

CSSP 2025 Targets

Object / Name	Type	Constellation	Notes	Scope	Filter	Exposure
<b>Starclouds: (Widefield)</b>						
Summer Triangle / Sagittarius	S. Clouds			Pixel 8 Phone		?
<b>SeeStar S30 Widefield:</b>						
T Coronae Borealis	Star	Corona Borealis	recurring nova	S30	IR	10 second subs for 1 minute
False Comet	Stars/O.C.	Scorpius	EQ Mode and frame/mosaic	S30	IR	20 second subs for 15 minutes
M7	Open Cluster	Scorpius	EQ Mode and frame/mosaic	S30	IR	60 second subs for 1 hour
Rho Ophiuchi & Antares	DNeb/RN	Ophiuchus	EQ Mode and frame/mosaic	S30	IR	60 second subs for 1 hour
B72 (Snake Nebula)	D. Nebula	Ophiuchus	EQ Mode and frame/mosaic	S30	IR	60 second subs for 1 hour
M8	D. Nebula	Ophiuchus	EQ Mode and frame/mosaic	S30	IR	60 second subs for 1 hour
M11	Open Cluster	Scutum	EQ Mode and frame/mosaic	S30	IR	60 second subs for 1 hour
M16	Nebula	Serpens	EQ Mode and frame/mosaic	S30	NB	60 second subs for 1 hour
M17	Nebula	Sagittarius	EQ Mode and frame/mosaic	S30	NB	60 second subs for 1 hour
M23	Open Cluster	Sagittarius	EQ Mode and frame/mosaic	S30	IR	20 second subs for 15 minutes
Baades Window (NGC6522)	Nebula	Sagittarius	EQ Mode and frame/mosaic	S30	IR	60 second subs for 1 hour
M24 (Small Sag Starcloud)	S. Clouds	Sagittarius	EQ Mode and frame/mosaic	S30	IR	60 second subs for 1 hour
NGC7000 (N American neb)	Nebula	Cygnus	EQ Mode and frame/mosaic	S30	NB	60 second subs for 1 hour
Sadr & Butterfly Nebula	Nebula	Cygnus	EQ Mode and frame/mosaic	S30	NB	60 second subs for 1 hour
Coat Hanger (CR399)	Asterism	Vulpecula	EQ Mode and frame/mosaic	S30	IR	20 second subs for 15 minutes
<b>Specific Objects:</b>						
T Coronae Borealis	Star	C. Borealis	recurring nova	EVO50mm & 8" SCT	L-Pro	15 sec subs for 5 minutes
V404 Cygni RA: 20h 24m Dec: +33° 52'	Star	Cygnus	Black Hole - see Mar S&T p9	8" SCT	L-Pro	30 second subs for 5 or 15 minutes
Arp188 UGC10214	Galaxy	Draco	"Tadpole Galaxy"	8" SCT	L-Pro	3 or 5 min subs for 30 or 60 min
NGC5529	Galaxy	Bootes	see May '17 S&T p.57	8" SCT	L-Pro	3 or 5 min subs for 30 or 60 min
QSO 0957+561	Quasar	Ursa Major	"Twin Lensed" near NGC3079	8" SCT	L-Pro	3 min subs for 15 minutes
HE 1216+5032A/B	Quasar	Canes Venatici	"Twin Quasar" near NGC4157	8" SCT	L-Pro	3 min subs for 15 minutes
H 1413+117A/B/C/D	Quasar	Bootes	"Cloverleaf" near NGC5532	8" SCT	L-Pro	3 min subs for 15 minutes
<b>Wolf-Rayet Shells</b>		<a href="https://www.reinervogel.net/index_e.html">https://www.reinervogel.net/index_e.html</a>				also see PDF
WR102	Nebula	Sagittarius	Wolf-Rayet Shell	8" SCT	L-eNhance	3 or 5 min subs for 30 or 60 min
WR128	Nebula	Sagitta	Wolf-Rayet Shell	8" SCT	L-eNhance	3 or 5 min subs for 30 or 60 min
WR134	Nebula	Cygnus	Wolf-Rayet Shell	8" SCT	L-eNhance	3 or 5 min subs for 30 or 60 min
Kepler's SuperN Remnant (SN1604)	SNR	Ophiuchus	Supernova Remnant	8" SCT	L-eNhance	3/5 min subs for 30/60 m ROI=2072x1410
Cassiopeia-A	SNR	Cassiopeia	Supernova Remnant	8" SCT	L-eNhance	3/5 min subs for 30/60 m ROI=2072x1410
M1-92 "Minkowski's Footprint"	P. Nebula	Cygnus	Jun '21 S&T p.57 / Jul '18 p.59	8" SCT	L-eNhance	3/5 min subs for 30/60 m ROI=2072x1410
M2-9 "Butterfly"	P. Nebula	Ophiuchus	see Jun '21 S&T p.59	8" SCT	L-eNhance	3/5 min subs for 30/60 m ROI=2072x1410
CRL2688 "Egg Nebula"	P. Nebula	Cygnus	see Jun '21 S&T p.59	8" SCT	L-eNhance	3/5 min subs for 30/60 m ROI=2072x1410
NGC6302 "Southern Butterfly Neb"	P. Nebula	Sorpius	see Jun '21 S&T p.32	8" SCT	L-eNhance	3/5 min subs for 30/60 m ROI=2072x1410
NGC6337 "Cheerio Nebula"	P. Nebula	Sorpius	see Jun '21 S&T p.32	8" SCT	L-eNhance	3/5 min subs for 30/60 m ROI=2072x1410
IC4954 & IC4955 / Roslund-5 cluster	R. Nebula	Vulpecula	see Jul '18 S&T p.58	8" SCT	L-eNhance	3/5 min subs for 30/60 m ROI=2072x1410
HH32 (Heebig-Haro proto-planetary)	P. Nebula	Aquila	see Jul '16 S&T p.35	8" SCT	L-eNhance	3/5 min subs for 30/60 m ROI=2072x1410
<b>Re-Observe Objects:</b>						
NGC5350, 5353, 5354, 5355, 5358	Galaxy	Canes Venatici	group	8" SCT	L-Pro	3 or 5 min subs for 30 or 60 min
NGC5371	Galaxy	Canes Venatici		8" SCT	L-Pro	3 or 5 min subs for 30 or 60 min
NGC5426 & NGC5427	Galaxy	Virgo		8" SCT	L-Pro	3 or 5 min subs for 30 or 60 min
NGC5560, 5566, 5569	Galaxy	Virgo	see Jun '25 S&T p.65	8" SCT	L-Pro	3 or 5 min subs for 30 or 60 min
NGC4567 & NGC4568	Galaxy	Virgo	"Butterfly" see Jun '25 S&T p.67	8" SCT	L-Pro	3 or 5 min subs for 30 or 60 min
NGC5846 & NGC5850	Galaxy	Virgo	see Jun '25 S&T p.66	8" SCT	L-Pro	3 or 5 min subs for 30 or 60 min
M91	Galaxy	Virgo		8" SCT	L-Pro	3 or 5 min subs for 30 or 60 min
M85 & NGC4394	Galaxy	Coma Berenices	see Jun '25 S&T p.66	8" SCT	L-Pro	3 or 5 min subs for 30 or 60 min
NGC4136	Galaxy	Coma Berenices		8" SCT	L-Pro	3 or 5 min subs for 30 or 60 min
NGC4147	Galaxy	Coma Berenices		8" SCT	L-Pro	3 or 5 min subs for 30 or 60 min
NGC4185	Galaxy	Coma Berenices		8" SCT	L-Pro	3 or 5 min subs for 30 or 60 min
NGC4189	Galaxy	Coma Berenices		8" SCT	L-Pro	3 or 5 min subs for 30 or 60 min
NGC4559	Galaxy	Coma Berenices		8" SCT	L-Pro	3 or 5 min subs for 30 or 60 min
NGC5239	Galaxy	Bootes		8" SCT	L-Pro	3 or 5 min subs for 30 or 60 min
NGC5248	Galaxy	Bootes	see Jun '25 S&T p.58	8" SCT	L-Pro	3 or 5 min subs for 30 or 60 min
NGC5416 (Arp178)	Galaxy	Bootes	see Jun '25 S&T p.59	8" SCT	L-Pro	3 or 5 min subs for 30 or 60 min
NGC5579	Galaxy	Bootes		8" SCT	L-Pro	3 or 5 min subs for 30 or 60 min
NGC5829 & IC4526	Galaxy	Bootes		8" SCT	L-Pro	3 or 5 min subs for 30 or 60 min
NGC5840 & NGC5841	Galaxy	Bootes		8" SCT	L-Pro	3 or 5 min subs for 30 or 60 min
NGC5874	Galaxy	Bootes		8" SCT	L-Pro	3 or 5 min subs for 30 or 60 min
NGC6038	Galaxy	Corona Borealis		8" SCT	L-Pro	3 or 5 min subs for 30 or 60 min
NGC6106	Galaxy	Hercules		8" SCT	L-Pro	3 or 5 min subs for 30 or 60 min
NGC6155	Galaxy	Hercules		8" SCT	L-Pro	3 or 5 min subs for 30 or 60 min
NGC6555	Galaxy	Hercules		8" SCT	L-Pro	3 or 5 min subs for 30 or 60 min
Abell2	P. Nebula	Cassiopeia		8" SCT	L-eNhance	3 or 5 min subs for 15 or 30 min
Abell39	P. Nebula	Hercules		8" SCT	L-eNhance	3 or 5 min subs for 15 or 30 min
Abell43	P. Nebula	Ophiuchus		8" SCT	L-eNhance	3 or 5 min subs for 15 or 30 min
Abell50	P. Nebula	Draco	NGC6742	8" SCT	L-eNhance	3 or 5 min subs for 15 or 30 min
Abell55	P. Nebula	Aquila		8" SCT	L-eNhance	3 or 5 min subs for 15 or 30 min
Abell70	P. Nebula	Aquila		8" SCT	L-eNhance	3 or 5 min subs for 15 or 30 min
Abell72	P. Nebula	Delphinus		8" SCT	L-eNhance	3 or 5 min subs for 15 or 30 min
Abell75	P. Nebula	Cepheus		8" SCT	L-eNhance	3 or 5 min subs for 15 or 30 min
Abell78	P. Nebula	Cygnus		8" SCT	L-eNhance	3 or 5 min subs for 15 or 30 min

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Abell79	P. Nebula	Lacerta		8" SCT	L-eNhance	3 or 5 min subs for 15 or 30 min
Abell81	P. Nebula	Cepheus		8" SCT	L-eNhance	3 or 5 min subs for 15 or 30 min
Abell81	P. Nebula	Cassiopeia		8" SCT	L-eNhance	3 or 5 min subs for 15 or 30 min
Abell81	P. Nebula	Cassiopeia		8" SCT	L-eNhance	3 or 5 min subs for 15 or 30 min
<b>Usual Suspects: (General Objects)</b>						
M101	Galaxy	Ursa Major	"Pinwheel Galaxy"	EVO50mm & 8" SCT	L-Pro	3 or 5 min subs for 30 or 60 min
M51	Galaxy	Canes Venatici	"Whirlpool Galaxy"	EVO50mm & 8" SCT	L-Pro	3 or 5 min subs for 30 or 60 min
M5	Glob Cluster	Serpens Caput	see May Sky&Tel p.55	EVO50mm & 8" SCT	L-Pro	30 second subs for 5 or 15 minutes
M13	Glob Cluster	Hercules	"Great Hercules Cluster"	EVO50mm & 8" SCT	L-Pro	30 second subs for 5 or 15 minutes
M22	Glob Cluster	Sagittarius		EVO50mm & 8" SCT	L-Pro	30 second subs for 5 or 15 minutes
M27	P. Nebula	Vulpecula	"Dumb-bell Nebula"	EVO50mm & 8" SCT	L-eNhance	3 or 5 min subs for 30 or 60 min
M57	P. Nebula	Lyra	"Ring Nebula"	EVO50mm & 8" SCT	L-eNhance	3 or 5 min subs for 30 or 60 min
<b>ORAS C14 Objects:</b>						
M51	Galaxy	Canes Venatici	"Whirlpool Galaxy"	C14	L-Pro	5 minute subs for 60 minutes
M101	Galaxy	Ursa Major	"Pinwheel Galaxy"	C14	L-Pro	5 minute subs for 60 minutes
NGC4527 & 4531	Galaxy	Canes Venatici	"Whale Galaxy"	C14	L-Pro	5 minute subs for 60 minutes
NGC4656 & 4657	Galaxy	Canes Venatici	"The Hockey Stick & Puck"	C14	L-Pro	5 minute subs for 60 minutes
NGC4676A&B	Galaxy	Coma Berenices	"The Mice"	C14	L-Pro	5 minute subs for 60 minutes
NGC5394/5395	Galaxy	Canes Venatici	"The Heron Galaxy"	C14	L-Pro	5 minute subs for 60 minutes
<b>Solar System Objects:</b>						
Comets	Comet		check "TheSkyLive"	8" SCT	L-Pro	see the TheSkyLive for charts
<b>Project Objects:</b>						
SH2 Nebula - Book	E. Nebula			EVO50mm & 8" SCT	L-eNhance	3 minute subs for 15 or 30 min ROI=4144
Barnard Dark Nebula - Book	D. Nebula			EVO50mm & 8" SCT	L-Pro	3 or 5 min subs for 30 or 60 min
Abell Galaxy Clusters - Book	Galaxy	Serp, Herc, Umi, Peg	p324,328, 360, 372-376, 416	8" SCT	L-Pro	3 minute subs for 30 min ROI=2072x1410
Palomar Galaxy Clusters - Book	Galaxy			8" SCT	L-Pro	3 minute subs for 15 min ROI=2072x1410
Arp Peculiar Galaxies - Book	Galaxy		chart B, M, N	8" SCT	L-Pro	3 minute subs for 30 min ROI=2072x1410
Shakhbazian Galaxy Clusters	Galaxy		see April Sky&Tel p.58	8" SCT	L-Pro	3 minute subs for 30 min ROI=2072x1410
<b>Experimental:</b>						
<b>Late Adds:</b>						

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