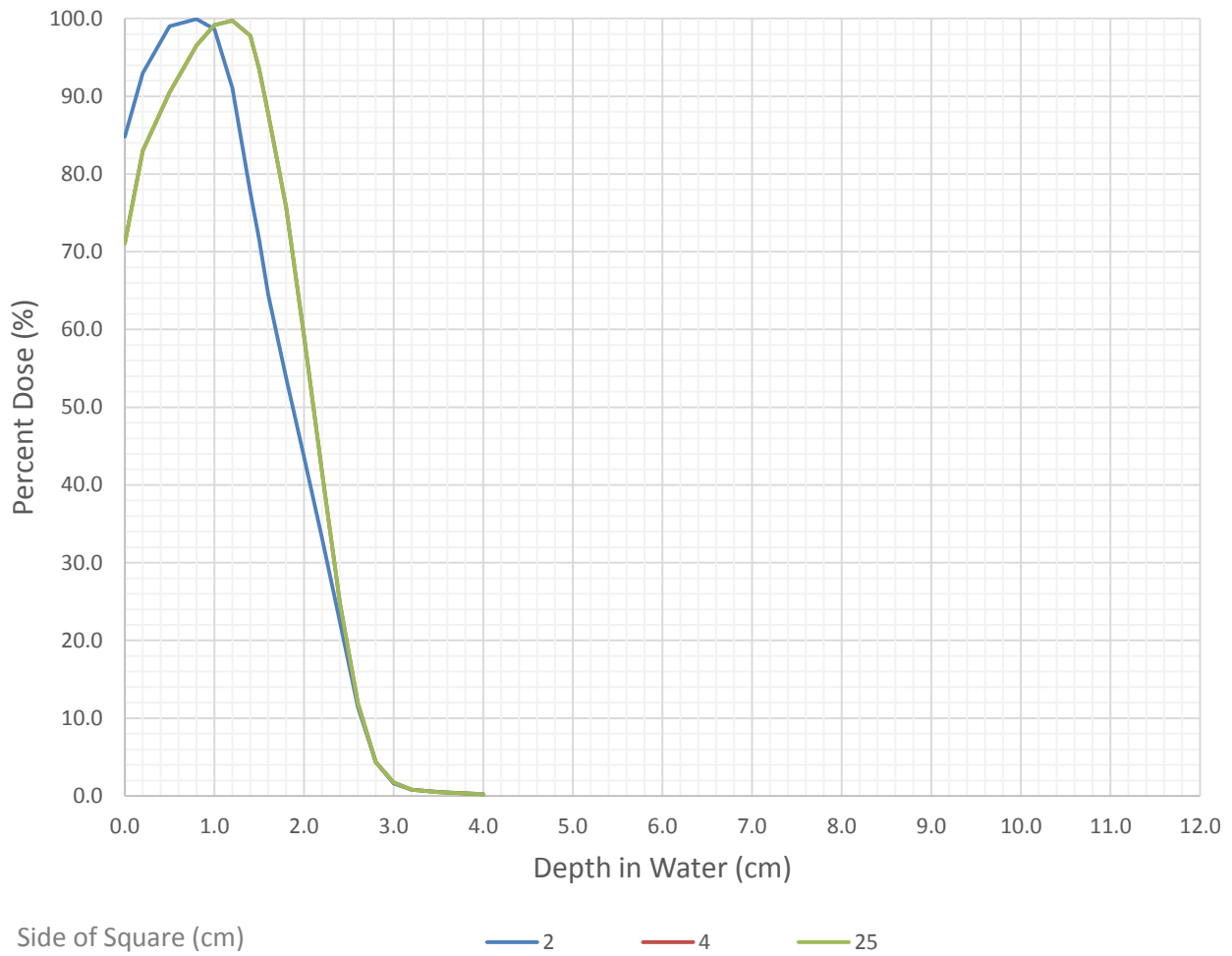


Electron Beam Parameters for Siemens KD LINAC						
Nominal SSD: 100 cm						
Field Size: 10X10 cm ²						
Nominal Energy (MeV)	6	8	9	12	15	20
$E_{p,o}$ (MeV)*	5.9	7.4	8.9	11.3	14.4	20.2
\bar{E}_0 (MeV)**	5.2	6.7	8.3	10.8	13.9	19.2
Surface Dose (%)	72.0	75.0	78.0	82.0	87.0	89.0
Depth to Proximal 90% (cm)						
Depth to 100% (cm)	1.2	1.6	2.0	2.4	2.6	1.2
Depth to Distal 90% (cm)	1.6	2.2	2.7	3.5	4.5	5.5
Depth to 80% (cm)	1.9	2.4	2.9	3.9	5.0	6.5
Depth to 50% (cm)	2.2	2.8	3.5	4.5	5.8	8.0
Depth to 20% (cm)	2.5	3.3	3.9	5.2	6.6	9.3
Depth to 10% (cm)	2.7	3.5	4.2	5.6	7.1	10.3
Range R_p (cm)	2.8	3.6	4.3	5.6	7.1	10.1
X-ray Dose (%) (R_p+2 cm)	<1	1.0	1.5	2.0	2.5	6.5
σ_{θ_z} (radians)	0.069	0.055	0.050	0.038	0.032	0.024
$L_{o,eff}$ (cm)	7					
* $E_{p,o}$ (MeV) = 0.22 + 1.98 * R_p (cm) + 0.0025 R_p^2 (cm)						
** \bar{E}_0 (MeV) = 2.4 * R_{50} (cm)						

Siemens KD LINAC: 6 MeV Electrons Central Axis Depth Dose @ 100 cm SSD

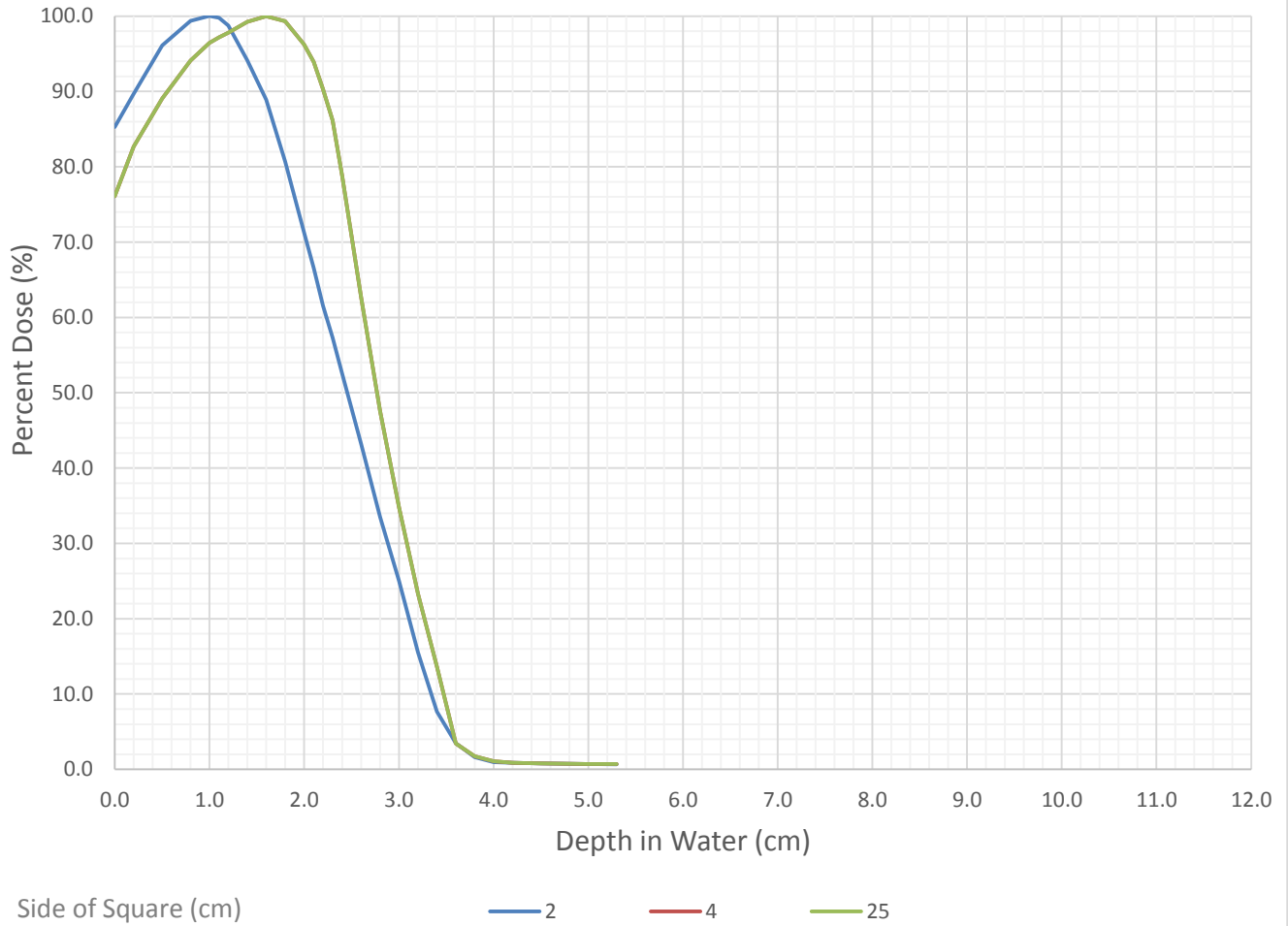


Siemens KD LINAC: 8 MeV Electrons

Percent Dose vs Depth

Nominal Energy (MeV)	9								
SSD (cm)	100								
E_{p,o} (MeV)	7.4								
σ_{θ_z} (radians)	0.047								
L_{o,eff} (cm)	7								
# Field Sizes	4								
# Depths	27								
Side of Square (cm)		2.0	4.0	25.0					
R₁₀₀ (cm)		1	1.6	1.6					
Depth (cm)		Percent Depth Dose							
0.0		85.3	76.1	76.1					
0.2		89.7	82.7	82.7					
0.5		96.1	89.1	89.1					
0.8		99.4	94.1	94.1					
1.0		100.0	96.5	96.5					
1.1		99.8	97.2	97.2					
1.2		98.8	97.8	97.8					
1.4		94.1	99.2	99.2					
1.6		88.9	100.0	100.0					
1.8		80.7	99.3	99.3					
2.0		71.3	96.2	96.2					
2.1		66.6	93.9	93.9					
2.2		61.6	90.3	90.3					
2.3		57.3	86.1	86.1					
2.4		52.5	78.8	78.8					
2.6		43.2	62.6	62.6					
2.8		33.5	47.5	47.5					
3.0		25.0	34.8	34.8					
3.2		15.5	23.3	23.3					
3.4		7.7	13.7	13.7					
3.6		3.5	3.4	3.4					
3.8		1.6	1.7	1.7					
4.0		1.0	1.1	1.1					
4.2		0.9	0.9	0.9					
4.5		0.8	0.8	0.8					
5.0		0.7	0.7	0.7					
5.3		0.7	0.7	0.7					

Siemens KD LINAC: 8 MeV Electrons Central Axis Depth Dose @ 100 cm SSD

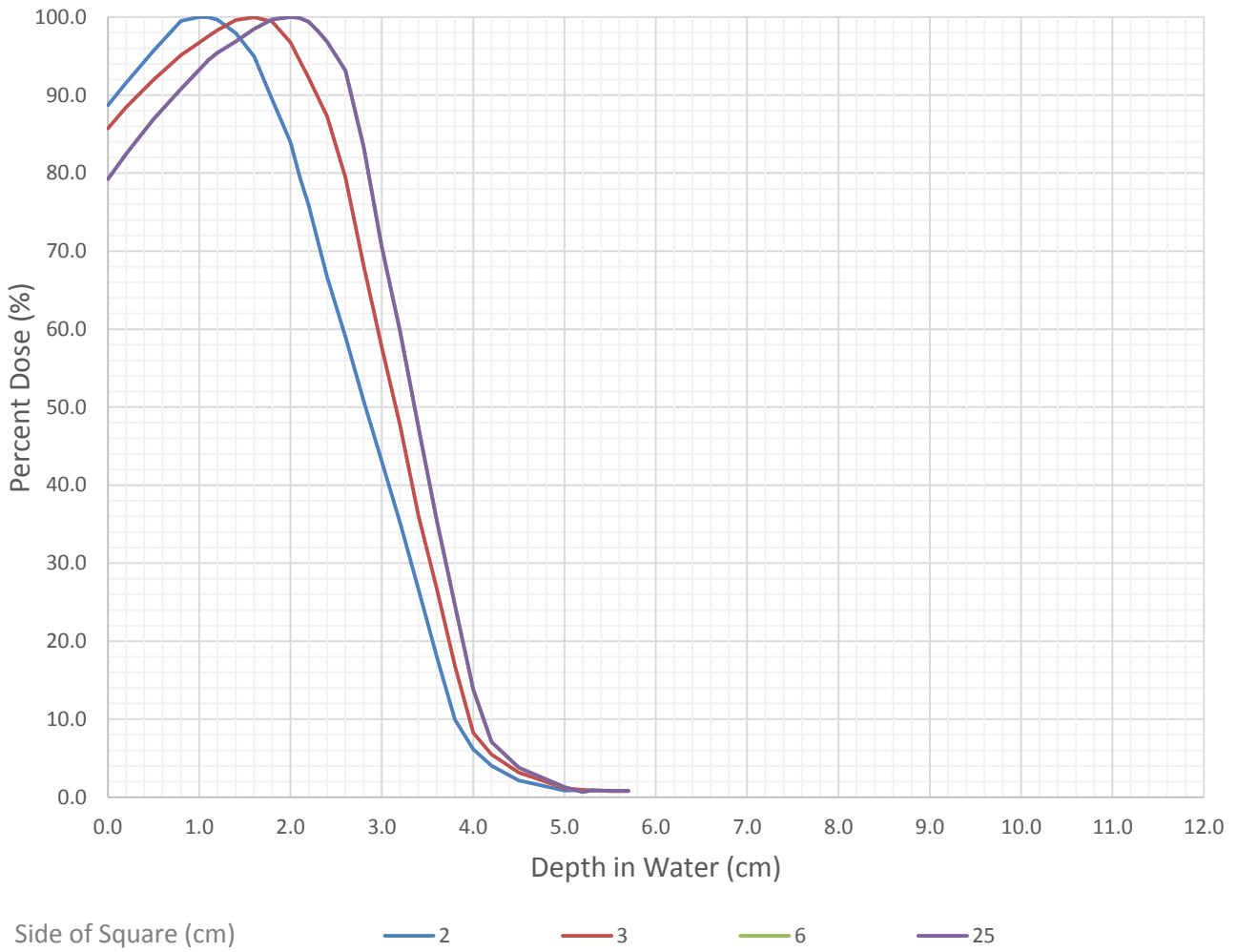


Siemens KD LINAC: 9 MeV Electrons

Percent Dose vs Depth

Nominal Energy (MeV)	9								
SSD (cm)	100								
E_{p,o} (MeV)	7.4								
σ_{θ_z} (radians)	0.047								
L_{o,eff} (cm)	7								
# Field Sizes	4								
# Depths	30								
Side of Square (cm)		2.0	3.0	6.0	25.0				
R₁₀₀ (cm)		1.0	2.1	2.0	2.0				
Depth (cm)		Percent Depth Dose							
0.0		88.7	85.8	79.2	79.2				
0.2		91.6	88.5	82.5	82.5				
0.5		95.7	92.0	86.9	86.9				
0.8		99.5	95.1	90.8	90.8				
1.0		100.0	96.7	93.3	93.3				
1.1		100.0	97.6	94.5	94.5				
1.2		99.7	98.4	95.4	95.4				
1.4		98.0	99.6	96.9	96.9				
1.6		95.0	100.0	98.5	98.5				
1.8		89.5	99.4	99.7	99.7				
2.0		84.0	96.8	100.0	100.0				
2.1		79.6	94.5	99.9	99.9				
2.2		75.8	92.2	99.4	99.4				
2.3		71.3	89.7	98.2	98.2				
2.4		66.7	87.3	96.9	96.9				
2.6		59.0	79.5	93.2	93.2				
2.8		50.8	68.1	83.4	83.4				
3.0		43.1	57.7	70.6	70.6				
3.2		35.2	47.7	59.7	59.7				
3.4		26.7	36.1	47.5	47.5				
3.6		18.1	26.8	35.6	35.6				
3.8		9.9	16.8	24.6	24.6				
4.0		6.1	8.3	13.8	13.8				
4.2		4.0	5.5	7.1	7.1				
4.5		2.2	3.2	3.8	3.8				
5.0		0.9	1.2	1.3	1.3				
5.2		0.9	1.0	0.7	0.7				
5.3		0.85	0.87	0.89	0.89				
5.5		0.8	0.8	0.8	0.8				
5.7		0.8	0.8	0.8	0.8				

Siemens KD LINAC: 9 MeV Electrons Central Axis Depth Dose @ 100 cm SSD

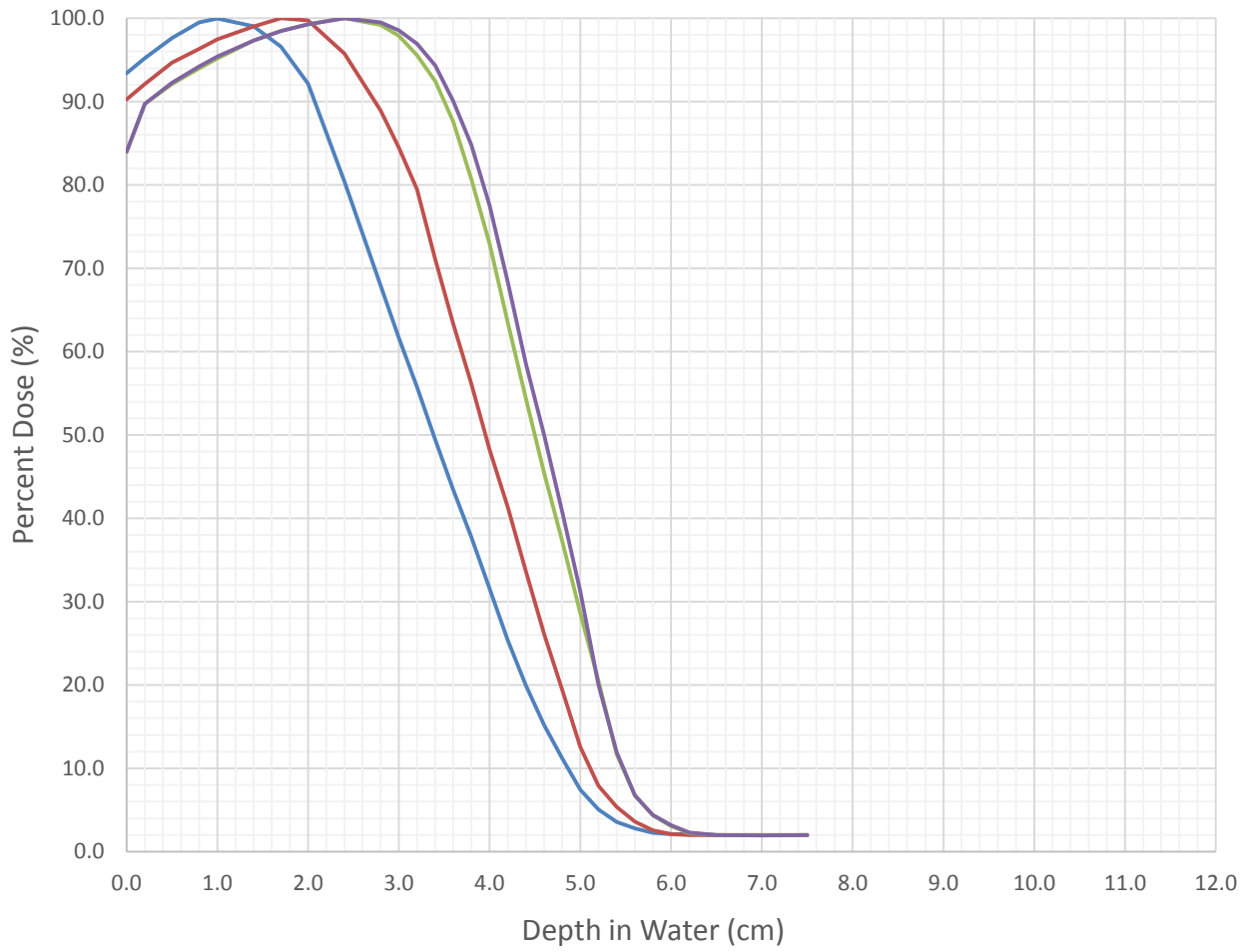


Siemens KD LINAC: 12 MeV Electrons

Percent Dose vs Depth

Nominal Energy (MeV)	12								
SSD (cm)	100								
E_{p,o} (MeV)	8.9								
σ_{θ_z} (radians)	0.036								
L_{o,eff} (cm)	7								
# Field Sizes	4								
# Depths	30								
Side of Square (cm)		2.0	3.0	6.0	25.0				
R₁₀₀ (cm)		1.0	1.7	2.4	2.4				
Depth (cm)		Percent Depth Dose							
0.0		93.4	90.3	84.0	84.0				
0.2		95.2	92.1	89.7	89.8				
0.5		97.6	94.7	92.1	92.3				
0.8		99.5	96.3	94.0	94.2				
1.0		100.0	97.5	95.2	95.4				
1.4		99.1	99.0	97.3	97.3				
1.7		96.6	100.0	98.5	98.5				
2.0		92.1	99.7	99.3	99.3				
2.4		80.4	95.7	100.0	100.0				
2.8		67.9	88.9	99.2	99.5				
3.0		61.6	84.5	97.9	98.5				
3.2		55.7	79.5	95.5	96.9				
3.4		49.4	71.1	92.5	94.3				
3.6		43.4	63.4	87.6	90.1				
3.8		37.7	56.1	80.7	84.8				
4.0		31.6	48.2	73.0	77.5				
4.2		25.4	41.3	63.5	68.4				
4.4		19.9	33.6	54.3	58.5				
4.6		15.2	26.1	45.4	50.0				
4.8		11.2	19.5	37.3	40.9				
5.0		7.4	12.6	28.6	31.2				
5.2		5.0	7.9	20.5	20.0				
5.4		3.6	5.4	11.7	11.9				
5.6		2.8	3.6	6.8	6.7				
5.8		2.3	2.6	4.4	4.4				
6.0		2.1	2.1	3.1	3.2				
6.2		2.1	2.0	2.2	2.3				
6.5		2.0	2.0	2.0	2.0				
7.0		2.0	2.0	2.0	2.0				
7.5		2.0	2.0	2.0	2.0				

Siemens KD LINAC: 12 MeV Electrons Central Axis Depth Dose @ 100 cm SSD



Side of Square (cm)

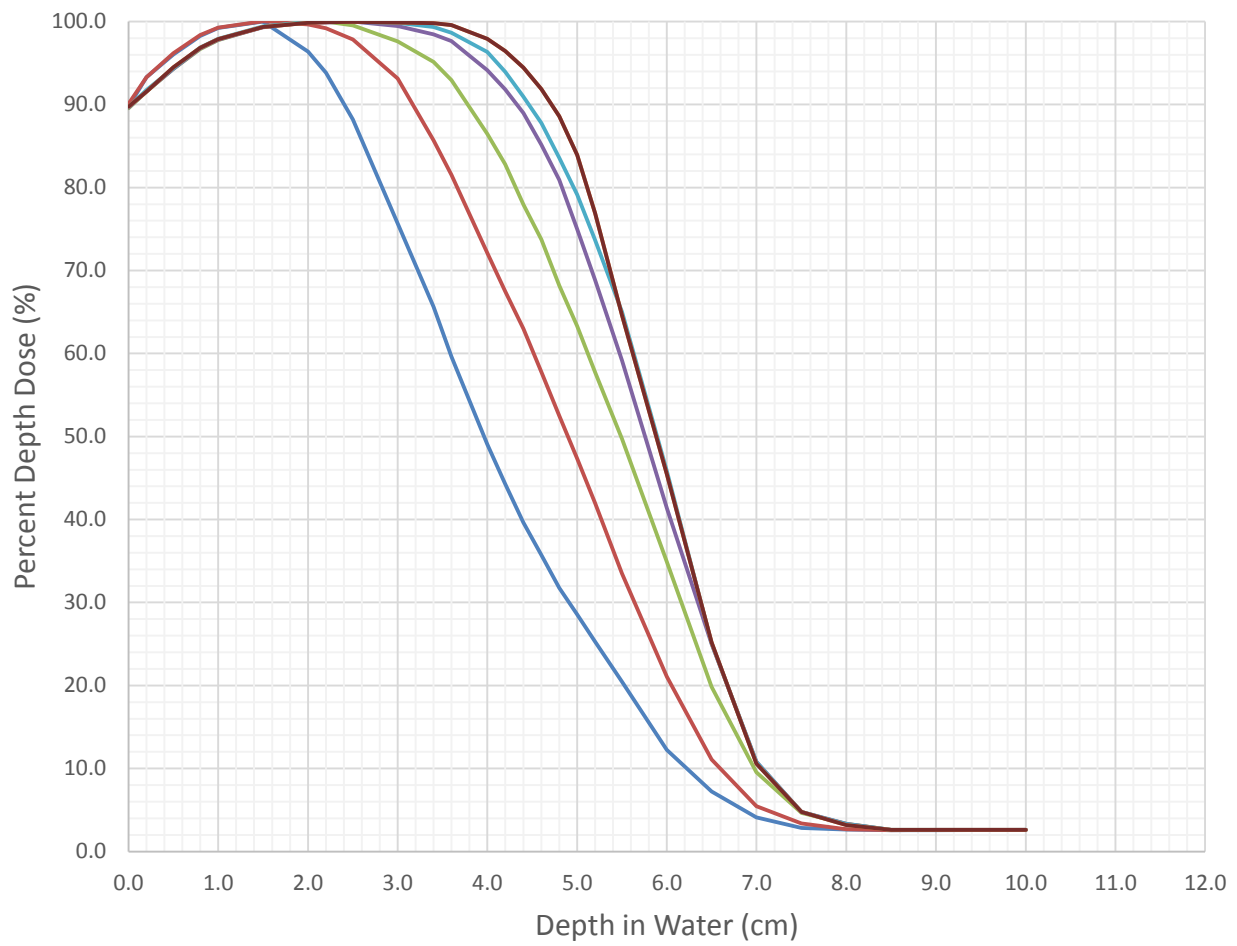
— 2 — 3 — 6 — 25

Siemens KD LINAC: 15 MeV Electrons

Percent Dose vs Depth

Nominal Energy (MeV)	15								
SSD (cm)	100								
$E_{p,o}$ (MeV)	11.3								
σ_{θ_z} (radians)	0.028								
$L_{o,eff}$ (cm)	7								
# Field Sizes	7								
# Depths	28								
Side of Square (cm)		2.0	3.0	4.0	5.0	6.0	8.0	25.0	
R_{100} (cm)		1.5	1.5	2.2	2.5	2.2	2.5	2.5	
Depth (cm)									
0.0		89.8	90.1	89.5	89.6	89.7	89.7	89.7	
0.2		93.3	93.3	91.6	91.6	91.8	91.6	91.6	
0.5		96.0	96.2	94.3	94.3	94.4	94.5	94.5	
0.8		98.2	98.4	96.7	96.8	96.9	96.9	96.9	
1.0		99.2	99.3	97.8	97.8	97.9	97.9	97.9	
1.5		100.0	100.0	99.4	99.3	99.4	99.3	99.3	
2.0		96.4	99.6	99.9	99.9	99.9	99.8	99.8	
2.2		93.8	99.2	100.0	99.9	100.0	99.9	99.9	
2.5		88.2	97.8	99.5	100.0	100.0	100.0	100.0	
3.0		75.7	93.1	97.6	99.5	99.8	99.9	99.9	
3.4		65.6	85.7	95.1	98.5	99.3	99.8	99.8	
3.6		59.6	81.5	92.9	97.6	98.7	99.6	99.6	
4.0		49.1	72.1	86.5	94.2	96.4	97.9	97.9	
4.2		44.3	67.5	82.8	91.8	94.0	96.4	96.4	
4.4		39.6	63.0	78.0	89.0	91.0	94.4	94.4	
4.6		35.7	57.8	73.7	85.1	87.8	91.9	91.9	
4.8		31.8	52.5	68.2	80.9	83.6	88.6	88.6	
5.0		28.6	47.3	63.3	75.0	79.1	83.9	83.9	
5.2		25.3	42.0	57.8	68.8	73.7	76.9	76.9	
5.5		20.5	33.5	49.7	59.2	65.0	64.6	64.6	
6.0		12.2	21.1	34.9	41.4	45.9	45.5	45.5	
6.5		7.2	11.1	19.9	25.0	25.1	25.2	25.2	
7.0		4.1	5.4	9.5	10.8	10.8	10.6	10.6	
7.5		2.9	3.4	4.6	4.8	4.8	4.8	4.8	
8.0		2.6	2.7	3.3	3.3	3.3	3.2	3.2	
8.5		2.6	2.6	2.6	2.6	2.6	2.6	2.6	
9.0		2.6	2.6	2.6	2.6	2.6	2.6	2.6	
10.0		2.6	2.6	2.6	2.6	2.6	2.6	2.6	

Siemens KD LINAC: 15 MeV Electrons Central Axis Depth Dose @ 100 cm SSD



Side of Square (cm)

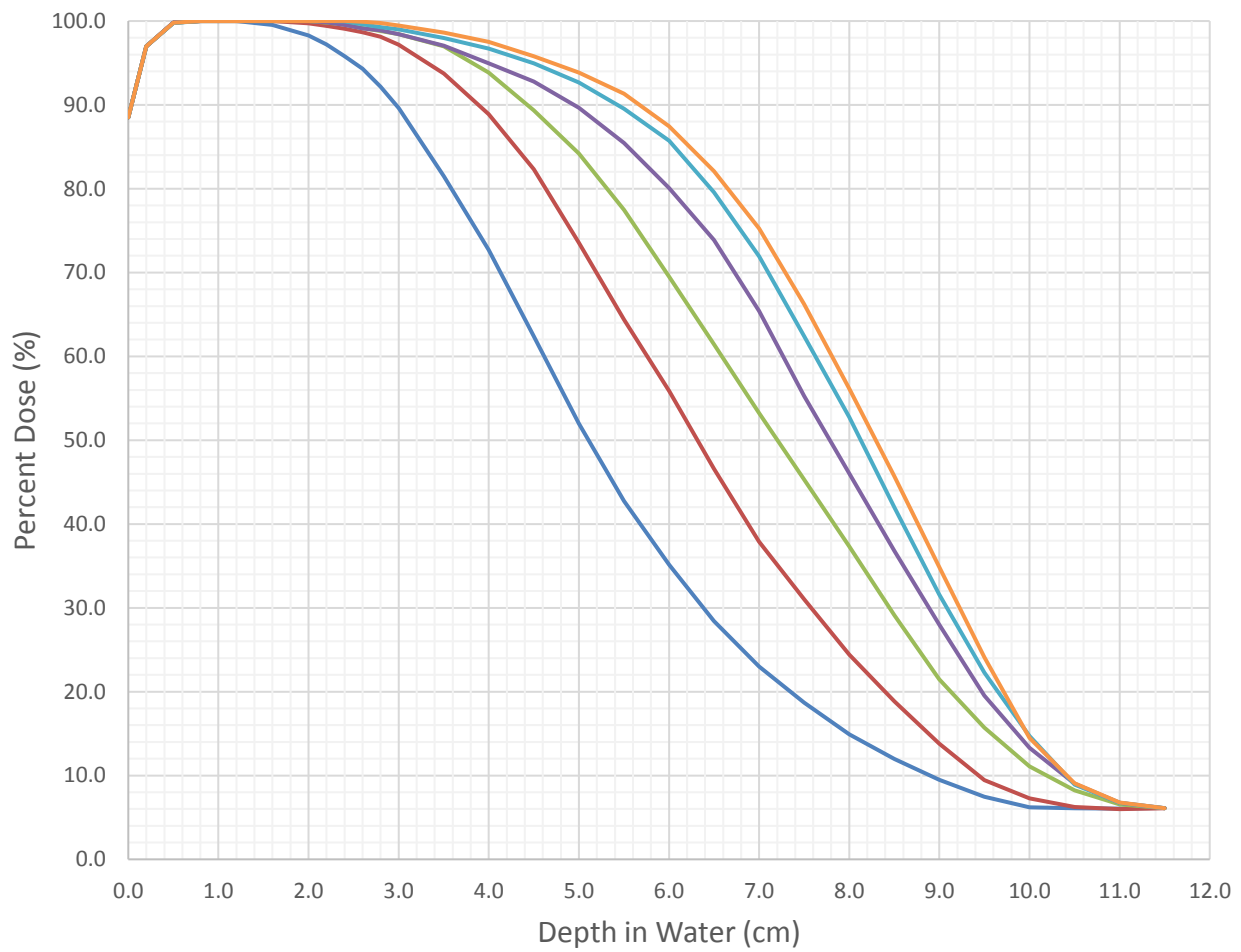
— 2 — 3 — 4 — 5 — 6 — 8 — 25

Siemens KD LINAC: 20 MeV Electrons

Percent Dose vs Depth

Nominal Energy (MeV)	20								
SSD (cm)	100								
E_{p,o} (MeV)	20.5								
σ_{θz} (radians)	0.023								
L_{o,eff} (cm)	7								
# Field Sizes	6								
# Depths	30								
Side of Square (cm)		2.0	3.0	4.0	6.0	10.0	25.0		
R₁₀₀ (cm)		1.0	1.1	1.2	1.2	1.6	1.6		
Depth (cm)		Percent Depth Dose							
0.0		88.5	88.5	88.5	88.5	88.5	88.5		
0.2		97.0	97.0	97.0	97.0	97.0	97.0		
0.5		99.8	99.8	99.8	99.8	99.8	99.8		
0.8		100.0	100.0	100.0	100.0	100.0	100.0		
1.0		100.0	100.0	100.0	100.0	100.0	100.0		
1.2		100.0	100.0	100.0	100.0	100.0	100.0		
1.6		99.5	100.0	100.0	100.0	100.0	100.0		
2.0		98.3	99.7	100.0	100.0	100.0	100.0		
2.2		97.2	99.4	99.8	99.8	100.0	100.0		
2.4		95.8	99.1	99.6	99.5	100.0	100.0		
2.6		94.3	98.7	99.2	99.1	99.6	99.9		
2.8		92.2	98.1	98.8	98.9	99.3	99.8		
3.0		89.6	97.2	98.4	98.4	99.0	99.5		
3.5		81.5	93.7	97.0	97.1	98.0	98.6		
4.0		72.7	88.9	93.9	94.9	96.7	97.5		
4.5		62.4	82.3	89.4	92.8	95.0	95.8		
5.0		52.0	73.6	84.2	89.7	92.7	93.9		
5.5		42.7	64.4	77.5	85.5	89.5	91.3		
6.0		35.1	55.9	69.5	80.1	85.7	87.4		
6.5		28.4	46.6	61.5	73.9	79.6	82.1		
7.0		23.0	37.9	53.3	65.4	71.9	75.3		
7.5		18.7	31.0	45.3	55.3	62.4	66.2		
8.0		14.9	24.4	37.3	46.0	52.7	56.1		
8.5		12.0	18.9	29.1	36.8	42.0	45.7		
9.0		9.5	13.8	21.5	28.0	31.6	34.9		
9.5		7.5	9.5	15.7	19.5	22.3	24.1		
10.0		6.2	7.3	11.1	13.3	14.7	14.5		
10.5		6.1	6.3	8.2	9.0	8.9	9.1		
11.0		6.1	6.0	6.6	6.7	6.7	6.8		
11.5		6.1	6.1	6.1	6.1	6.1	6.1		

Siemens KD LINAC: 20 MeV Electrons Central Axis Depth Dose @ 100 cm SSD



Side of Square (cm)

— 2

— 3

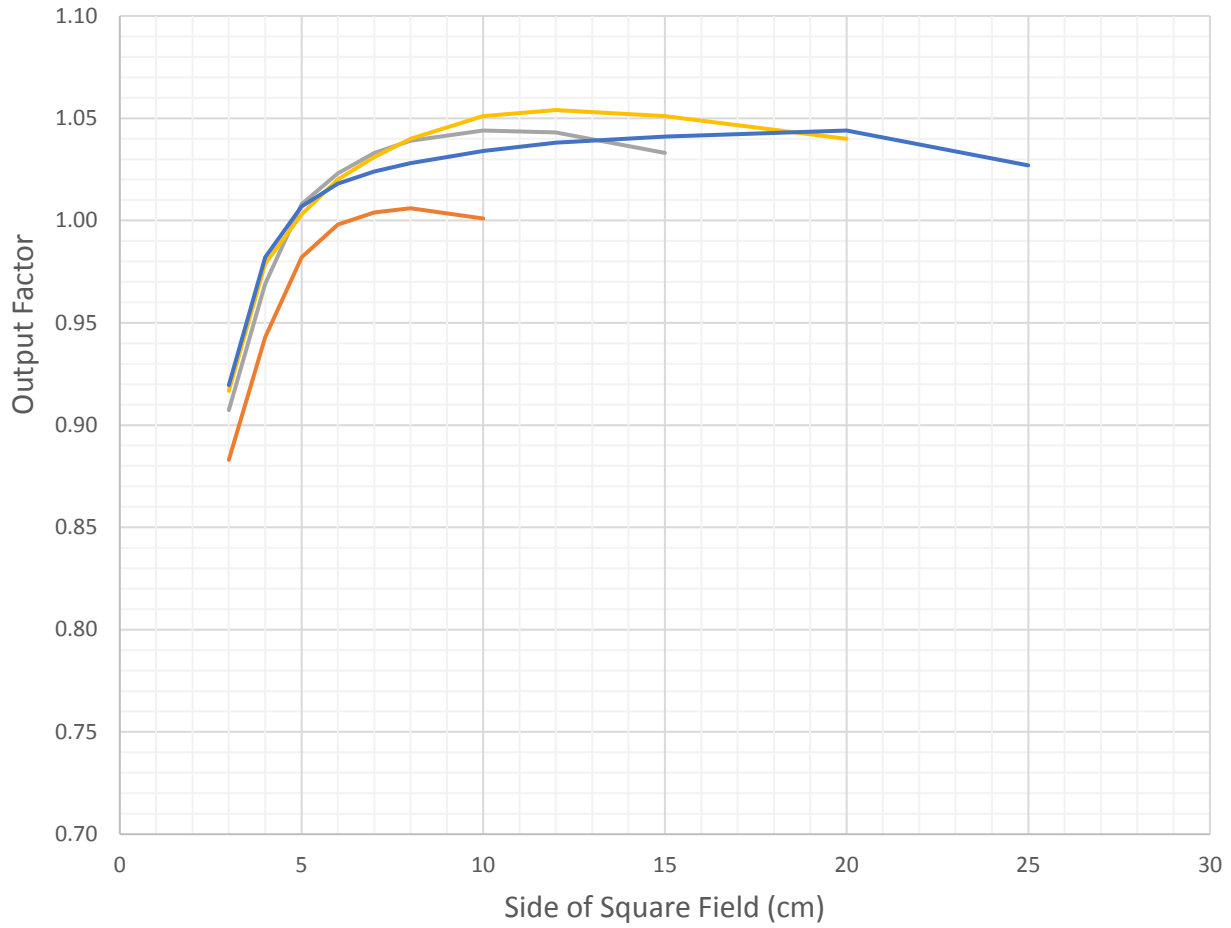
— 4

— 6

— 10

— 25

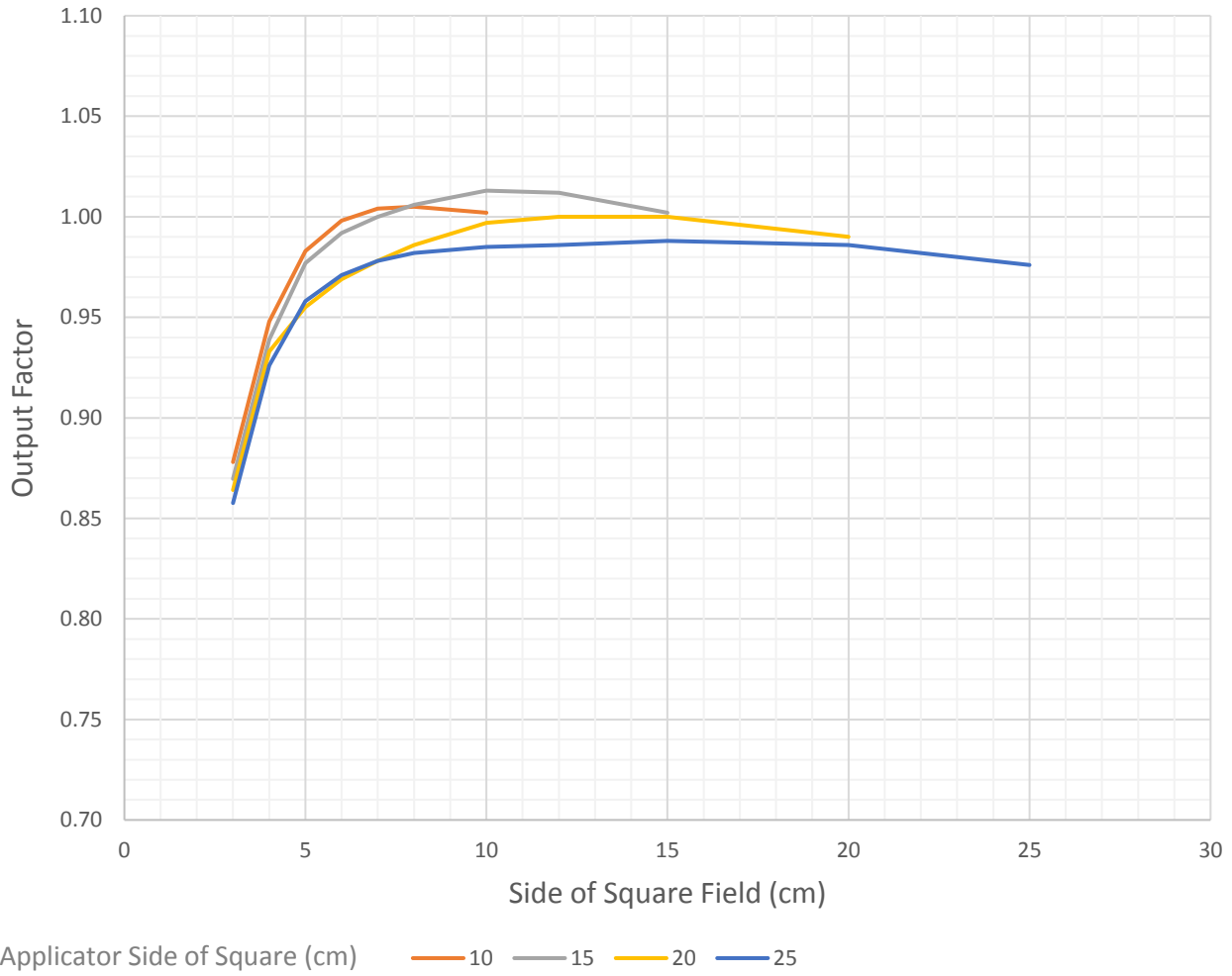
Siemens KD LINAC: 6 MeV Electrons Output Factor vs Side of Square 100 cm SSD



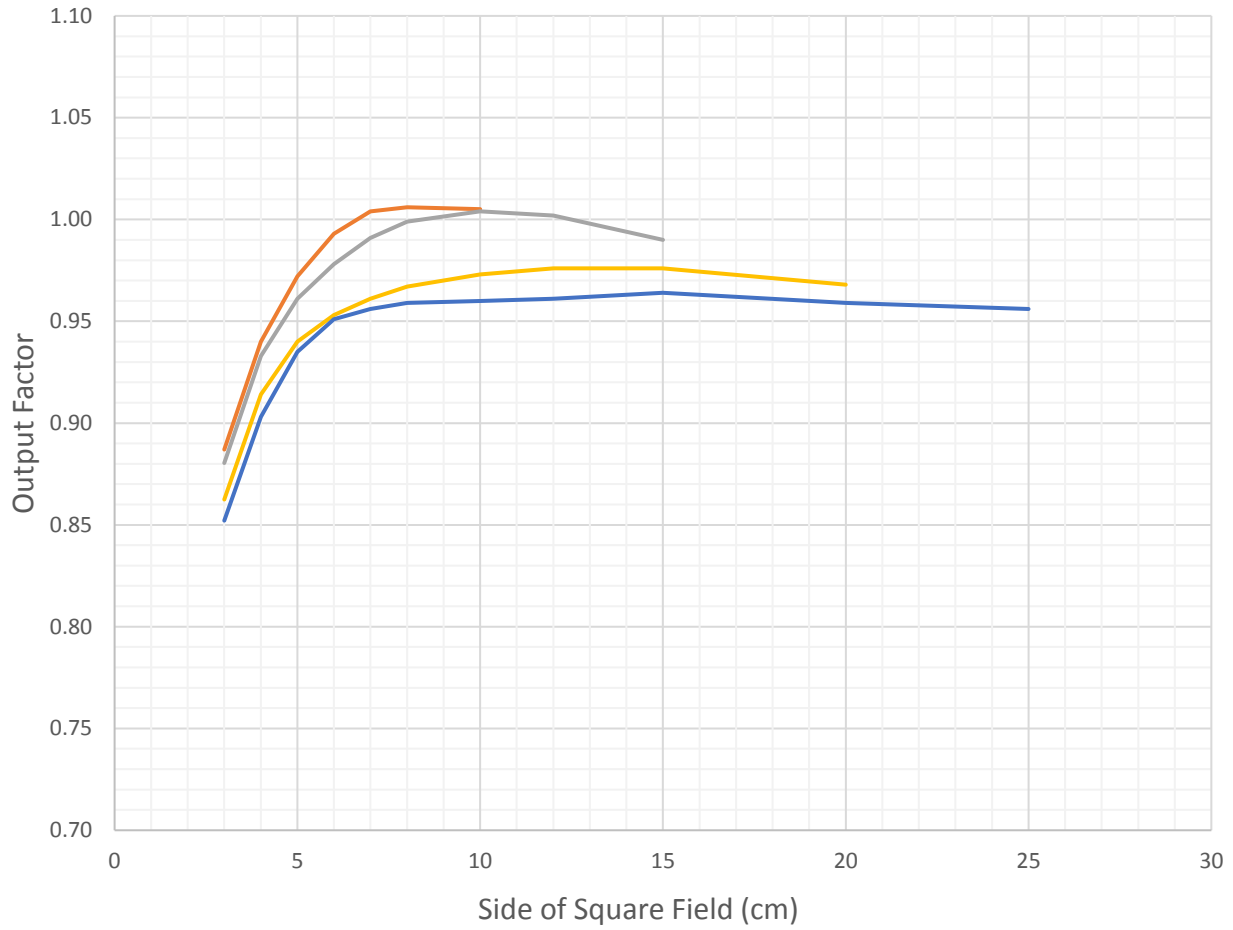
Applicator Side of Square (cm)

10 15 20 25

Siemens KD LINAC: 8 MeV Electrons
Output Factor vs Side of Square
100 cm SSD

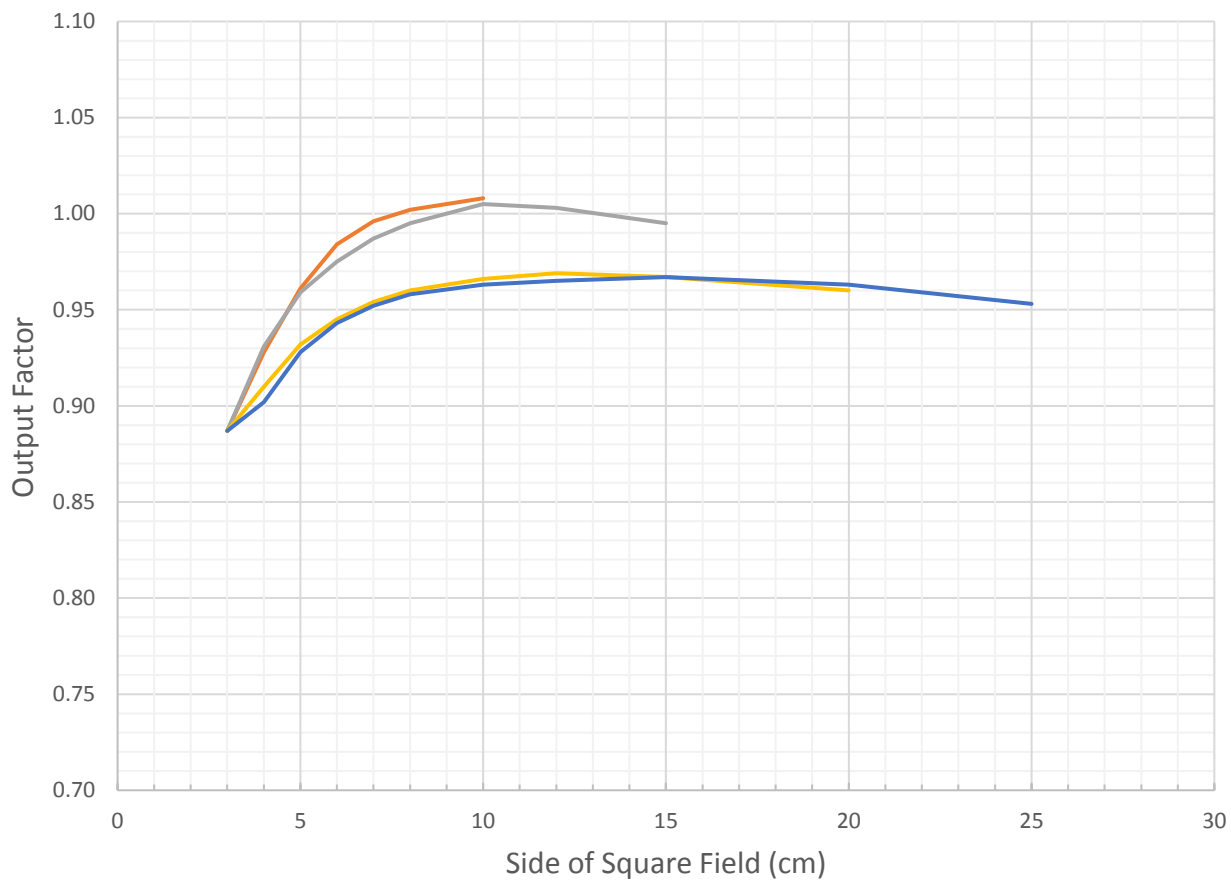


Siemens KD LINAC: 9 MeV Electrons
Output Factor vs Side of Square
100 cm SSD



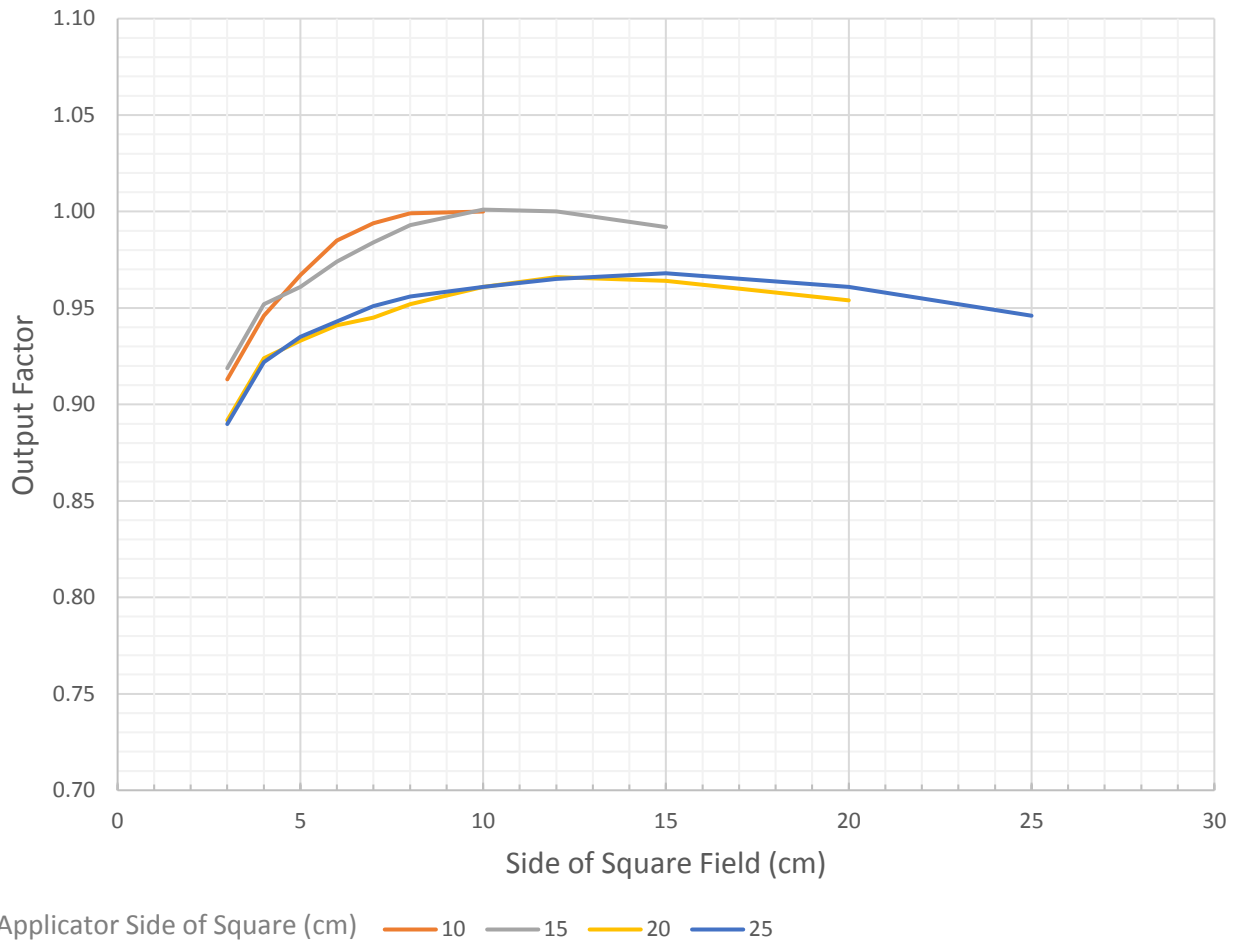
Applicator Side of Square (cm) — 10 — 15 — 20 — 25

Siemens KD LINAC: 12 MeV Electrons
Output Factor vs Side of Square
100 cm SSD



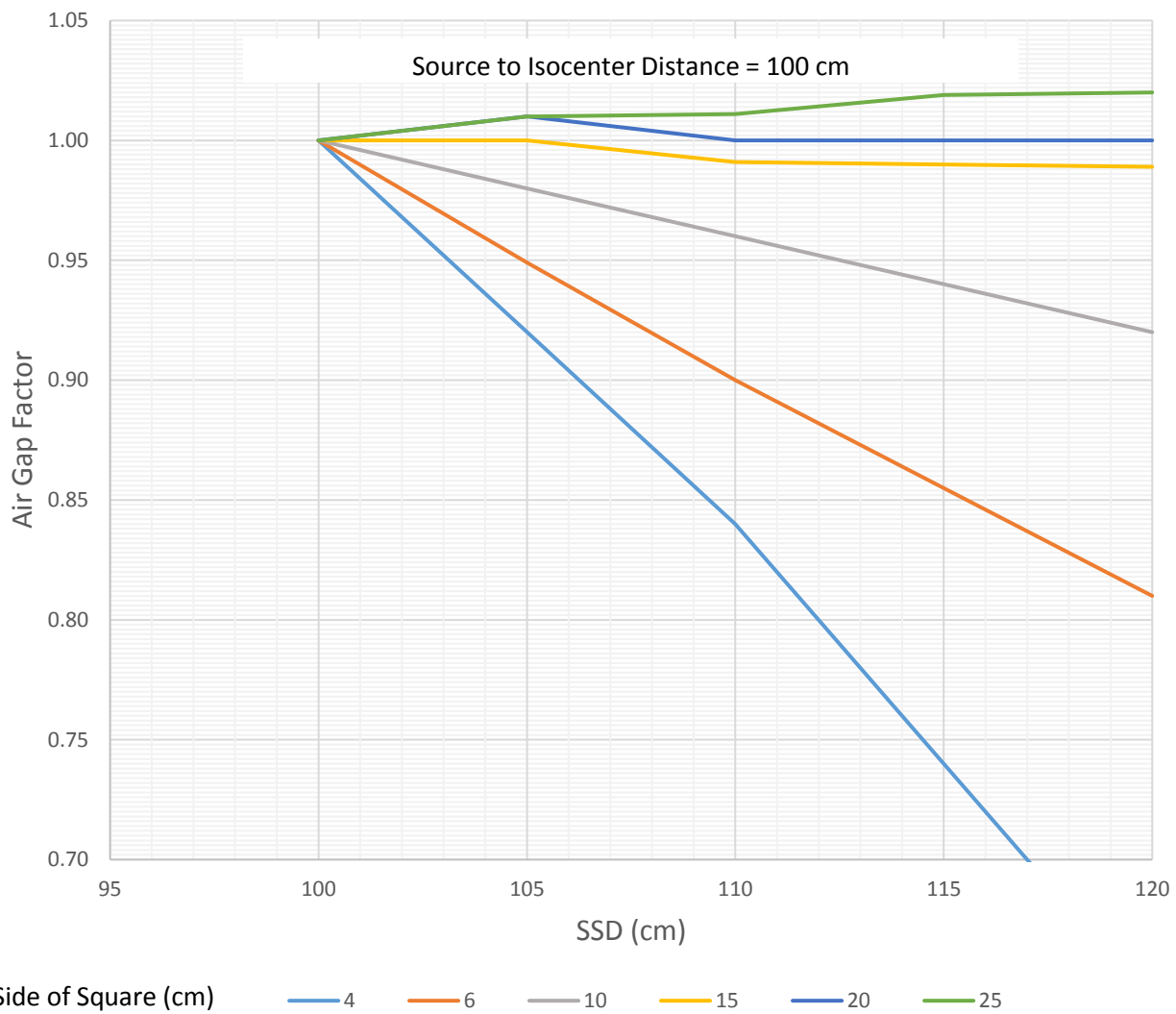
Applicator Side of Square (cm) — 10 — 15 — 20 — 25

Siemens KD LINAC: 15 MeV Electrons
Output Factor vs Side of Square
100 cm SSD

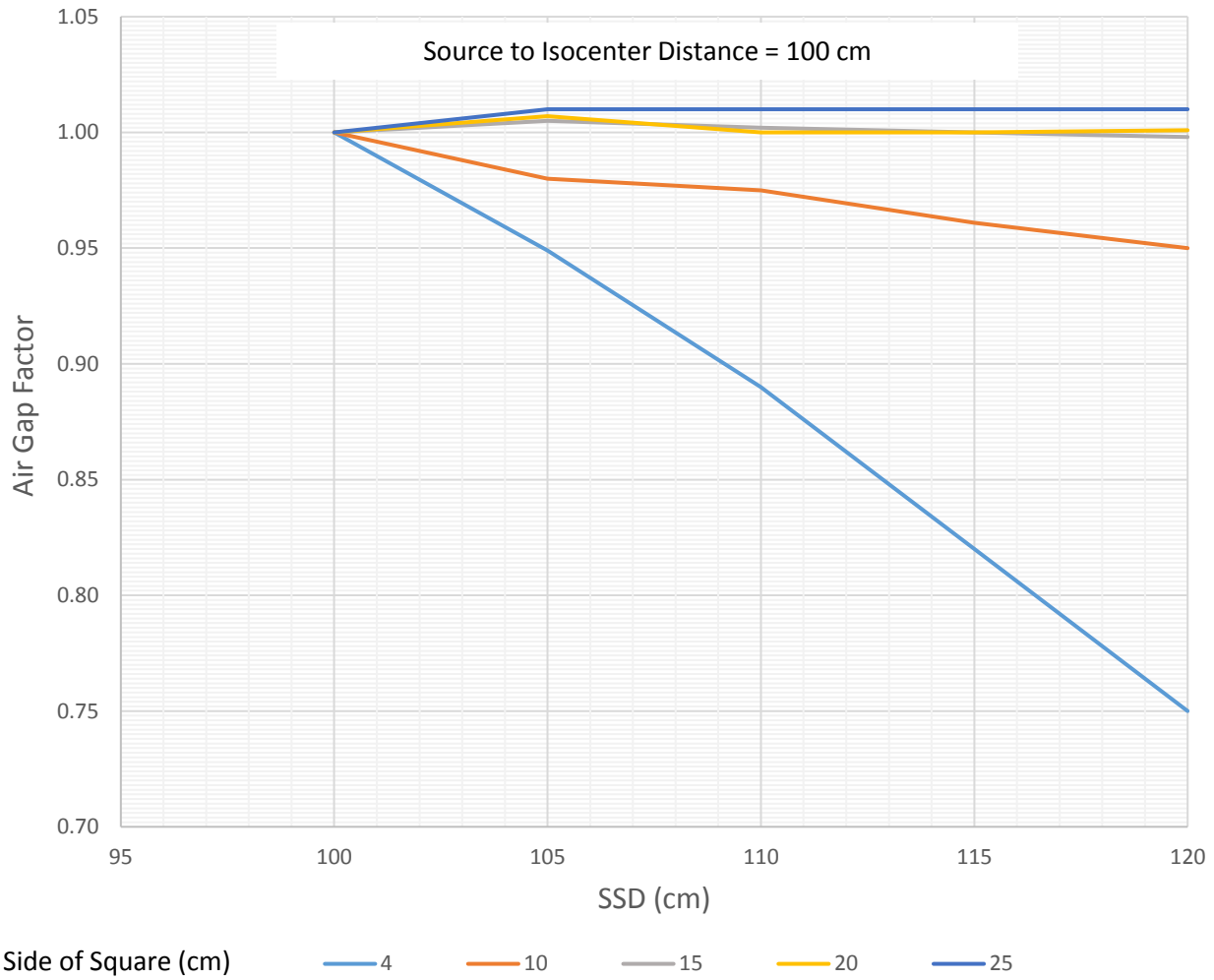


Electron Beam Parameters for Siemens KD LINAC						
Nominal SSD: 100 cm						
Field Size: 10X10 cm ²						
Nominal Energy (MeV)	6	8	9	12	15	20
E _{p,o} (MeV)*	5.9	7.4	8.9	11.3	14.4	20.2
\bar{E}_0 (MeV)**	5.2	6.7	8.3	10.8	13.9	19.2
Surface Dose (%)	72.0	75.0	78.0	82.0	87.0	89.0
Depth to Proximal 90% (cm)						
Depth to 100% (cm)	1.2	1.6	2.0	2.4	2.6	1.2
Depth to Distal 90% (cm)	1.6	2.2	2.7	3.5	4.5	5.5
Depth to 80% (cm)	1.9	2.4	2.9	3.9	5.0	6.5
Depth to 50% (cm)	2.2	2.8	3.5	4.5	5.8	8.0
Depth to 20% (cm)	2.5	3.3	3.9	5.2	6.6	9.3
Depth to 10% (cm)	2.7	3.5	4.2	5.6	7.1	10.3
Range R _p (cm)	2.8	3.6	4.3	5.6	7.1	10.1
X-ray Dose (%) (R _p +2 cm)	<1	1.0	1.5	2.0	2.5	6.5
σ_{θ_e} radians)	0.069	0.055	0.050	0.038	0.032	0.024
L _{o,eff} (cm)	7					
*E _{p,o} (MeV) = 0.22 + 1.98 * R _p (cm) + 0.0025 R _p ² (cm)						
** \bar{E}_0 (MeV) = 2.4 * R ₅₀ (cm)						

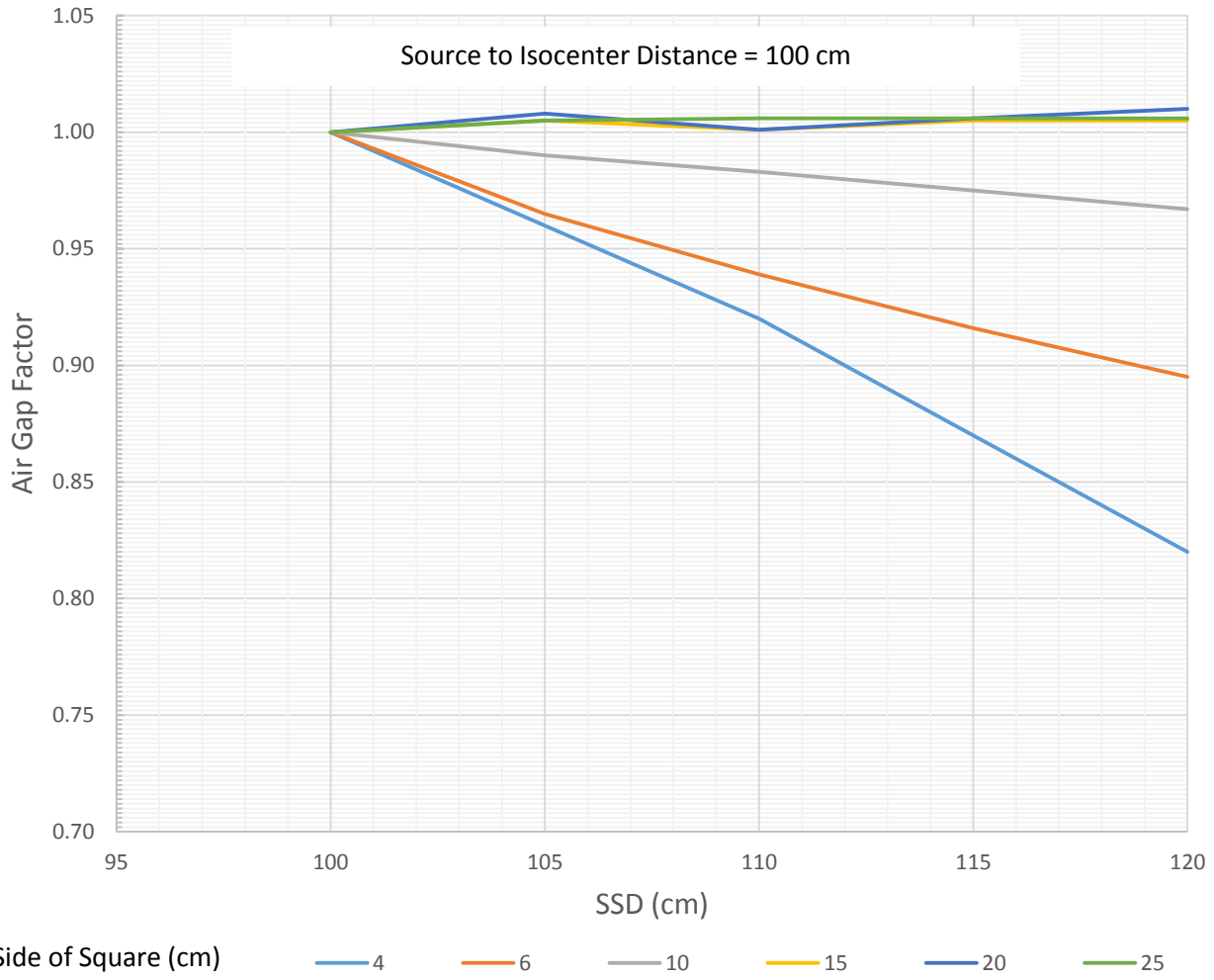
Siemens KD LINAC: 6 MeV Electrons Air Gap Factor vs Field Size & SSD



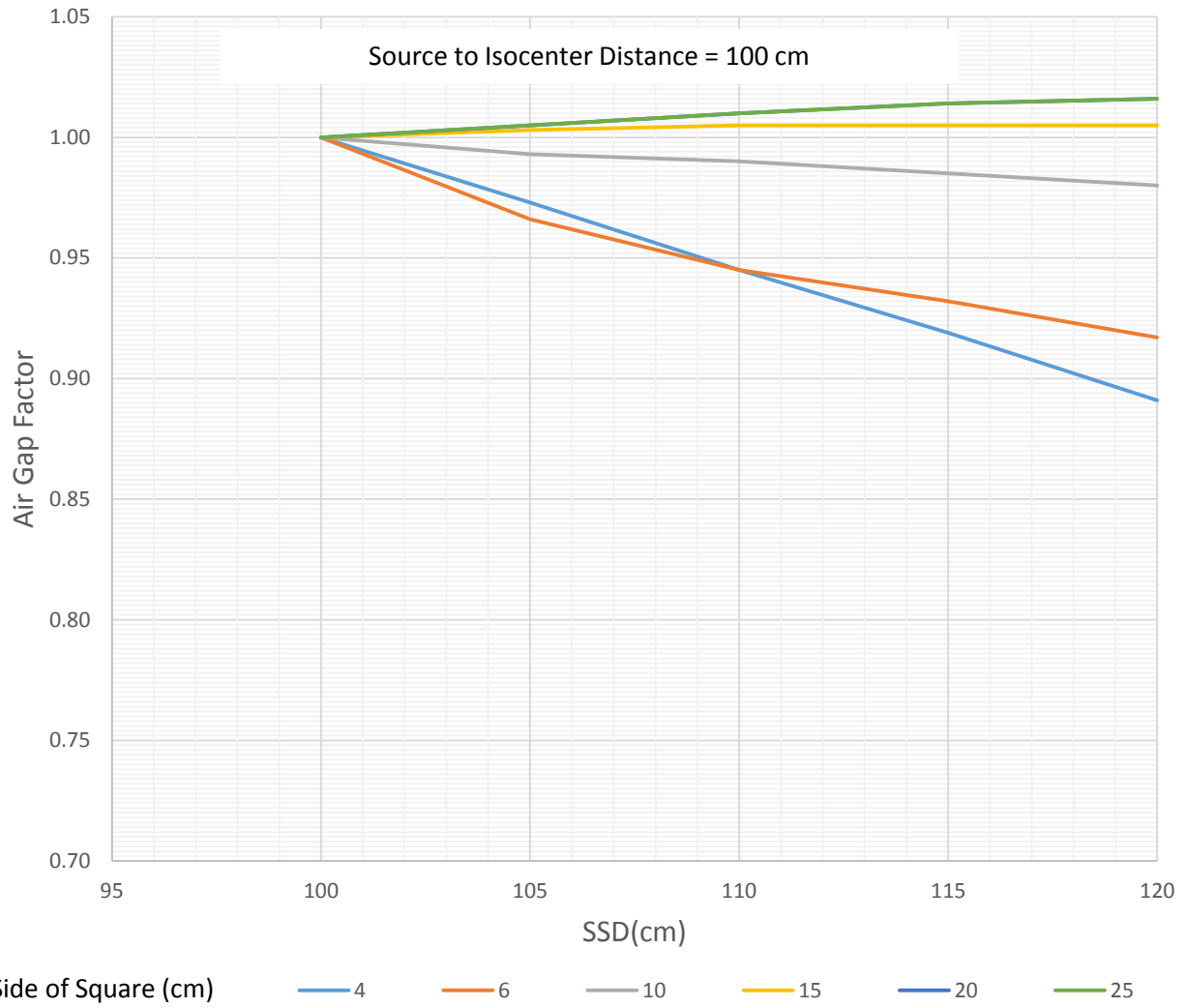
Siemens KD LINAC: 8 MeV Electrons Air Gap Factor vs Field Size & SSD



Siemens KD LINAC: 9 MeV Electrons Air Gap Factor vs Field Size & SSD

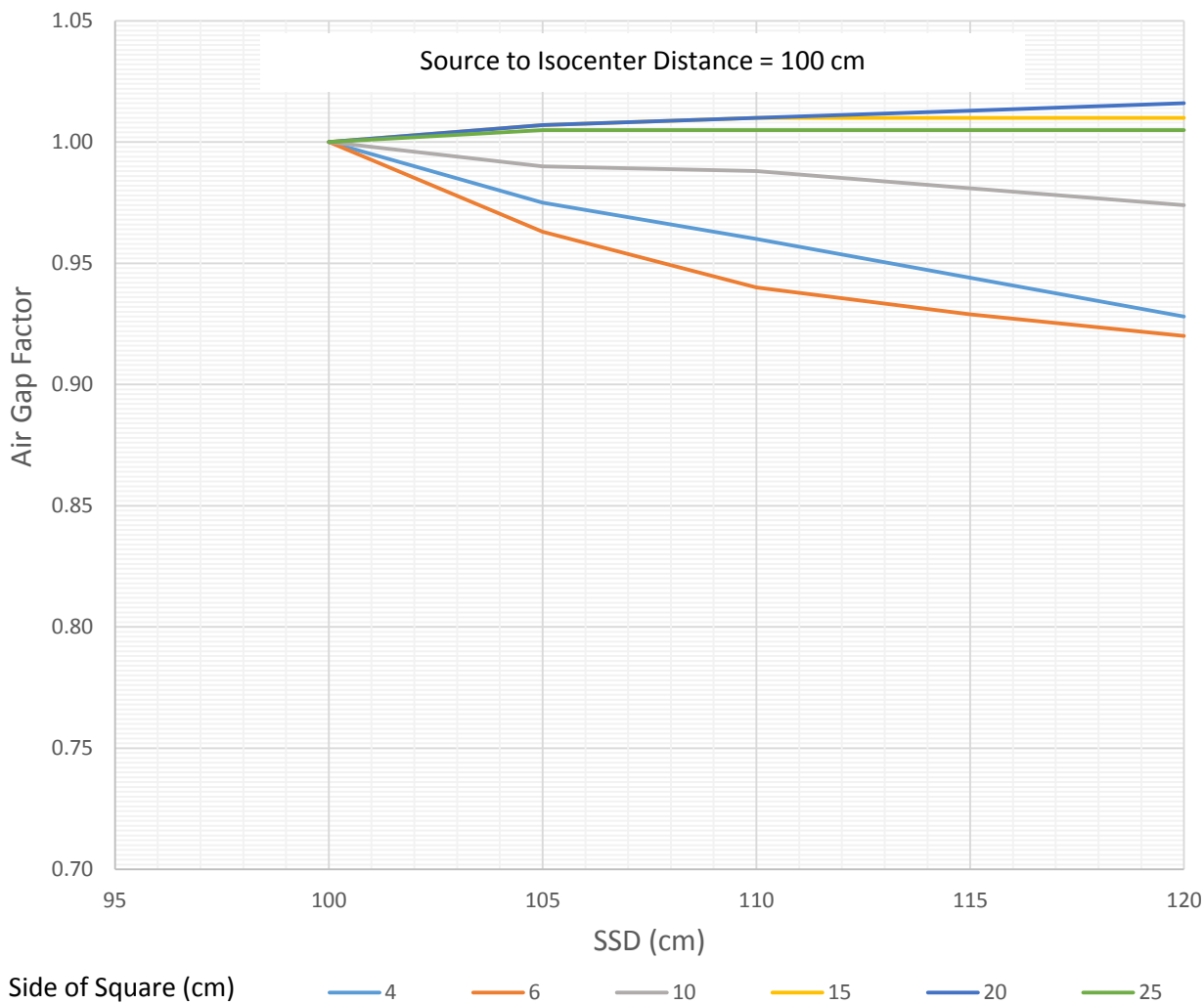


Siemens KD LINAC: 12 MeV Electrons Air Gap Factor vs Field Size & SSD



Siemens KD LINAC: 15 MeV Electrons

Air Gap Factor vs Field Size & SSD



Siemens KD LINAC: 20 MeV Electrons Air Gap Factor vs Field Size & SSD

