

Comparison between 4 different types of CCD for the new project in Tenerife

With 35mm f/1.4

CCD	Diameter cm	F ratio	Price	Q.E.	# of CCD	K X K		Pixel in micron	Pixel in arcsec	FOV deg	Duty	sky mag	star mag	distance (pc)	# of stars 10 ³	Planets/ month
AP47P	2.5	1.4	\$12,990	70%	2	1	1	13.3	78.4	126.2	0.088	6.13	9.89	107	9.2	3.2
AP8p	2.5	1.4	\$13,295	70%	1	1	1	24.0	141.5	161.0	0.112	4.85	9.25	80	6	2.2
AP10*	2.5	1.4	\$13,795	30%	1	2	2	14.0	82.5	187.8	0.130	6.024	9.37	84	10	3.48
AP9E	2.5	1.4	\$16,800	50%	1	3	2	9.0	53.1	147.9	0.103	6.98	10.1	118	17.2	6

With 50mm f/1.2

CCD	Diameter cm	F ratio	Price	Q.E.	# of CCD	K X K		Pixel in micron	Pixel in arcsec	FOV deg	Duty	sky mag	star mag	distance (pc)	# of stars 10 ³	Planets/ month
AP47P	4.16	1.2	\$12,990	70%	2	1	1	13.3	55.0	88.5	0.061	6.9	10.83	162	16	5.56
AP8p	4.16	1.2	\$13,295	70%	1	1	1	24.0	99.2	112.9	0.078	5.62	10.19	122	10.8	3.88
AP10*	4.16	1.2	\$13,795	30%	1	2	2	14.0	57.9	131.7	0.091	6.79	10.3	128	17.6	6
AP9E	4.16	1.2	\$16,800	50%	1	3	2	9.0	37.2	103.7	0.072	7.75	11.06	180	29.6	10.4

With 85mm f/1.4

CCD	Diameter cm	F ratio	Price	Q.E.	# of CCD	K X K		Pixel in micron	Pixel in arcsec	FOV deg	Duty	sky mag	star mag	distance (pc)	# of stars 10 ³	Planets/ month
AP47P	6.07	1.4	\$12,990	70%	2	1	1	13.3	32.3	52.0	0.036	8.05	11.8	249	20	7.04
AP8p	6.07	1.4	\$13,295	70%	1	1	1	24.0	58.3	66.3	0.046	6.76	11.17	188	14	4.96
AP10*	6.07	1.4	\$13,795	30%	1	2	2	14.0	34.0	77.4	0.054	7.93	11.28	198	22.4	7.84
AP9E	6.07	1.4	\$16,800	50%	1	3	2	9.0	21.9	60.9	0.042	8.9	12	276	37.2	13.08

For sanity check

CCD	Diameter cm	F ratio	Price	Q.E.	# of CCD	K X K		Pixel in micron	Pixel in arcsec	FOV deg	Duty	sky mag	star mag	distance (pc)	# of stars 10 ³	Planets/ month
Wasp0	6.4	2.8	\$13,795	30%	1	2	2	14.0	16.1	9.17	0.250	9.57	12.13	287.8	3.8	1.3
S. Wasp	11.1	1.8	?	80%	4	2	2	13.5	13.9	15.87	0.250	9.88	13.45	502	60.9	21.25