

The Math

- A = Average Weapon Damage
 B = Dexterity Bonus
 C = Critical Chance/Critical Damage Bonus
 D = Elite Damage Bonus
 E = Elemental Damage Bonus + Enforcer Pet Damage Bonus* (*Does not apply to Spitfire Rockets)
 F = Sentry Damage Bonus
 G = Steady Aim + Archery(Bow) + MfD Active Skill + Wolf + Skill Bonus (ie. CA, MS, EA or Imp)
 + Hexing Pants + Charmed + BotP + Strongarms + Harrington's + WD and Monk Buffs/Debuffs
 + Calamity MfD
 H = Cull the Weak
 I = Bane of the Trapped

Total Damage = A x B x C x D x E x F x G x H x I

Damage per Spender is calculated based on Table 1.

Spender rotation is calculated based on Tables 2 through 4.

Meticulous Bolts and Monster Size damage calculated based on Table 5.

Cluster Arrow	Maelstrom	550% + 450%*	Cap is 5, *gets affected by Ballistics
	Loaded for Bear	770% + 4 x 220%**	**gets affected by Grenadier
	Dazzling Arrow	550% + 4 x 220%**	**gets affected by Grenadier
	Shooting Stars	550% + 600%*	Cap is 3, *gets affected by Ballistics
Multishot	Burst Fire	360% + 200%	
	Arsenal	360% + 300%*	Cap is 3, *gets affected by Ballistics
	Fire at Will	360%	
	Full Broadside	460%	
Elemental Arrow	Frost Arrow	330%	Cap is 11
	Immolation Arrow	330% + 315%	
	Lightning Bolts	300%	
	Ball Lightning	300%	
Impale	Overpenetration	750%	
	Chemical Burn	750% + 500%	
	Ricochet	750%	Cap is 3
	Grievous Wounds	750%	+ 330% CD
Sentry	Spitfire Turret	280% + 120%*	*gets affected by Ballistics
	Polar Sentry	280%	
<div> ■ per Cast ■ per Cast and per AoE target ■ per Cast and per Target ■ per Cast and per Target, capped ■ per Bolt </div>			

Table 1 – Skill Damages

BP	No. of Bolts	30 seconds data with 1 spender							
		CA		MS		Imp		Chak	EA
		CA	Bolts	MS	Bolts	Imp	Bolts	Chak	EA
1	37	13	24	19	18	19	18	37	37
2	42	11	31	21	21	21	21	42	42
3	49	13	36	25	24	25	24	49	49
4	60	12	48	30	30	30	30	60	60
5	74	13	61	25	49	25	49	74	74
6	97	14	83	33	64	33	64	97	97
7	150	14	136	38	112	38	112	150	150

Table 2 – 1 Spender rotation

BP	No. of Bolts	30 seconds data with 2 spenders																							
		CA+MS			CA+Imp			CA+Chak		CA+EA		MS+Imp			MS+Chak		MS+EA		Imp+Chak		Imp+EA		Chak+EA		
		CA	MS	Bolts	CA	Imp	Bolts	CA	Chak	CA	EA	MS	Imp	Bolts	MS	Chak	MS	EA	Imp	Chak	Imp	EA	Chak	EA	
1	37	13	12	12	13	12	12	13	24	13	24	19	18	0	19	18	19	18	19	18	19	18	19	18	
2	42	11	21	10	11	21	10	11	31	11	31	21	21	0	21	21	21	21	21	21	21	21	21	21	
3	49	13	24	12	13	24	12	13	36	13	36	25	24	0	25	24	25	24	25	24	25	24	25	24	
4	60	12	24	24	12	24	24	12	48	12	48	30	30	0	30	30	30	30	30	30	30	30	30	30	
5	74	13	24	37	13	24	37	13	61	13	61	25	25	24	25	49	25	49	25	49	25	49	37	37	
6	97	14	29	54	14	29	54	14	83	14	83	33	32	32	33	64	33	64	33	64	33	64	49	48	
7	150	14	36	100	14	36	100	14	136	14	136	38	38	74	38	112	38	112	38	112	38	112	75	75	

Table 3 – 2 Spender rotation

BP	No. of Bolts	30 seconds data with 3 spenders																																							
		CA+MS+Imp				CA+MS+Chak				CA+MS+EA				CA+Imp+Chak				CA+Imp+EA				CA+Chak+EA				MS+Imp+Chak				MS+Imp+EA				MS+Chak+EA				Imp+Chak+EA			
		CA	MS	Imp	Bolts	CA	MS	Chak	EA	CA	MS	EA	CA	Imp	Chak	CA	Imp	EA	CA	Chak	EA	MS	Imp	Chak	MS	Imp	EA	MS	Chak	EA	Imp	Chak	EA								
1	37	13	12	12	0	13	12	12	13	12	12	13	12	12	13	12	12	13	12	12	13	12	12	19	18	0	19	18	0	19	9	9	19	9	9						
2	42	11	21	10	0	11	21	10	11	21	10	11	21	10	11	21	10	11	16	15	21	21	0	21	21	0	21	11	10	21	11	10	21	11	10						
3	49	13	24	12	0	13	24	12	13	24	12	13	24	12	13	24	12	13	18	18	25	24	0	25	24	0	25	12	12	25	12	12	25	12	12						
4	60	12	24	24	0	12	24	24	12	24	24	12	24	24	12	24	24	12	24	24	30	30	0	30	30	0	30	15	15	30	15	15	30	15	15						
5	74	13	24	24	13	13	24	37	13	24	37	13	24	37	13	24	37	13	31	30	25	25	24	25	25	24	25	25	24	25	25	24	25	25	24						
6	97	13	31	31	22	14	29	54	14	29	54	14	29	54	14	29	54	13	42	42	33	32	32	33	32	32	33	32	32	33	32	32	33	32	32						
7	150	14	33	33	70	14	36	100	14	36	100	14	36	100	14	36	100	14	68	68	38	38	74	38	38	74	38	56	56	38	56	56	38	56	56						

Table 4 – 3 Spender rotation

hits	travel speed	ratio	WD/shot	hits	travel speed	ratio	WD/shot	hits	travel speed	ratio	WD/shot
2,0	100	1	300%	3,0	100	1	450%	4,0	100	1	600%
5,0	40	2,5	750%	7,5	40	2,5	1125%	10,0	40	2,5	1500%
5,1	39	2,6	769%	7,7	39	2,6	1154%	10,3	39	2,6	1538%
5,3	38	2,6	789%	7,9	38	2,6	1184%	10,5	38	2,6	1579%
5,4	37	2,7	811%	8,1	37	2,7	1216%	10,8	37	2,7	1622%
5,6	36	2,8	833%	8,3	36	2,8	1250%	11,1	36	2,8	1667%
5,7	35	2,9	857%	8,6	35	2,9	1286%	11,4	35	2,9	1714%
5,9	34	2,9	882%	8,8	34	2,9	1324%	11,8	34	2,9	1765%
6,1	33	3,0	909%	9,1	33	3,0	1364%	12,1	33	3,0	1818%
6,3	32	3,1	938%	9,4	32	3,1	1406%	12,5	32	3,1	1875%
6,5	31	3,2	968%	9,7	31	3,2	1452%	12,9	31	3,2	1935%
6,7	30	3,3	1000%	10,0	30	3,3	1500%	13,3	30	3,3	2000%

Table 5 – Meticulous Bolts effect on Ball Lightning