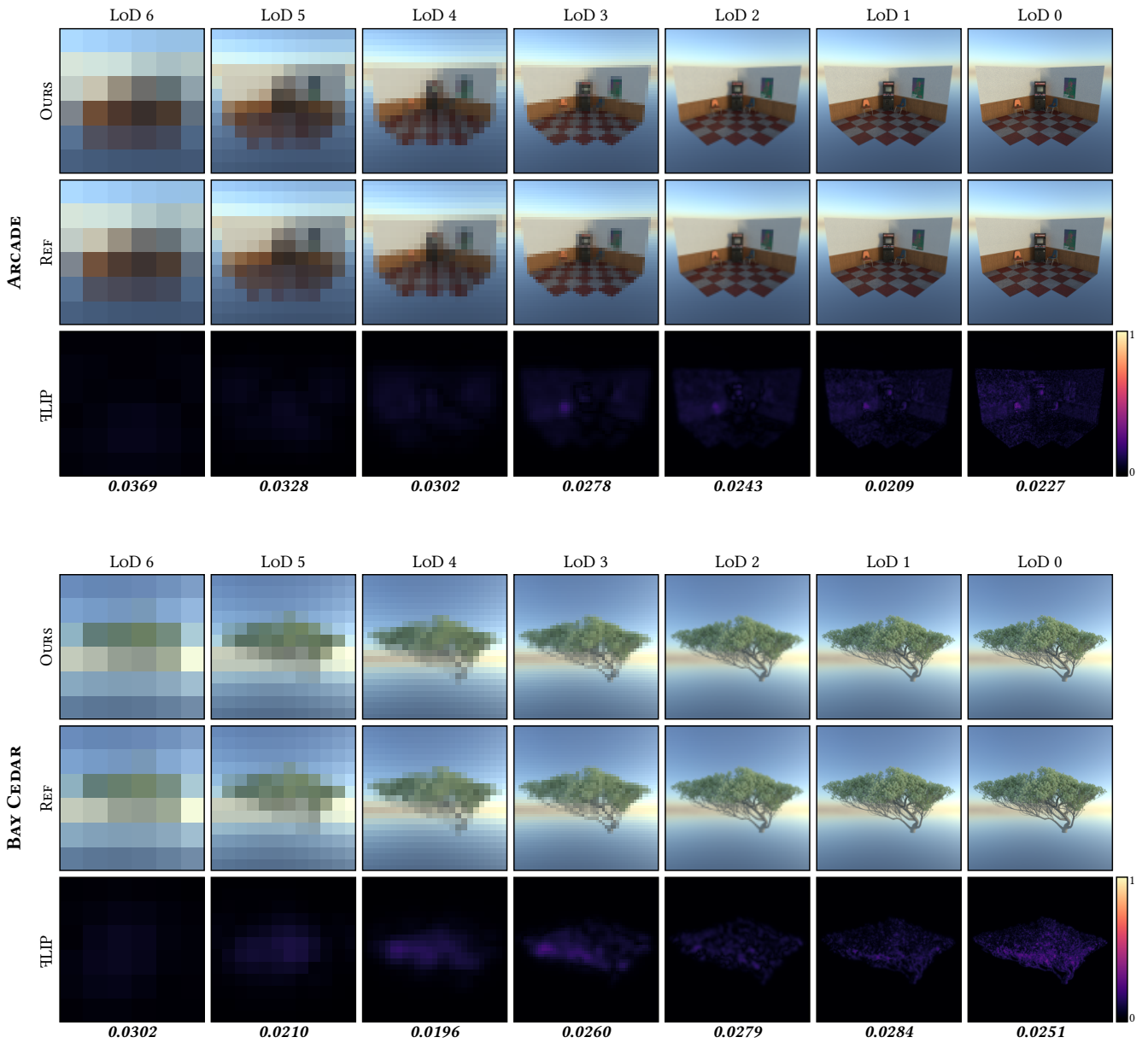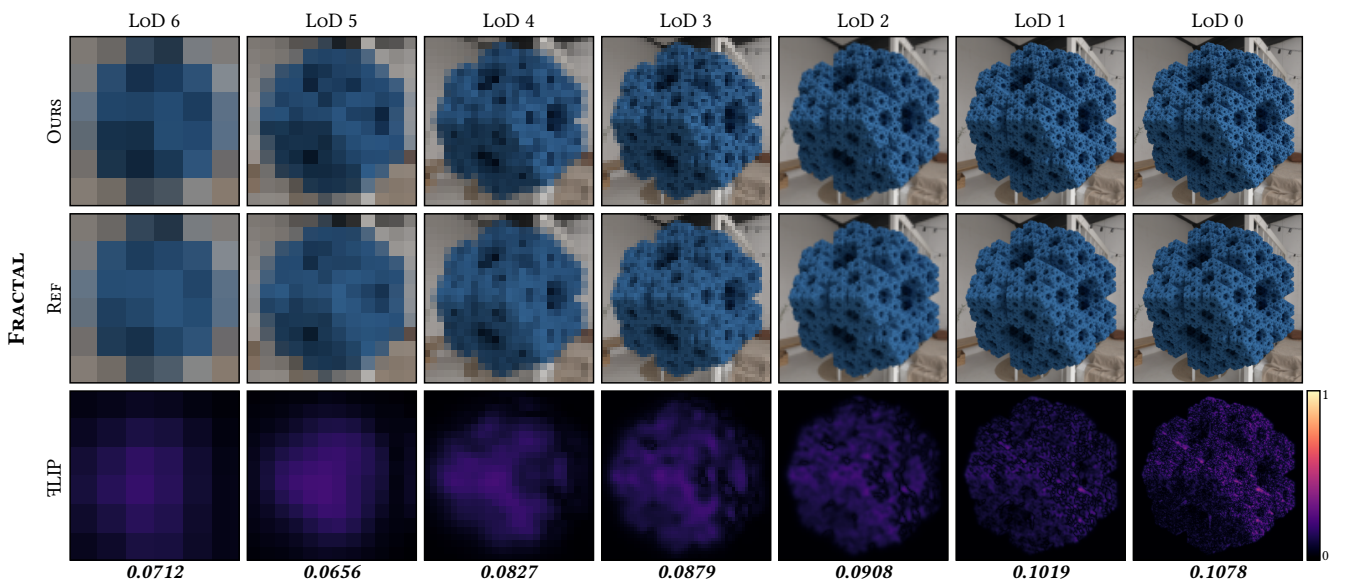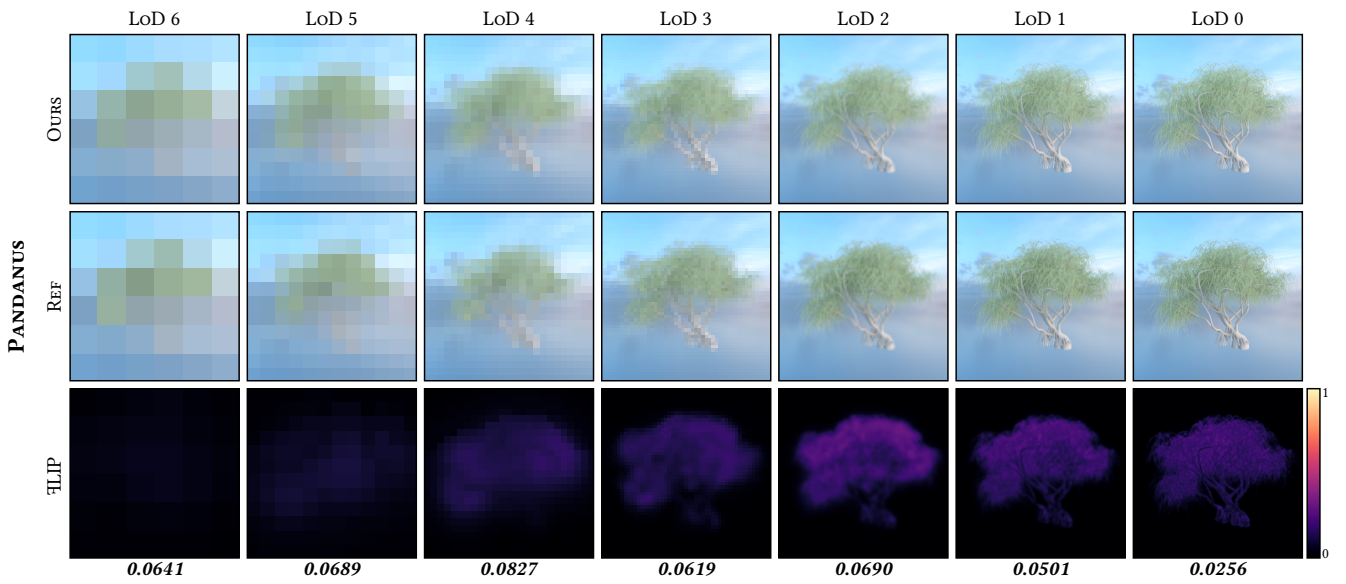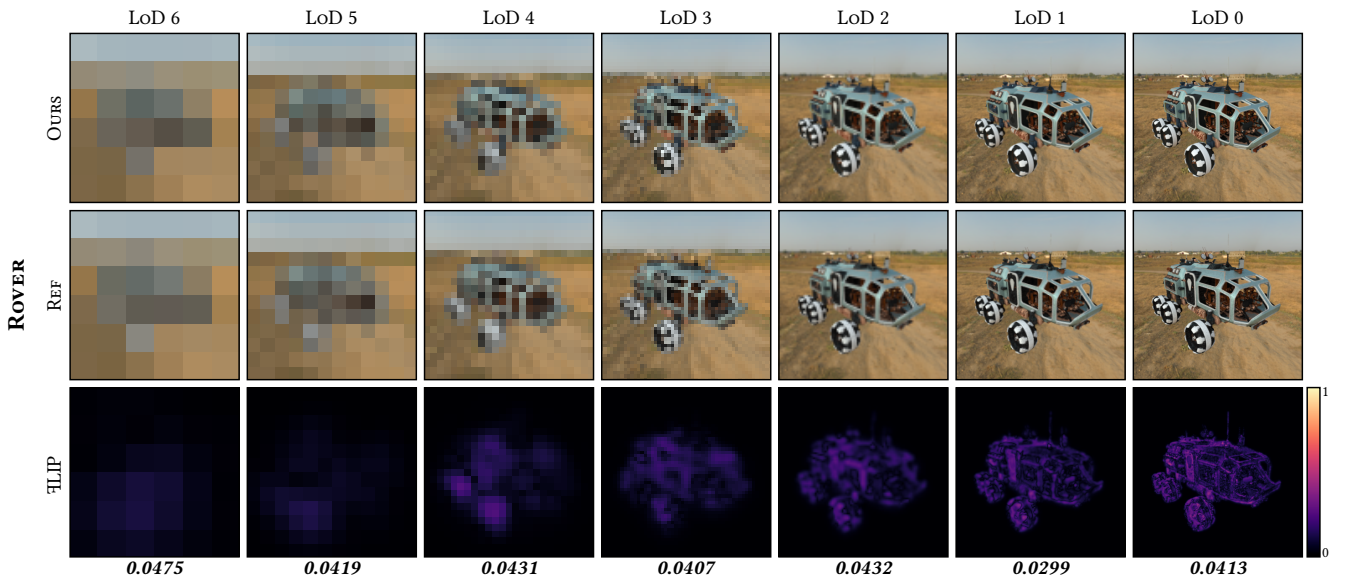# Supplemental Material
Additional Results

1   Complex Illumination

To showcase our approach's versatility in generating accurate prefiltered results under varying lighting conditions, we present additional results that feature non-constant illumination. Our method achieves low error even when the lighting is not uniform. In particular, in scenes exhibiting curved surfaces with glossy materials, specular highlights can also be observed when subjected to stronger directional illumination.

	LoD 6	LoD 5	LoD 4	LoD 3	LoD 2	LoD 1	LoD 0
ROVER FLIP	*0.0475*	*0.0419*	*0.0431*	*0.0407*	*0.0432*	*0.0299*	*0.0413*

	LoD 6	LoD 5	LoD 4	LoD 3	LoD 2	LoD 1	LoD 0
PANDANUS FLIP	*0.0641*	*0.0689*	*0.0827*	*0.0619*	*0.0690*	*0.0501*	*0.0256*

	LoD 6	LoD 5	LoD 4	LoD 3	LoD 2	LoD 1	LoD 0
FRACTAL FLIP	*0.0712*	*0.0656*	*0.0827*	*0.0879*	*0.0908*	*0.1019*	*0.1078*

2 Mixing correlated and non-correlated surfaces

The following results show that our method can successfully handle a mix of correlated and non-correlated surfaces that appear at the same level of detail in a large-scale scene. The scene comprises over 16.8 million triangles for a total size of 1026 MB, including textures. The scene is illuminated by two different environment maps: a slightly more uniform illumination from an overcast sky and a stronger directional environment map illumination. Table 2 and 1 show training times and the total memory footprint of the prefiltered scene.
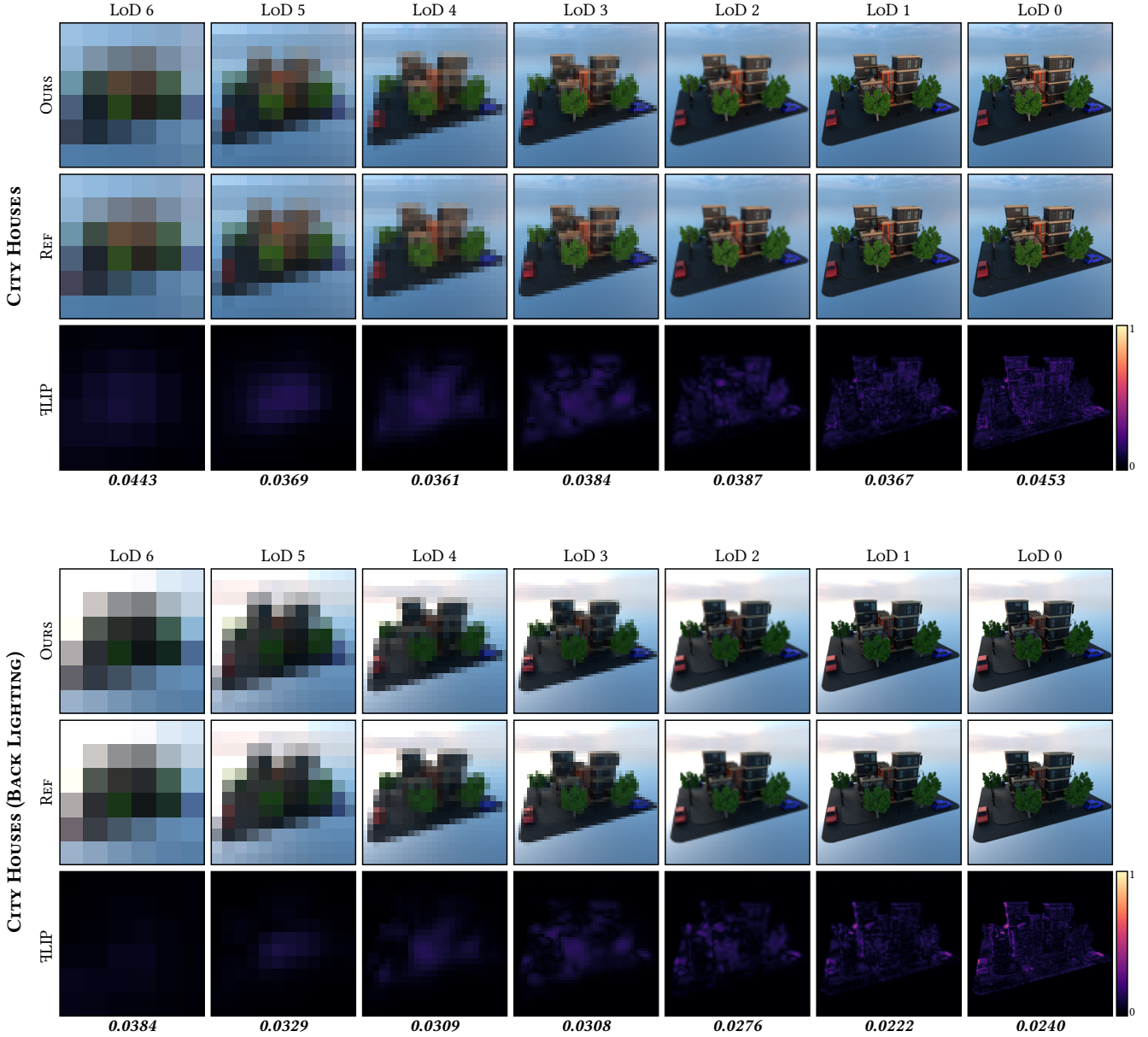
Vis. Net $(S = 2^{19})$		**App. Net.** $(S = 2^{19})$		**Voxel Grid**		**Total Memory Footprint**		
Feat./ Level	Train. Params	Feat./ Level	Train. Params	Sparsity (LoD 0 / 6)	Total Size	LoDs	Original Scene	Space Saving
8	15.04M (30.09 MB)	4	7.56M (15.12 MB)	98.89% / 67.58%	7.54 MB	54.14 MB	1026.26 MB	**94.72%**

Table 1: Memory footprint decomposition for the CITY HOUSES scene.

Visibility Net. 100 steps / total	Appearance Net. 100 steps / total	Total
5.16s / 8.60m	7.72s/ 12.86m	**21m28s**

Table 2: Network training times for the CITY HOUSES scene.