	MegaDepth												ScanNet											
Pipeline	Filtered	Time (s)	Precision	Recall	$\mathrm{AUC}^F_{@5}$	$\mathrm{AUC}^F_{@10}$	$\mathrm{AUC}^F_{@20}$	$\mathrm{AUC}^F_{\measuredangle}$	$\mathrm{AUC}^E_{@5}$	$\mathrm{AUC}^E_{@10}$	$\mathrm{AUC}^E_{@20}$	$\mathrm{AUC}^E_{\measuredangle}$	Filtered	Time (s)	Precision	Recall	$\mathrm{AUC}^F_{@5}$	$\mathrm{AUC}^F_{@10}$	$\mathrm{AUC}^F_{@20}$	$\mathrm{AUC}^F_{\measuredangle}$	$\mathrm{AUC}^E_{@5}$	$\mathrm{AUC}^E_{@10}$	$\mathrm{AUC}^E_{@20}$	$\mathrm{AUC}^E_{\measuredangle}$
SuperPoint+LightGlue	0.00	0.117	88.66	**99.87**	32.24	48.51	64.92	48.56	46.00	63.57	77.29	62.29	0.00	0.073	68.85	**94.17**	6.42	15.83	29.21	17.15	17.20	34.30	50.79	34.09
+MAGSAC$_\uparrow$	34.00	0.121	94.31	71.87	36.70	54.24	70.34	53.76	48.00	65.41	78.58	64.00	33.99	0.075	71.18	65.04	10.64	23.72	38.85	24.41	17.54	34.73	51.70	34.66
+MAGSAC$_\downarrow$	45.44	0.125	95.19	60.45	38.06	55.35	70.76	54.72	48.70	65.77	78.41	64.29	43.55	0.077	71.42	55.56	11.22	25.03	40.20	25.49	17.47	34.66	50.99	34.37
+ACNe	42.04	0.130	89.49	58.63	19.53	32.91	48.64	33.69	30.02	49.33	66.81	48.72	44.96	0.079	70.55	52.54	4.28	12.24	24.98	13.83	10.64	23.87	39.25	24.59
+MAGSAC$_\uparrow$	59.96	0.134	93.97	43.44	22.21	35.74	51.46	36.47	34.36	52.69	69.19	52.08	61.77	0.081	71.16	38.42	5.28	14.15	27.18	15.54	10.45	24.15	39.78	24.79
+MAGSAC$_\downarrow$	66.74	0.137	94.74	36.66	21.74	35.78	51.36	36.30	36.04	54.78	70.96	53.93	66.72	0.082	71.15	33.24	5.66	14.50	27.19	15.78	10.96	24.17	39.85	25.00
+AdaLAM	0.00	0.119	88.66	**99.87**	32.24	48.51	64.92	48.56	46.00	63.57	77.29	62.29	0.00	0.074	68.85	**94.17**	6.42	15.83	29.21	17.15	17.20	34.30	50.79	34.09
+MAGSAC$_\uparrow$	34.00	0.123	94.31	71.87	36.70	54.24	70.34	53.76	48.00	65.41	78.58	64.00	33.99	0.076	71.18	65.04	10.64	23.72	38.85	24.41	17.54	34.73	51.70	34.66
+MAGSAC$_\downarrow$	45.44	0.127	95.19	60.45	38.06	55.35	70.76	54.72	48.70	65.77	78.41	64.29	43.55	0.078	71.42	55.56	11.22	25.03	40.20	25.49	17.47	34.66	50.99	34.37
+CC	17.92	1.746	84.60	82.75	21.89	35.63	50.53	36.02	36.50	54.58	69.18	53.42	31.26	1.129	61.26	64.27	5.44	13.52	25.36	14.77	13.19	26.19	39.67	26.35
+MAGSAC$_\uparrow$	44.67	1.751	89.24	60.19	26.45	40.50	55.50	40.82	38.98	57.17	71.60	55.92	52.45	1.131	62.32	46.56	7.21	16.84	29.01	17.69	13.59	26.78	39.96	26.77
+MAGSAC$_\downarrow$	54.33	1.758	90.03	50.48	26.40	40.73	55.29	40.81	40.25	57.93	71.70	56.63	58.81	1.132	62.54	40.34	7.21	16.82	29.15	17.73	13.02	26.85	40.68	26.85
+CLNet	19.55	0.151	89.44	81.13	13.93	25.66	41.65	27.08	31.25	50.78	68.02	50.02	45.98	0.084	71.39	51.40	3.43	8.30	16.30	9.34	8.27	19.27	33.50	20.35
+MAGSAC$_\uparrow$	45.29	0.157	93.97	59.28	18.61	31.68	47.37	32.55	35.34	55.25	71.20	53.93	60.94	0.086	69.97	39.00	3.62	9.38	19.79	10.93	7.92	19.23	33.19	20.12
+MAGSAC$_\downarrow$	54.75	0.160	94.80	49.83	18.71	32.75	48.61	33.36	36.11	56.06	71.91	54.69	65.90	0.086	70.05	33.94	3.54	9.46	19.28	10.76	8.61	19.50	33.79	20.64
+ConvMatch	64.96	0.239	89.94	35.76	10.24	20.16	34.61	21.67	19.15	34.97	53.30	35.81	64.24	0.116	71.05	34.93	3.13	8.96	20.45	10.85	8.13	19.03	32.97	20.04
+MAGSAC$_\uparrow$	74.04	0.242	92.63	27.85	12.17	23.75	38.77	24.90	19.94	36.14	54.62	36.90	73.97	0.118	69.34	26.99	3.64	10.04	21.37	11.68	8.27	19.09	32.97	20.11
+MAGSAC$_\downarrow$	78.23	0.244	93.25	23.65	12.43	23.19	37.80	24.48	21.69	38.75	56.69	39.04	77.00	0.118	69.36	23.86	3.29	9.80	21.35	11.48	8.26	19.37	32.66	20.10
+DeMatch	64.35	0.318	89.69	36.17	9.81	20.70	35.13	21.88	16.02	32.34	51.57	33.31	67.89	0.124	71.10	31.38	1.53	5.46	13.45	6.81	5.91	14.96	27.39	16.09
+MAGSAC$_\uparrow$	74.08	0.322	93.01	27.74	11.18	22.53	37.46	23.72	20.02	36.65	55.90	37.52	75.98	0.126	70.07	24.90	2.04	6.28	15.28	7.87	5.38	15.37	28.16	16.30
+MAGSAC$_\downarrow$	78.25	0.323	93.67	23.57	11.43	23.27	38.05	24.25	18.97	37.35	57.01	37.78	78.69	0.126	70.20	22.07	1.65	5.97	15.23	7.62	6.28	15.83	28.71	16.94
+FC-GNN	21.72	0.157	96.58	89.27	49.70	64.49	75.86	63.35	52.05	68.58	80.64	67.09	28.65	0.089	**72.29**	68.86	9.50	20.28	34.84	21.54	16.21	31.67	47.89	31.93
+MAGSAC$_\uparrow$	23.84	0.159	**97.06**	87.42	**51.58**	**66.51**	**78.20**	**65.43**	51.22	68.24	80.44	66.63	38.19	0.090	**72.76**	62.07	11.51	24.54	38.87	24.97	16.56	32.43	48.35	32.45
+MAGSAC$_\downarrow$	25.66	0.159	**97.23**	85.55	**51.64**	**66.67**	**78.27**	**65.53**	51.45	69.08	81.01	67.18	41.65	0.090	**72.86**	58.52	11.91	24.68	39.20	25.26	16.79	33.13	48.87	32.93
+GMS	24.63	0.201	84.86	75.72	28.54	44.24	59.60	44.13	39.98	56.76	69.96	55.57	51.96	0.131	67.85	48.25	5.41	13.60	24.55	14.52	10.65	22.91	37.26	23.61
+MAGSAC$_\uparrow$	49.29	0.205	87.83	54.77	33.98	49.01	62.86	48.62	39.93	56.75	70.07	55.58	63.63	0.133	67.18	37.04	6.80	16.06	27.94	16.93	10.57	23.56	38.20	24.11
+MAGSAC$_\downarrow$	57.92	0.208	88.55	46.14	33.25	47.90	62.15	47.76	42.86	59.54	71.68	58.03	68.71	0.133	67.31	31.86	6.78	15.62	26.88	16.43	10.30	22.24	36.83	23.12
+MS^{2}DG-Net	71.15	0.185	89.88	29.41	20.21	34.38	51.20	35.26	17.51	33.69	52.33	34.51	61.19	0.108	71.24	34.95	4.37	11.13	22.41	12.64	7.23	17.04	30.19	18.15
+MAGSAC$_\uparrow$	79.63	0.188	94.13	22.19	18.34	31.01	47.61	32.32	20.18	37.26	56.49	37.98	72.03	0.109	72.00	26.90	4.61	11.95	23.27	13.28	6.67	17.10	30.08	17.95
+MAGSAC$_\downarrow$	82.92	0.189	94.88	18.87	17.61	30.81	47.03	31.82	23.19	41.70	59.99	41.63	74.94	0.110	72.01	23.97	4.27	11.59	23.57	13.14	6.97	17.14	30.10	18.07
+NCC	0.00	0.489	78.17	87.75	18.23	31.71	49.12	33.02	44.58	60.10	72.57	59.08	0.00	0.331	64.70	90.34	4.80	11.43	22.97	13.06	17.24	34.60	50.68	34.18
+MAGSAC$_\uparrow$	38.11	0.505	92.62	66.90	39.68	53.21	65.78	52.89	43.96	60.76	74.24	59.65	40.72	0.336	70.90	58.52	12.91	26.00	40.18	26.37	17.86	34.89	51.31	34.69
+MAGSAC$_\downarrow$	44.26	0.520	93.07	60.82	38.87	52.80	65.82	52.49	43.93	60.76	74.42	59.70	47.23	0.342	71.18	52.18	13.07	26.00	40.21	26.42	18.76	34.85	51.19	34.94
+NCMNet	16.61	0.275	89.43	84.09	15.03	27.20	42.83	28.35	31.26	51.36	68.19	50.27	42.15	0.184	70.94	54.83	2.83	7.87	16.76	9.16	8.98	20.75	35.13	21.62
+MAGSAC$_\uparrow$	43.43	0.281	93.80	61.37	19.39	32.75	49.23	33.79	35.02	54.40	70.53	53.32	58.05	0.186	69.35	41.90	4.57	11.43	21.96	12.65	9.12	20.97	35.01	21.70
+MAGSAC$_\downarrow$	53.17	0.284	94.60	51.60	20.01	33.46	49.28	34.25	35.60	55.67	71.36	54.21	63.59	0.187	69.45	36.35	4.33	11.56	22.70	12.86	9.54	21.53	36.24	22.44
+OANet	**90.36**	0.169	90.47	9.96	3.49	8.63	18.06	10.06	6.07	13.98	28.97	16.34	**88.26**	0.121	69.67	10.77	1.14	3.39	8.83	4.45	1.51	5.65	13.74	6.97
+MAGSAC$_\uparrow$	**92.21**	0.171	91.16	8.25	3.48	8.13	18.23	9.95	6.54	15.44	29.77	17.25	**91.95**	0.122	61.88	7.96	0.96	3.01	8.10	4.02	2.03	6.20	14.22	7.48
+MAGSAC$_\downarrow$	**93.12**	0.172	91.42	7.33	3.64	8.61	18.22	10.16	5.93	14.65	30.97	17.18	**92.44**	0.122	61.93	7.49	0.88	2.95	8.13	3.99	2.34	6.78	14.68	7.93
+MOP$_{0.5K}$+MiHo	0.26	1.787	88.72	99.70	31.97	48.35	64.95	48.42	45.89	63.32	76.83	62.01	7.54	1.480	68.51	**90.89**	6.72	16.53	30.26	17.83	17.00	33.78	50.17	33.65
+MAGSAC$_\uparrow$	33.99	1.791	94.31	71.85	36.64	53.95	70.10	53.56	47.95	65.25	78.41	63.87	36.70	1.482	71.09	63.98	10.59	23.43	38.71	24.24	17.47	34.17	50.75	34.13
+MAGSAC$_\downarrow$	45.50	1.795	95.20	60.38	37.95	54.81	70.21	54.32	48.25	65.94	78.76	64.31	46.20	1.484	71.31	54.47	10.76	24.36	39.64	24.92	17.46	34.70	50.61	34.25
+MOP$_{0.5K}$+MiHo+NCC	0.26	2.118	85.92	99.27	22.05	36.26	52.47	36.93	53.15	70.64	82.46	68.75	7.54	1.666	65.48	88.10	5.14	12.83	25.02	14.33	18.58	36.32	52.31	35.74
+MAGSAC$_\uparrow$	25.28	2.122	96.35	84.96	49.48	64.57	76.94	63.66	52.64	70.17	82.43	68.41	39.50	1.669	70.92	61.40	14.57	28.05	42.46	28.36	19.06	35.17	51.27	35.17
+MAGSAC$_\downarrow$	29.75	2.123	96.73	80.46	49.79	65.25	**77.45**	64.16	52.82	70.44	82.50	68.58	45.40	1.672	71.10	55.59	**15.40**	28.79	43.22	**29.14**	**19.85**	**36.91**	**52.56**	**36.44**
+MOP$_{1.0K}$+MiHo	0.24	3.048	88.72	**99.72**	32.31	48.63	65.24	48.73	46.14	63.53	77.04	62.23	7.51	2.586	68.46	90.88	6.67	16.25	30.19	17.70	17.27	33.88	50.12	33.76
+MAGSAC$_\uparrow$	33.98	3.053	94.30	71.89	36.83	54.15	70.29	53.76	47.59	65.08	78.25	63.64	36.68	2.588	71.02	63.89	10.42	23.65	38.89	24.32	17.52	34.57	51.22	34.43
+MAGSAC$_\downarrow$	45.48	3.056	95.22	60.42	37.90	54.88	70.19	54.33	47.92	65.61	78.59	64.04	46.14	2.590	71.23	54.39	11.09	24.59	39.57	25.09	17.53	34.66	50.52	34.24
+MOP$_{1.0K}$+MiHo+NCC	0.24	3.380	85.93	99.30	21.95	36.44	52.51	36.97	**54.39**	**71.50**	**82.89**	**69.59**	7.51	2.771	65.40	88.02	5.06	12.58	24.60	14.08	17.81	35.14	51.42	34.79
+MAGSAC$_\uparrow$	25.27	3.384	96.37	85.00	48.77	64.02	76.47	63.09	52.92	70.54	82.45	68.64	39.52	2.774	70.86	61.35	14.47	27.78	42.33	28.19	19.09	35.74	51.87	35.57
+MAGSAC$_\downarrow$	29.70	3.384	96.76	80.54	49.75	65.20	77.40	64.12	53.40	70.54	82.46	68.80	45.42	2.777	71.03	55.57	**15.35**	**28.84**	**43.28**	**29.15**	**19.86**	**36.87**	**52.67**	**36.47**
+MOP$_{1.5K}$+MiHo	0.25	4.201	88.72	99.71	31.92	48.27	65.11	48.43	46.48	63.68	77.05	62.40	7.50	3.472	68.46	90.79	6.92	16.78	30.57	18.09	17.11	33.74	50.15	33.67
+MAGSAC$_\uparrow$	34.02	4.206	94.33	71.86	36.70	54.15	70.29	53.71	47.23	64.72	77.99	63.31	36.69	3.474	71.05	63.90	10.47	23.79	38.71	24.32	17.95	35.07	51.48	34.83
+MAGSAC$_\downarrow$	45.47	4.209	95.23	60.44	38.00	55.26	70.59	54.61	48.08	65.76	78.70	64.18	46.11	3.476	71.21	54.30	11.21	24.65	39.64	25.17	17.86	34.79	50.62	34.42
+MOP$_{1.5K}$+MiHo+NCC	0.25	4.518	85.93	99.28	21.65	35.98	52.16	36.60	**54.54**	**71.49**	**82.97**	**69.67**	7.50	3.657	65.39	88.03	5.38	13.08	24.86	14.44	18.72	35.68	51.55	35.31
+MAGSAC$_\uparrow$	25.28	4.521	96.34	84.96	49.47	64.86	77.28	63.87	51.69	69.74	81.91	67.78	39.50	3.660	71.03	61.68	14.02	27.99	42.70	28.24	19.00	35.18	51.55	35.24
+MAGSAC$_\downarrow$	29.70	4.522	96.72	80.48	**50.15**	**65.36**	77.43	**64.31**	52.48	69.74	81.91	68.04	45.45	3.664	71.14	55.74	14.96	28.82	**43.24**	29.01	19.22	36.10	52.05	35.79
+MOP$_{2.0K}$+MiHo	0.24	5.042	88.72	99.72	32.01	48.43	65.11	48.52	46.27	63.52	76.94	62.24	7.54	4.345	68.46	90.78	6.94	16.53	30.12	17.86	17.32	33.86	50.18	33.78
+MAGSAC$_\uparrow$	34.00	5.047	94.33	71.87	36.56	54.10	70.33	53.67	47.91	65.14	78.22	63.76	36.69	4.348	71.04	63.91	10.54	23.72	38.83	24.36	17.96	34.97	51.39	34.77
+MAGSAC$_\downarrow$	45.47	5.050	95.21	60.43	37.85	55.26	70.68	54.60	48.02	65.65	78.64	64.10	46.15	4.349	71.29	54.38	11.08	24.49	39.54	25.04	18.12	35.21	51.05	34.80
+MOP$_{2.0K}$+MiHo+NCC	0.24	5.427	85.92	99.28	21.55	35.85	52.16	36.52	**54.00**	**71.26**	**82.96**	**69.41**	7.54	4.600	65.39	87.94	5.19	12.77	24.37	14.11	18.55	35.62	51.75	35.31
+MAGSAC$_\uparrow$	25.28	5.431	96.35	84.97	49.49	64.77	77.08	63.78	52.18	69.95	82.15	68.09	39.52	4.603	70.95	61.48	14.50	28.28	42.65	28.48	19.30	35.95	51.72	35.66
+MAGSAC$_\downarrow$	29.70	5.432	**96.76**	80.52	49.81	65.13	77.39	64.11	52.31	69.84	81.91	68.02	45.46	4.606	71.10	55.54	**15.25**	**29.00**	43.13	**29.13**	**19.78**	**36.56**	52.35	**36.23**
+MOP$_{0.5K}$	0.86	2.973	88.80	99.24	32.05	48.39	65.19	48.54	46.35	63.50	76.99	62.28	11.75	2.039	68.48	87.87	6.96	16.77	30.68	18.14	16.37	32.80	49.28	32.82
+MAGSAC$_\uparrow$	34.24	2.977	94.31	71.62	36.49	54.17	70.34	53.67	47.60	65.31	78.42	63.78	39.07	2.041	70.74	62.15	10.71	23.74	38.47	24.31	17.24	33.82	50.57	33.87
+MAGSAC$_\downarrow$	45.73	2.980	95.15	60.10	37.53	54.58	69.84	53.98	48.54	65.41	78.23	64.06	48.42	2.043	70.95	52.63	11.02	23.71	38.75	24.49	17.43	34.01	50.01	33.82
+MOP$_{0.5K}$+NCC	0.86	3.304	85.72	98.37	20.83	35.30	52.21	36.11	50.82	68.48	80.93	66.74	11.75	2.220	65.35	85.27	5.20	12.85	24.80	14.29	18.64	35.11	51.01	34.92
+MAGSAC$_\uparrow$	25.98	3.307	96.13	83.90	48.08	63.45	75.50	62.34	51.80	69.18	81.68	67.55	41.55	2.223	70.72	60.33	13.98	27.87	42.43	28.09	19.12	35.82	52.01	35.65
+MAGSAC$_\downarrow$	30.38	3.308	96.58	79.52	49.93	64.65	76.39	63.66	51.10	68.35	80.86	66.77	47.18	2.226	70.84	54.65	14.27	28.39	42.90	28.52	19.45	35.79	51.86	35.70
+MOP$_{1.0K}$	0.79	5.150	88.86	99.34	32.16	48.09	64.98	48.41	47.05	63.95	77.13	62.71	11.41	3.620	68.45	88.09	7.25	17.15	30.59	18.33	16.60	33.02	49.57	33.06
+MAGSAC$_\uparrow$	34.17	5.155	94.35	71.69	36.91	54.23	70.38	53.84	47.18	64.70	77.69	63.19	38.88	3.622	70.65	62.19	10.31	23.33	38.50	24.04	17.03	33.45	50.41	33.63
+MAGSAC$_\downarrow$	45.70	5.158	95.21	60.16	37.26	54.32	69.87	53.82	48.38	65.90	78.82	64.36	48.21	3.624	70.88	52.69	10.59	24.02	38.84	24.48	17.31	34.14	50.25	33.90
+MOP$_{1.0K}$+NCC	0.79	5.463	85.78	98.47	20.84	35.38	52.23	36.15	49.54	67.71	80.59	65.95	11.41	3.801	65.32	85.46	5.18	12.86	24.52	14.19	17.92	34.45	50.54	34.30
+MAGSAC$_\uparrow$	25.90	5.467	96.28	84.10	49.02	63.63	75.83	62.83	51.36	68.78	81.49	67.21	41.35	3.804	70.73	60.45	14.50	**29.14**	**43.57**	29.07	18.79	35.77	51.55	35.37
+MAGSAC$_\downarrow$	30.35	5.468	96.71	79.60	49.32	64.22	75.97	63.17	51.45	68.62	81.36	67.14	47.17	3.807	70.87	54.61	14.06	28.21	42.44	28.24	18.79	35.50	51.83	35.37
+MOP$_{1.5K}$	0.74	6.838	88.84	99.36	31.98	48.02	64.82	48.28	45.89	63.30	76.96	62.05	11.33	4.923	68.41	88.17	7.17	16.71	30.08	17.99	16.06	32.70	49.10	32.62
+MAGSAC$_\uparrow$	34.15	6.843	94.35	71.71	36.69	54.00	70.22	53.64	47.71	64.63	77.49	63.27	38.82	4.925	70.75	62.45	10.35	23.36	38.13	23.95	16.61	33.03	49.87	33.17
+MAGSAC$_\downarrow$	45.64	6.846	95.23	60.24	38.00	54.80	69.95	54.25	48.32	65.74	78.96	64.34	48.14	4.927	70.90	52.83	10.59	24.10	39.11	24.60	17.05	33.38	49.32	33.25
+MOP$_{1.5K}$+NCC	0.74	7.151	85.75	98.48	21.48	35.69	52.50	36.56	50.14	67.92	80.50	66.18	11.33	5.101	65.29	85.66	5.05	12.51	24.10	13.89	18.02	34.63	51.18	34.61
+MAGSAC$_\uparrow$	25.86	7.155	96.26	84.13	48.82	63.43	75.55	62.60	50.92	68.63	81.53	67.03	41.43	5.104	70.67	60.35	14.35	28.38	42.19	28.30	17.52	34.74	51.41	34.55
+MAGSAC$_\downarrow$	30.32	7.156	96.69	79.65	49.76	64.38	75.98	63.37	51.89	68.97	81.36	67.40	47.25	5.107	70.87	54.42	14.20	27.90	41.96	28.02	18.05	35.96	**52.42**	35.47
+MOP$_{2.0K}$	0.74	8.017	88.85	99.38	32.21	48.16	64.79	48.39	46.57	63.67	76.94	62.39	11.31	6.101	68.43	88.20	7.07	16.61	30.15	17.94	16.79	32.90	49.11	32.93
+MAGSAC$_\uparrow$	34.13	8.022	94.36	71.74	37.09	54.22	70.48	53.93	48.19	65.14	77.78	63.70	38.85	6.103	70.77	62.42	10.60	23.72	38.43	24.25	17.27	33.66	50.16	33.70
+MAGSAC$_\downarrow$	45.65	8.025	95.24	60.23	37.53	54.22	69.74	53.83	48.36	65.71	78.69	64.25	48.09	6.105	70.95	52.93	10.92	24.25	39.39	24.85	16.72	33.36	49.35	33.15
+MOP$_{2.0K}$+NCC	0.74	**8.402**	85.76	98.47	21.03	35.37	52.29	36.23	49.96	67.80	80.50	66.09	11.31	**6.351**	65.27	85.55	4.76	12.32	24.01	13.70	18.24	34.67	51.20	34.71
+MAGSAC$_\uparrow$	25.86	**8.406**	96.28	84.12	48.50	63.48	75.60	62.53	51.47	68.68	81.35	67.17	41.48	**6.354**	70.61	60.15	14.53	28.23	42.01	28.26	18.16	34.65	50.76	34.52
+MAGSAC$_\downarrow$	30.33	**8.407**	96.68	79.60	49.28	63.92	75.69	62.96	51.84	69.35	81.59	67.59	47.27	**6.357**	70.74	54.22	14.04	28.22	42.26	28.17	18.57	35.75	52.07	35.46