	MegaDepth								Sca						nNet					Planar										•				IMC PhotoTourism														
Pipeline	Filtered	Precision	Recall	AUC ^F ₆₅	AUC ₀₁₆	AUC gran	AUC_{\angle}^F	AUC_{05}^{E}	AUC_{010}^E	AUC ^E	auc ^E	Filtere	d Precisio	n Recall	AUC ^F	AUC_{010}^F	0 AUCF	AUC _Z	AUC ^E	AUCE 3	0 AUCE	20 AUC	Filters	ed Precis	ion Recal	d AUC	$^{H}_{05}$ AUC $^{H}_{010}$	AUC#	5 AUC ^H	Filtere	1 Precisio	on Recall	AUC ^F	AUC_{010}^F	AUC^F_{029}	AUC_{\angle}^F	AUC_{05}^{E}	AUC_{010}^E	AUC ^E	AUC _Z	AUCF 0(5,	$AUC_{0(10)}^F$	$_{1)}AUC_{6(20)}^{F}$	AUC^F_□	$AUC_{6(5,\frac{1}{2})}^{E}$	AUCE(19,	$_{1,1)}$ AUC $_{0(20,2)}^{E}$	$_{,2)}$ AUC $_{\square}^{E}$
+MAGSAC _↓	20.27 31.13	92.27 95.36 96.11	99.93 83.11 72.68	43.66 49.66 49.51	59.07 64.28 64.14	71.94 75.89 75.76	58.22 63.27 63.14	48.98 49.18 49.45	66.30 66.40 66.85	79.10 79.33 79.66	64.79 64.97 65.32	0.00 37.07 45.54	63.40 64.24 64.38	89.67 60.05 51.60	4.58 8.93 9.10	10.93 18.65 18.24	20.65 29.37 28.96	12.05 18.98 18.77	12.11 12.75 12.38	24.81 25.17 24.31	37.06	24.59	67.08	72.89 77.58 78.21	43.73 31.03		52.97 54.46 85.28	59.27 60.66 61.60	49.87 47.28	0.00 17.92 28.09	93.58 95.93 96.55	99.89 84.44 74.66	41.75 49.89 49.86	56.71 64.63 64.68	69.88 76.59 76.70	56.11 63.70 63.75	58.25 58.79 58.74	73.63 74.00 73.94	84.06 84.32 84.30	71.98 72.37 72.33	17.75 22.53 22.67	29.39 35.57 35.73	42.78 50.03 50.18	29.97 36.04 36.19	24.21 24.92 24.78	40.54 41.19 41.23	57.97 58.28 58.39	40.91 41.46 41.47
+MAGSAC _† +MAGSAC _‡	61.72	92.95 95.25 95.96	53.85 45.84 40.39	22.83 26.10 26.15	36.98 40.69 41.20	52.87 56.17 56.96	37.56 40.99 41.43	34.52 34.75 35.46	54.11 54.68 55.45	70.76 71.18 71.77		48.36 67.25 71.26	65.26 63.39 63.50	46.54 31.84 27.71	2.88 3.92 3.71	7.52 10.04 9.66	15.81 19.44 19.19	8.74 11.13 10.86	6.90 7.06 7.67	16.18 16.37 17.12	27.97 28.38 29.15	17.02 17.27 17.98	58.26 79.69 84.91	74.01 77.57 78.11	36.20 20.46 14.99			53.56 55.07 54.74	41.33 38.97 37.27	51.14 58.58 63.33	94.36 95.97 96.52	49.15 42.66 38.07	30.58 34.26 34.34	46.24 50.12 50.33	61.70 65.07 65.37	46.17 49.82 50.01		65.35 65.88 65.86	78.53 78.91 78.83	63.76 64.24 64.24	11.00 12.96 12.89	20.20 23.06 23.01	32.37 35.78 35.84	21.19 23.94 23.91	17.28 17.45 17.46	31.12 31.34 31.36		32.01 32.29 32.22
$+MAGSAC_{\uparrow}$ $+MAGSAC_{\downarrow}$	20.27 31.13	92.27 95.36 96.11	99.93 83.11 72.68	43.66 49.66 49.51	59.07 64.28 64.14	71.94 75.89 75.76	58.22 63.27 63.14	48.98 49.18 49.45	66.30 66.40 66.85	79.10 79.33 79.66	64.79 64.97 65.32	0.00 37.08 45.54	63.40 64.24 64.38	88.67 60.05 51.60	4.58 8.93 9.10	10.93 18.65 18.24	20.65 29.36 28.96	12.05 18.98 18.77	12.11 12.75 12.38	24.81 25.17 24.31	37.96 37.87 37.06	24.96 25.26 24.59	0.00 55.05 67.08	72.89 77.58 78.21	43.73 31.03	38.33 40.65 41.22	52.97 54.46 55.28	59.27 60.66 61.60	59.26 49.87 47.28	0.00 17.92 28.09	93.58 95.93 96.55	99.80 84.44 74.66	41.75 49.89 49.86	56.71 64.63 64.68	69.88 76.59 76.70	56.11 63.70 63.75	58.25 58.79 58.74	73.63 74.00 73.94	84.06 84.32 84.30	71.98 72.37 72.33	17.75 22.53 22.67	29.39 35.57 35.73	42.78 50.03 50.18	29.97 36.04 36.19	24.21 24.92 24.78	40.54 41.19 41.23	57.97 58.28 58.39	40.91 41.46 41.47
$+MAGSAC_{\uparrow}$ $+MAGSAC_{\downarrow}$	16.37 32.81 41.90	85.47 87.99 88.68	83.94 70.01 61.28	32.94 36.55 36.98	46.70 50.56 51.14	60.62 63.32 63.92	46.76 50.14 50.68	40.49 42.38 42.67	57.43 59.66 59.61	70.83 72.44 72.34	56.25 58.16 58.21	23.68 52.00 58.08	52.79 52.62 52.78	66.68 45.09 39.09	4.46 6.59 6.86	10.31 13.92 14.19	18.61 22.27 22.67	11.13 14.26 14.57	9.91 10.38 9.73	19.87 20.41 19.69	30.40 31.08 30.50	20.06 20.62 19.97	72.38 90.64 92.00	10.70 11.49 11.61		3.53 3.78 3.83	5.41 5.50 5.45	6.31 6.14 6.55	7.38 5.11 4.86	n/a n/a n/a	n/a n/a n/a	n/a n/a n/a	n/a n/a n/a	n/a n/a n/a	n/a n/a n/a	n/a n/a n/a	n/a n/a n/a	n/a n/a n/a	n/a n/a n/a	n/a n/a n/a	n/a n/a n/a	n/a n/a n/a						
+MAGSAC _† +MAGSAC _↓	39.51	92.83 95.26 96.00	86.48 72.61 63.61	22.14 26.48 26.52	35.99 41.21 41.51	52.22 58.07 57.83	36.78 41.92 41.95	37.81 38.70 40.02	57.03 58.17 58.82	73.15 73.99 74.37	56.00 56.95 57.74	34.98 57.80 63.39	65.74 61.43 61.55	58.37 40.60 35.00	2.46 3.33 3.34	5.79 8.45 8.19	11.92 17.00 16.75	6.72 9.59 9.43	8.36 8.24 7.59	18.03 17.56 17.47	29.80 29.60 29.40	18.73 18.47 18.15	8.94 57.48 68.95	73.50 77.55 78.05	81.78 41.87 29.80	39.59 40.94 40.52	54.12 54.90 54.67	60.36 60.65 60.53	58.97 49.59 46.38	19.32 32.37 40.49	94.16 95.85 96.44	80.91 69.56 61.73	27.56 32.21 32.47	42.75 48.19 48.57	59.11 64.38 64.63	43.14 48.26 48.56	50.07 50.50 50.54	67.46 67.71 67.87	79.78 79.97 80.19	65.77 66.06 66.20	10.08 12.57 12.77	18.94 22.28 22.59	30.73 34.61 35.00	19.91 23.15 23.45	18.39 18.40 18.66	33.20 33.14 33.46	50.22 50.24 50.53	33.94 33.93 34.21
+MAGSAC _↓	73.90	92.87 94.36 94.99	35.72 30.99 27.45	14.34 17.61 17.84	25.98 29.28 29.79	40.55 44.17 44.94	26.96 30.35 30.86	24.93 25.80 25.75	43.68 43.75	61.26 61.50 61.57	43.66 43.69	65.35 78.22 80.88	65.33 60.33 60.39	31.80 21.89 19.08	1.89 2.47 2.78	5.91 7.62 7.71	13.41 15.89 16.00	7.07 8.66 8.83	6.18 5.31 6.02	14.91 14.19 15.14	26.54 26.04 26.76	15.88 15.18 15.97	60.31 80.45 85.48	73.93 76.37 76.85	34.98 19.66 14.38	29.35 31.53 31.56	44.83 46.67 46.95	52.75 53.95 54.27	40.48 37.95 36.79	63.16 68.29 71.82	94.19 95.37 95.88	37.06 32.59 29.18	22.24 25.15 25.53	37.27 40.81 41.05	53.66 56.88 57.10	37.72 40.95 41.23	38.23 38.66 38.62	56.87 57.34 57.46	72.16 72.58 72.59	55.75 56.19 56.22	7.41 8.62 8.87	14.71 16.79 17.04	25.50 28.16 28.43	15.87 17.86 18.11	12.75 13.13 13.13	24.82 25.45 25.20	40.43 40.89 40.66	26.00 26.49 26.33
+MAGSAC _† +MAGSAC _‡	74.23	92.73 94.64 95.26	35.35 30.49 26.96	13.58 15.43 15.59	25.36 28.07 28.00	40.82 43.42 43.29	26.59 28.97 28.99	24.41 24.15 23.81	42.76 42.59 42.34	60.72 61.17 60.91	42.63 42.64 42.35	67.46 79.04 81.60	64.84 60.69 60.74	29.57 20.88 18.18	1.14 1.79 1.61	3.87 4.97 5.13	9.74 11.33 11.91	4.92 6.03 6.22	4.43 4.17 4.70	11.36 10.97 12.07	21.14 20.94 22.26	12.31 12.03 13.01	66.10 83.22 87.53	73.56 76.73 77.11	29.01 16.78 12.15	24.66 28.30 28.53	40.41 44.23 44.38	48.88 51.90 51.96	35.74 35.31 34.26	65.10 70.08 73.43	94.16 95.52 96.03	35.05 30.72 27.48	19.47 22.32 22.77	34.35 37.82 38.36	51.19 54.37 54.93	35.01 38.17 38.69	35.14 35.70 35.40	54.49 54.93 54.73	70.55 70.93 70.87	53.39 53.85 53.67	6.20 7.38 7.49	12.99 14.82 15.16	23.23 25.70 26.17	14.14 15.96 16.27	11.60 11.84 11.43	22.87 23.26 22.87	37.86 38.31 37.99	24.11 24.47 24.10
+MAGSAC _↓	13.11	97.04 97.88 97.45	96.66 95.29 93.80		67.43 68.87 68.83	78.57 79.80 79.85	65.33 67.81 67.79		67.04 68.81 68.88	80.12 81.18 80.83	65.62 67.28 66.88	20.88 35.09 38.13	65.01 66.09	72.61 63.56 60.48	7.45 10.28 10.40	20.70 20.81	31.79	16.88 20.99 21.00	12.75 13.05 12.04	25.04 25.37 25.37	38.37 38.33 38.09	25.39 25.88 25.44	42.59	76.15 77.90 78.25	68.97 59.22		53.70 55.03 54.44	60.39 61.12 60.91	56.37 53.66	10.29 12.25 13.95	97.00 97.80 97.40	93.86 92.25 90.59	54.22	68.63 68.67	79.78	67.56	60.72		84.93 84.98 85.06	73.68 73.63 73.64	23.89 25.74 25.88	37.25 39.52 39.52	51.29 53.95 53.96	37.48 39.73 39.79	27.24 26.65 27.18	43.73 43.96 43.79	60.74	43.85 43.49 43.90
+MAGSAC _† +MAGSAC _↓	30.39 39.64	90.59 92.74 93.44	86.54 72.30 63.40	42.92 46.14 46.02	57.67 60.08 60.27	69.96 71.49 71.87	56.85 59.24 59.39	44.42 46.82 48.00	61.20 63.06 64.08	74.16 75.52 76.12	59.93 61.80 62.73	34.62 53.51 60.62	60.51 59.67 59.84	64.55 45.99 38.87	5.28 7.94 8.30	11.92 16.47 16.91	21.57 26.43 26.94	12.92 16.95 17.39	11.56 10.97 10.92	23.36 22.64 22.78	35.61 34.98 35.13	23.51 22.86 22.94		72.62 76.83 77.51	75.84 40.13 28.66	42.13	53.70 54.69 55.87	60.05 60.82 61.39	57.24 49.28 46.89	12.29 26.91 35.81	93.38 95.19 95.79	87.89 75.15 66.59	42.54 47.03 47.03	57.44 61.88 61.87	70.48 74.24 74.29	56.82 61.05 61.06	55.94 56.49 56.50	71.32 71.81 71.95	82.33 82.50	69.76 70.21 70.32	18.20 20.99 20.98	29.94 33.33 33.33	43.52 47.37 47.41	30.55 33.89 33.91	23.35 23.55 23.55	38.89 39.45 39.46	55.75 56.41 56.33	39.33 39.80 39.78
+MAGSAC _↓	75.84 79.77 82.24	95.51 96.18	24.65 21.32 18.91	26.48 27.27 27.61	41.89 42.23 42.43	57.57 57.96 57.88	41.98 42.49 42.64	21.76 22.79 23.35	38.41 39.77 40.95	56.34 57.51 59.04	38.84 40.02 41.11	57.11 72.95 75.35	65.05 64.03 64.17	33.56 23.40 21.07	2.41 3.85 3.72	6.55 8.92 8.63	14.19 16.74 16.30	7.72 9.84 9.55	5.04 5.23 4.65	11.70 11.94 11.94	21.74 21.80 21.65	12.83 12.99 12.75	63.61 83.14 86.40		23.80 13.00 9.65	26.88 29.12 29.60	44.68 47.82 47.90	52.48 55.40 55.79	36.96 36.33 35.76	74.52 78.18 80.51	94.62 95.83 96.35	25.55 22.45 20.20	27.88 31.32 31.48	42.56 46.12 46.36	57.61 60.75 60.88	42.68 46.06 46.24	33.75 33.33 33.91	51.84 51.55 52.20	67.96 68.32	51.13 50.95 51.48	10.09 11.85 11.86	18.67 20.99 21.22	30.06 32.76 33.11	19.61 21.87 22.06	11.25 11.17 11.44	21.86 21.54 21.82	36.16 35.95 36.15	23.09 22.88 23.14
+MAGSAC _↓	28.92 38.44	92.76 95.08 95.83	87.97 73.87 64.74	20.80 25.70 26.41	35.60 40.81 41.40	52.35 57.27 57.55	36.25 41.26 41.79	36.86 38.33 37.06	56.21 58.58 56.69	72.28 74.62 73.16	55.12 57.18 55.63	31.04 54.86 60.90	65.40 61.57 61.68	62.14 43.66 37.55	2.85 3.91 4.08	7.33 9.45 9.86	15.11 18.36 18.37	8.43 10.58 10.77	7.81 8.08 8.58	17.76 17.66 18.69	29.94 29.95 30.80	18.50 18.56 19.36	7.23 56.98 68.62	73.42 77.51 78.14	83.52 42.81 30.67	40.34 41.39 41.57	54.15 54.88 54.65	60.53 60.86 60.88	49.99 46.94	16.35 29.96 38.43	94.18 95.87 96.46	83.91 72.06 63.90	28.09 32.71 32.92	43.24 48.56 48.83	59.22 64.28 64.53	43.52 48.52 48.76	49.50 49.90 50.16	67.06 67.36 67.66	79.69 79.87 80.20	65.42 65.71 66.01	10.60 12.74 12.90	19.32 22.42 22.67	30.94 34.81 35.00	20.29 23.33 23.53	18.07 18.49 18.66	32.51 32.72 32.94	49.39 49.65 49.94	33.32 33.62 33.85
+MAGSAC _† +MAGSAC _↓	92.08	93.79 94.70 95.14	10.34 9.18 8.32	7.59 7.20 7.99	15.95 15.50 16.21	28.13 28.31 28.50	17.22 17.00 17.57	12.98 13.01 13.22	26.94 26.91 27.16	43.83 44.34 45.08	27.62 28.09 28.49	98.70 92.60 98.26	56.01 56.02	10.77 6.66 5.99	0.69 0.98 1.13	2.80 3.22 3.70	7.93 8.71 9.04	3.81 4.30 4.62	2.74 2.34 2.62	7.15 6.96 7.29	15.00 14.80 15.22	8.30 8.03 8.37	94.81 95.80	73.24 75.29 75.80	8.37 5.24 3.93	22.86 22.66 21.97	37.32 38.73 37.85	44.74 46.31 45.64	28.32 28.24 27.35	90.80 91.68	94.59 95.24 95.64	10.55 9.41 8.55	9.54 10.63 10.87	19.73 21.12 21.65	34.42 35.67 36.21	21.23 22.47 22.91	21.64 21.79 22.11	38.40 38.64 39.08	56.48 56.87	38.68 38.97 39.35	2.89 3.29 3.40	7.02 7.66 7.72	14.00 14.80 15.10	7.97 8.58 8.74	6.60 6.57 6.77	14.42 14.22 14.67	25.98 26.17 26.50	15.67 15.65 15.98
+MAGSAC _† +MAGSAC _↓	31.34	92.39 95.32 96.11	99.53 82.93 72.54	44.59 49.59 48.97	59.93 64.08 63.58	72.77 75.68 75.30	59.10 63.12 62.62	47.90 49.12 50.45	65.59 66.32 67.64	78.62 79.26 80.22	64.04 64.90 66.11	23.90 46.66 54.79	59.81 61.53 61.63	75.39 53.21 44.92	4.95 8.87 8.92	11.68 18.06 18.52	21.76 28.66 29.08	12.79 18.53 18.84	11.19 12.56 11.65	23.72 24.74 23.86	36.74 37.10 36.74	23.88 24.80 24.08	15.86 59.48 71.42	72.70 77.47 78.07	83.65 43.51 30.82	38.37 40.75 41.60	53.35 54.46 55.31	60.15 60.67 61.39	58.88 49.85 47.28	1.22 18.38 28.51	93.58 95.81 96.43	98.82 84.05 74.29	43.50 49.48 49.60	58.58 64.33 64.46	71.49 76.41 76.51	57.86 63.41 63.52	58.43 58.59 58.58	73.71 73.85 73.76	84.03 84.19 84.13	72.06 72.21 72.16	18.59 22.48 22.66	30.70 35.52 35.69	44.49 49.91 49.99	31.26 35.97 36.11	24.45 24.59 24.75	40.78 40.89 41.23	58.07 58.08 58.19	41.10 41.19 41.39
$+MAGSAC_{\dagger}$ $+MAGSAC_{\downarrow}$	31.24	92.33 95.35 96.14	99.78 83.08 72.66	44.29 49.74 49.43	59.64 64.24 64.09	72.49 75.82 75.66	58.81 63.27 63.06	48.93 49.24 49.46	66.35 66.46 66.85	79.14 79.32 79.75	64.81 65.01 65.35	19.62 43.65 51.89	61.40 63.27 63.43	79.44 56.15 47.76	4.72 8.96 8.92	10.98 18.48 18.34	21.11 29.21 29.23	12.27 18.88 18.83	11.75 12.96 12.16	24.54 25.45 24.61	37.72 38.01 37.38	24.67 25.47 24.71	15.81 59.53 71.40	72.66 77.45 78.07	83.65 43.40 30.87		53.32 54.56 55.18	60.22 60.91 61.35	58.91 49.94 47.24	0.85 18.18 28.34	93.60 95.88 96.51	99.08 84.21 74.45	42.93 49.67 49.74	57.99 64.41 64.53	71.07 76.44 76.54	57.33 63.51 63.60	58.29 58.69 58.69	73.71 73.91 73.88	84.28 84.27	72.02 72.29 72.28	18.27 22.52 22.65	30.22 35.58 35.78	43.93 49.98 50.13	30.81 36.03 36.19	24.28 24.92 24.71	40.56 41.11 41.16	57.95 58.17 58.39	40.93 41.40 41.42
$+MAGSAC_{\uparrow}$ $+MAGSAC_{\downarrow}$	27.72 32.47	96.00 96.46	92:27 76:50 71:94	19.22 43.11 43.99	32.93 56.91 58.15	49.05 69.27 70.75	33.73 56.43 57.63	46.87 47.47 47.53	65.02 65.67 65.70	78.51 79.26 78.91	63.47 64.13 64.05	19.62 48.65 53.54	57.84 62.98 63.09	78.37 51.51 46.69	2.63 8.33 8.73	6.94 17.67 18.22	14.73 28.24 28.47	8.10 18.08 18.47	11.78 12.48 12.49	24.31 24.61 24.41	37.24 37.09 36.81	24.44 24.72 24.57	15.81 41.60 50.10	71.29 77.40 77.75	82.96 63.04 54.01	35.32 40.08 39.91	52.31 54.93 54.67	59.48 61.53 61.13	57.77 54.90 52.43	0.85 33.19 38.04	84.03 95.90 96.33	88.71 69.01 64.36	16.68 40.79 41.36	28.56 54.93 55.46	42.98 67.56 68.00	29.40 54.43 54.94	56.78 56.47 56.19	72.06 71.64 71.34	82.75 82.41 82.21	70.53 70.17 69.91	5.46 17.72 18.25	10.64 28.40 28.87	18.87 40.59 41.15	11.65 28.90 29.42	23.70 23.89 23.56	39.25 39.37 38.96	56.31 56.01 55.60	39.76 39.76 39.37
$+MAGSAC_{\uparrow}$ $+MAGSAC_{\downarrow}$	28.17 32.85	95.86 96.34	91.69 75.93 71.49	17.91 42.11 42.53	30.87 56.17 56.81	46.37 68.68 69.23	31.72 55.66 56.19	46.37 46.49 47.07	64.83 65.02	77.97 78.38 78.38	62.89 63.23 63.49	23.90 51.17 55.88	56.30 61.35 61.49	74.04 48.99 44.29	2.97 8.50 8.54	7.29 17.83 18.43	14.75 28.50 28.88	8.34 18.28 18.62	11.89 12.30 12.57	24.36 24.66 24.84	37.03 37.16 37.37	24.43 24.71 24.93	15.86 42.05 50.37	70.91 77.38 77.77	82.44 62.50 53.79	35.05 40.52 40.13	51.65 55.27 54.79	58.87 61.91 61.41	57.25 55.05 52.53	1.22 33.48 38.28	83.64 95.73 96.15	88.09 68.69 64.10	16.17 40.17 40.80	27.57 54.09 54.73	41.49 66.65 67.20	28.41 53.64 54.24	56.54 55.98 55.85	71.80 71.35 71.02	82.56 82.18 81.89	70.30 69.84 69.58	5.54 17.65 18.02	10.70 28.11 28.53	18.71 40.21 40.75	11.65 28.66 29.10	23.89 23.35 23.58	39.53 38.77 38.83	56.35 55.59 55.48	39.92 39.24 39.29
+MAGSAC ₊	44.48		79.29 55.27 49.54	14.99 27.49 27.92	26.96 38.19 38.83	42.48 50.29 50.07	28.14 38.65 38.94	32.33 32.88 33.43	47.39 48.27 48.87	61.76 63.02 63.35	47.16 48.06 48.55	0.00 46.90 52.41	58.52 63.42 63.58		2.38 7.14 7.08		13.94 25.84 25.80	7.57 16.12 16.08	9.95 10.16 10.53	21.56 21.61 21.88	34.25 33.94 34.50	21.90	70.33	53.62 77.47 77.97		38.08	48.74 52.89 52.98	55.60 59.60 59.26	49.80 44.66 43.09	0.00 50.91 57.22	74.40 90.88 91.41		13.05 26.04 26.13	23.37 38.03 38.07		24.47 38.25 38.28		56.68 57.11 56.77	69.92 70.03 69.68	56.05 56.50 56.22	4.12 10.44 10.66	8.45 17.87 18.07	15.57 27.38 27.47	9.38 18.57 18.73	16.29 16.74 16.81	28.43 29.04 28.90		29.18 29.66 29.60