

• Units in mm unless noted, • Full-frame sensor assumed	Scale Factor		Focal length [mm]	Effective f-number, EV		Field Width	Field Height	Free Working Distance* [cm]	DoF @ f/11 COC 20 μm	Distance OO ^{1**} [m]	Chief Ray Angle ° object / image	Entrance Pupil
	Milvus 50mm f/2M	0.500	1: 2	53.4	3.2	-1.37	72	48	10	2.1	0.24	16 / 13.2
Milvus 100mm f/2	0.500	1: 2	106.8	3.6	-1.73	72	48	25	2.3	0.44	7.7 / 7.6	-117.4
Milvus 50mm f/2M	0.400	1: 2.5	53.0	3.0	-1.15	90	60	12	3.3	0.26	17 / 14.3	-79.6
Milvus 100mm f/2	0.400	1: 2.5	105.0	3.3	-1.47	90	60	30	3.7	0.47	8.4 / 8.4	-106.6
Milvus 50mm f/2M	0.333	1: 3	52.7	2.8	-1.00	108	72	15	4.8	0.28	17.8 / 15.1	-75.4
Milvus 100mm f/2	0.333	1: 3	103.7	3.1	-1.28	108	72	35	5.3	0.52	8.8 / 9	-99.5
Milvus 50mm f/2M	0.250	1: 4	52.4	2.6	-0.79	144	96	20	8.4	0.32	18.8 / 16.2	-70.3
Milvus 100mm f/2	0.250	1: 4	102.2	2.8	-1.02	144	96	45	9.1	0.61	9.5 / 9.9	-90.8
Milvus 50mm f/2M	0.200	1: 5	52.2	2.5	-0.66	180	120	25	13	0.37	19.5 / 17	-67.2
Milvus 100mm f/2	0.200	1: 5	101.3	2.7	-0.85	180	120	54	14	0.70	10 / 10.5	-85.6
Milvus 50mm f/2M	0.167	1: 6	52.1	2.4	-0.57	216	144	30	18	0.42	20 / 17.5	-65.2
Milvus 100mm f/2	0.167	1: 6	100.6	2.6	-0.74	216	144	64	19	0.79	10.3 / 11	-82.2
Milvus 50mm f/2M	0.125	1: 8	51.9	2.3	-0.46	288	192	41	31	0.52	20.6 / 18.1	-62.8
Milvus 100mm f/2	0.125	1: 8	99.9	2.4	-0.59	288	192	84	33	0.98	10.8 / 11.6	-77.9
Milvus 50mm f/2M	0.100	1: 10	51.9	2.3	-0.38	360	240	51	48	0.63	21 / 18.6	-61.3
Milvus 100mm f/2	0.100	1: 10	99.4	2.4	-0.49	360	240	103	50	1.18	11.1 / 12	-75.4
Milvus 50mm f/2M	0.067	1: 15	51.8	2.2	-0.28	540	360	77	105	0.88	21.5 / 19.1	-59.4
Milvus 100mm f/2	0.067	1: 15	98.8	2.3	-0.36	540	360	152	107	1.66	11.5 / 12.5	-72.0
Milvus 50mm f/2M	0.050	1: 20	51.7	2.2	-0.23	720	480	102	184	1.14	21.8 / 19.4	-58.5
Milvus 100mm f/2	0.050	1: 20	98.5	2.2	-0.29	720	480	201	186	2.15	11.8 / 12.8	-70.4
Milvus 50mm f/2M	0.033	1: 30	51.7	2.1	-0.18	1080	720	154	409	1.65	22.1 / 19.7	-57.5
Milvus 100mm f/2	0.033	1: 30	98.2	2.2	-0.22	1080	720	298	409	3.12	12 / 13.2	-68.7
Milvus 50mm f/2M	0.020	1: 50	51.7	2.1	-0.14	1800	1200	257	1154	2.69	22.4 / 19.9	-56.8
Milvus 100mm f/2	0.020	1: 50	97.9	2.1	-0.16	1800	1200	493	1123	5.07	12.2 / 13.4	-67.3
Milvus 50mm f/2M	0.010	1: 100	51.6	2.1	-0.11	3600	2400	515	5287	5.27	22.6 / 20.1	-56.2
Milvus 100mm f/2	0.010	1: 100	97.7	2.1	-0.12	3600	2400	981	4590	9.95	12.4 / 13.6	-66.3

* Free working distance without lens shade

** Object plane to image plane

Data courtesy of Carl Zeiss, table ©2016 DIGLLOYD INC