER RATIO OF 5X5 AND 10X10 READINGS AT 90SSD d10 FROM TPS VALIDATION IN CELL I26

5x5 0.125cc Edge 0.8981
 0.9037
 1.0062

Crossover factor

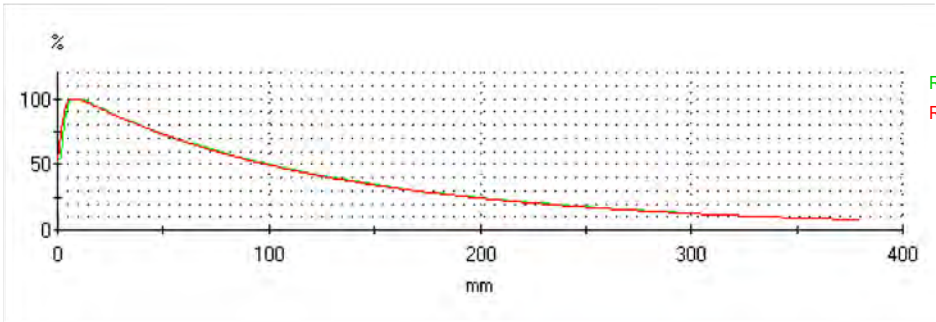
Output factor to use for MU calculation: 0 = uncorrected OF, 1 = corrected OF

1

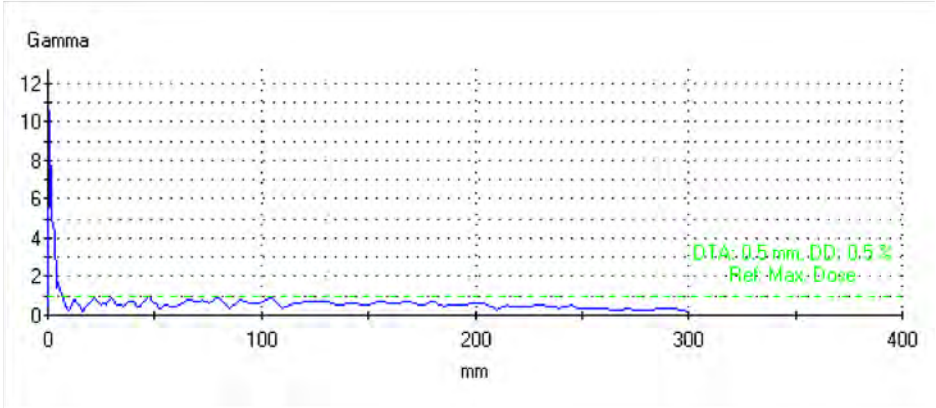
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-09-02 16:36

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	6.0
		Field Size Y x X [cm x cm]:	0.40 x 0.40
		Depth [mm]:	
		Profile Type:	PDD
		Meas.Angle [°]:	0.00
		SSD [cm]:	100.0



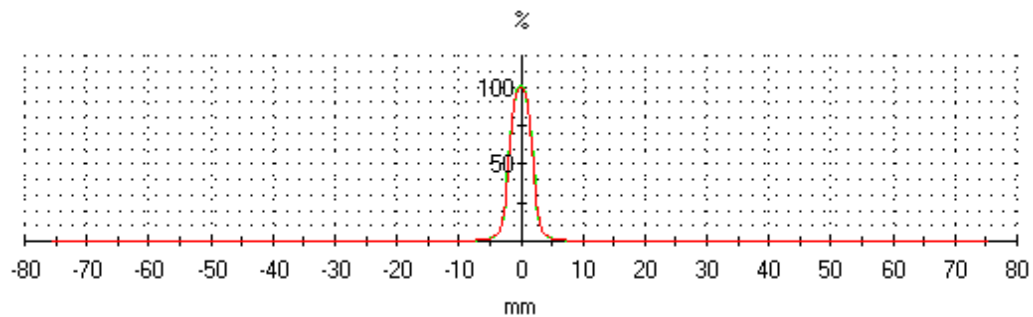
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



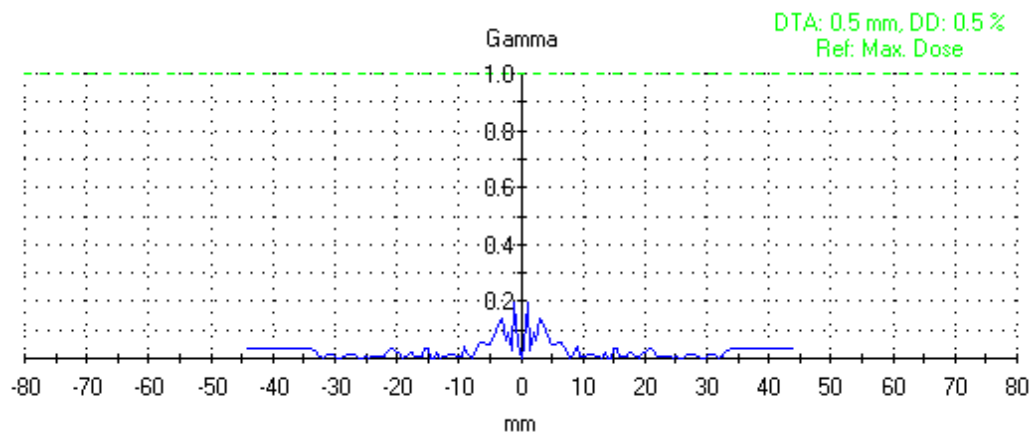
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-09-02 20:38

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	6.0
		Field Size Y x X [cm x cm]:	0.40 x 0.40
		Depth [mm]:	50.0
		Profile Type:	X Profile
		Meas.Angle [°]:	0.00
		SSD [cm]:	100.0



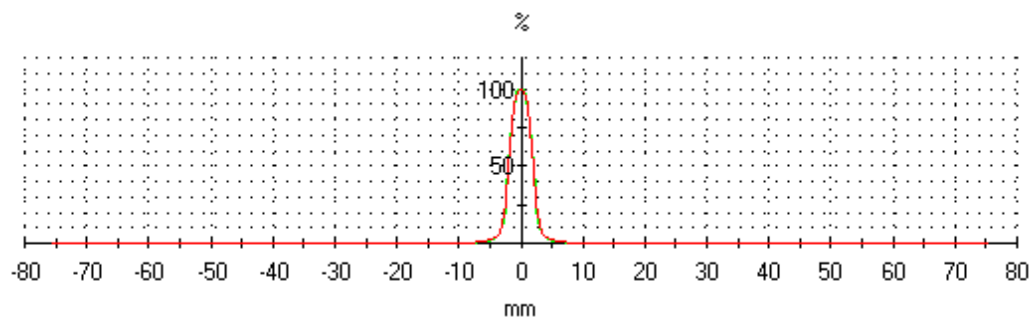
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



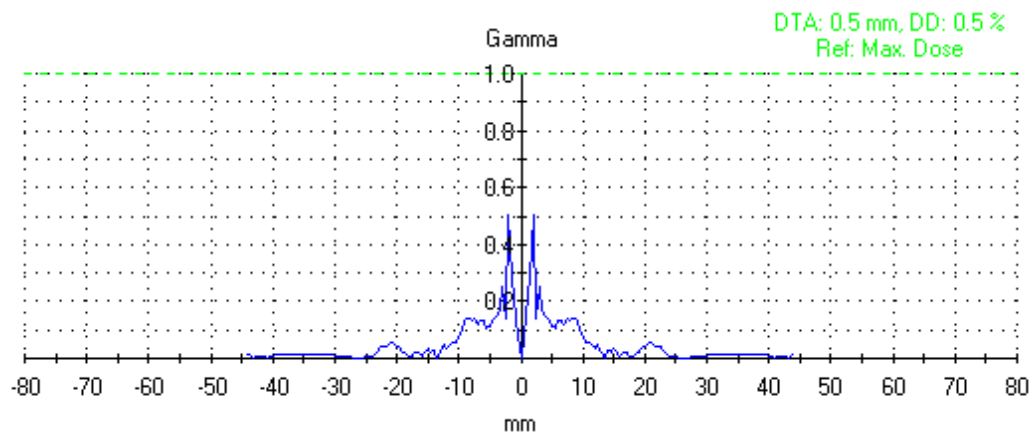
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-09-02 20:36

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	6.0
		Field Size Y x X [cm x cm]:	0.40 x 0.40
		Depth [mm]:	50.0
		Profile Type:	Y Profile
		Meas.Angle [°]:	0.00
		SSD [cm]:	100.0



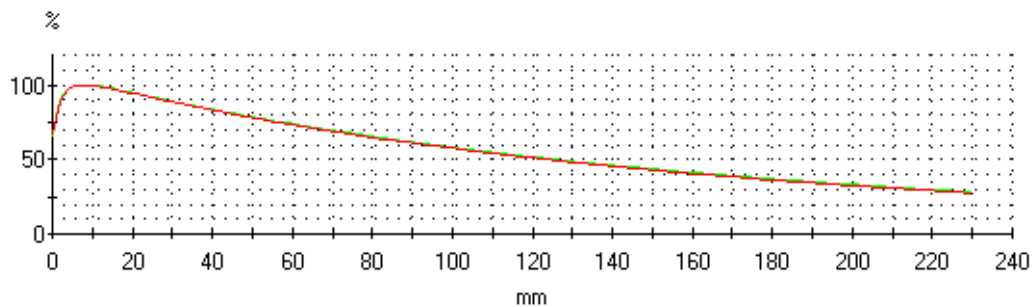
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



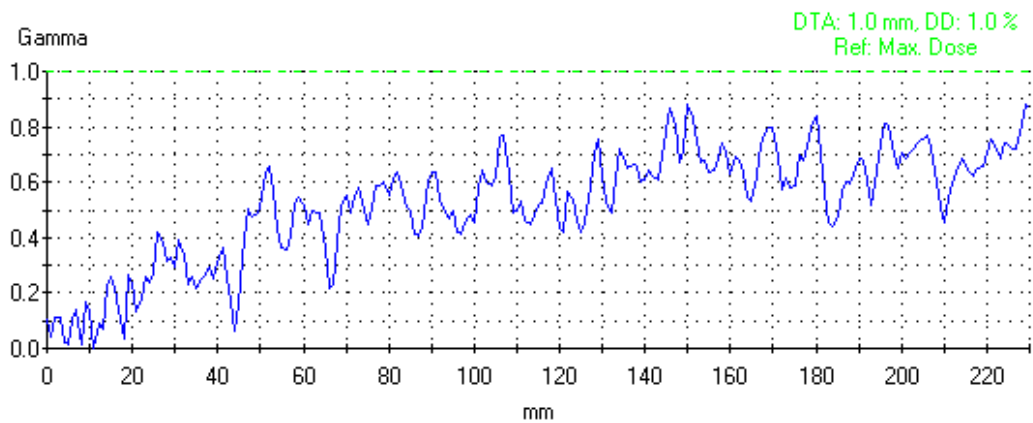
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-09-02 16:30

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	6.0
		Field Size Inpla. x Cross. [cm x cm]:	0.50 x 0.50
		Depth [mm]:	
		Profile Type:	TPR
		Meas.Angle [°]:	0.00
		SSD [cm]:	77.0



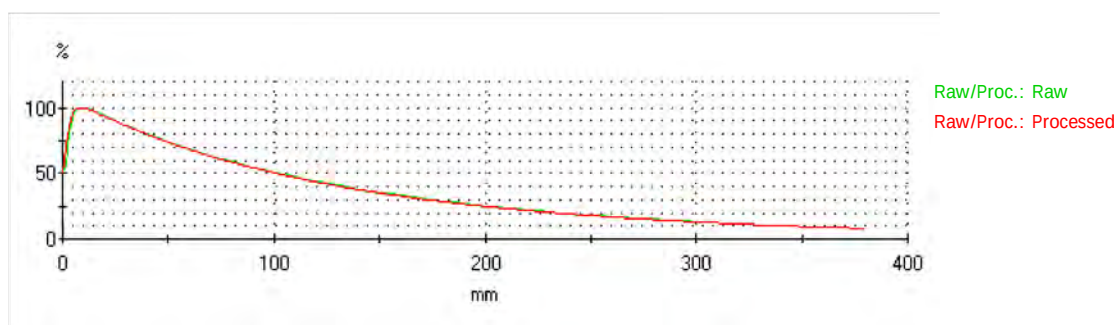
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



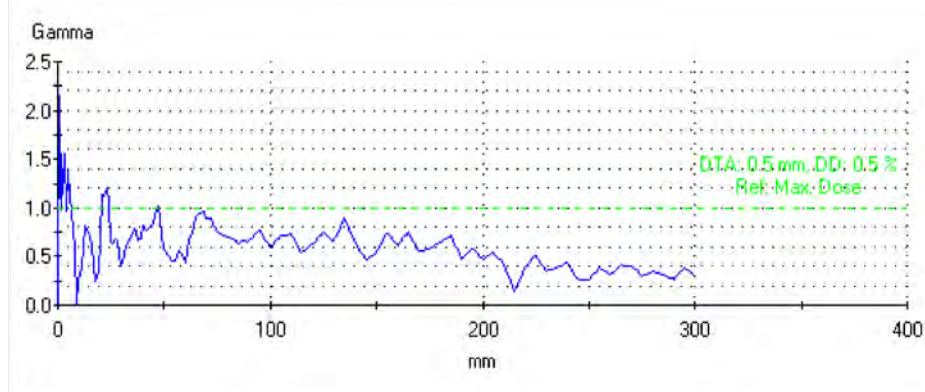
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-09-02 20:38

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	6.0
		Field Size Y x X [cm x cm]:	0.50 x 0.50
		Depth [mm]:	
		Profile Type:	PDD
		Meas.Angle [°]:	0.00
		SSD [cm]:	100.0



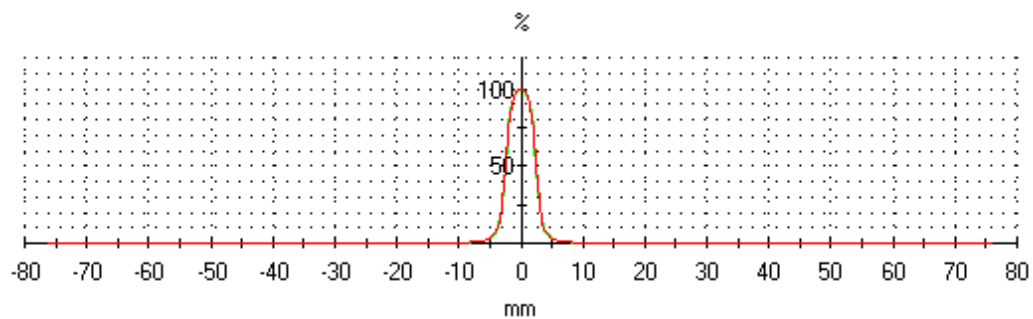
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



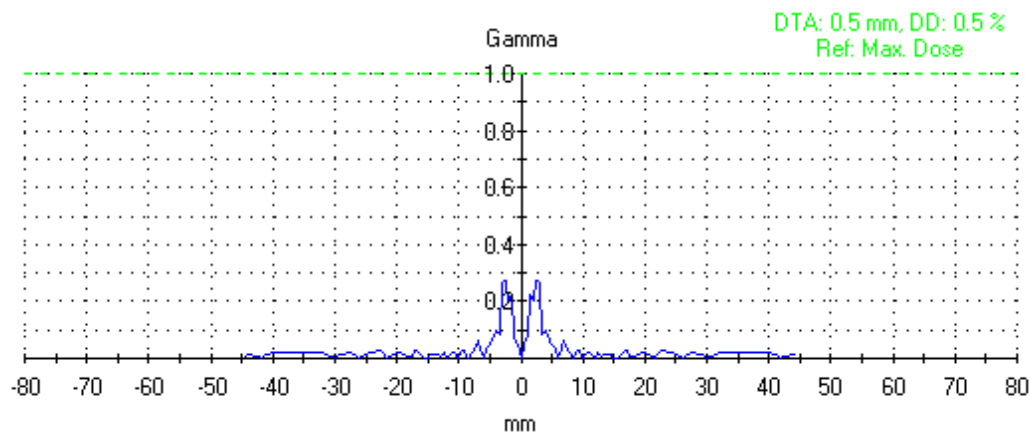
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-09-02 20:40

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	6.0
		Field Size Y x X [cm x cm]:	0.50 x 0.50
		Depth [mm]:	50.0
		Profile Type:	X Profile
		Meas.Angle [°]:	0.00
		SSD [cm]:	100.0



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



Mephysto mcc - Report

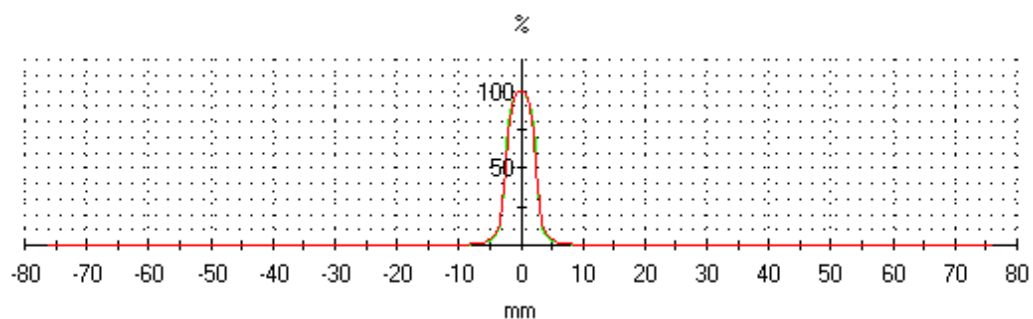
Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-09-02 20:39

Setup

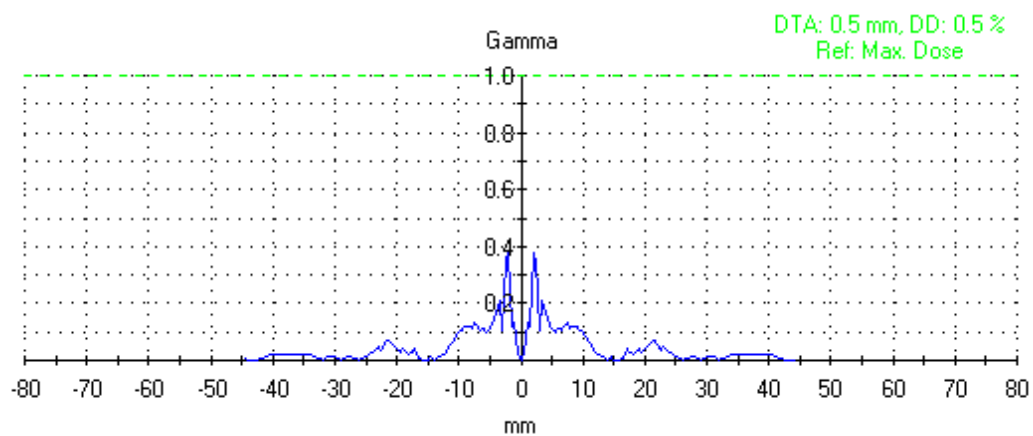
Modality: Photons

Measurement Parameters

Energy [MV]: 6.0
Field Size Y x X [cm x cm]: 0.50 x 0.50
Depth [mm]: 50.0
Profile Type: Y Profile
Meas.Angle [°]: 0.00
SSD [cm]: 100.0



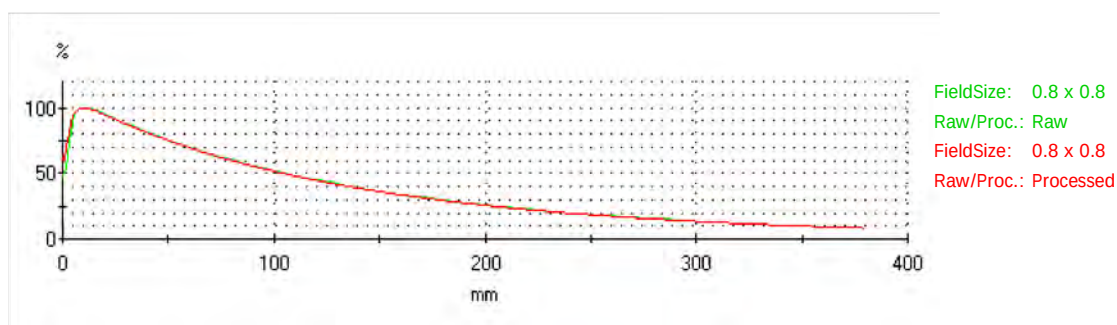
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



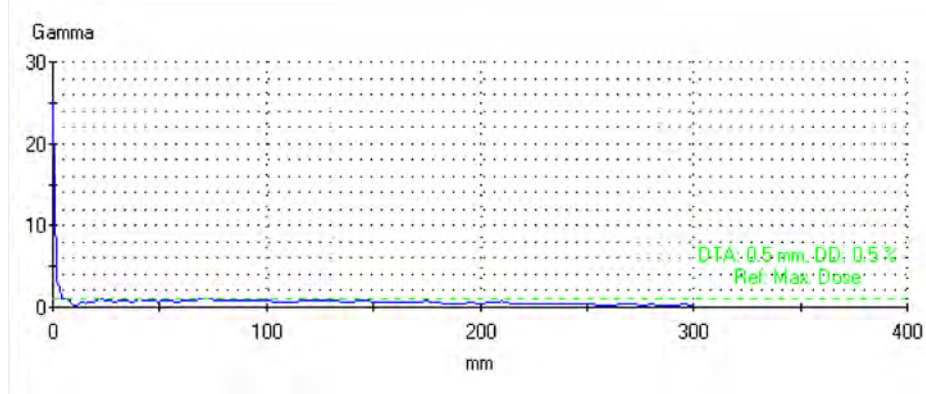
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-09-02 20:41

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	6.0
		Field Size Y x X [cm x cm]:	*
		Depth [mm]:	
		Profile Type:	PDD
		Meas.Angle [°]:	0.00
		SSD [cm]:	100.0



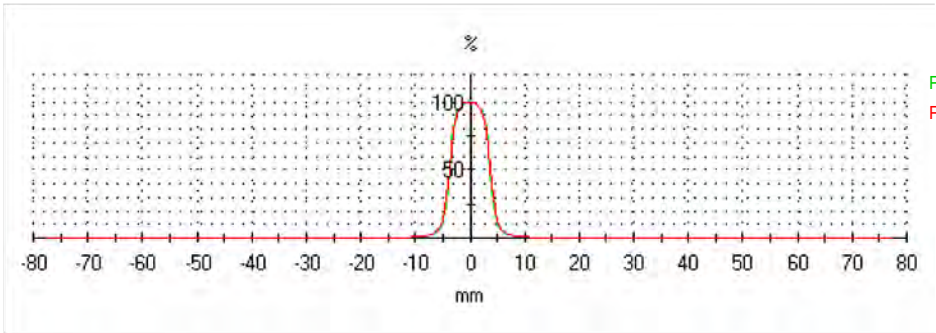
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



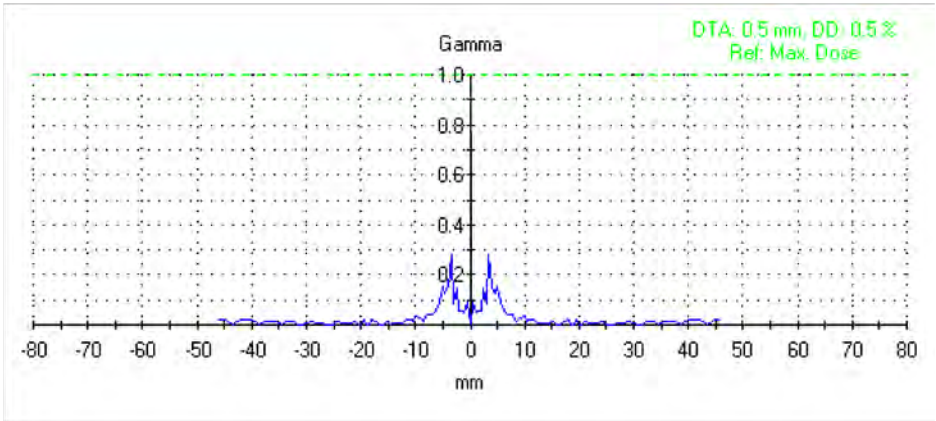
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-09-02 20:42

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	6.0
		Field Size Y x X [cm x cm]:	*
		Depth [mm]:	50.0
		Profile Type:	X Profile
		Meas.Angle [°]:	0.00
		SSD [cm]:	100.0



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



Mephysto mcc - Report

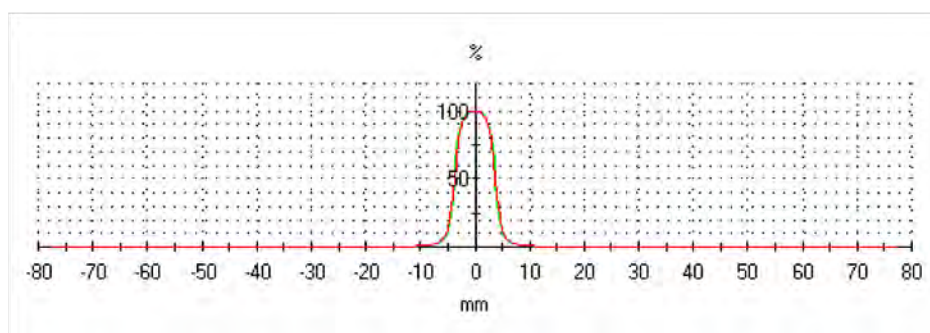
Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-09-02 20:41

Setup

Modality: Photons

Measurement Parameters

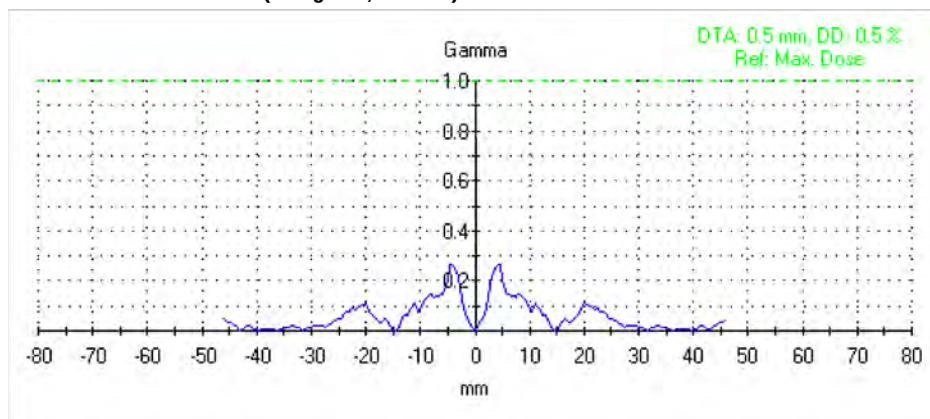
Energy [MV]: 6.0
Field Size Y x X [cm x cm]: *
Depth [mm]: 50.0
Profile Type: Y Profile
Meas.Angle [°]: 0.00
SSD [cm]: 100.0



FieldSize: 0.8 x 0.8

FieldSize: 0.8 x 0.8

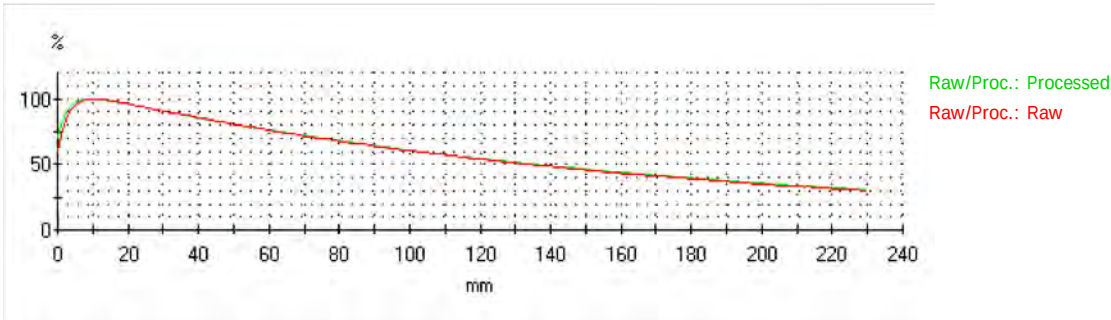
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



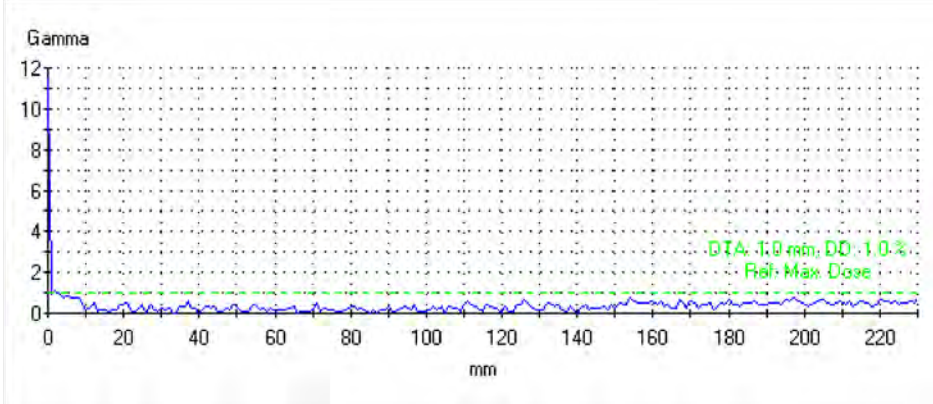
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-09-02 16:33

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	6.0
		Field Size Inpla. x Cross. [cm x cm]:	1.00 x 1.00
		Depth [mm]:	
		Profile Type:	TPR
		Meas.Angle [°]:	0.00
		SSD [cm]:	77.0



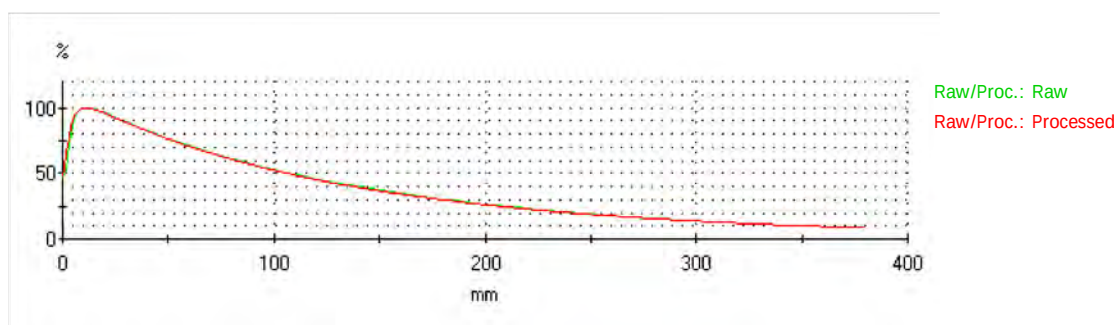
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



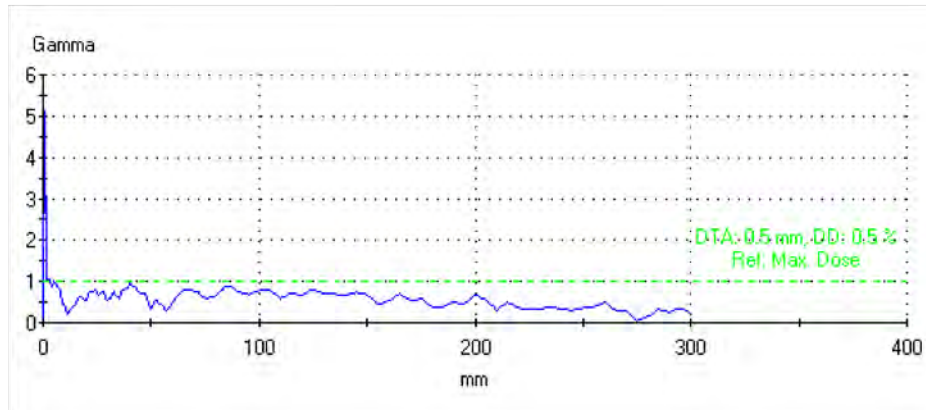
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-09-02 20:51

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	6.0
		Field Size Y x X [cm x cm]:	1.00 x 1.00
		Depth [mm]:	
		Profile Type:	PDD
		Meas.Angle [°]:	0.00
		SSD [cm]:	100.0



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



Mephysto mcc - Report

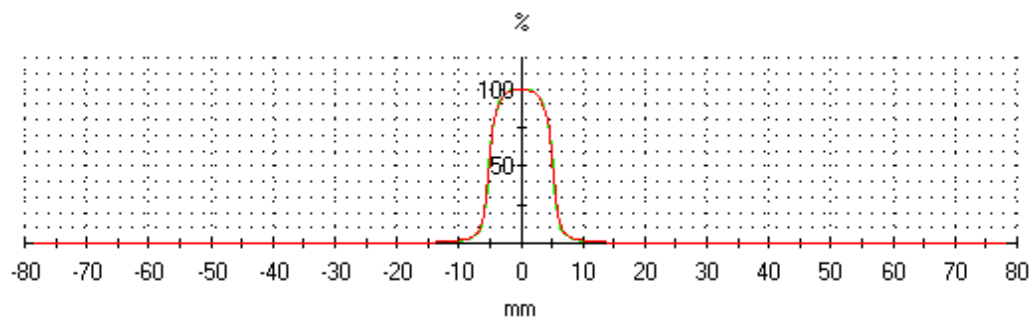
Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-09-02 20:52

Setup

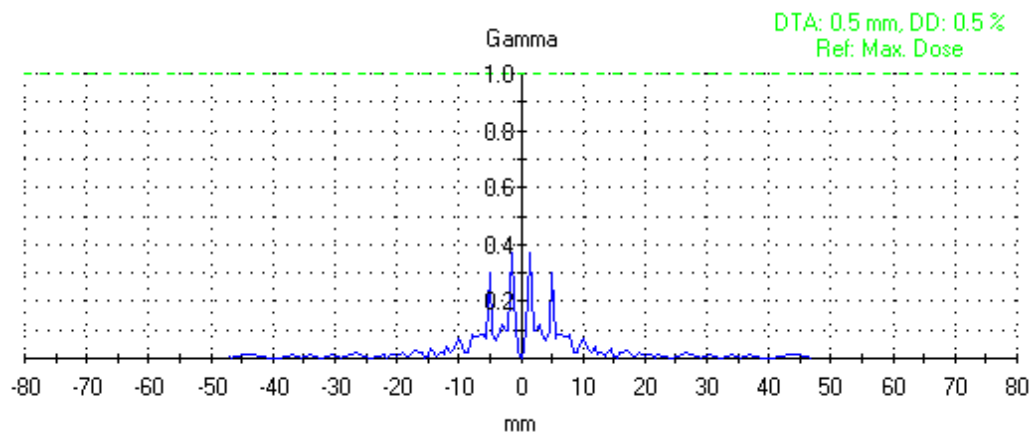
Modality: Photons

Measurement Parameters

Energy [MV]: 6.0
Field Size Y x X [cm x cm]: 1.00 x 1.00
Depth [mm]: 50.0
Profile Type: X Profile
Meas.Angle [°]: 0.00
SSD [cm]: 100.0



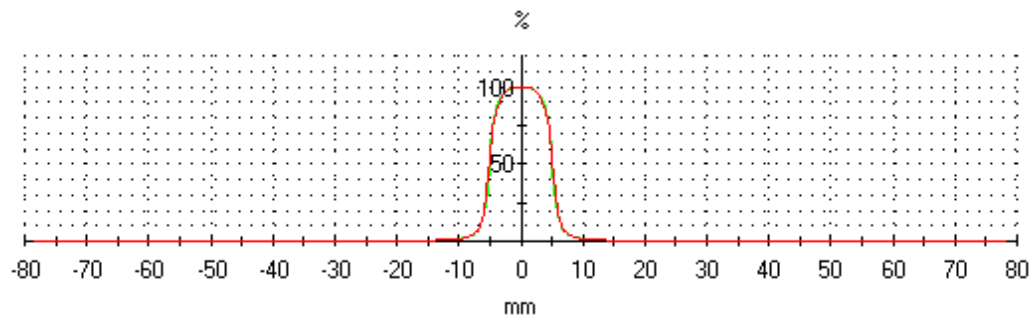
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



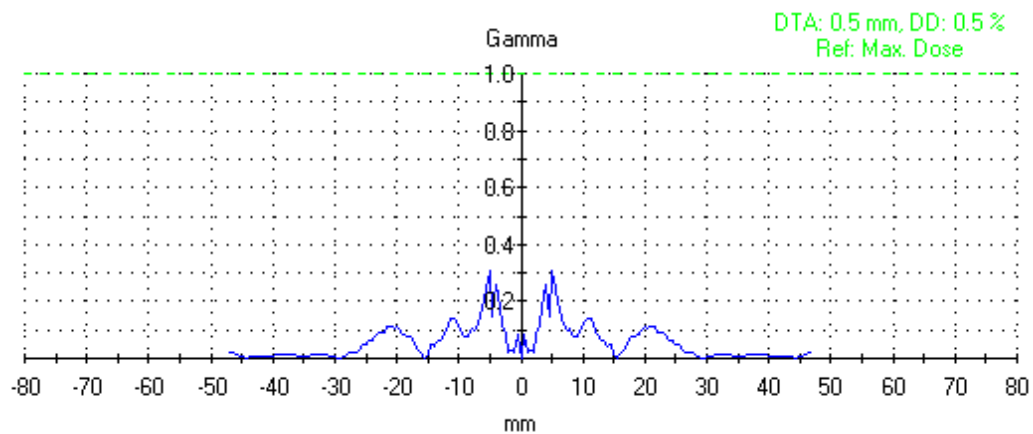
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-09-02 20:52

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	6.0
		Field Size Y x X [cm x cm]:	1.00 x 1.00
		Depth [mm]:	50.0
		Profile Type:	Y Profile
		Meas.Angle [°]:	0.00
		SSD [cm]:	100.0



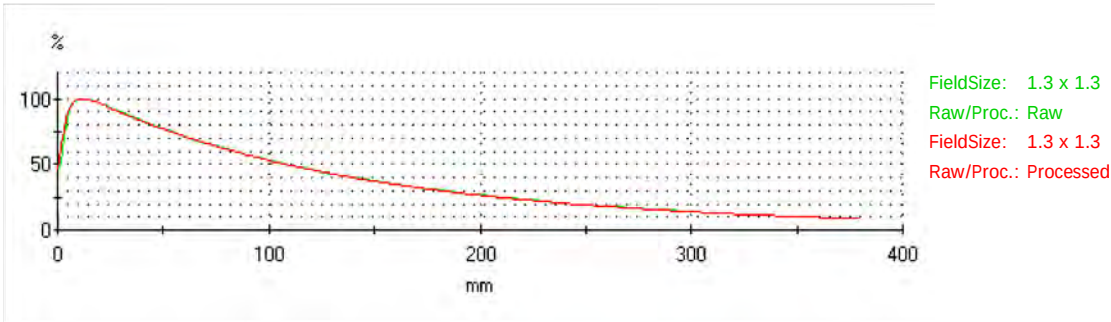
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



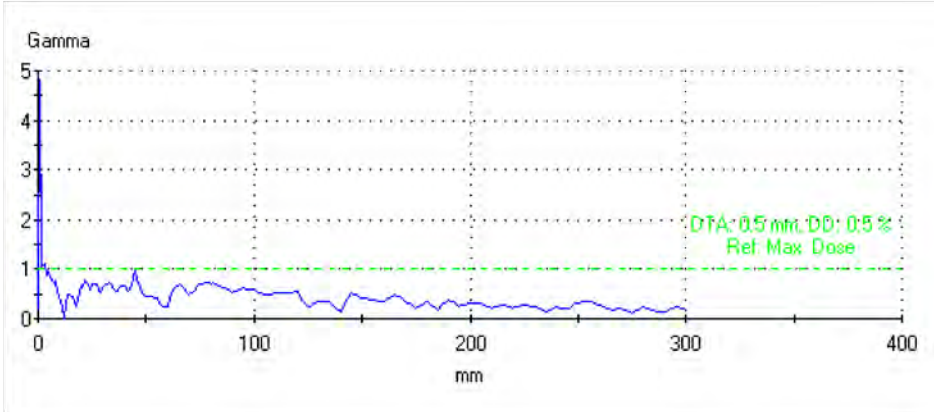
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-09-02 20:42

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	6.0
		Field Size Y x X [cm x cm]:	*
		Depth [mm]:	
		Profile Type:	PDD
		Meas.Angle [°]:	0.00
		SSD [cm]:	100.0



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



Mephysto mcc - Report

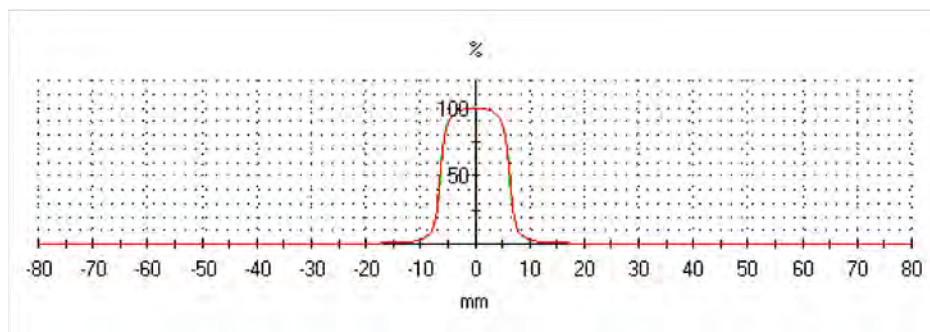
Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-09-02 20:46

Setup

Modality: Photons

Measurement Parameters

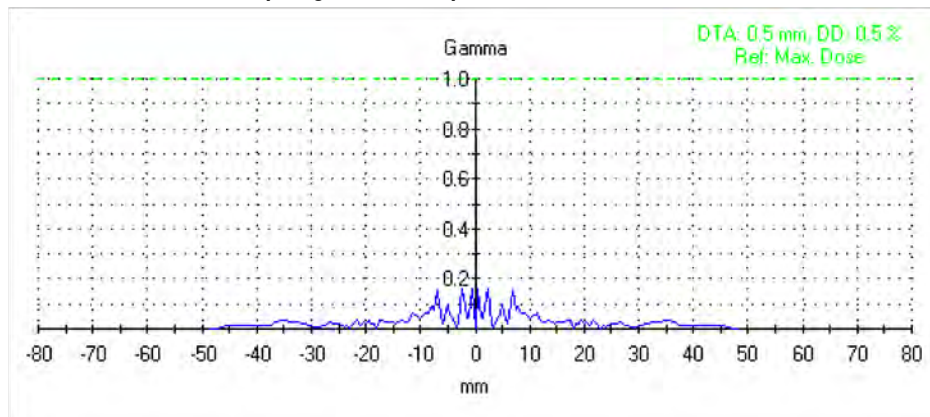
Energy [MV]: 6.0
Field Size Y x X [cm x cm]: *
Depth [mm]: 50.0
Profile Type: X Profile
Meas.Angle [°]: 0.00
SSD [cm]: 100.0



FieldSize: 1.3 x 1.3

FieldSize: 1.3 x 1.3

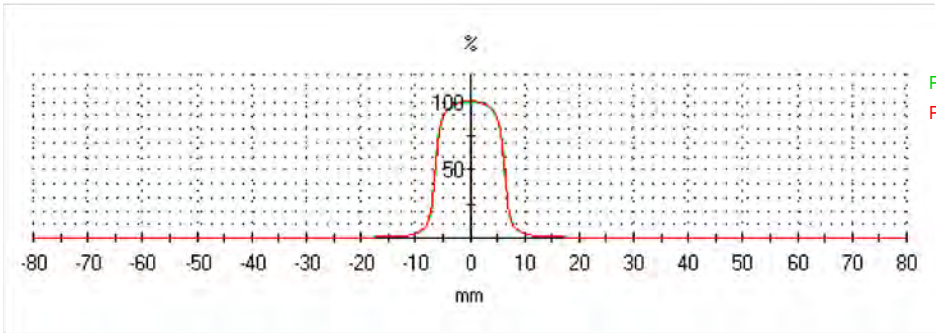
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



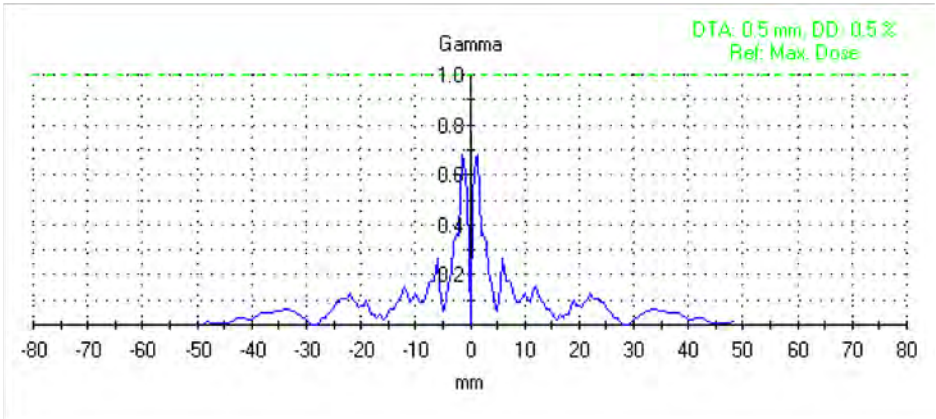
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-09-02 20:45

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	6.0
		Field Size Y x X [cm x cm]:	*
		Depth [mm]:	50.0
		Profile Type:	Y Profile
		Meas.Angle [°]:	0.00
		SSD [cm]:	100.0



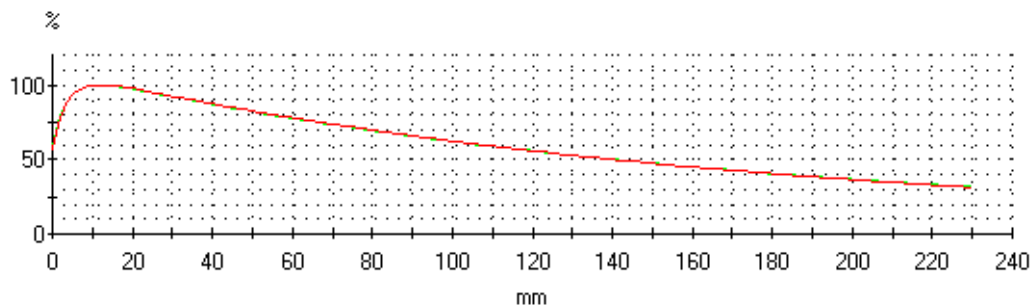
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



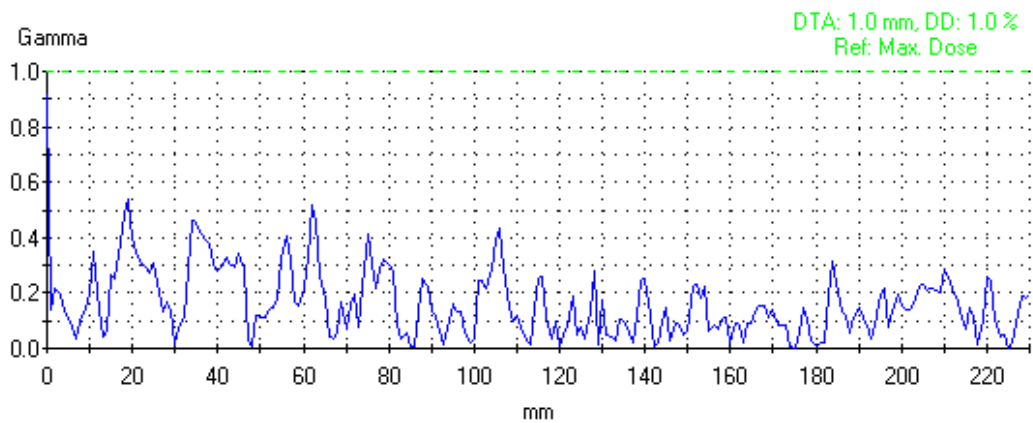
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-09-02 16:33

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	6.0
		Field Size Inpla. x Cross. [cm x cm]:	1.50 x 1.50
		Depth [mm]:	
		Profile Type:	TPR
		Meas.Angle [°]:	0.00
		SSD [cm]:	77.0



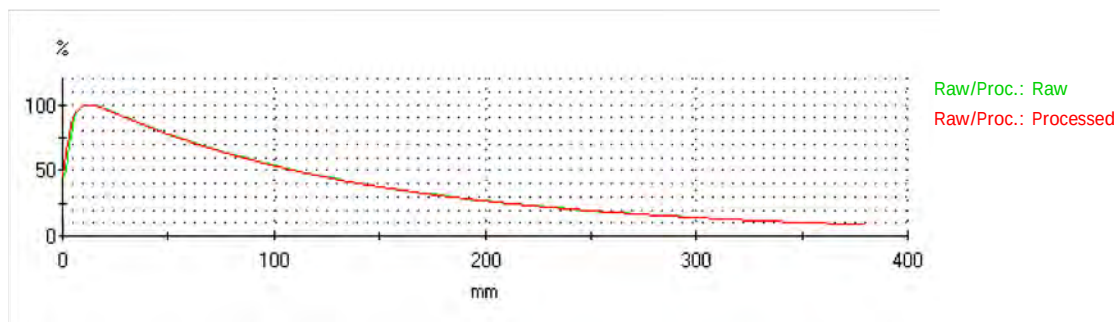
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



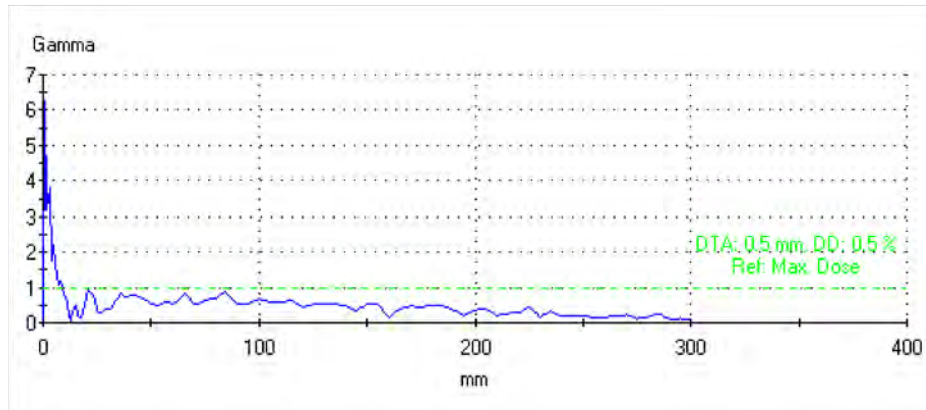
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-09-02 20:46

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	6.0
		Field Size Y x X [cm x cm]:	1.50 x 1.50
		Depth [mm]:	
		Profile Type:	PDD
		Meas.Angle [°]:	0.00
		SSD [cm]:	100.0



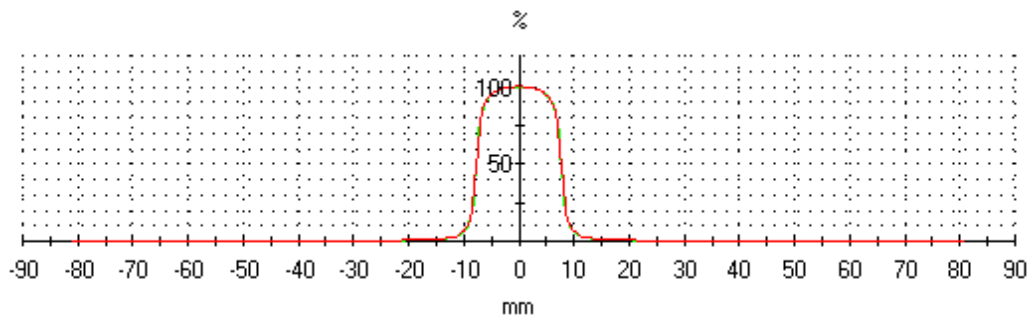
1D-Gamma Scan: D2 = Ref (D1=green, D2=red)



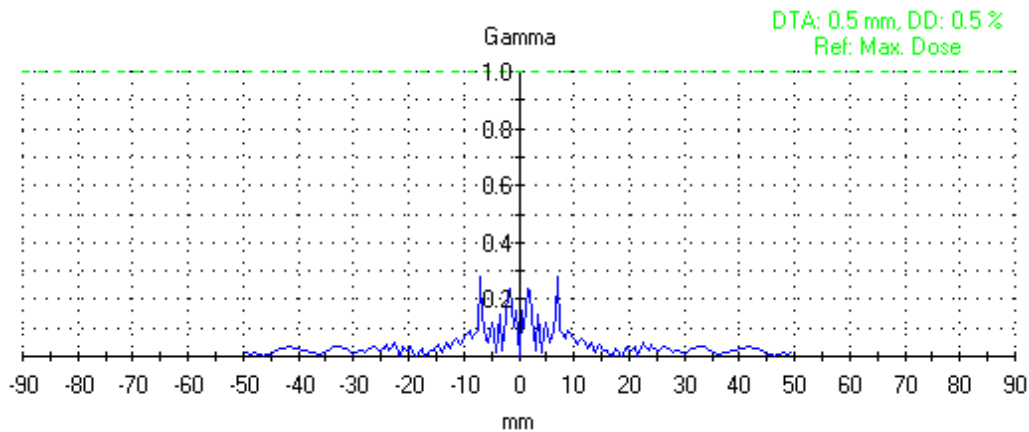
Mephysto mcc - Report

Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-09-02 20:48

Setup		Measurement Parameters	
Modality:	Photons	Energy [MV]:	6.0
		Field Size Y x X [cm x cm]:	1.50 x 1.50
		Depth [mm]:	50.0
		Profile Type:	X Profile
		Meas.Angle [°]:	0.00
		SSD [cm]:	100.0



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



Mephysto mcc - Report

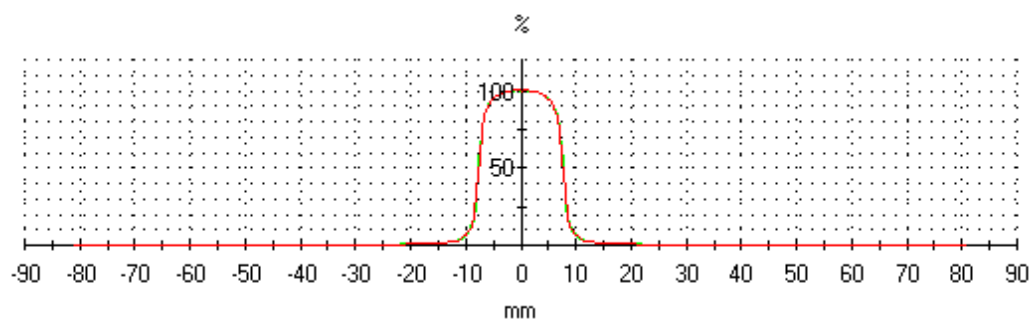
Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-09-02 20:47

Setup

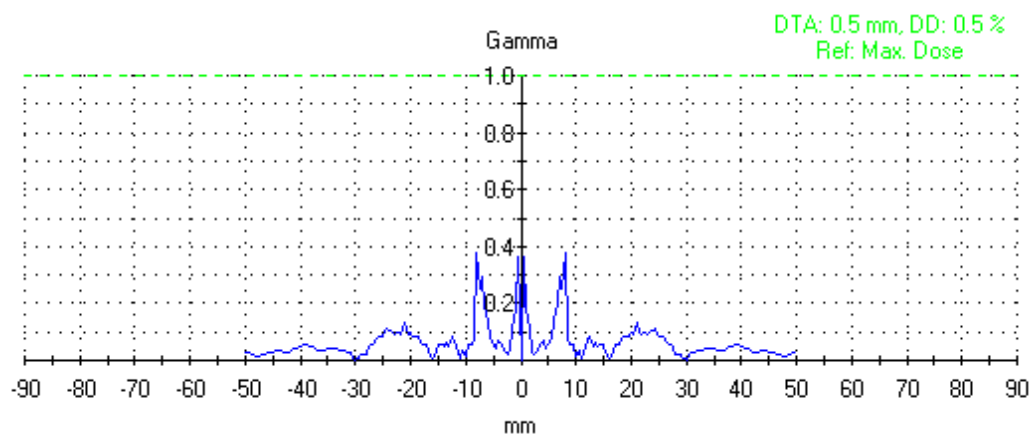
Modality: Photons

Measurement Parameters

Energy [MV]: 6.0
Field Size Y x X [cm x cm]: 1.50 x 1.50
Depth [mm]: 50.0
Profile Type: Y Profile
Meas.Angle [°]: 0.00
SSD [cm]: 100.0



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



Mephysto mcc - Report

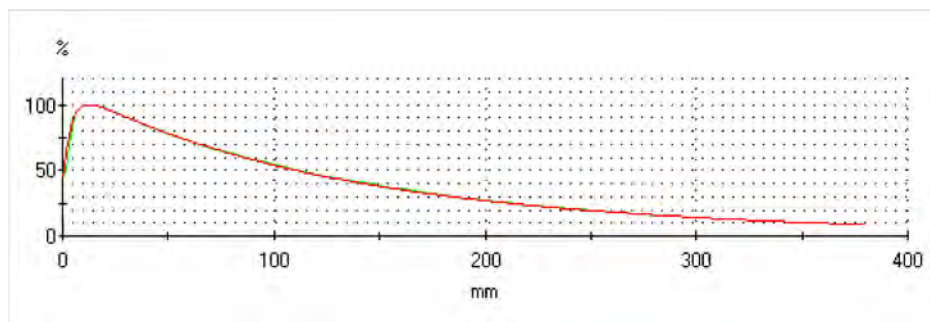
Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-09-02 20:48

Setup

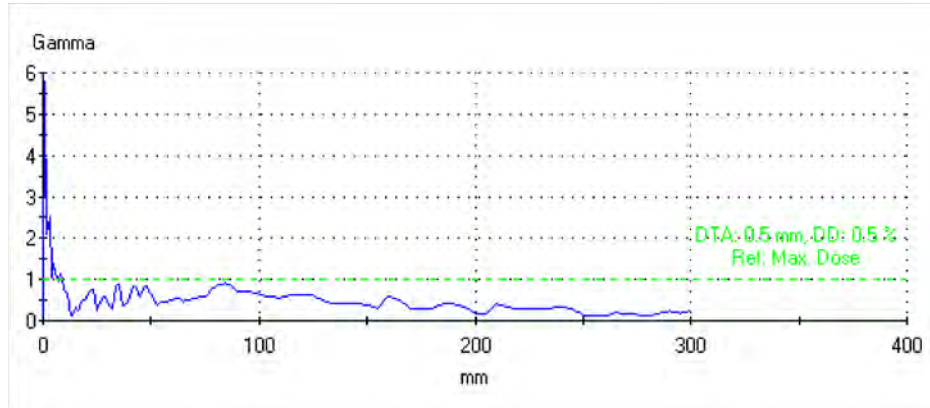
Modality: Photons

Measurement Parameters

Energy [MV]: 6.0
Field Size Y x X [cm x cm]: *
Depth [mm]:
Profile Type: PDD
Meas.Angle [°]: 0.00
SSD [cm]: 100.0



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



Mephysto mcc - Report

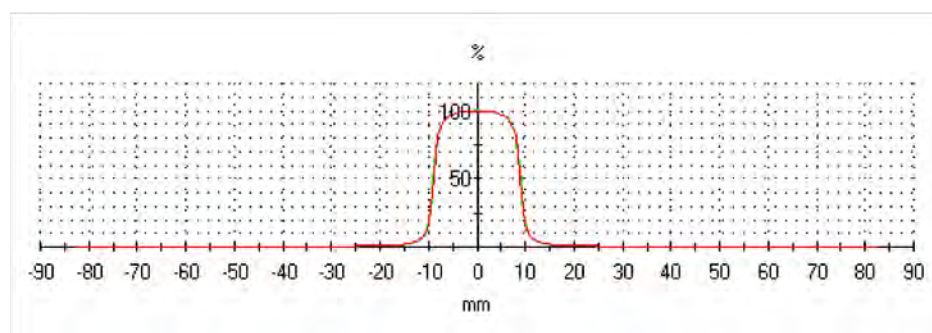
Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-09-02 20:50

Setup

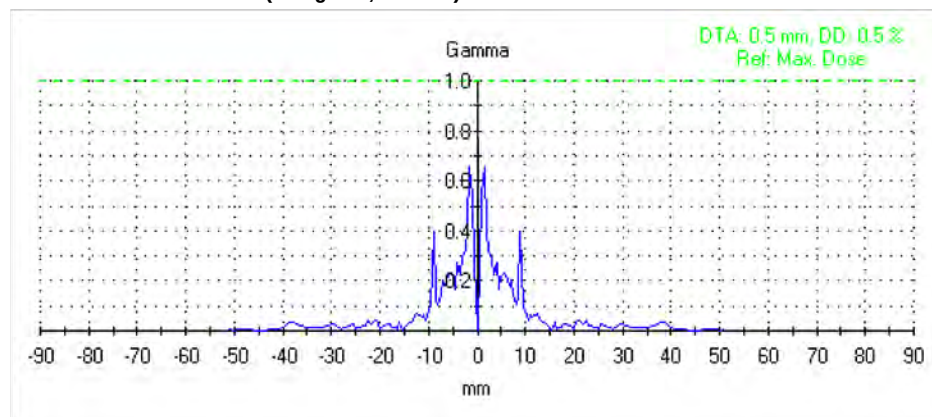
Modality: Photons

Measurement Parameters

Energy [MV]: 6.0
Field Size Y x X [cm x cm]: *
Depth [mm]: 50.0
Profile Type: X Profile
Meas.Angle [°]: 0.00
SSD [cm]: 100.0



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



Mephysto mcc - Report

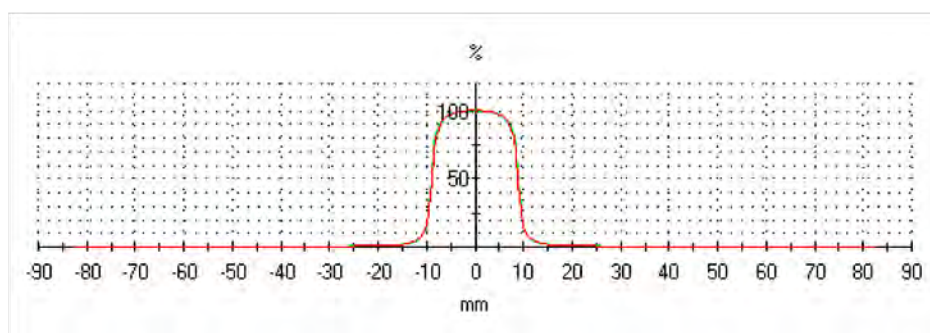
Institution: Landauer Cancer Institute
Operator:
Comment: 6FFF
Print-Date: 2020-09-02 20:49

Setup

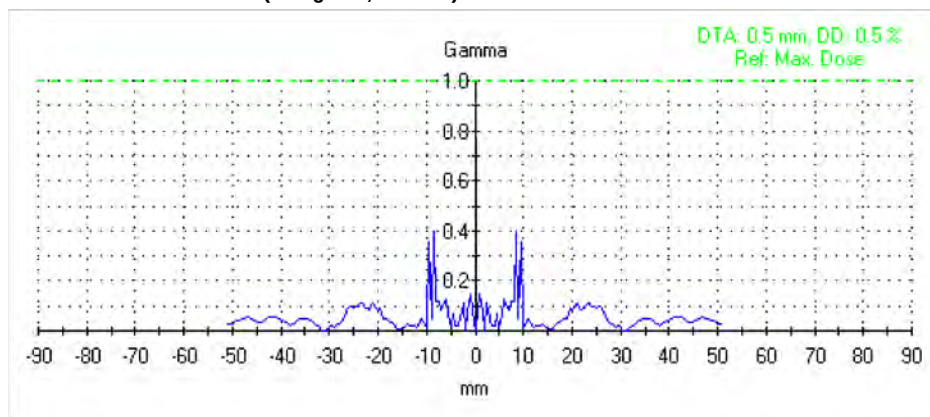
Modality: Photons

Measurement Parameters

Energy [MV]: 6.0
Field Size Y x X [cm x cm]: *
Depth [mm]: 50.0
Profile Type: Y Profile
Meas.Angle [°]: 0.00
SSD [cm]: 100.0



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



Data

Beam Machine QA Parameters

Beam QA Commissioning Report

The beam QA commissioning report includes the following:

1. Photon PDDs including $d_{\max}$ and d_{10} (cm) for field sizes 3, 6, 10, 30, and 40 cm.
2. Photon Profiles including inplane and crossplane flatness and symmetry and field size at $d_{\max}$ and 10 cm depth for field sizes of 10 and 30 cm.
3. Electron PDIs including $d_{\max}$ and I_{50} and for 15x15 electrons cones.
4. Electron PDDs including $d_{\max}$, R_{50} , and R_p for 10x10, 15x15 and 25x25 electron cones.
5. Electron Profiles including inplane and crossplane flatness and symmetry and field size at $d_{\max}$ depth for 10x10, 15x15, and 25x25 cones.

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

Best regards,

Robert Staton, Ph.D., DABR
Medical Physicist – Commissioning Division
LANDAUER Medical Physics

Photon Beam QA – 6 MV

6 MV

Field Size (cm)	3 x 3	6 x 6	10 x 10	30 x 30	40 x 40
d _{max} (cm)	1.4	1.4	1.5	1.3	1.2
%dd(10)	60.06	63.37	66.12	70.87	71.51

6 MV - 10x10cm Profiles

Profiles	Inplane dmax	Crossplane dmax	Inplane 10cm depth	Crossplane 10cm depth
Flatness (%)	0.73	0.76	2.41	2.36
Symmetry (%)	0.39	0.47	0.43	0.48
Field Size (cm)	9.96	10.05	9.97	10.06

6 MV - 30x30cm Profiles

Profiles	Inplane dmax	Crossplane dmax	Inplane 10cm depth	Crossplane 10cm depth
Flatness (%)	1.99	1.94	2.03	2.07
Symmetry (%)	0.44	0.46	0.63	0.57
Field Size (cm)	30.08	30.17	30.07	30.16

Photon Beam QA – 10 MV

10 MV - PDD

Field Size (cm)	3 x 3	6 x 6	10 x 10	30 x 30	40 x 40
d_{max} (cm)	2.2	2.4	2.3	2.0	1.8
%dd(10)	69.97	71.96	73.39	75.53	76.12

10 MV - 10x10cm Profiles

Profiles	Inplane dmax	Crossplane dmax	Inplane 10cm depth	Crossplane 10cm depth
Flatness (%)	0.99	1.09	2.13	2.17
Symmetry (%)	0.42	0.37	0.63	0.56
Field Size (cm)	9.97	10.06	9.96	10.06

10 MV - 30x30cm Profiles

Profiles	Inplane dmax	Crossplane dmax	Inplane 10cm depth	Crossplane 10cm depth
Flatness (%)	1.99	2.07	1.85	1.99
Symmetry (%)	0.55	0.5	0.74	0.68
Field Size (cm)	30.09	30.18	30.05	30.15

Photon Beam QA – 15 MV

15 MV

Field Size (cm)	3 x 3	6 x 6	10 x 10	30 x 30	40 x 40
$d_{\max}$ (cm)	2.9	2.8	2.8	2.1	1.9
%dd(10)	73.62	75.60	76.67	76.18	76.38

15 MV - 10x10cm Profiles

Profiles	Inplane $d_{\max}$	Crossplane $d_{\max}$	Inplane 10cm depth	Crossplane 10cm depth
Flatness (%)	1.28	1.5	1.91	2.16
Symmetry (%)	0.78	0.72	0.93	0.93
Field Size (cm)	9.99	10.07	9.981	10.07

15 MV - 30x30cm Profiles

Profiles	Inplane $d_{\max}$	Crossplane $d_{\max}$	Inplane 10cm depth	Crossplane 10cm depth
Flatness (%)	2.37	2.47	2.07	2.12
Symmetry (%)	0.77	0.73	0.91	0.81
Field Size (cm)	30.09	30.19	30.07	30.17

Photon Beam QA – 6FFF

6 FFF

Field Size (cm)	3 x 3	6 x 6	10 x 10	30 x 30	40 x 40
$d_{\max}$ (cm)	1.3	1.3	1.3	1.2	1.2
%dd(10)	56.52	60.3	63.15	67.26	67.7

6FFF - 10x10cm Profiles

Profiles	Inplane dmax	Crossplane dmax	Inplane 10cm depth	Crossplane 10cm depth
Symmetry (%)	0.31	0.37	0.43	0.59

6FFF - 30x30cm Profiles

Profiles	Inplane dmax	Crossplane dmax	Inplane 10cm depth	Crossplane 10cm depth
Symmetry (%)	0.37	0.45	0.50	0.60

Photon Beam QA – 10FFF

10 FFF - PDD

Field Size (cm)	3 x 3	6 x 6	10 x 10	30 x 30	40 x 40
$d_{\max}$ (cm)	2.2	2.0	2.3	1.9	2.0
%dd(10)	66.5	69.08	70.80	72.74	72.90

10FFF - 10x10cm Profiles

Profiles	Inplane dmax	Crossplane dmax	Inplane 10cm depth	Crossplane 10cm depth
Symmetry (%)	0.33	0.76	0.48	0.83

10FFF - 30x30cm Profiles

Profiles	Inplane dmax	Crossplane dmax	Inplane 10cm depth	Crossplane 10cm depth
Symmetry (%)	0.52	1.03	0.6	1.07

Electron Beam QA – 6 Mev

Electron Beam QA PDIs - 6 MeV

Cone Size	15 x 15
d_{max} (cm)	1.19
I₅₀ (cm)	2.30

Electron Beam QA PDDs - 6 MeV

Cone Size	10 x 10	15 x 15	25 x 25
d_{max} (cm)	1.22	1.22	2.12
R₅₀ (cm)	2.32	2.32	2.31
R_p (cm)	2.96	2.96	2.97

Electron Beam QA Profiles - 6 MeV (10 x 10 cone at d_{max} depth)

Profiles	Inplane	Crossplane
Flatness (%)	4.50	4.62
Symmetry (%)	0.61	0.42
Field Size (cm)	10.09	10.10

Electron Beam QA Profiles - 6 MeV (15 x 15 cone at d_{max} depth)

Profiles	Inplane	Crossplane
Flatness (%)	3.52	2.66
Symmetry (%)	1.34	0.45
Field Size (cm)	15.07	15.06

Electron Beam QA – 6 Mev

Electron Beam QA Profiles - 6 MeV (25 x 25 cone at $d_{\max}$ depth)

Profiles	Inplane	Crossplane
Flatness (%)	1.50	1.38
Symmetry (%)	0.91	0.44
Field Size (cm)	25.22	25.23

Electron Beam QA – 9 Mev

Electron Beam QA PDIs - 9 MeV

Cone Size	15 x 15
d_{max} (cm)	1.98
I₅₀ (cm)	3.50

Electron Beam QA PDDs - 9 MeV

Cone Size	10 x 10	15 x 15	25 x 25
d_{max} (cm)	2.00	2.02	1.97
R₅₀ (cm)	3.53	3.53	3.53
Rp (cm)	4.36	4.34	4.34

Electron Beam QA Profiles - 9 MeV (10x 10 cone at d_{max} depth)

Profiles	Inplane	Crossplane
Flatness (%)	4.37	4.28
Symmetry (%)	0.38	0.3
Field Size (cm)	10.13	10.14

Electron Beam QA Profiles - 9 MeV (15 x 15 cone at d_{max} depth)

Profiles	Inplane	Crossplane
Flatness (%)	2.32	1.84
Symmetry (%)	0.41	0.36
Field Size (cm)	15.12	15.12

Electron Beam QA – 9 Mev

Electron Beam QA Profiles - 9 MeV (25 x 25 cone at $d_{\max}$ depth)

Profiles	Inplane	Crossplane
Flatness (%)	1.96	1.74
Symmetry (%)	0.88	0.63
Field Size (cm)	25.33	25.34

Electron Beam QA – 12 MeV

Electron Beam QA PDIs - 12 MeV

Cone Size	15 x 15
d_{max} (cm)	2.55
I₅₀ (cm)	4.91

Electron Beam QA PDDs - 12 MeV

Cone Size	10 x 10	15 x 15	25 x 25
d_{max} (cm)	2.79	2.63	2.83
R₅₀ (cm)	4.95	4.95	4.96
Rp (cm)	5.99	5.96	6.00

Electron Beam QA Profiles - 12 MeV (10 x 10 cone at d_{max} depth)

Profiles	Inplane	Crossplane
Flatness (%)	5.49	4.80
Symmetry (%)	0.71	0.66
Field Size (cm)	10.12	10.15

Electron Beam QA Profiles - 12 MeV (15 x 15 cone at d_{max} depth)

Profiles	Inplane	Crossplane
Flatness (%)	2.22	1.77
Symmetry (%)	0.49	0.40
Field Size (cm)	15.15	15.15

Electron Beam QA – 12 Mev

Electron Beam QA Profiles - 12 MeV (25 x 25 cone at $d_{\max}$ depth)

Profiles	Inplane	Crossplane
Flatness (%)	1.73	1.59
Symmetry (%)	0.80	0.45
Field Size (cm)	25.36	25.38

Electron Beam QA – 16 MeV

Electron Beam QA PDIs - 16 MeV

Cone Size	15 x 15
d_{max} (cm)	2.45
I₅₀ (cm)	6.44

Electron Beam QA PDDs - 16 MeV

Cone Size	10 x 10	15 x 15	25 x 25
d_{max} (cm)	3.04	3.09	3.16
R₅₀ (cm)	6.50	6.50	6.51
Rp (cm)	7.83	7.82	7.84

Electron Beam QA Profiles - 16 MeV (10 x 10 cone at d_{max} depth)

Profiles	Inplane	Crossplane
Flatness (%)	3.80	3.35
Symmetry (%)	0.98	0.88
Field Size (cm)	10.14	10.16

Electron Beam QA Profiles - 16 MeV (15 x 15 cone at d_{max} depth)

Profiles	Inplane	Crossplane
Flatness (%)	1.66	1.39
Symmetry (%)	0.69	1.13
Field Size (cm)	15.14	15.14

Electron Beam QA – 16 Mev

Electron Beam QA Profiles - 16 MeV (25 x 25 cone at $d_{\max}$ depth)

Profiles	Inplane	Crossplane
Flatness (%)	1.95	1.88
Symmetry (%)	0.35	0.57
Field Size (cm)	25.33	25.35

Electron Beam QA – 20 MeV

Electron Beam QA PDIs - 20 MeV

Cone Size	15 x 15
d_{max} (cm)	1.59
I₅₀ (cm)	8.05

Electron Beam QA PDDs - 20 MeV

Cone Size	10 x 10	15 x 15	25 x 25
d_{max} (cm)	2.33	2.48	2.73
R₅₀ (cm)	8.16	8.19	8.19
Rp (cm)	9.89	9.90	9.92

Electron Beam QA Profiles - 20 MeV (10 x 10 cone at d_{max} depth)

Profiles	Inplane	Crossplane
Flatness (%)	1.75	1.28
Symmetry (%)	0.93	1.07
Field Size (cm)	10.12	10.13

Electron Beam QA Profiles - 20 MeV (15 x 15 cone at d_{max} depth)

Profiles	Inplane	Crossplane
Flatness (%)	1.34	0.81
Symmetry (%)	0.98	1.38
Field Size (cm)	15.10	15.08

Electron Beam QA – 20 Mev

Electron Beam QA Profiles - 20 MeV (25 x 25 cone at $d_{\max}$ depth)

Profiles	Inplane	Crossplane
Flatness (%)	1.68	1.91
Symmetry (%)	0.47	1.05
Field Size (cm)	25.25	25.27