

In Mike O'Connor's presentation on Thursday, June 7 he pointed out that you had to compensate in your exposure for extension tubes if you are not using a thru the lens meter. The amount of compensation depends on the length of the lens you are using the extension tubes with. This table will give you an idea of the compensation needed. Print it out on a card and laminate it as a handy reference to keep in your gadget bag. The chart is based on a normal generic extension tube set having a 12mm, 20mm and 36mm tube. The lower "Lens At" number is the normal minimum focusing distance of a lens that does not have a close focusing feature. As you can see, the longer the lens you use the tubes with, the less compensation required.

EXTENSION TUBE DATA

TUBE LENGTH	50mm LENS				100mm LENS				200mm LENS			
	LENS AT	IMAGE SIZE	EXPOSURE FACTOR	f/STOP FACTOR	LENS AT	IMAGE SIZE	EXPOSURE FACTOR	f/STOP FACTOR	LENS AT	IMAGE SIZE	EXPOSURE FACTOR	f/STOP FACTOR
12mm	∞	.24x	$\frac{2}{3}$	1.24	∞	.12x	$\frac{1}{3}$	1.12	∞	.06x	-	1.06
	19½"	.34x	1	1.34	3¼"	.22x	$\frac{1}{2}$	1.22	6½"	.16x	$\frac{1}{3}$	1.16
20mm	∞	.40x	1	1.40	∞	.20x	$\frac{1}{2}$	1.20	∞	.10x	-	1.10
	19½"	.50x	$1\frac{1}{3}$	1.50	3¼"	.30x	$\frac{2}{3}$	1.30	6½"	.20x	$\frac{1}{2}$	1.20
32mm	∞	.64x	$1\frac{1}{2}$	1.64	∞	.32x	$\frac{2}{3}$	1.32	∞	.16x	$\frac{1}{3}$	1.16
	19½"	.74x	$1\frac{2}{3}$	1.74	3¼"	.42x	1	1.42	6½"	.26x	$\frac{2}{3}$	1.26
36mm	∞	.72x	$1\frac{2}{3}$	1.72	∞	.36x	1	1.36	∞	.18x	$\frac{1}{2}$	1.18
	19½"	.82x	$1\frac{2}{3}$	1.82	3¼"	.46x	1	1.46	6½"	.28x	$\frac{2}{3}$	1.28
48mm	∞	.96x	2	1.96	∞	.48x	1	1.48	∞	.24x	$\frac{2}{3}$	1.24
	19½"	1.06x	2	2.06	3¼"	.58x	$1\frac{1}{3}$	1.58	6½"	.34x	1	1.34
56mm	∞	1.12x	2	2.12	∞	.56x	$1\frac{1}{3}$	1.56	∞	.28x	$\frac{2}{3}$	1.28
	19½"	1.22x	$2\frac{1}{3}$	2.22	3¼"	.66x	$1\frac{1}{2}$	1.66	6½"	.38x	1	1.38
68mm	∞	1.36x	$2\frac{1}{2}$	2.36	∞	.68x	$1\frac{1}{2}$	1.68	∞	.34x	1	1.34
	19½"	1.46x	$2\frac{1}{2}$	2.46	3¼"	.78x	$1\frac{2}{3}$	1.78	6½"	.44x	1	1.44
Exposure factor is the additional stops exposure required due to extending the lens. Multiply f/stop marked on the lens by the f/stop factor to get true aperture when using flash.												

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