

Validating the Use of Real-Time Videos in VR for Studying Dynamic Views-Out through Tone-Mapping Comparisons

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HIGHLIGHTS

(1) INNOVATION IN VR VIEW REPRESENTATION:

Transition from static images to real-time videos, improving the representation of dynamic and temporal features

(2) VALIDATION AND PROGRESS:

Building upon pilot study findings to further validate the use of real-time videos in studying daylight view-out perception, with emphasis on brightness and contrast measurements.

(3) FOUNDATION FOR FUTURE RESEARCH:

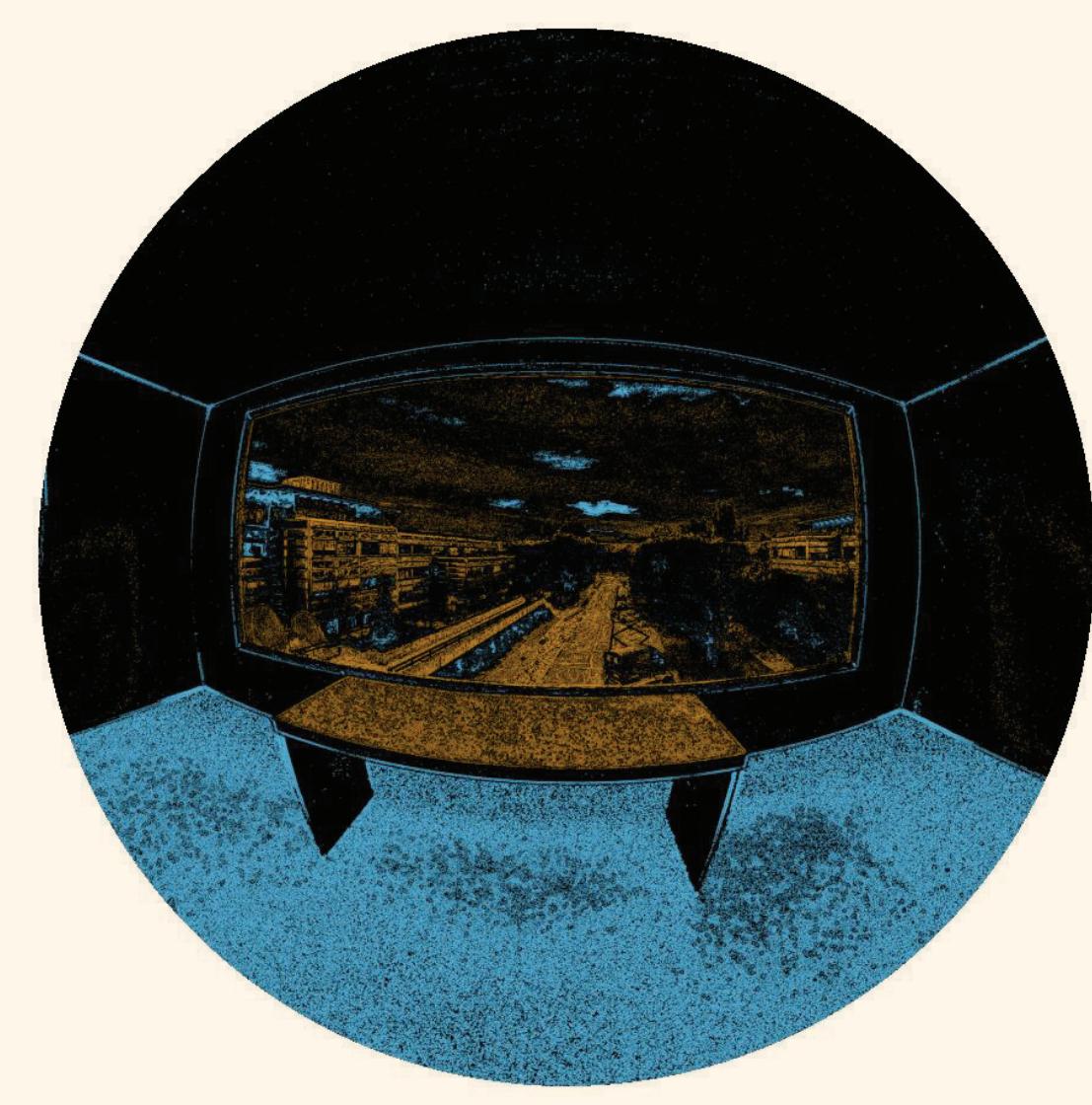
Evaluating automatic tone-mapping procedures versus normative operators, setting the stage for novel experiments to better represent dynamic views, for more extensive investigations in future VR studies.

ANALYSIS COMPONENTS

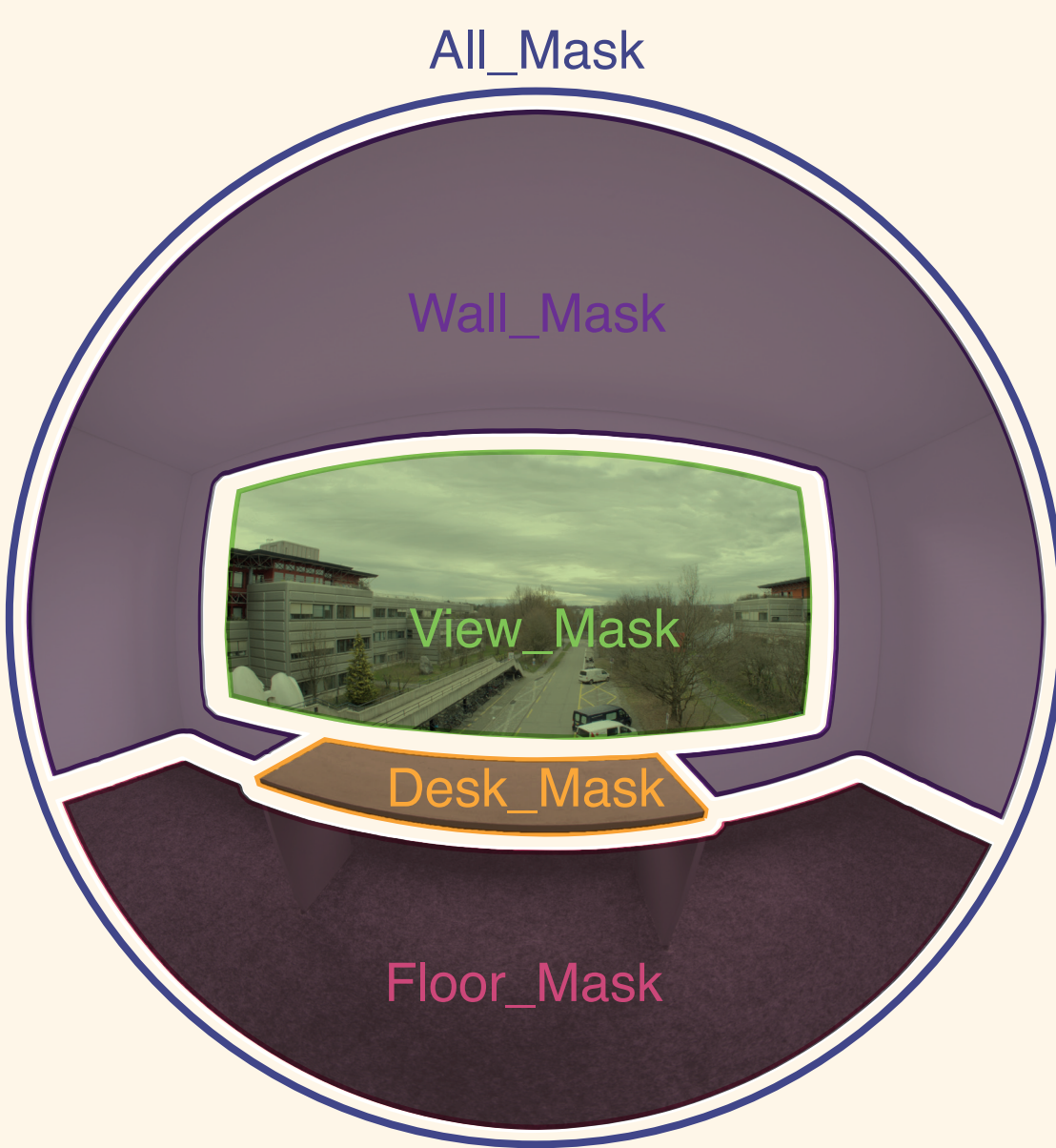
(1) Cropped Fisheye Image - Original



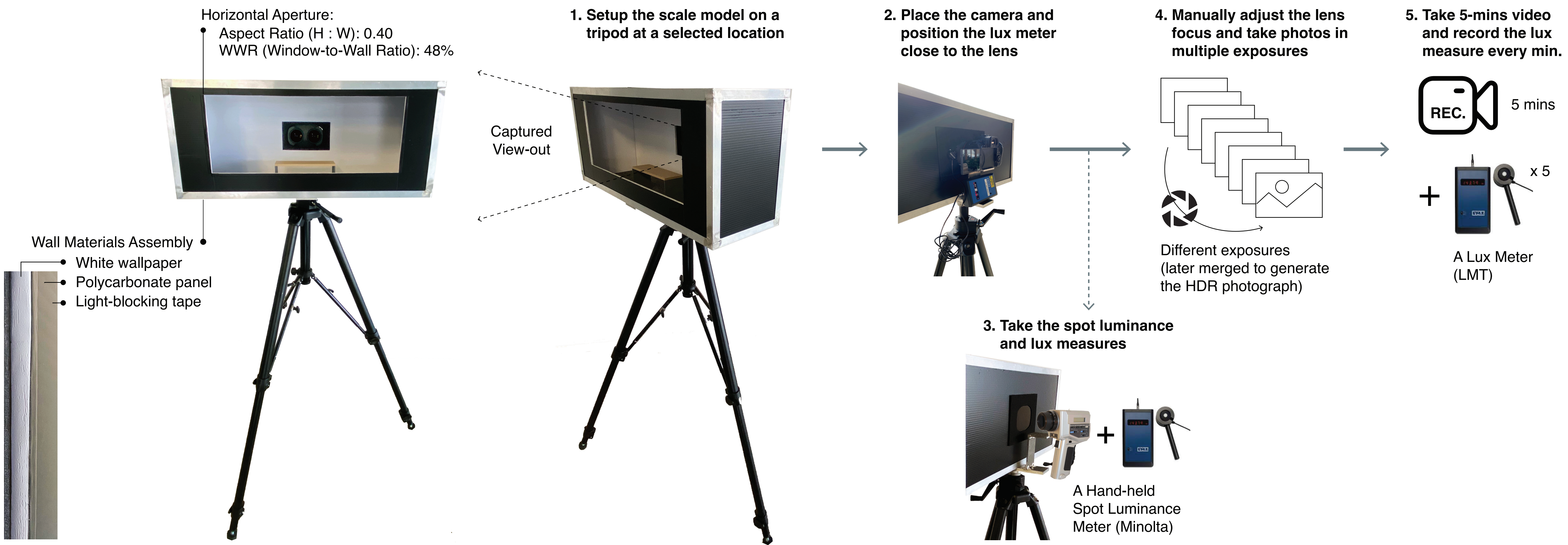
(2) Analyzed - Contrast Amplification and Loss
e.g., Video Tone Mapping vs. HDR



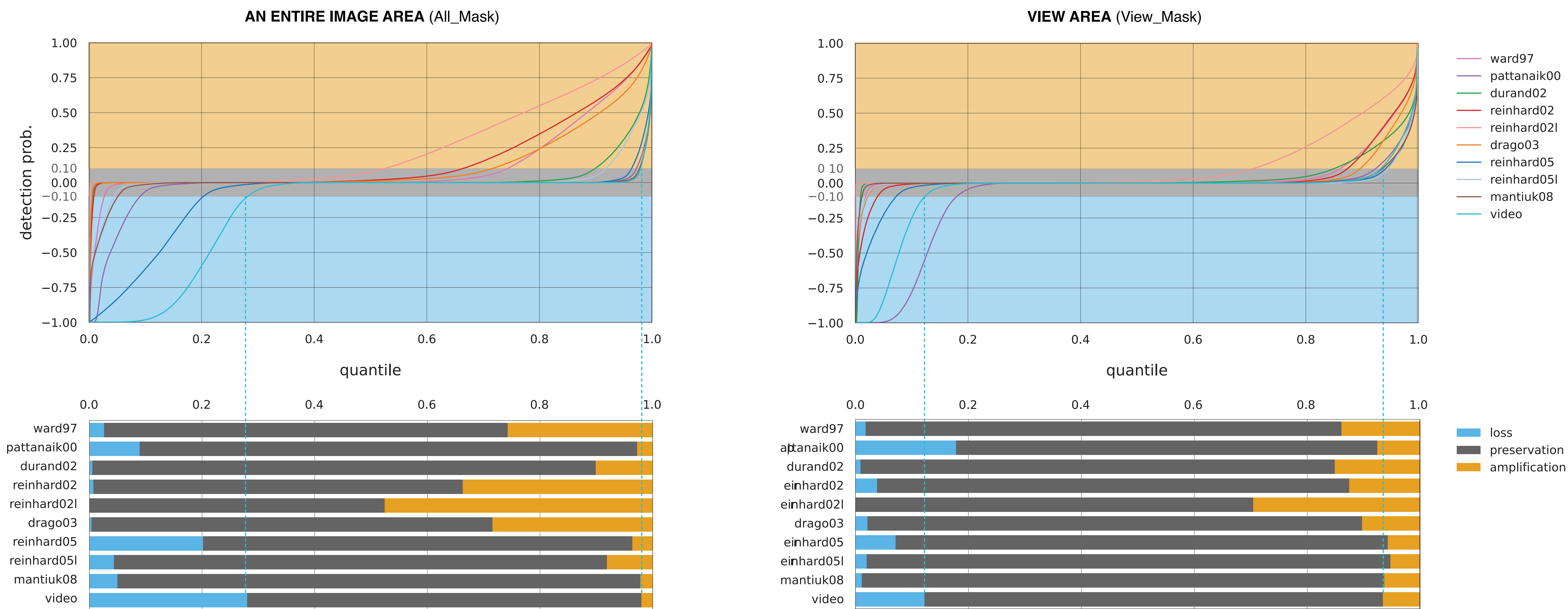
(3) Masked - All, Wall, View, Desk, Floor



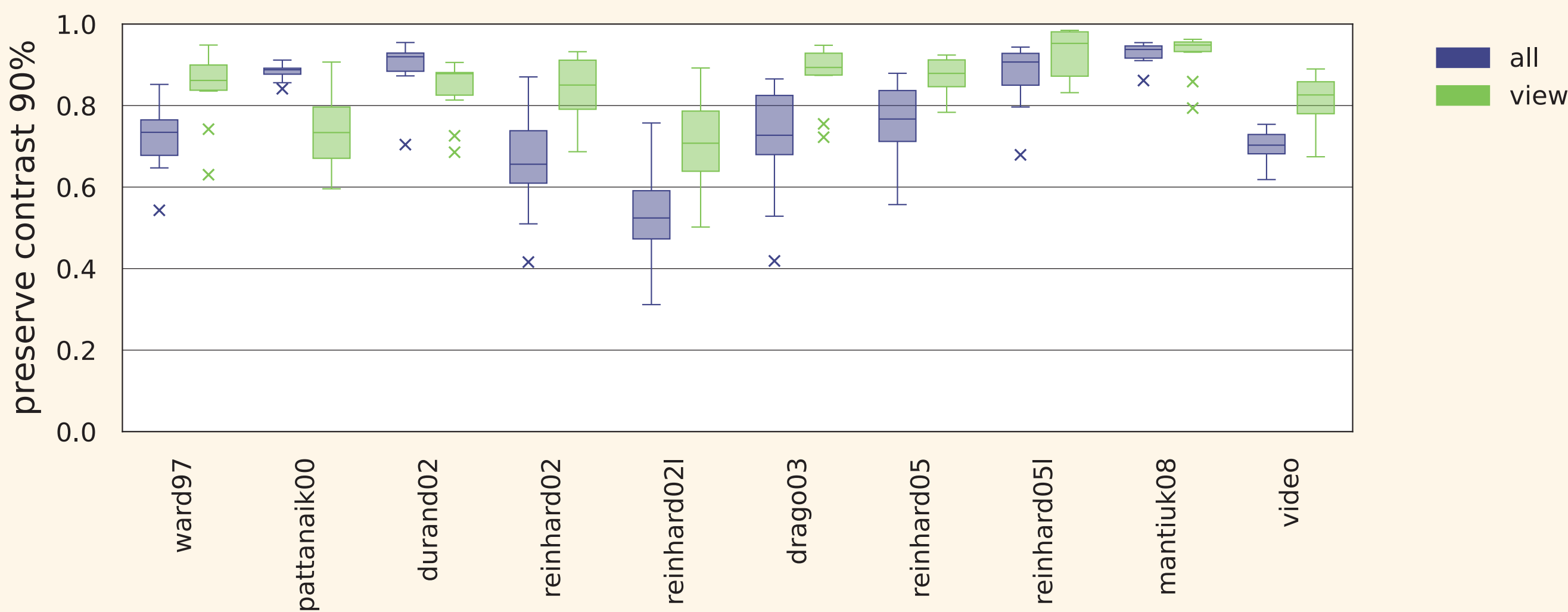
SCENE COLLECTION METHODOLOGY



ANALYSIS RESULTS



ABILITY TO PRESERVE CONTRAST WITHIN A REGION



ABILITY TO PRESERVE CONTRAST ACROSS REGIONS

