Pineline	Filtered	+Runtime	Precision	Recall	$AUC_{\alpha s}^{F}$	AUC ^F	AUC ^F	AUC_{ℓ}^{F}	$AUC_{\alpha s}^{E}$	$AUC_{\alpha_{1\alpha}}^{E}$	AUC_{nm}^{E}	AUC ^E	Filtered	+Runtime	Precision	Recall	$AUC_{\alpha s}^{F}$	AUC_{010}^F	anNet AUCF	AUC_{ℓ}^{F}	AUC_{os}^{E}	AUC_{010}^{E}	AUC_{ann}^{E}	AUC ^E
SIFT+NNR	0.00	0.00	53.92	99.99	0.11	0.19	0.75	0.35	46.30	63.50	76.97	62.26	0.00	0.00	24.83	99.19	0.00	0.10	0.48	0.19	8.83	19.70	32.52	20.35
+MAGSAC↑ +MAGSAC↓ +ACNe	50.73 54.16 47.62	6.08 7.05	93.13 93.72 92.54	85.12 79.31 90.85	33.02 35.07	45.96 48.12 28.08	57.85 60.06 47.64	45.61 47.75 29.48	45.23 46.29 46.58	64.51 64.74 65.19	78.42 77.96	62.72 63.00	78.54 81.20 67.86	56.93 62.56 5.88	55.20 55.13 55.02	46.06 40.06	5.93 6.31 3.15	14.28 14.33	24.77 24.88 24.98	14.99 15.17	10.77 10.91	22.27 22.33 26.10	35.12 34.66 40.82	22.72 22.63
$^{+{\rm MAGSAC}_\uparrow}_{+{\rm MAGSAC}_\downarrow}$	53.26 56.21	4.04 4.17	96.38 96.80	83.41 78.33	39.43 39.86	55.32 55.72	69.98 70.42	54.91 55.34	47.27 43.82	65.28 63.61	79.02 78.16	63.86 61.87	80.20 82.44	19.74 23.47	60.44 60.41	47.25 41.59	7.96 8.27	18.00 18.92	31.28 32.35	19.08 19.84	12.65 12.29	25.65 24.96	39.95 39.50	26.08 25.58
+AdaLAM $+MAGSAC_{\uparrow}$ $+MAGSAC_{\downarrow}$	82.56 83.62 84.22	0.78 1.21 1.19	93.44 92.29 92.53	27.42 26.13 25.25	7.64 33.41 33.39	14.75 47.09 46.84	27.12 60.63 60.62	16.50 47.05 46.95	37.77 36.06 35.33	54.58 53.19 52.27	68.59 66.99 66.81	53.65 52.08 51.47	92.54 94.09 94.54	1.42 2.29 2.31	53.27 46.65 46.67	15.01 12.11 11.21	1.02 4.69 5.10	2.77 10.27 10.95	6.11 17.84 18.37	3.30 10.93 11.47	6.40 5.40 6.58	13.73 12.31 13.67	22.79 21.38 22.63	14.31 13.03 14.29
+CC +MAGSAC +MAGSAC \downarrow	45.92 53.76 56.71	410.25 411.38 411.51	92.27 96.23 96.66	89.48 80.73 75.81	13.99 37.74 38.54	24.45 52.70 53.14	37.80 66.78 67.33	25.42 52.41 53.00	44.34 44.24 43.35	62.09 62.36 61.61	75.45 76.12 75.62	60.63 60.91 60.19	40.75 81.65 83.72	306.18 336.99 337.91	51.34 58.58 58.57	80.93 40.46 35.76	1.83 5.25 5.39	4.66 11.67 11.74	9.77 20.40 20.68	5.42 12.44 12.61	8.70 8.74 8.73	18.89 18.59 18.86	30.77 30.82 31.05	19.45 19.38 19.54
+CLNet +MAGSAC↑ +MAGSAC↓	48.44 55.27 58.21	10.78 11.39 11.51	91.36 96.13 96.62	88.00 79.18 74.21	3.09 27.94 28.64	6.91 42.25 43.05	16.55 58.04 59.18	8.85 42.74 43.62	40.97 38.46 39.87	60.35 58.02 59.55	75.36 73.88 75.00	58.89 56.79 58.14	77.43 83.73 85.55	13.68 14.92 15.29	57.74 60.98 60.69	52.39 39.26 34.66	0.47 4.32 4.35	2.16 10.17 10.07	6.81 19.92 19.56	3.14 11.47 11.33	9.04 8.43 9.07	19.84 19.07 19.44	32.09 31.89 31.53	20.32 19.80 20.02
+ConvMatch +MAGSAC _↑ +MAGSAC _⊥	56.91 62.34 64.73	25.10 25.76 25.92	90.02 93.59 93.97	79.68 71.70 67.25	16.08 32.80 33.49	28.10 47.32 47.40	43.04 61.06 61.27	29.07 47.06 47.39	41.14 42.08 41.63	59.35 59.64 59.77	73.49 73.54 73.91	58.00 58.42 58.44	69.76 81.19 83.33	77.17 88.71 91.66	56.68 61.67 61.60	69.88 46.43 41.06	2.07 7.64 7.78	6.48 17.39 17.46	16.45 29.31 29.39	8.34 18.11 18.21	12.01 11.50 11.07	24.63 24.33 23.95	38.01 38.16 37.89	24.88 24.66 24.31
+DeMatch +MAGSAC↑ +MAGSAC↓	52.50 58.50 61.09	40.42 41.17 41.37	91.49 96.01 96.46	83.88 75.48 70.94	14.78 30.26 31.19	25.25 44.01 45.29	38.92 59.49 60.36	26.32 44.59 45.61	40.93 41.19 41.18	60.73 59.97 60.88	76.16 74.99 75.85	59.27 58.71 59.30	70.29 81.68 83.77	129.40 141.64 144.55	55.68 60.69 60.63	67.41 44.51 39.21	1.78 6.16 6.34	5.04 14.71 15.14	13.31 25.57 26.25	6.71 15.48 15.91	10.04 10.72 9.90	22.49 23.18 21.84	36.63 36.49 35.45	23.05 23.47 22.40
+FC-GNN +MAGSAC↑ +MAGSAC1	50.09 51.75 52.51	8.28 8.66 8.70	95.31 97.09 97.20	85.43 83.75 82.43	15.72 47.35 47.12	24.91 61.26 61.38	38.87 73.34 73.28	26.50 60.65 60.59	48.23 47.50 47.16	65.95 65.45 65.20	78.80 78.49 78.43	64.33 63.81 63.60	79.85 81.73 82.55	10.68 11.86 11.70	63.72 64.92 64.99	47.64 43.67 41.70	4.19 9.65 9.60	10.42 19.75 19.54	19.18 31.44 31.12	11.26 20.28 20.08	12.01 12.24 12.04	24.37 24.66 25.31	38.30 38.38 38.86	24.89 25.09 25.40
+GMS +MAGSAC↑ +MAGSAC	57.35 62.35 64.63	21.60 22.08 22.18	86.98 88.86 89.16	65.58 59.80 56.37	5.10 36.56 37.20	10.75 48.66 49.16	22.47 60.14 60.09	12.77 48.45 48.82	37.04 35.61 37.35	53.51 52.32 53.89	66.38 65.44 66.66	52.31 51.12 52.63	87.17 89.96 90.91	63.52 64.19 64.48	51.99 47.93 47.92	25.55 20.55 18.62	0.99 3.16 2.95	3.30 7.98 7.57	7.36 13.90 13.58	3.88 8.34 8.04	4.41 4.29 4.23	10.83 10.54 10.41	18.97 18.83 18.94	11.40 11.22 11.19
+MS ² DG-Net +MAGSAC _↑ +MAGSAC _↓	65.89 72.85 74.45	14.14 14.89 15.07	81.13 91.36 91.80	57.55 51.69 48.72	0.08 29.38 29.92	0.47 43.00 43.16	2.32 56.55 56.64	0.96 42.98 43.24	36.29 34.93 35.12	53.60 51.88 52.73	67.96 66.45 67.78	52.62 51.08 51.88	68.23 85.37 86.90	39.75 63.40 68.20	43.13 56.58 56.47	57.12 35.26 31.24	0.00 5.24 5.47	0.17 11.75 11.61	0.83 20.69 20.13	0.33 12.56 12.40	8.65 8.82 8.34	18.88 19.00 18.03	30.45 31.25 29.66	19.33 19.69 18.68
+NCC +MAGSAC† +MAGSAC	0.00 51.39 54.41	91.37 97.74 98.58	53.09 92.48 93.13	97.88 82.89 77.91	0.11 30.83 31.92	0.19 42.77 44.06	0.74 54.19 55.41	0.35 42.60 43.80	44.66 44.69 43.18	61.89 63.21 62.07	75.50 77.48 76.78	60.68 61.79 60.68	0.00 78.72 81.20	174.74 232.12 237.14	24.54 54.97 55.11	100.29 46.19 40.69	0.00 5.77 5.87	0.10 13.07 13.29	0.47 23.07 23.54	0.19 13.97 14.24	10.18 10.64 10.38	21.17 22.42 21.91	32.98 35.60 34.47	21.44 22.88 22.25
+NCMNet +MAGSAC† +MAGSAC	48.02 55.02 57.95	32.20 32.79 32.93	91.08 95.86 96.38	77.91 88.31 79.26 74.26	4.03 30.59 30.86	8.75 44.43 44.88	18.93 58.42 59.48	10.57 44.48 45.07	41.33 39.97 40.25	61.17 59.57 59.47	76.33 75.11 74.90	59.61 58.22 58.21	76.49 82.91 84.77	96.93 98.08 98.48	57.99 61.02 60.88	54.06 40.65 36.13	1.42 4.29 4.78	3.98 11.15 11.15	10.40 20.90 21.21	5.27 12.11 12.38	9.91 9.43 8.85	21.91 21.05 20.77 19.43	33.56 33.69 32.38	21.51 21.30 20.22
+OANet +MAGSAC† +MAGSAC	66.72 69.12	10.93 11.45 11.63	94.73 96.60 97.01	63.21 59.31 56.17	15.00 25.78 26.09	26.42 40.23 40.89	40.02 56.30 57.32	27.15 40.77 41.43	37.07 35.40 36.76	56.26 55.52 57.02	72.20 72.35	55.18 54.42 55.66	80.63 85.12 86.61	31.58 33.10 33.67	60.42 62.45	50.20 38.62 34.55	3.33 5.86 6.10	9.56 14.72 14.34	20.06 26.58 26.21	10.98 15.72 15.55	10.49 11.16	22.24 23.95 21.99	35.72 37.11 35.34	22.82 24.07
+MOP _{0.5K} +MiHo +MAGSAC _↑ +MAGSAC ₁	51.61	165.29 165.93 166.04	86.84 95.60	94.39 84.33	1.60 42.56	40.89 4.22 55.94	10.55 68.78	5.46 55.76	50.22 49.58	67.35 66.13	73.20 79.88 78.28	65.81 64.66	62.61 80.23 82.56	432.25 439.69	46.07 59.20	70.76 46.63	0.15 8.51	0.67 17.34	3.04 28.11	1.29 17.99 18.56	10.33 11.77 11.77	24.67 23.85	38.26 37.07	22.55 24.90 24.23
+MOP _{0.5K} +MiHo+NCC +MAGSAC† +MAGSACi	40.99 51.03	233.78 234.39 234.46	96.05 85.87 95.40 95.77	79.18 93.44 84.84 81.34	1.43 41.19 41.65	4.02 54.90	70.44 10.09 67.33	5.18 54.48 55.08	48.15 47.26 47.80 47.21	65.78 64.20 65.12	78.36 77.69 78.30 78.20	63.05 63.74 63.50	82.56 62.61 79.50 81.41	445.69 546.54 554.24 559.68	59.21 45.76 59.10 58.98	40.95 71.09 48.24 43.43	8.81 0.22 8.45 8.05	0.69 17.91	28.79 3.14 28.64 28.59	1.35 18.34 18.00	12.18 11.66 11.85 11.28	24.35 24.26 23.86 23.63	37.42 37.15 37.48	24.65 24.36 24.39 24.11
+MOP _{1.0K} +MiHo +MAGSAC↑ +MAGSAC↓	40.16 51.49	277.38 278.01 278.19	85.97 95.62	95.16 84.83 79.59	1.60 42.84 44.10	4.10 56.67	9.86 68.94	5.19 56.15	48.18 48.97 48.12	66.10 66.18 65.81	78.90 78.79 78.70	64.40 64.64 64.21	61.10 79.98 82.35	750.57 759.75 765.94	45.38 59.21 59.21	72.75 47.36 41.59	0.12 7.88 8.51	0.50 16.74 17.57	2.57 27.75 28.83	1.06 17.45 18.30	11.83 12.20 11.88	25.18 23.51 23.16	38.91 36.50 36.50	25.31 24.07 23.85
+MOP _{1.0K} +MiHo+NCC +MAGSAC _↑ +MAGSAC _↓	40.16 50.83	346.78 347.48 347.50	85.09 95.62 05.07	94.29 85.64 82.06	1.47 41.38 43.48	3.89 54.93	9.35 67.84	4.91 54.72	48.62 47.31 46.85	66.73 64.74 64.72	79.53 78.47 77.86	64.96 63.50 63.14	61.10 79.26 81.13	866.53 876.34 881.46	45.13 59.22 59.47	73.14 48.92 44.49	0.20 7.97 8.36	0.59 17.75	2.57 29.08 29.17	1.12 18.27 18.46	12.07 11.90 12.26	25.03 24.04 24.45	38.51 37.38 37.66	25.21 24.44 24.79
+MOP _{1.5K} +MiHo +MAGSAC _↑ +MAGSAC ₁		385.14 385.78 385.90	85.77 95.75 96.25	95.68 85.12 79.91	1.53 40.99 43.02	3.60 55.15 56.66	9.41 68.18 69.72	4.84 54.77 56.47	50.24 49.63 48.65	67.62 67.24 66.10	80.22 79.94 79.03	65.60 64.59	60.17 79.86 82.20	1080.95 1091.74 1098.34	45.06 59.66 59.75	73.89 47.81 42.19	0.10 8.81 9.15	0.55 18.87 19.21	2.96 30.22 30.33	1.20 19.30 19.56	12.82 12.89	25.31 25.99 25.75	38.91 39.04 38.75	25.68 25.97 25.72
+MOP _{1.5K} +MiHo+NCC +MAGSAC _↑ +MAGSAC	39.76 50.80 52.84	454.80 455.42 455.49	84.94 95.65	94.84 85.93	1.42 39.75	3.28 53.09	8.85 65.72	4.52 52.85 54.11	47.85 48.09 47.24	65.88 66.29	79.52 79.37	64.42 64.58	60.17 79.11 81.00	1199.11 1210.65	44.79 59.23	74.20 49.10 44.47	0.12 8.03 8.43	0.48 17.95	2.84 29.48	1.14 18.49	12.09 11.76 11.60	24.25 24.58	37.58 37.85	24.64 24.73 24.67
+MOP _{2.0K} +MiHo +MAGSAC _↑ +MAGSAC ₁	39.47 51.37 54.55	506.86 507.53	85.41 95.75	95.84 85.33	1.30 42.38 43.11	2.81 55.75	7.95 68.31	4.02 55.48	50.38 49.33	67.36 67.18	79.87 80.00	65.87 65.50	59.64 79.81 82.19	1585.44 1597.17	44.60 59.57	74.31 47.99 42.21	0.07 8.20	0.46 17.72	2.56 28.01	1.03	11.83 12.39 12.19	24.90 24.95 24.42	38.74 38.55	25.16 25.30 24.86
	39.47 50.72 52.78	507.64 587.24 587.88	96.24 84.57 95.64	94.97 86.06	1.15 40.76 42.72	2.55 54.01	7.35 66.70	3.69 53.82 55.41	48.94 47.56	67.06 65.56	80.60 79.02	65.53 64.05 64.65	59.64 79.00 80.92	1751.66 1763.70	59.62 44.45 59.25 59.27	74.87 49.46 44.63	0.07 8.02 8.30	0.43 17.42	2.55 28.31 28.79	1.02 17.92 18.17	13.08 12.47 11.47	25.33 25.08	39.05 38.32 37.40	25.82 25.29 24.23
+MOP _{0.5K} +MAGSAC† +MAGSAC	44.87 52.43	126.80 127.38 127.48	89.73 94.47 94.91	90.19 81.52 76.53	42.72 4.16 41.95 43.21	9.43 55.78 56.33	19.06 68.36 68.76	10.88 55.36 56.10	45.11 46.79 46.23	62.78 64.67 63.67	75.65 77.24 76.87	61.18 62.90 62.26	72.05 82.05 84.15	256.07 257.62 258.99	51.19 57.09 57.31	58.43 41.38 36.57	0.65 7.75 8.11	2.21 16.08 16.73	6.24 25.84 27.10	3.04 16.56 17.31	10.56 10.54 10.79	22.59 21.37 22.43	35.30 34.11 35.01	22.82 22.01 22.75
+MOP _{0.5K} +NCC +MAGSAC _↑ +MAGSAC _↓	44.87 51.85	193.32 193.89 193.97	94.91 88.78 94.36 94.65	89.44 82.28 79.05	3.17 40.00 41.35	7.96 54.42 55.25	17.47 67.46	9.53 53.96 54.93	43.50 45.99	61.60 63.45 62.62	75.08 76.18	62.26 60.06 61.87 61.16	72.05 81.27 82.85	350.90 352.41 353.50	50.76 57.14 57.17	58.26 43.09 39.29	0.63 7.30 7.95	1.84 16.61 16.87	5.49 26.31 26.78	2.65 16.74 17.20	11.62 10.63 11.22	23.04 22.16 22.61	35.38 34.98 34.30	23.35 22.59
+MAGSAC ₁ +MOP _{1.0K} +MAGSAC _↑ +MAGSAC ₁	44.22 52.13	185.81 186.41	89.71 94.90	91.54 82.60	4.06 43.05	8.48 56.46	17.76 69.14	54.93 10.10 56.21	45.14 48.15 47.61	65.30 65.02	75.72 77.60 77.82	63.68 63.48	71.35 81.80	412.59 414.29	51.58 57.92	60.29 42.56	0.72 8.27	1.89 17.02	5.80 27.41	2.80 17.57	10.85 11.53	22.27 23.34	35.02 36.11	22.71 22.71 23.66
+MAGSAC _↓ +MOP _{1.0K} +NCC +MAGSAC _↑ +MAGSAC _↑	44.22 51.51	186.51 253.00 253.59	95.30 88.78 94.85	77.47 90.75 83.39	3.35 40.18	7.28 54.38	69.30 16.21 67.41	8.95 53.99	45.99 44.93 47.33	64.04 63.10 64.97	77.37 76.51 77.42	62.47 61.52 63.24	83.90 71.35 80.97	415.79 509.46 511.14	58.03 51.13 57.81	37.59 60.09 44.22	8.97 0.76 8.07	17.83 1.81 16.92	28.21 5.68 26.61	2.75 17.20	11.28 11.81 11.80	23.18 23.55 23.77	36.08 35.86 36.51	23.52 23.74 24.03
$+MOP_{1.5K}$ $+MAGSAC_{\uparrow}$	43.99 51.99	253.66 240.94 241.52	95.14 89.85 95.08	80.06 92.21 83.20	40.42 4.32 43.38	54.84 8.91 56.80	68.08 18.00 69.59	54.44 10.41 56.59	45.32 46.85 48.00	63.15 64.12 65.25	76.81 77.12 78.08	61.76 62.70 63.78	82.60 71.14 81.66	512.49 554.97 556.67	57.91 52.13 58.30	40.35 61.15 43.05	8.36 0.75 8.30	2.63 17.63	27.14 6.79 28.01	3.39 17.98	11.81 11.53 11.24	23.56 23.57 23.38	36.15 36.51 36.20	23.84 23.87 23.61
+MAGSAC $_{\downarrow}$ +MOP _{1.5K} +NCC +MAGSAC $_{\uparrow}$	43.99 51.33	241.61 308.29 308.86	95.53 89.00 95.07	78.10 91.47 84.06	43.53 4.12 41.05	56.99 8.15 55.41	70.38 16.68 68.53	9.65 55.00	47.33 45.83 46.32	64.58 63.99 64.24	77.59 77.25 77.27	63.17 62.36 62.61	83.80 71.14 80.83	558.16 652.24 654.11	58.38 51.71 58.39	38.00 60.94 44.96	8.46 0.64 8.17	2.31 17.33	28.67 6.67 28.13	3.20 17.88	11.47 11.13 12.69	23.08 23.35 24.75	35.89 35.85 37.55	23.48 23.44 25.00
$+MAGSAC_{\downarrow}$ $+MOP_{2.0K}$ $+MAGSAC_{\uparrow}$	53.34 43.80 51.91	308.94 303.88 304.46	95.38 89.72 95.12	92.58 83.51	42.24 3.97 43.61	56.36 8.56 56.56	69.23 18.00 69.40	55.94 10.18 56.52	46.68 45.72 48.32	64.92 63.98 66.30	78.01 77.30 78.80	63.20 62.33 64.47	82.52 70.90 81.58	655.07 724.78 726.56	58.58 52.18 58.64	40.93 61.58 43.36	8.29 0.61 8.36	2.10 17.47	28.11 6.34 27.44	3.02 17.76	11.85 10.77 11.46	24.04 23.27 23.89	36.58 36.92 36.49	24.16 23.66 23.95
+MAGSAC↓ +MOP _{2.0K} +NCC +MAGSAC₄	55.00	304.56 381.52 382.06	95.56 88.83 95.05	78.42 91.80 84.28	3.39 41.66	58.26 7.57 55.61	70.78 16.62	9.20 55.12	47.87 47.12 47.31	65.35 65.13 65.16	78.15 78.30 78.16	63.79 63.51 63.54	83.78 70.90 80.73	728.04 860.01	58.68 51.81 58.74	38.05 61.44 45.34	8.45 0.56 8.46	17.71 2.15	28.09 6.57 28.63	18.09 3.09 18.33	11.19 11.61	23.23	36.05 36.78 37.01	23.49 24.14 24.58
+MAGSAC _↓		382.06 382.13	95.35	84.28 80.84	41.66 41.58	55.76	68.54	55.12 55.29	47.31 45.31	64.01	78.16 77.83	62.39	80.73 82.43	862.92	58.74 58.79	45.34 41.20	9.33	18.62	28.63 29.11	19.02	11.94	24.37	37.01 37.33	24.58