Pipeline	MegaDepth					ScanNet					Planar				IMC PhotoTourism						
	Filtered	Precision	Recall	AUC$^F_\measuredangle$	AUC$^E_\measuredangle$	Filtered	Precision	Recall	AUC$^F_\measuredangle$	AUC$^E_\measuredangle$	Filtered	Precision	Recall	AUC$^H_\square$	Filtered	Precision	Recall	AUC$^F_\measuredangle$	AUC$^F_\square$	AUC$^E_\measuredangle$	AUC$^E_\square$
DISK+LightGlue	0.00	92.27	**99.93**	58.22	64.79	0.00	63.40	**89.67**	12.05	24.96	0.00	72.89	**86.47**	59.26	0.00	93.58	**99.59**	56.11	29.97	71.98	40.91
+ACNe	46.64	92.95	53.85	37.56	53.13	48.36	65.26	46.54	8.74	17.02	58.26	74.01	36.20	41.33	51.14	94.36	49.15	46.17	21.19	63.76	32.01
+ACNe+MAGSAC$_\uparrow$	56.04	95.25	45.84	40.99	53.54	67.25	63.39	31.84	11.13	17.27	79.69	77.57	20.46	38.97	58.58	95.97	42.66	49.82	23.94	64.24	32.29
+ACNe+MAGSAC$_\downarrow$	61.72	95.96	40.39	41.43	54.23	71.26	63.50	27.71	10.86	17.98	84.91	78.11	14.99	37.27	63.33	96.52	38.07	50.01	23.91	64.24	32.22
+AdaLAM	0.00	92.27	**99.93**	58.22	64.79	0.00	63.40	**89.67**	12.05	24.96	0.00	72.89	**86.47**	**59.26**	0.00	93.58	**99.59**	56.11	29.97	71.98	40.91
+AdaLAM+MAGSAC$_\uparrow$	20.27	95.36	83.11	63.27	64.97	37.08	64.24	60.05	18.98	25.26	55.05	77.58	43.73	49.87	17.92	95.93	84.44	63.70	36.04	72.37	41.46
+AdaLAM+MAGSAC$_\downarrow$	31.13	96.11	72.68	63.14	65.32	45.54	64.38	51.60	18.77	24.59	67.08	**78.21**	31.03	47.28	28.09	96.55	74.66	63.75	36.19	72.33	41.47
+CC	16.37	85.47	83.94	46.76	56.25	23.68	52.79	66.68	11.13	20.06	72.38	10.70	14.29	7.38	n/a	n/a	n/a	n/a	n/a	n/a	n/a
+CC+MAGSAC$_\uparrow$	32.81	87.99	70.01	50.14	58.16	52.00	52.62	45.09	14.26	20.62	90.64	11.49	5.02	5.11	n/a	n/a	n/a	n/a	n/a	n/a	n/a
+CC+MAGSAC$_\downarrow$	41.90	88.68	61.28	50.68	58.21	58.08	52.78	39.09	14.57	19.97	**92.00**	11.61	3.62	4.86	n/a	n/a	n/a	n/a	n/a	n/a	n/a
+CLNet	13.94	92.83	86.48	36.78	56.00	34.98	65.74	58.37	6.72	18.73	8.94	73.50	81.78	58.97	19.32	94.16	80.91	43.14	19.91	65.77	33.94
+CLNet+MAGSAC$_\uparrow$	30.14	95.26	72.61	41.92	56.95	57.80	61.43	40.60	9.59	18.47	57.48	77.55	41.87	49.59	32.37	95.85	69.56	48.26	23.15	66.06	33.93
+CLNet+MAGSAC$_\downarrow$	39.51	96.00	63.61	41.95	57.74	63.39	61.55	35.00	9.43	18.15	68.95	78.05	29.80	46.38	40.49	96.44	61.73	48.56	23.45	66.20	34.21
+ConvMatch	64.76	92.87	35.72	26.96	43.06	65.35	65.33	31.80	7.07	15.88	60.31	73.93	34.98	40.48	63.16	94.19	37.06	37.72	15.87	55.75	26.00
+ConvMatch+MAGSAC$_\uparrow$	70.23	94.36	30.99	30.35	43.66	78.22	60.33	21.89	8.66	15.18	80.45	76.37	19.66	37.95	68.29	95.37	32.59	40.95	17.86	56.19	26.49
+ConvMatch+MAGSAC$_\downarrow$	73.90	94.99	27.45	30.86	43.69	80.88	60.39	19.08	8.83	15.97	85.48	76.85	14.38	36.79	71.82	95.88	29.18	41.23	18.11	56.22	26.33
+DeMatch	64.91	92.73	35.35	26.59	42.63	67.46	64.84	29.57	4.92	12.31	66.10	73.56	29.01	35.74	65.10	94.16	35.05	35.01	14.14	53.39	24.11
+DeMatch+MAGSAC$_\uparrow$	70.55	94.64	30.49	28.97	42.64	79.04	60.69	20.88	6.03	12.03	83.22	76.73	16.78	35.31	70.08	95.52	30.72	38.17	15.96	53.85	24.47
+DeMatch+MAGSAC$_\downarrow$	74.23	95.26	26.96	28.99	42.35	81.60	60.74	18.18	6.22	13.01	87.53	77.11	12.15	34.26	73.43	96.03	27.48	38.69	16.27	53.67	24.10
+FC-GNN	9.99	**97.04**	96.66	**66.33**	65.62	20.88	**67.10**	72.61	16.88	25.39	5.74	76.15	**87.54**	**60.21**	10.29	**97.00**	93.86	**64.51**	**37.48**	**73.68**	**43.85**
+FC-GNN+MAGSAC$_\uparrow$	11.58	**97.33**	95.29	**67.81**	**67.28**	35.09	**66.01**	63.56	**20.99**	**25.58**	33.10	77.90	68.97	56.37	12.25	**97.30**	92.25	**67.51**	**39.73**	**73.63**	**43.49**
+FC-GNN+MAGSAC$_\downarrow$	13.11	**97.45**	93.80	**67.79**	**66.88**	38.13	**66.09**	60.48	**21.00**	**25.44**	42.59	**78.25**	59.22	53.66	13.95	**97.40**	90.59	**67.56**	**39.79**	**73.84**	**43.90**
+GMS	13.70	90.59	86.54	56.85	59.93	34.62	60.51	64.55	12.92	23.51	24.01	72.62	75.84	57.24	12.29	93.38	87.89	56.82	30.55	69.76	39.33
+GMS+MAGSAC$_\uparrow$	30.39	92.74	72.30	59.24	61.80	53.51	59.67	45.99	16.95	22.86	62.32	76.83	40.13	49.28	26.91	95.19	75.15	61.05	33.89	70.21	39.80
+GMS+MAGSAC$_\downarrow$	39.64	93.44	63.40	59.39	62.73	60.62	59.84	38.87	17.39	22.94	73.27	77.51	28.66	46.89	35.81	95.79	66.59	61.06	33.91	70.32	39.78
+MAGSAC$_\uparrow$	20.27	95.36	83.11	63.27	64.97	37.07	64.24	60.05	**18.98**	25.26	55.05	77.58	43.73	49.87	17.92	95.93	84.44	63.70	36.04	72.37	41.46
+MAGSAC$_\downarrow$	31.13	96.11	72.68	63.14	65.32	45.54	64.38	51.60	18.77	24.59	67.08	**78.21**	31.03	47.28	28.09	96.55	74.66	63.75	36.19	72.33	41.47
+MOP	0.67	92.39	99.53	59.10	64.04	23.90	59.81	75.39	12.79	23.88	15.86	72.70	83.65	58.88	1.22	93.58	98.82	57.86	31.26	72.06	41.10
+MOP+MAGSAC$_\uparrow$	20.47	95.32	82.93	63.12	64.90	46.66	61.53	53.21	18.53	24.80	59.48	77.47	43.51	49.85	18.38	95.81	84.05	63.41	35.97	72.21	41.19
+MOP+MAGSAC$_\downarrow$	31.34	96.11	72.54	62.62	**66.11**	54.79	61.63	44.92	18.84	24.08	71.42	78.07	30.82	47.28	28.51	96.43	74.29	63.52	36.11	72.16	41.39
+MOP+MiHo	0.34	92.33	**99.78**	58.81	64.81	19.62	61.40	79.44	12.27	24.67	15.81	72.66	83.65	58.91	0.85	93.60	**99.08**	57.33	30.81	72.02	40.93
+MOP+MiHo+MAGSAC$_\uparrow$	20.37	95.35	83.08	63.27	65.01	43.65	63.27	56.15	18.88	**25.47**	59.53	77.45	43.40	49.94	18.18	95.88	84.21	63.51	36.03	72.29	41.40
+MOP+MiHo+MAGSAC$_\downarrow$	31.24	96.14	72.66	63.06	65.35	51.89	63.43	47.76	18.83	24.71	71.40	78.07	30.87	47.24	28.34	96.51	74.45	63.60	36.19	72.28	41.42
+MOP+MiHo+NCC	0.34	85.06	92.27	33.73	63.47	19.62	57.84	78.37	8.10	24.44	15.81	71.29	82.96	57.77	0.85	84.03	88.71	29.40	11.65	70.53	39.76
+MOP+MiHo+NCC+MAGSAC$_\uparrow$	27.72	96.00	76.50	56.43	64.13	48.65	62.98	51.51	18.08	24.72	41.60	77.40	63.04	54.90	33.19	95.90	69.01	54.43	28.90	70.17	39.76
+MOP+MiHo+NCC+MAGSAC$_\downarrow$	32.47	96.46	71.94	57.63	64.05	53.54	63.09	46.69	18.47	24.57	50.10	77.75	54.01	52.43	38.04	96.33	64.36	54.94	29.42	69.91	39.37
+MOP+NCC	0.67	84.83	91.69	31.72	62.89	23.90	56.30	74.04	8.34	24.43	15.86	70.91	82.44	57.25	1.22	83.64	88.09	28.41	11.65	70.30	39.92
+MOP+NCC+MAGSAC$_\uparrow$	28.17	95.86	75.93	55.66	63.23	51.17	61.35	48.99	18.28	24.71	42.05	77.38	62.50	55.05	33.48	95.73	68.69	53.64	28.66	69.84	39.24
+MOP+NCC+MAGSAC$_\downarrow$	32.85	96.34	71.49	56.19	63.49	55.88	61.49	44.29	18.62	24.93	50.37	77.77	53.79	52.53	38.28	96.15	64.10	54.24	29.10	69.58	39.29
+MS^{2}DG-Net	75.84	93.65	24.65	41.98	38.84	57.11	65.05	33.56	7.72	12.83	63.61	74.41	23.80	36.96	74.52	94.62	25.55	42.68	19.61	51.13	23.09
+MS^{2}DG-Net+MAGSAC$_\uparrow$	79.77	95.51	21.32	42.49	40.02	72.95	64.03	23.40	9.84	12.99	83.14	77.11	13.00	36.33	78.18	95.83	22.45	46.06	21.87	50.95	22.88
+MS^{2}DG-Net+MAGSAC$_\downarrow$	82.24	96.18	18.91	42.64	41.11	75.35	64.17	21.07	9.55	12.75	86.40	77.67	9.65	35.76	80.51	96.35	20.20	46.24	22.06	51.48	23.14
+NCC	0.00	74.62	79.29	28.14	47.16	0.00	58.52	**88.72**	7.57	21.92	0.00	53.62	61.61	49.80	0.00	74.40	77.94	24.47	9.38	56.05	29.18
+NCC+MAGSAC$_\uparrow$	44.48	89.05	55.27	38.65	48.06	46.90	63.42	50.70	16.12	21.90	70.33	77.47	28.05	44.66	50.91	90.88	48.39	38.25	18.57	56.50	29.66
+NCC+MAGSAC$_\downarrow$	50.78	89.54	49.54	38.94	48.55	52.41	63.58	45.28	16.08	22.30	76.42	77.97	21.64	43.09	57.22	91.41	42.56	38.28	18.73	56.22	29.60
+NCMNet	12.44	92.76	87.97	36.25	55.12	31.04	65.40	62.14	8.43	18.50	7.23	73.42	83.52	**59.63**	16.35	94.18	83.91	43.52	20.29	65.42	33.32
+NCMNet+MAGSAC$_\uparrow$	28.92	95.08	73.87	41.26	57.18	54.86	61.57	43.66	10.58	18.56	56.98	77.51	42.81	49.99	29.96	95.87	72.06	48.52	23.33	65.71	33.62
+NCMNet+MAGSAC$_\downarrow$	38.44	95.83	64.74	41.79	55.63	60.90	61.68	37.55	10.77	19.36	68.62	78.14	30.67	46.94	38.43	96.46	63.90	48.76	23.53	66.01	33.85
+OANet	**89.94**	93.79	10.34	17.22	27.62	**86.70**	64.39	10.77	3.81	8.30	87.82	73.24	8.37	28.32	**89.48**	94.59	10.55	21.23	7.97	38.68	15.67
+OANet+MAGSAC$_\uparrow$	**91.19**	94.70	9.18	17.00	28.09	**92.60**	56.01	6.66	4.30	8.03	**94.31**	75.29	5.24	28.24	**90.80**	95.24	9.41	22.47	8.58	38.97	15.65
+OANet+MAGSAC$_\downarrow$	**92.08**	95.14	8.32	17.57	28.49	**93.26**	56.02	5.99	4.62	8.37	**95.59**	75.80	3.93	27.35	**91.68**	95.64	8.55	22.91	8.74	39.35	15.98