

Toward Evaluating the Usefulness of Global Illumination for Novices in Lighting Design Tasks

Supplemental material: per-subject results

This document contains the target images each subject receives for each trial, and the final images he or she produces. Additionally, graphs showing the image error plotted over time for all matching trials (Experiments 1 to 3) are given. The image error is computed as the average per-pixel difference (euclidean distance in the perceptually uniform CIELAB color space) between the subject's solution at the particular time and the target image.

Subject 1

Experiment 1

Cartoon scene

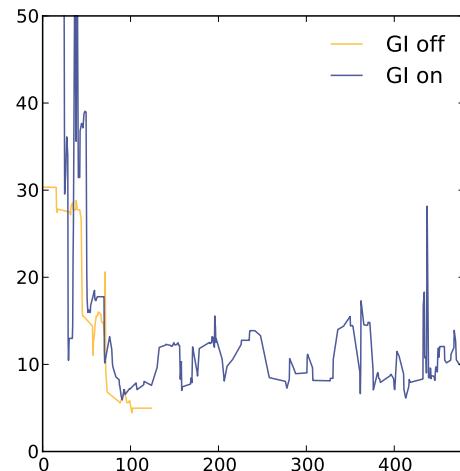
Subject's result - GI off



Target image - GI off



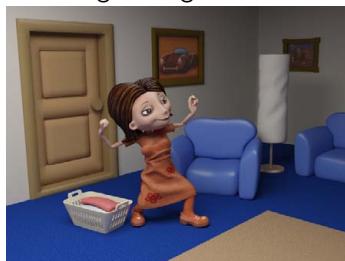
CIELAB error in time



Subject's result - GI on



Target image - GI on



Architecture scene

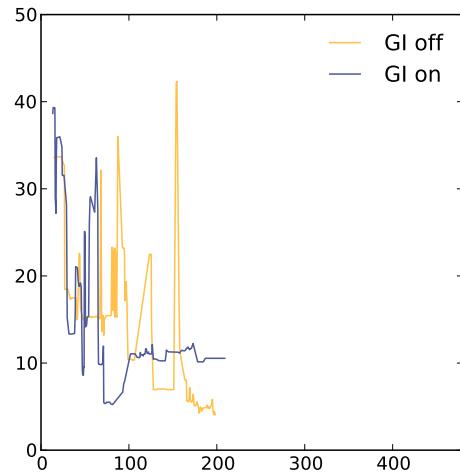
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Experiment 2

Cartoon scene

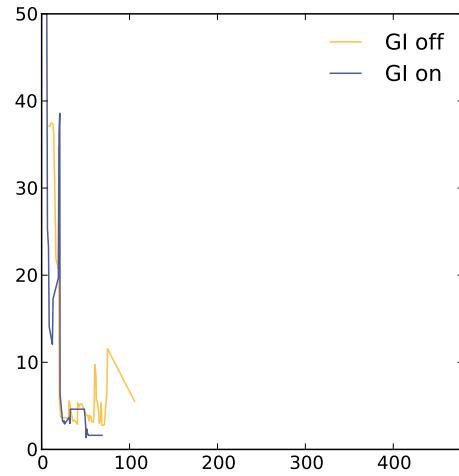
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Architecture scene

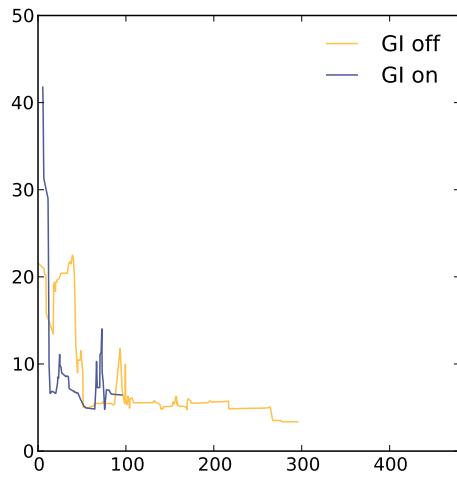
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Experiment 3

Cartoon scene

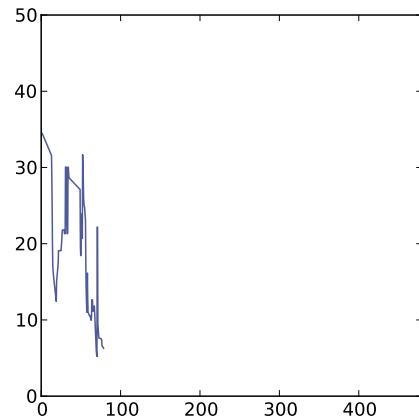
Subject's result



Target image



CIELAB error in time



Architecture scene

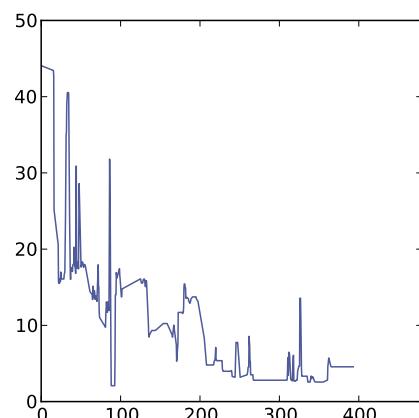
Subject's result



Target image



CIELAB error in time



Experiment 4

Lighting model 1: small key lights, GI off

Subject's result - Cartoon scene



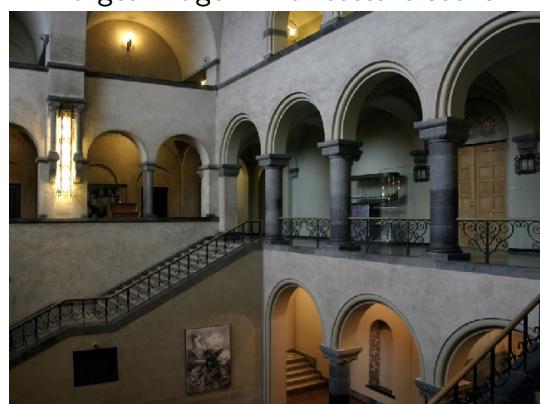
Target image - Cartoon scene



Subject's result - Architecture scene



Target image - Architecture scene



Lighting model 2: arbitrary size key lights, GI off

Subject's result - Cartoon scene



Target image - Cartoon scene



Subject's result - Architecture scene



Target image - Architecture scene



Lighting model 3: arbitrary size key lights, GI on
Subject's result - Cartoon scene Target image - Cartoon scene



Subject's result - Architecture scene



Experiment 5

Subject's result - Still life scene



Subject's result - Office scene



Subject 2

Experiment 1

Cartoon scene

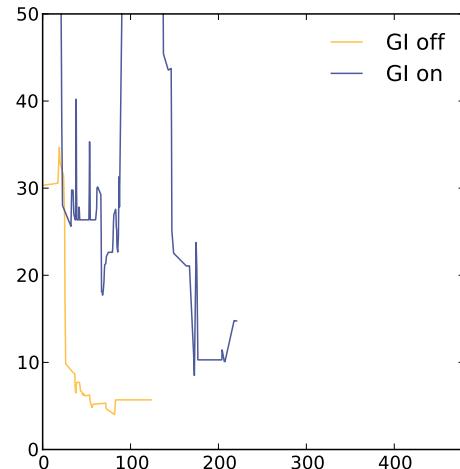
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Architecture scene

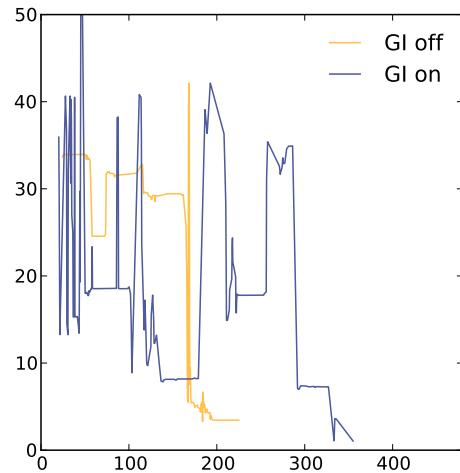
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Experiment 2

Cartoon scene

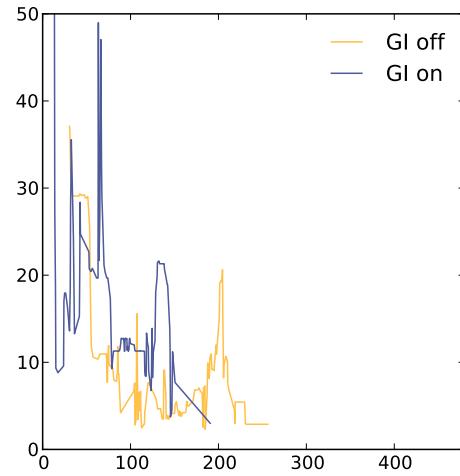
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Architecture scene

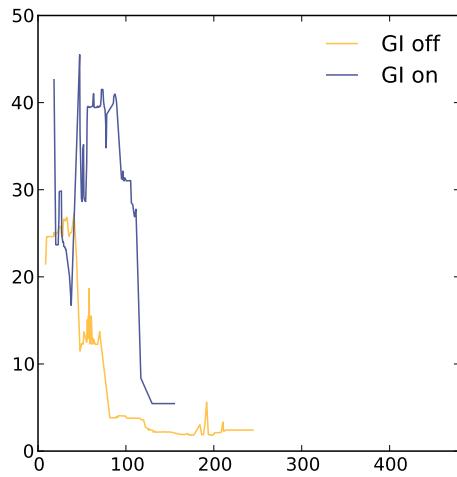
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Experiment 3

Cartoon scene

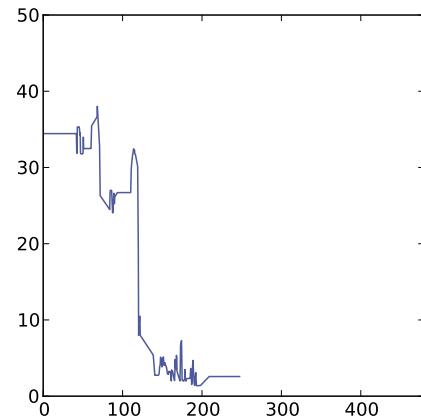
Subject's result



Target image



CIELAB error in time



Architecture scene

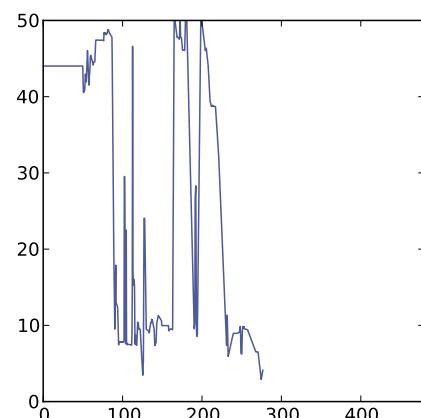
Subject's result



Target image



CIELAB error in time



Experiment 4

Lighting model 1: small key lights, GI off

Subject's result - Cartoon scene



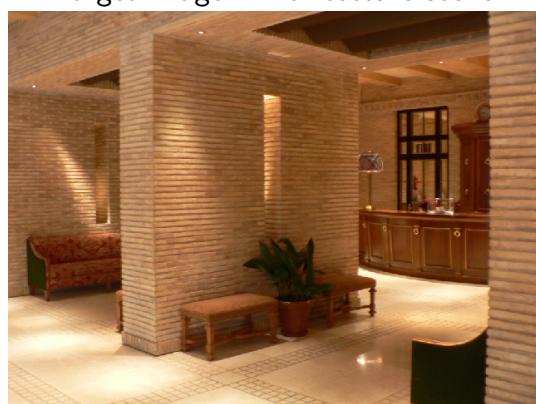
Target image - Cartoon scene



Subject's result - Architecture scene



Target image - Architecture scene



Lighting model 2: arbitrary size key lights, GI off

Subject's result - Cartoon scene



Target image - Cartoon scene



Subject's result - Architecture scene



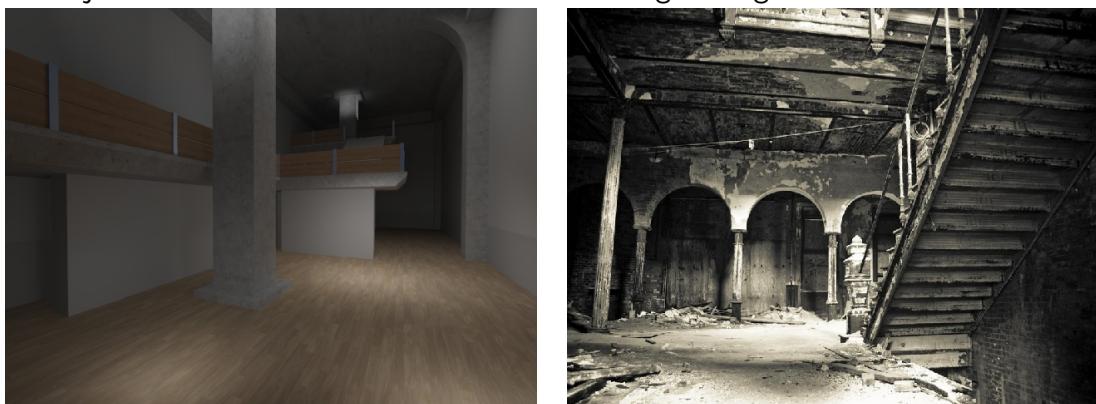
Target image - Architecture scene



Lighting model 3: arbitrary size key lights, GI on
Subject's result - Cartoon scene Target image - Cartoon scene



Subject's result - Architecture scene



Experiment 5

Subject's result - Still life scene



Subject's result - Office scene



Subject 3

Experiment 1

Cartoon scene

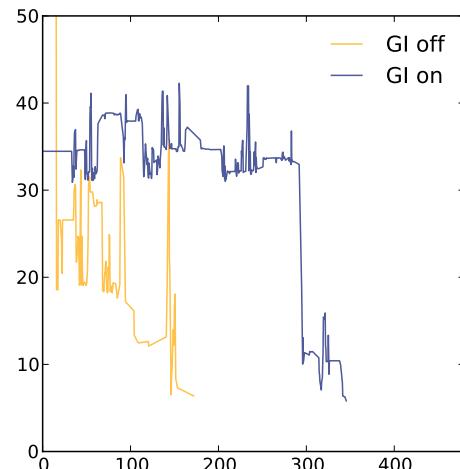
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Architecture scene

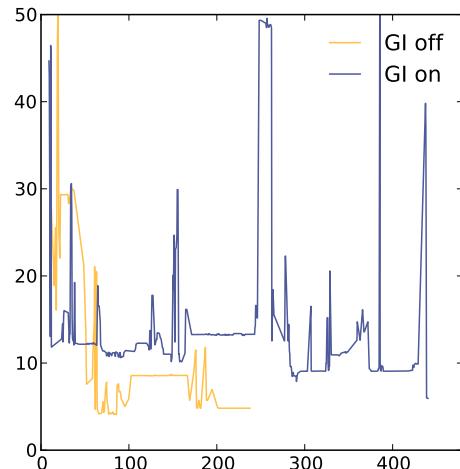
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Experiment 2

Cartoon scene

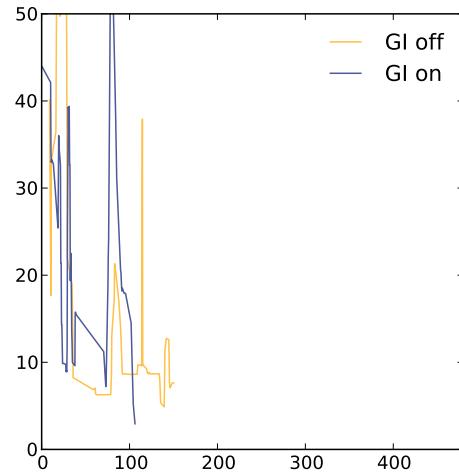
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Architecture scene

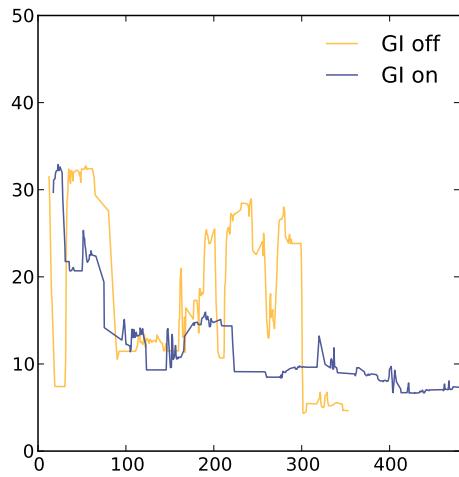
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Experiment 3

Cartoon scene

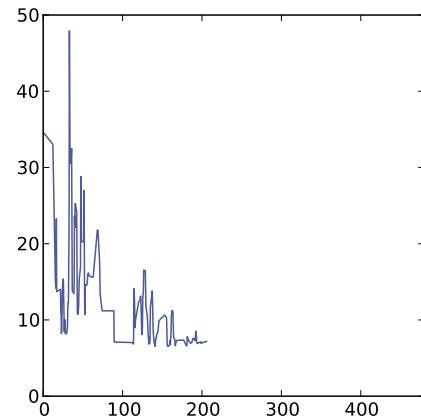
Subject's result



Target image



CIELAB error in time



Architecture scene

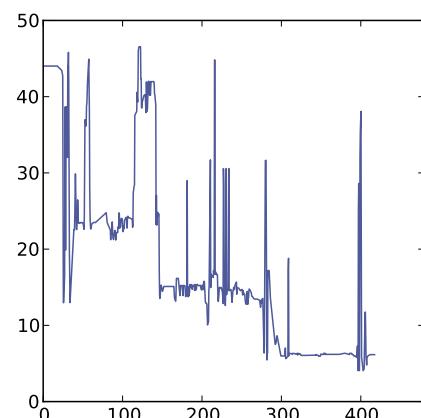
Subject's result



Target image



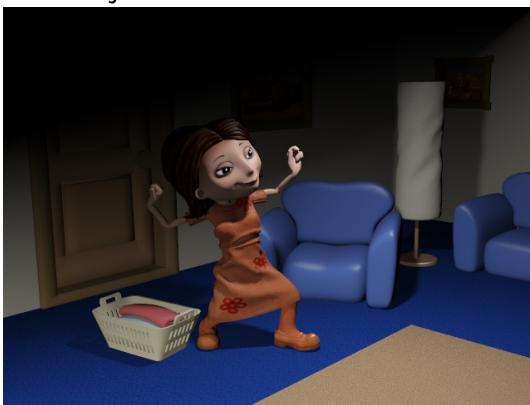
CIELAB error in time



Experiment 4

Lighting model 1: small key lights, GI off

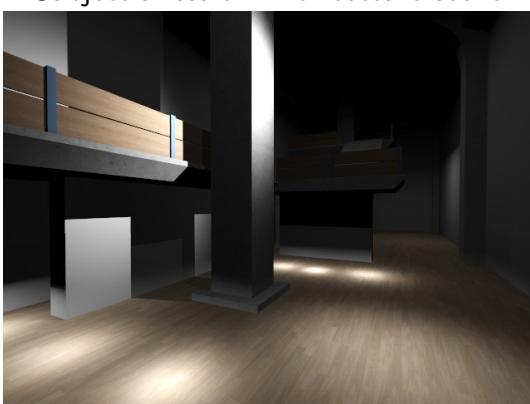
Subject's result - Cartoon scene



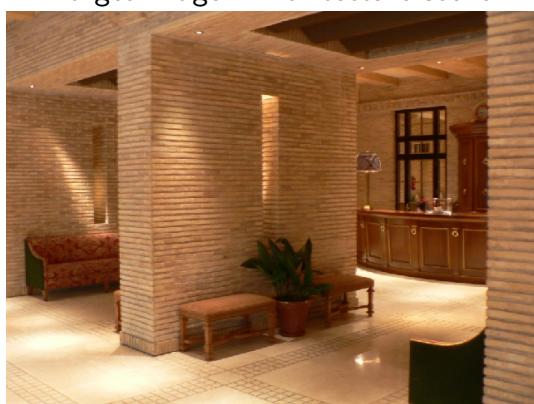
Target image - Cartoon scene



Subject's result - Architecture scene

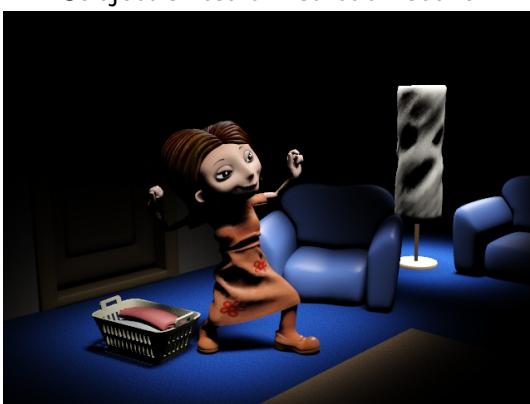


Target image - Architecture scene



Lighting model 2: arbitrary size key lights, GI off

Subject's result - Cartoon scene



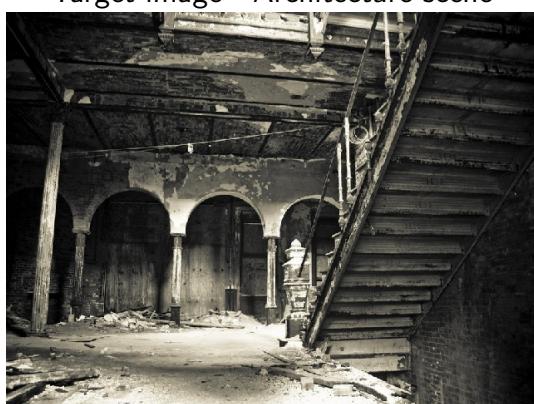
Target image - Cartoon scene



Subject's result - Architecture scene



Target image - Architecture scene



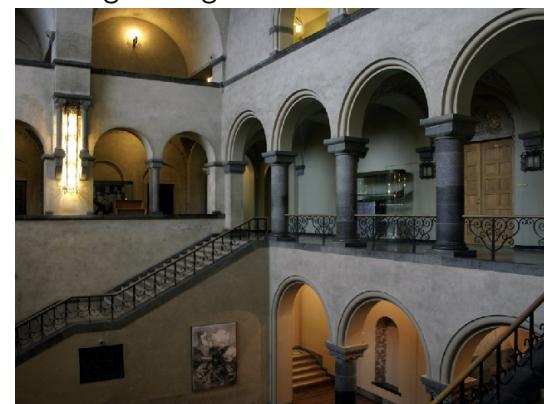
Lighting model 3: arbitrary size key lights, GI on
Subject's result - Cartoon scene Target image - Cartoon scene



Subject's result - Architecture scene



Target image - Architecture scene



Experiment 5

Subject's result - Still life scene



Subject's result - Office scene



Subject 4

Experiment 1

Cartoon scene

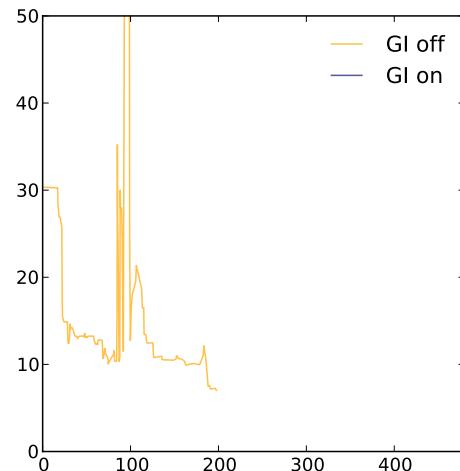
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Architecture scene

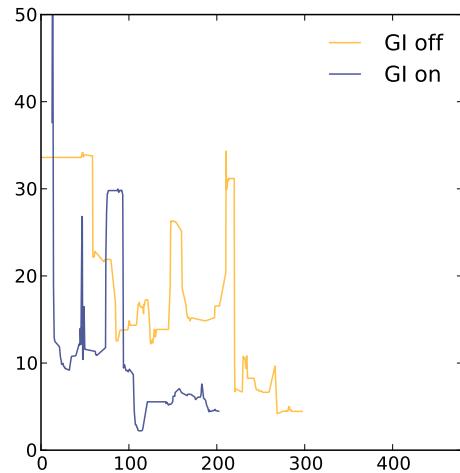
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Experiment 2

Cartoon scene

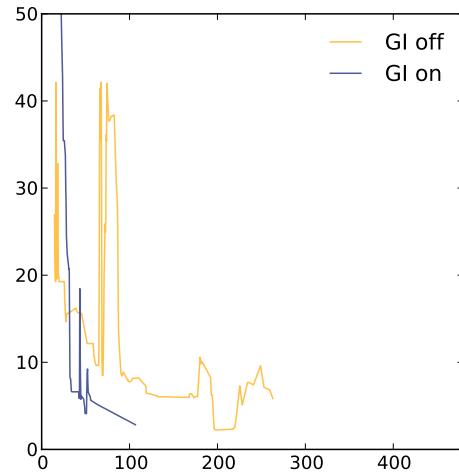
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Architecture scene

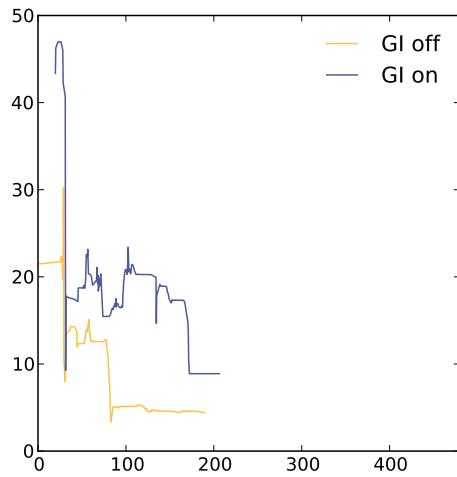
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Experiment 3

Cartoon scene

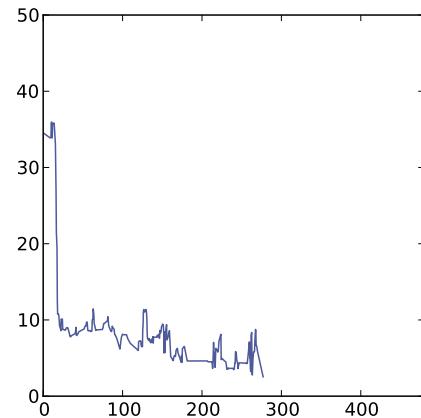
Subject's result



Target image



CIELAB error in time



Architecture scene

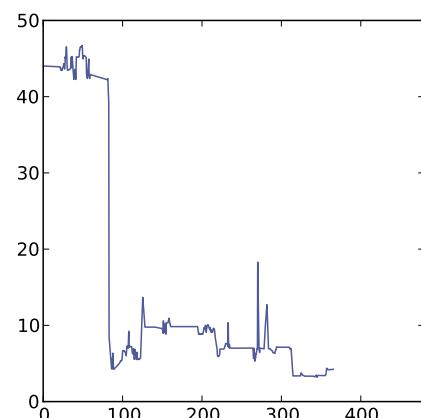
Subject's result



Target image



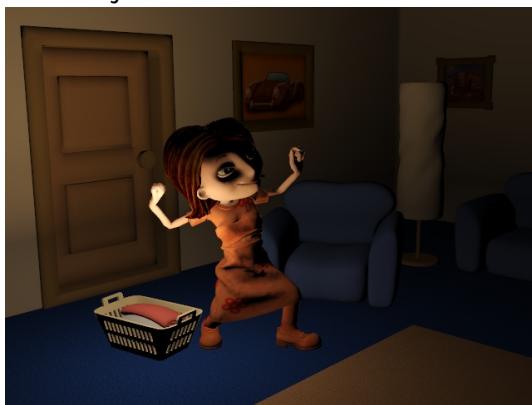
CIELAB error in time



Experiment 4

Lighting model 1: small key lights, GI off

Subject's result - Cartoon scene



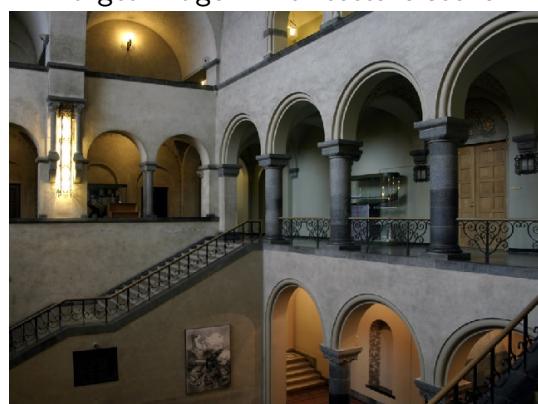
Target image - Cartoon scene



Subject's result - Architecture scene



Target image - Architecture scene



Lighting model 2: arbitrary size key lights, GI off

Subject's result - Cartoon scene



Target image - Cartoon scene



Subject's result - Architecture scene



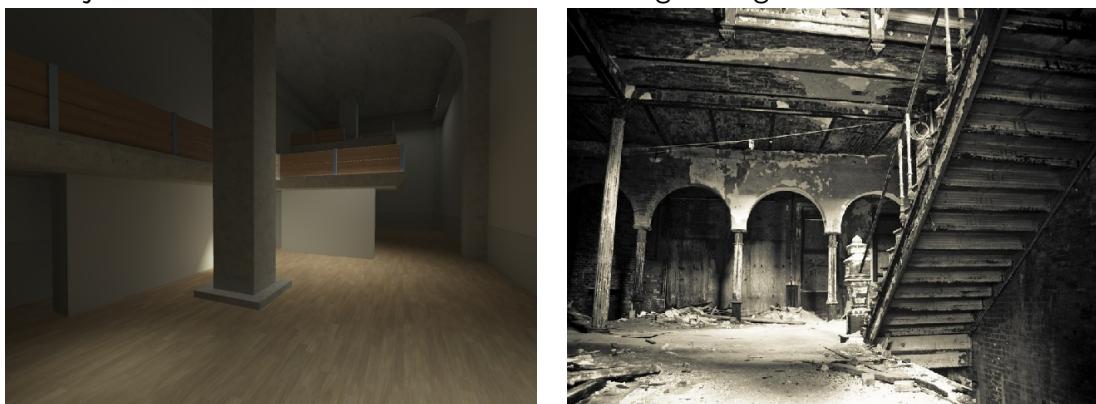
Target image - Architecture scene



Lighting model 3: arbitrary size key lights, GI on
Subject's result - Cartoon scene Target image - Cartoon scene



Subject's result - Architecture scene

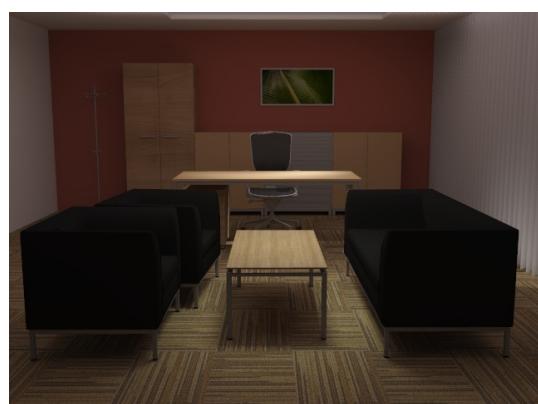


Experiment 5

Subject's result - Still life scene



Subject's result - Office scene



Subject 5

Experiment 1

Cartoon scene

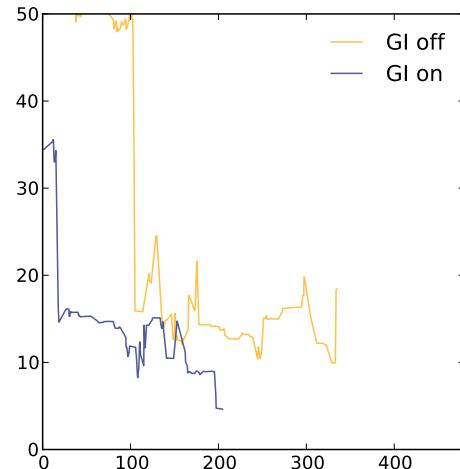
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Architecture scene

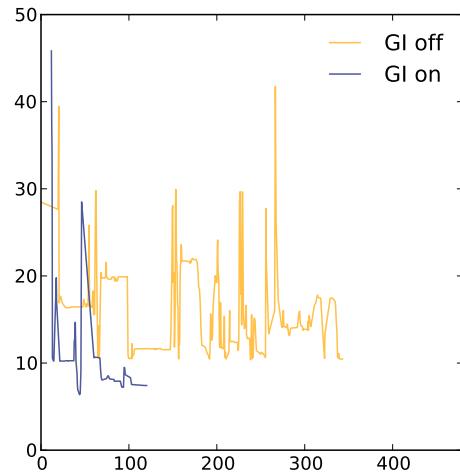
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Experiment 2

Cartoon scene

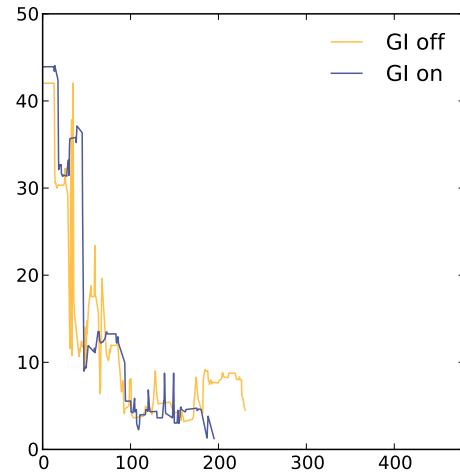
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Architecture scene

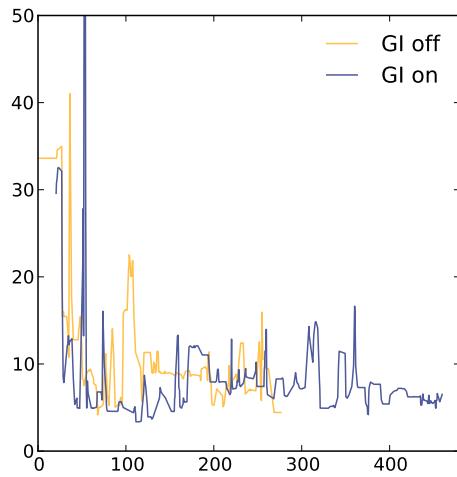
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Experiment 3

Cartoon scene

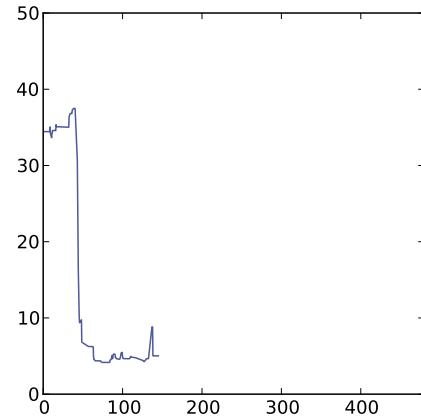
Subject's result



Target image



CIELAB error in time



Architecture scene

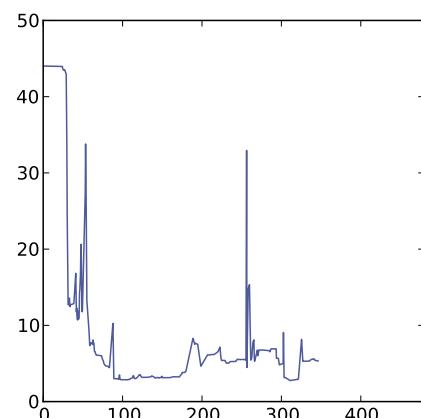
Subject's result



Target image



CIELAB error in time



Experiment 4

Lighting model 1: small key lights, GI off

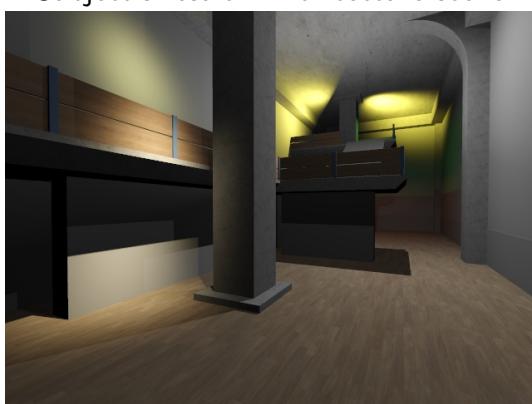
Subject's result - Cartoon scene



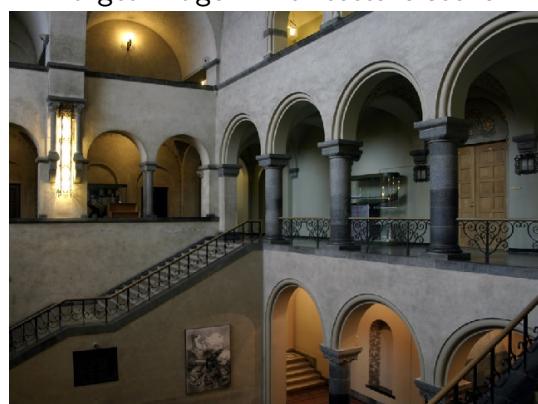
Target image - Cartoon scene



Subject's result - Architecture scene

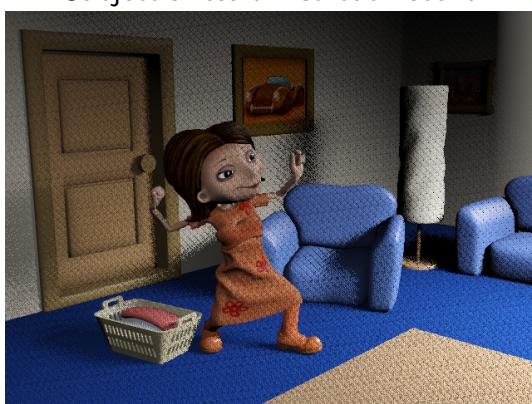


Target image - Architecture scene



Lighting model 2: arbitrary size key lights, GI off

Subject's result - Cartoon scene



Target image - Cartoon scene



Subject's result - Architecture scene



Target image - Architecture scene



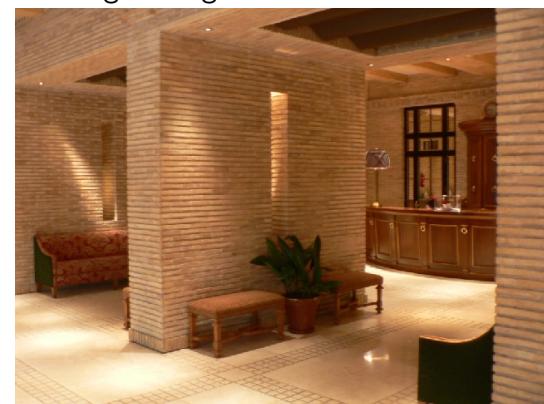
Lighting model 3: arbitrary size key lights, GI on
Subject's result - Cartoon scene Target image - Cartoon scene



Subject's result - Architecture scene



Target image - Architecture scene



Experiment 5

Subject's result - Still life scene



Subject's result - Office scene



Subject 6

Experiment 1

Cartoon scene

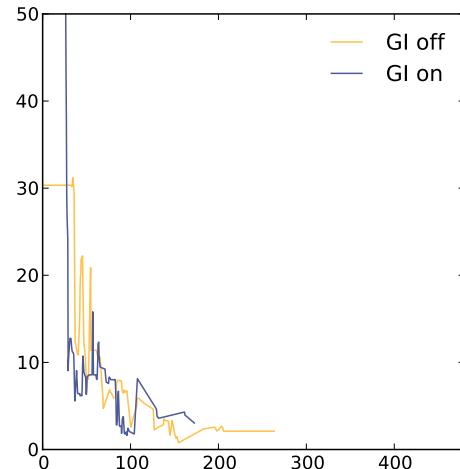
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Architecture scene

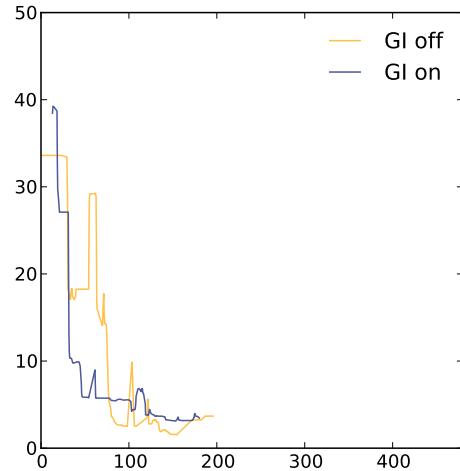
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Experiment 2

Cartoon scene

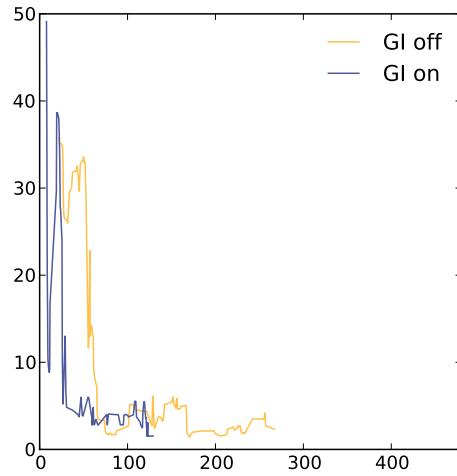
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Architecture scene

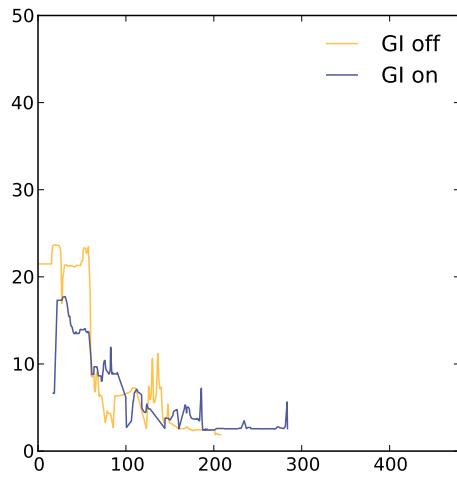
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Experiment 3

Cartoon scene

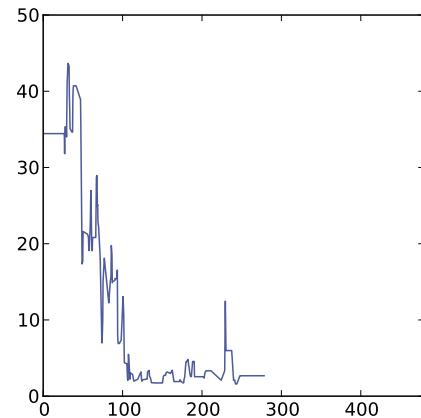
Subject's result



Target image



CIELAB error in time



Architecture scene

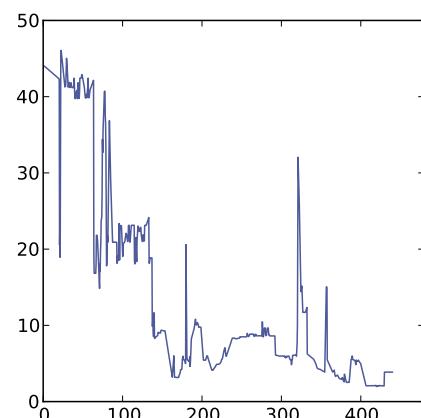
Subject's result



Target image



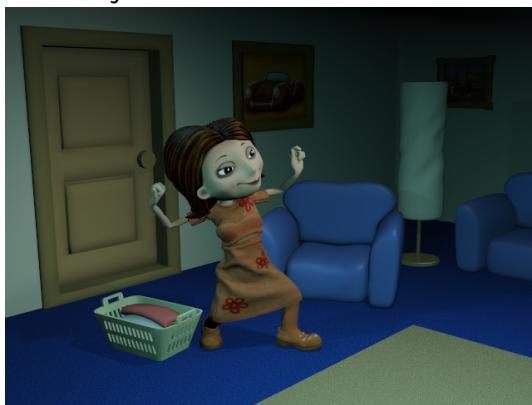
CIELAB error in time



Experiment 4

Lighting model 1: small key lights, GI off

Subject's result - Cartoon scene



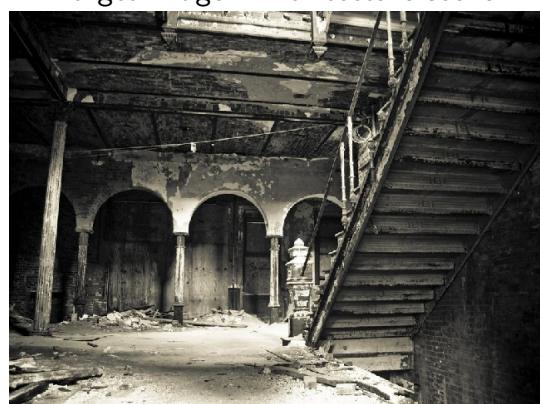
Target image - Cartoon scene



Subject's result - Architecture scene



Target image - Architecture scene



Lighting model 2: arbitrary size key lights, GI off

Subject's result - Cartoon scene



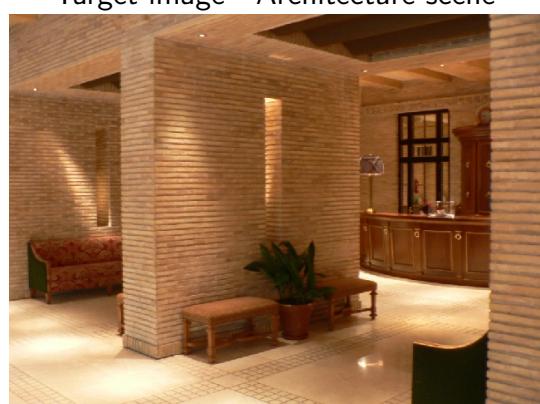
Target image - Cartoon scene



Subject's result - Architecture scene



Target image - Architecture scene



Lighting model 3: arbitrary size key lights, GI on
Subject's result - Cartoon scene Target image - Cartoon scene



Subject's result - Architecture scene

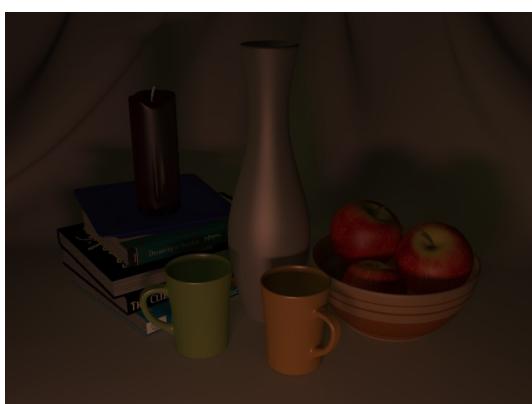


Target image - Architecture scene

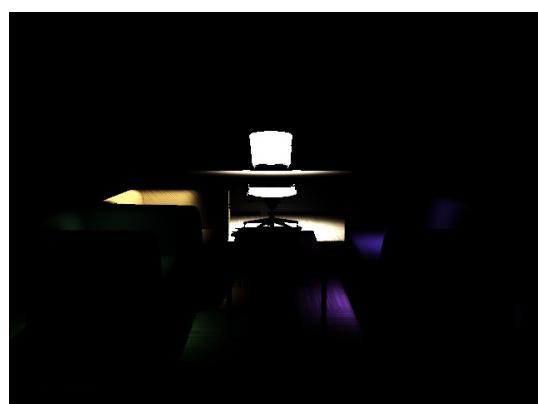


Experiment 5

Subject's result - Still life scene



Subject's result - Office scene



Subject 7

Experiment 1

Cartoon scene

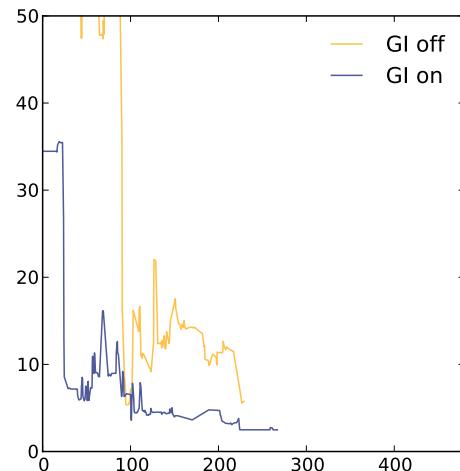
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Architecture scene

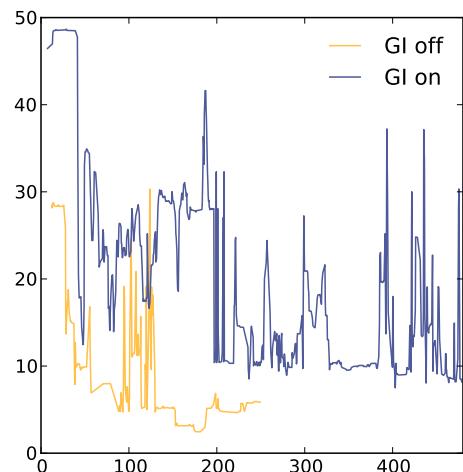
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Experiment 2

Cartoon scene

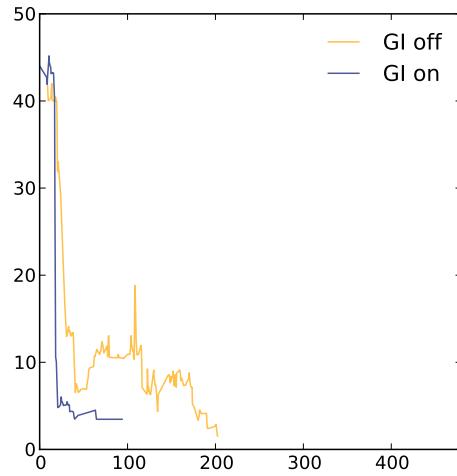
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Architecture scene

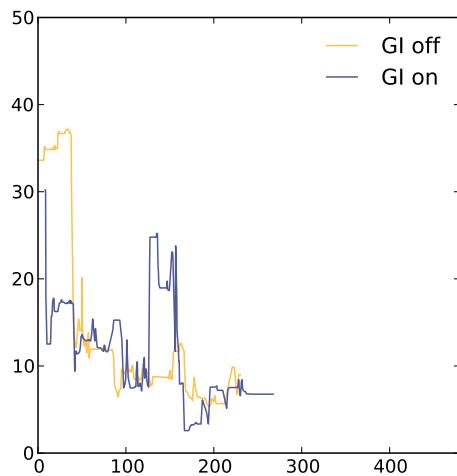
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Experiment 3

Cartoon scene

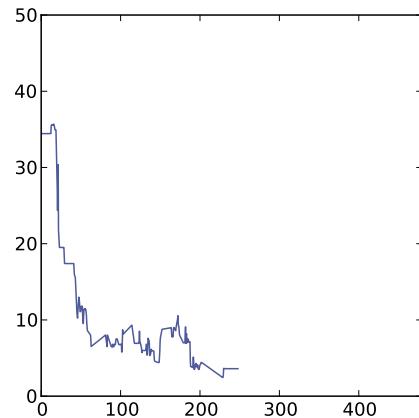
Subject's result



Target image



CIELAB error in time



Architecture scene

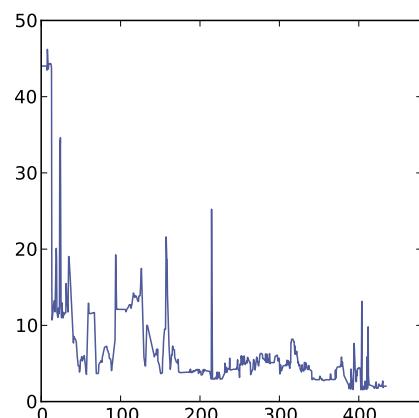
Subject's result



Target image



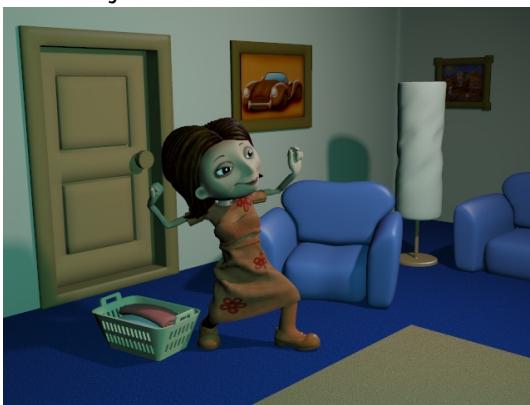
CIELAB error in time



Experiment 4

Lighting model 1: small key lights, GI off

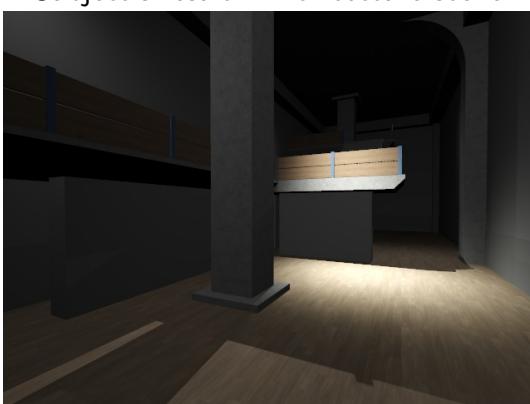
Subject's result - Cartoon scene



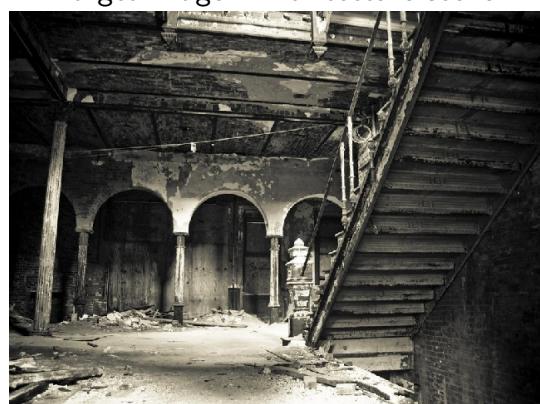
Target image - Cartoon scene



Subject's result - Architecture scene

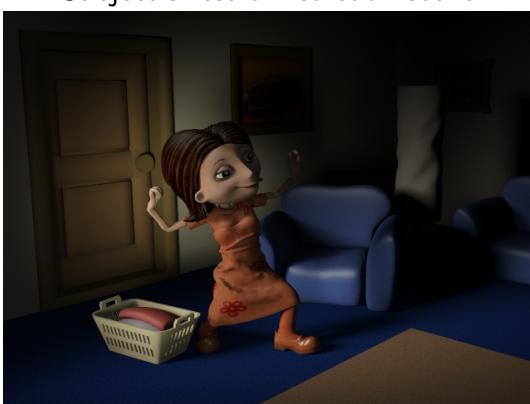


Target image - Architecture scene



Lighting model 2: arbitrary size key lights, GI off

Subject's result - Cartoon scene



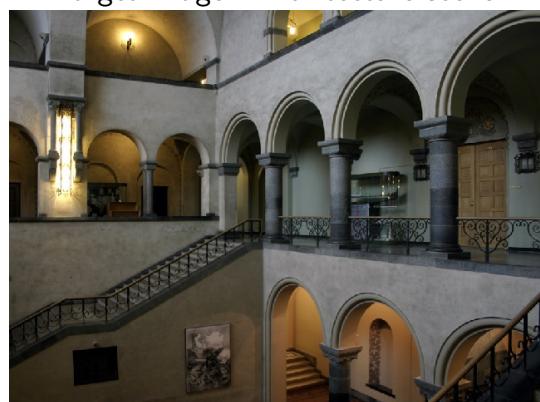
Target image - Cartoon scene



Subject's result - Architecture scene



Target image - Architecture scene



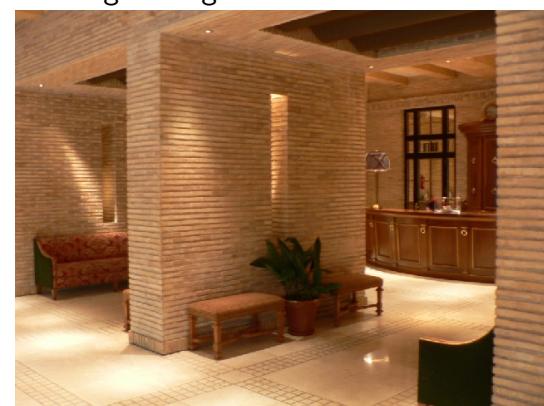
Lighting model 3: arbitrary size key lights, GI on
Subject's result - Cartoon scene Target image - Cartoon scene



Subject's result - Architecture scene



Target image - Architecture scene



Experiment 5

Subject's result - Still life scene



Subject's result - Office scene



Subject 8

Experiment 1

Cartoon scene

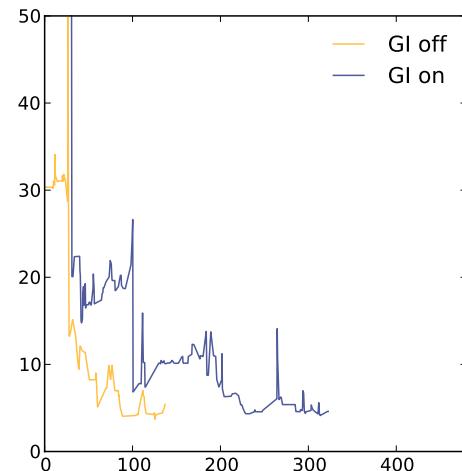
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Architecture scene

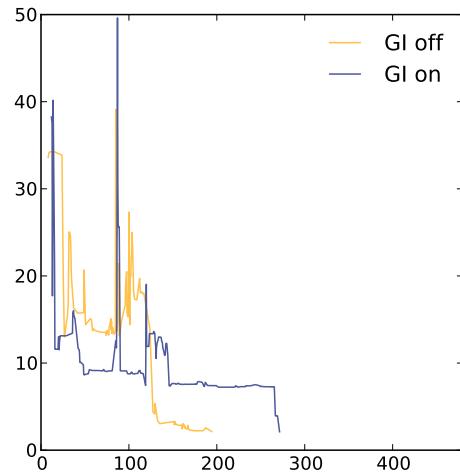
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Experiment 2

Cartoon scene

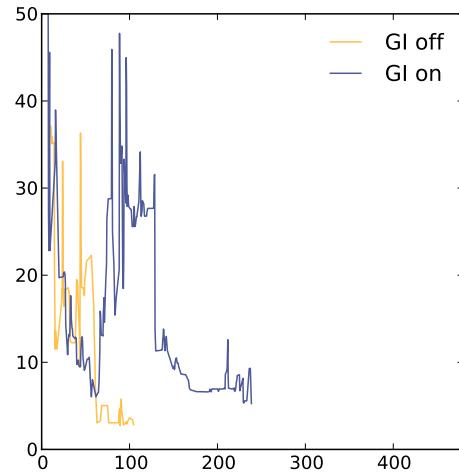
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Architecture scene

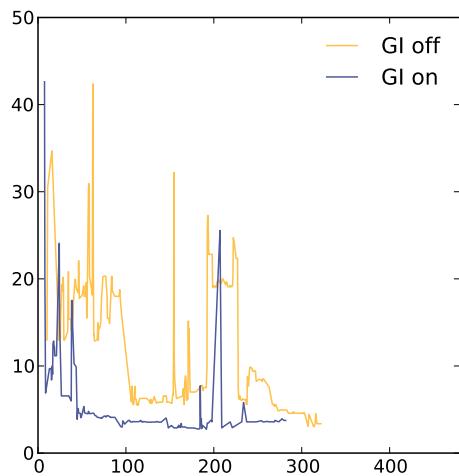
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Experiment 3

Cartoon scene

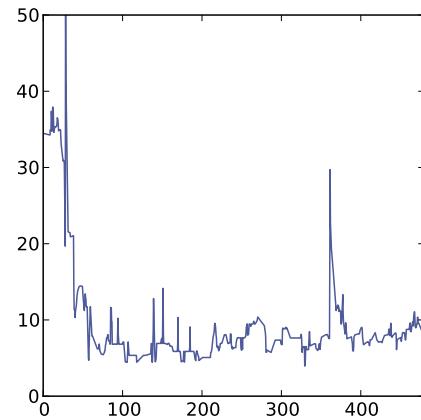
Subject's result



Target image



CIELAB error in time



Architecture scene

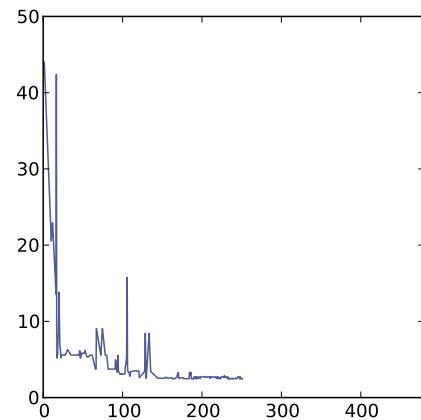
Subject's result



Target image



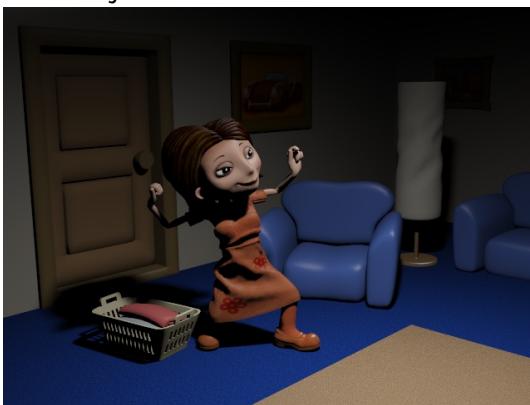
CIELAB error in time



Experiment 4

Lighting model 1: small key lights, GI off

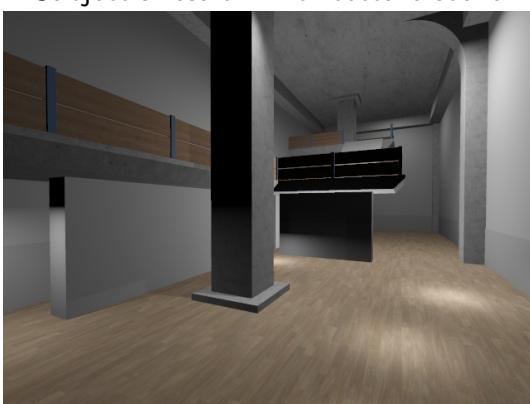
Subject's result - Cartoon scene



Target image - Cartoon scene



Subject's result - Architecture scene



Target image - Architecture scene

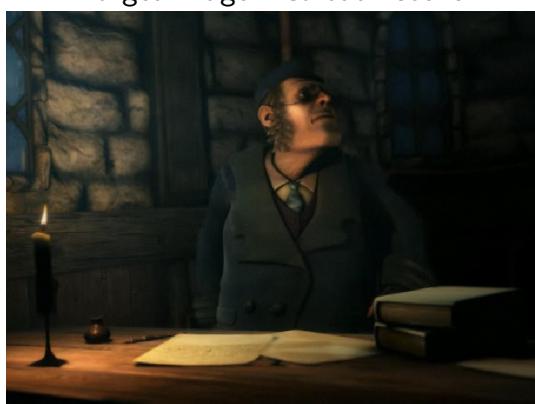


Lighting model 2: arbitrary size key lights, GI off

Subject's result - Cartoon scene



Target image - Cartoon scene



Subject's result - Architecture scene



Target image - Architecture scene



Lighting model 3: arbitrary size key lights, GI on
Subject's result - Cartoon scene Target image - Cartoon scene



Subject's result - Architecture scene

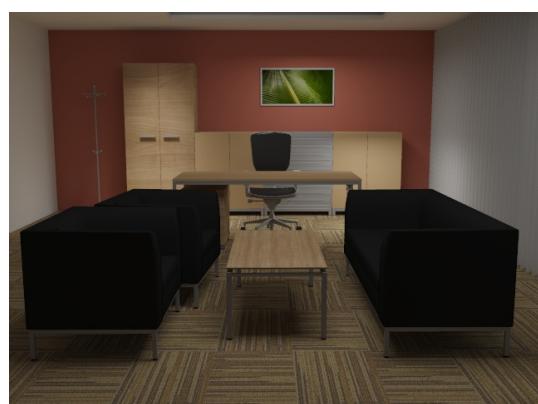


Experiment 5

Subject's result - Still life scene



Subject's result - Office scene



Subject 9

Experiment 1

Cartoon scene

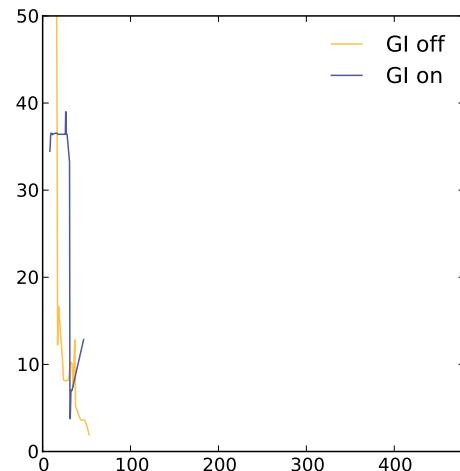
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Architecture scene

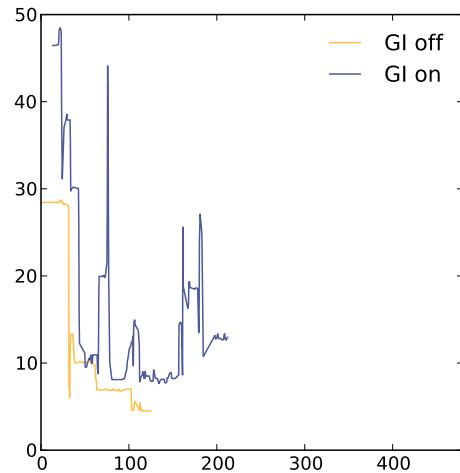
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Experiment 2

Cartoon scene

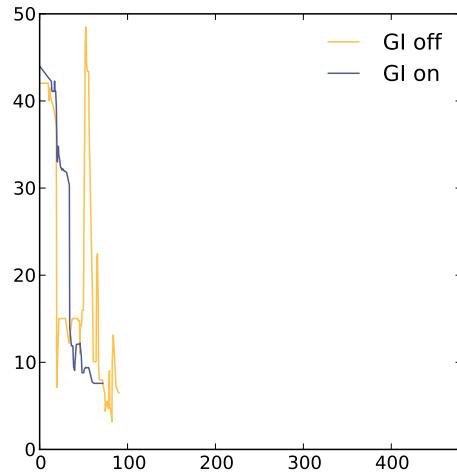
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Architecture scene

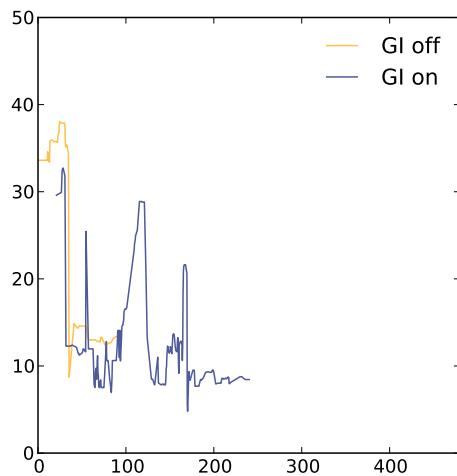
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Experiment 3

Cartoon scene

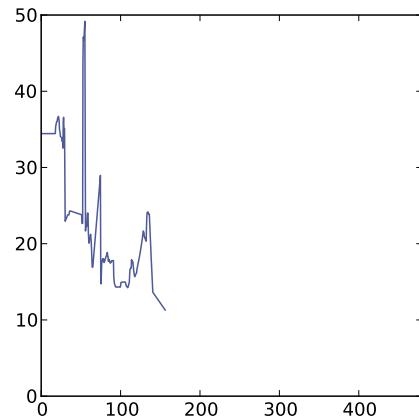
Subject's result



Target image



CIELAB error in time



Architecture scene

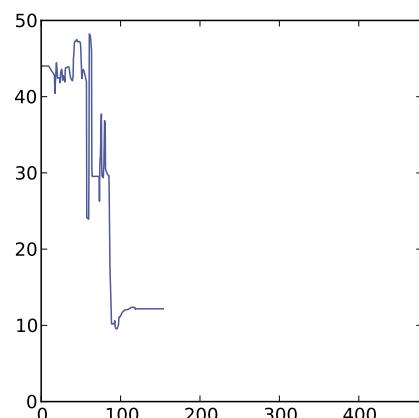
Subject's result



Target image



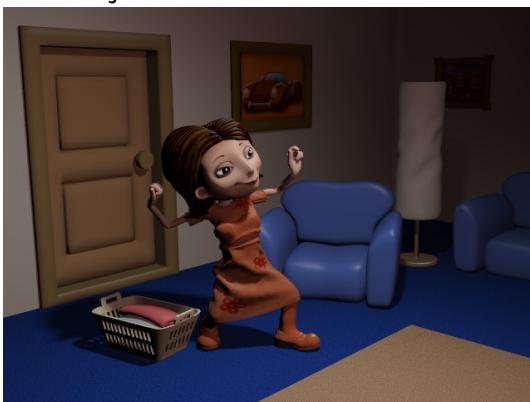
CIELAB error in time



Experiment 4

Lighting model 1: small key lights, GI off

Subject's result - Cartoon scene



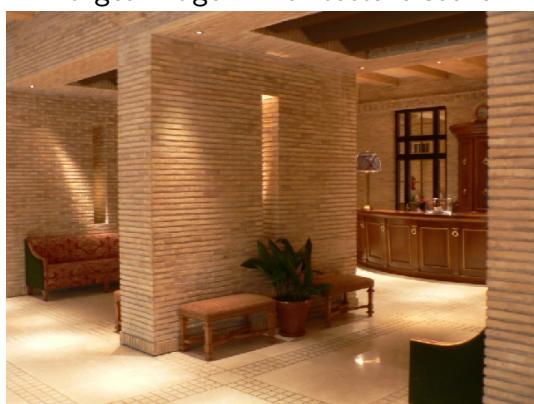
Target image - Cartoon scene



Subject's result - Architecture scene

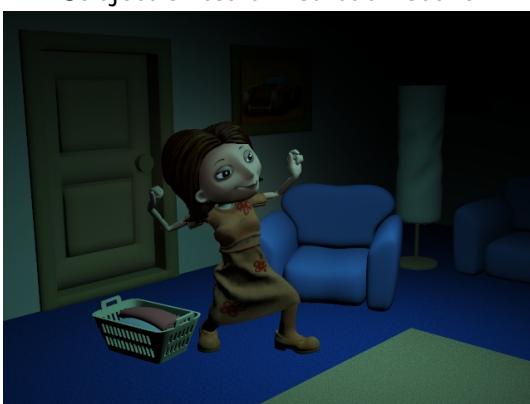


Target image - Architecture scene



Lighting model 2: arbitrary size key lights, GI off

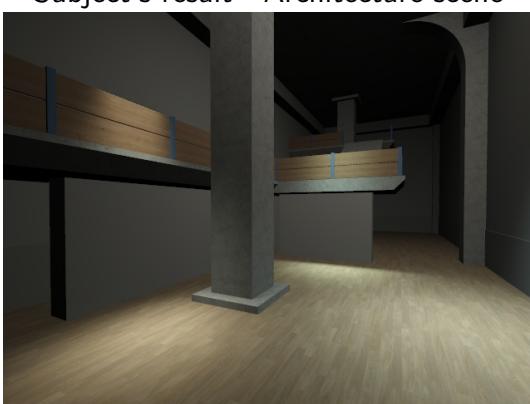
Subject's result - Cartoon scene



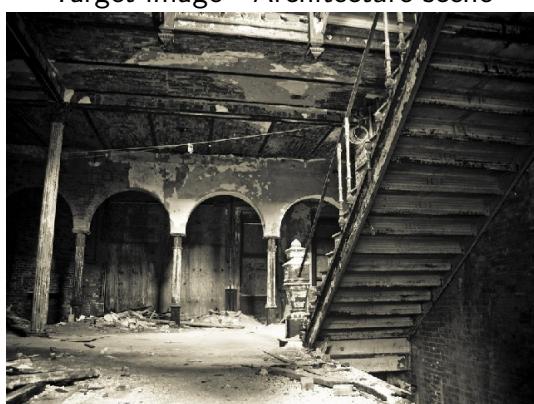
Target image - Cartoon scene



Subject's result - Architecture scene



Target image - Architecture scene



Lighting model 3: arbitrary size key lights, GI on
Subject's result - Cartoon scene Target image - Cartoon scene



Subject's result - Architecture scene

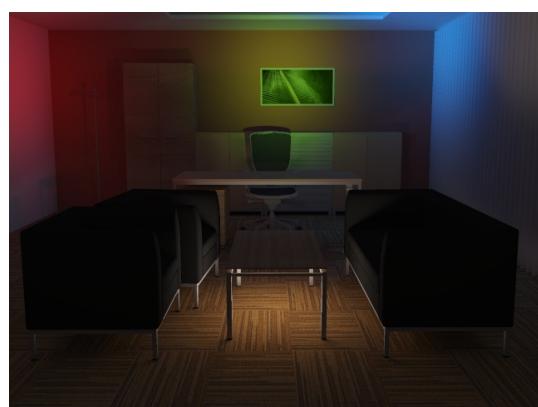


Experiment 5

Subject's result - Still life scene



Subject's result - Office scene



Subject 10

Experiment 1

Cartoon scene

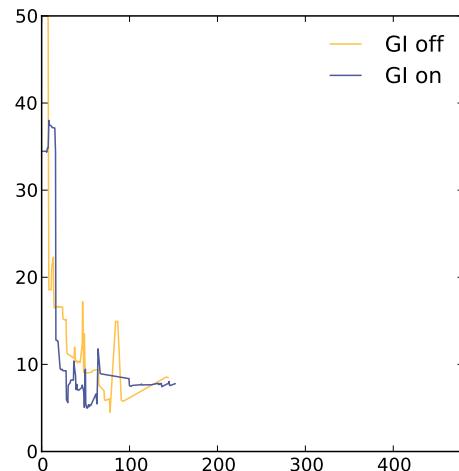
Subject's result - GI off



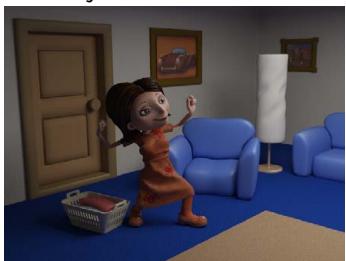
Target image - GI off



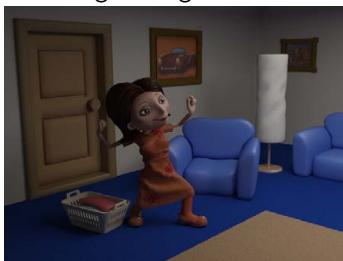
CIELAB error in time



Subject's result - GI on



Target image - GI on



Architecture scene

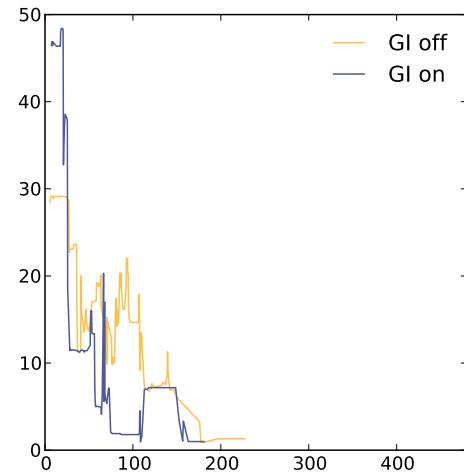
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Experiment 2

Cartoon scene

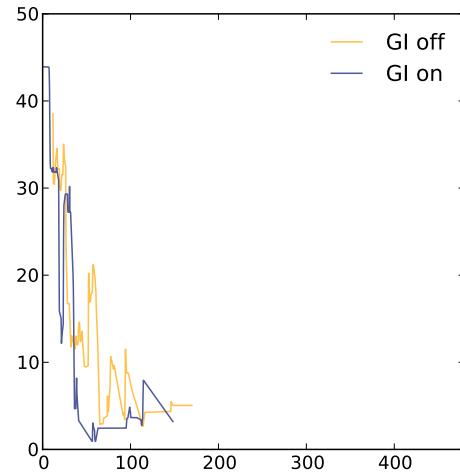
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Architecture scene

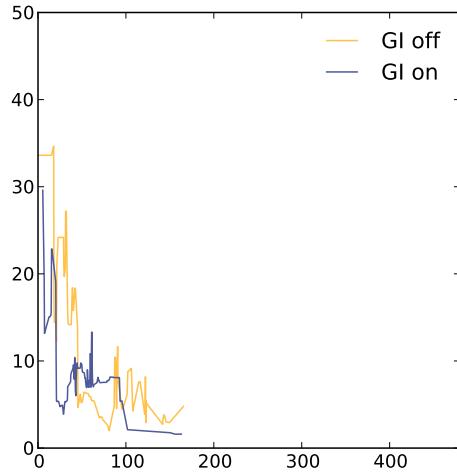
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Experiment 3

Cartoon scene

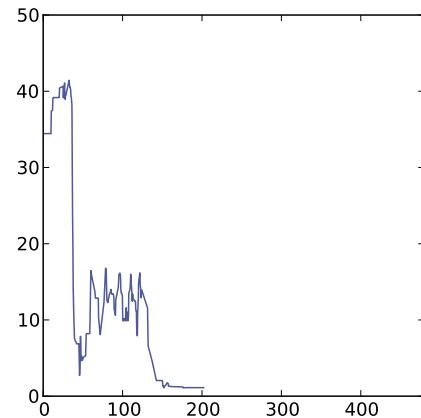
Subject's result



Target image



CIELAB error in time



Architecture scene

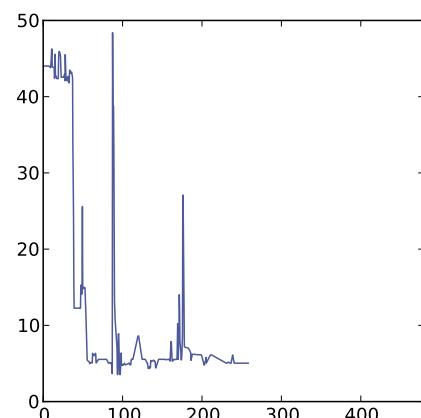
Subject's result



Target image



CIELAB error in time



Experiment 4

Lighting model 1: small key lights, GI off

Subject's result - Cartoon scene



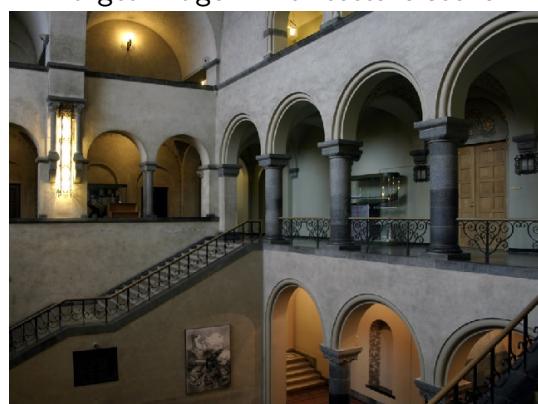
Target image - Cartoon scene



Subject's result - Architecture scene



Target image - Architecture scene



Lighting model 2: arbitrary size key lights, GI off

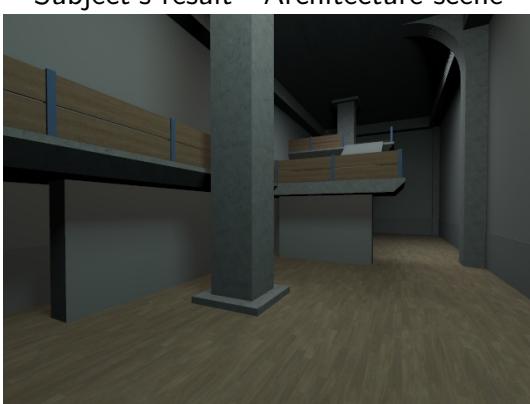
Subject's result - Cartoon scene



Target image - Cartoon scene



Subject's result - Architecture scene



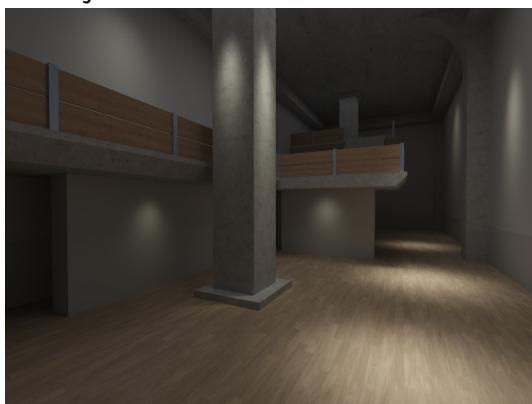
Target image - Architecture scene



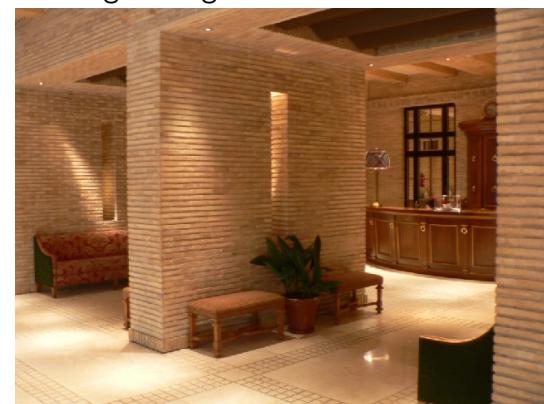
Lighting model 3: arbitrary size key lights, GI on
Subject's result - Cartoon scene Target image - Cartoon scene



Subject's result - Architecture scene



Target image - Architecture scene



Experiment 5

Subject's result - Still life scene



Subject's result - Office scene



Subject 11

Experiment 1

Cartoon scene

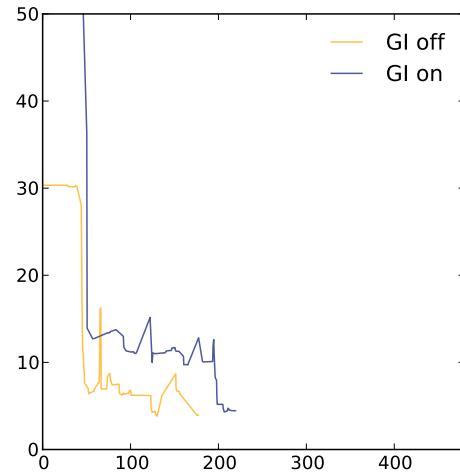
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Architecture scene

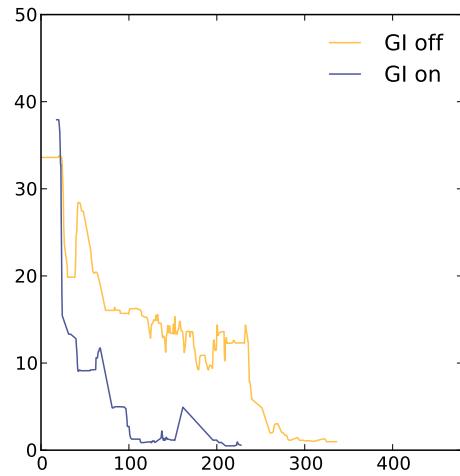
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Experiment 2

Cartoon scene

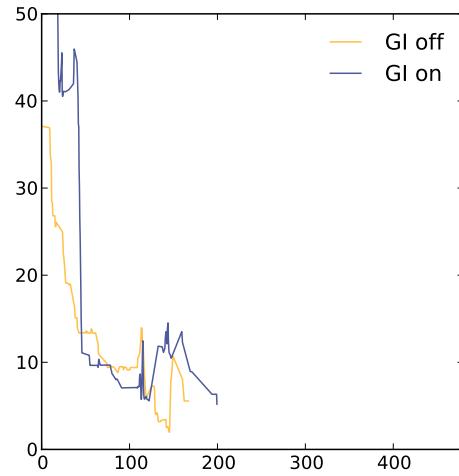
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Architecture scene

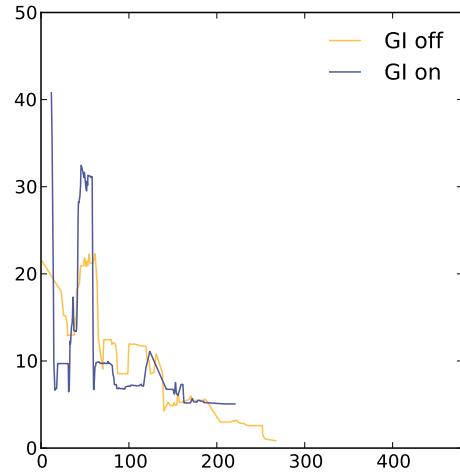
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Experiment 3

Cartoon scene

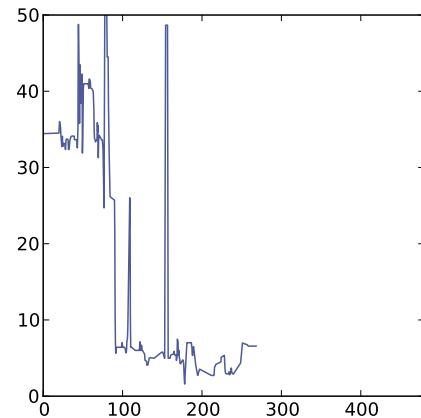
Subject's result



Target image



CIELAB error in time



Architecture scene

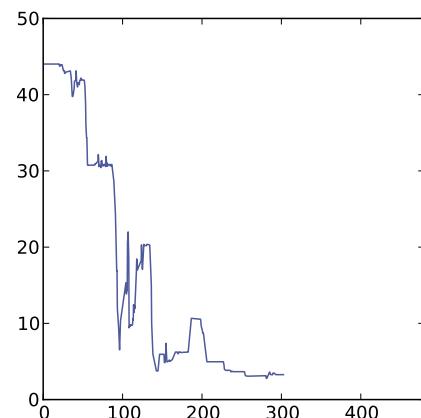
Subject's result



Target image



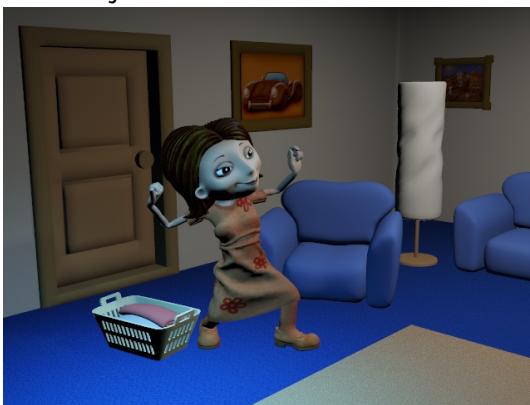
CIELAB error in time



Experiment 4

Lighting model 1: small key lights, GI off

Subject's result - Cartoon scene



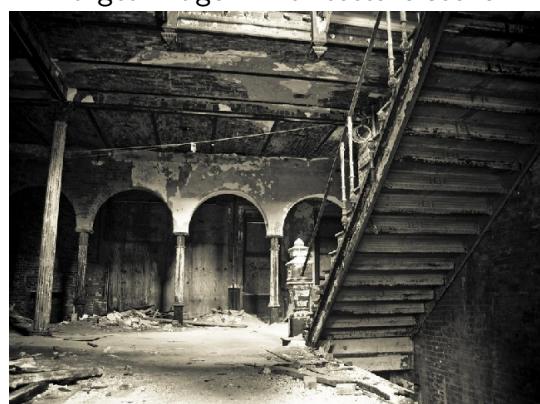
Target image - Cartoon scene



Subject's result - Architecture scene



Target image - Architecture scene



Lighting model 2: arbitrary size key lights, GI off

Subject's result - Cartoon scene



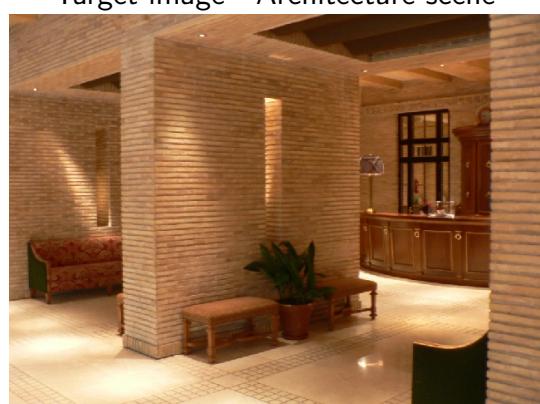
Target image - Cartoon scene



Subject's result - Architecture scene



Target image - Architecture scene



Lighting model 3: arbitrary size key lights, GI on
Subject's result - Cartoon scene Target image - Cartoon scene



Subject's result - Architecture scene



Target image - Architecture scene

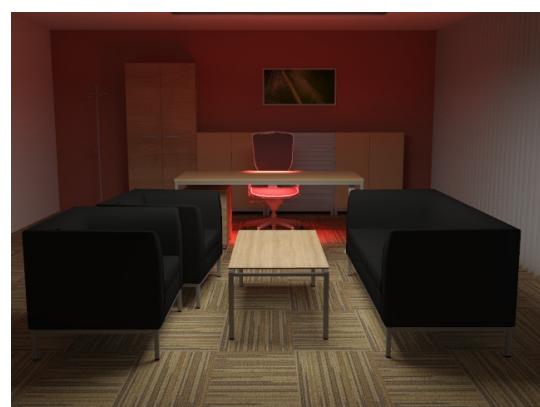


Experiment 5

Subject's result - Still life scene



Subject's result - Office scene



Subject 12

Experiment 1

Cartoon scene

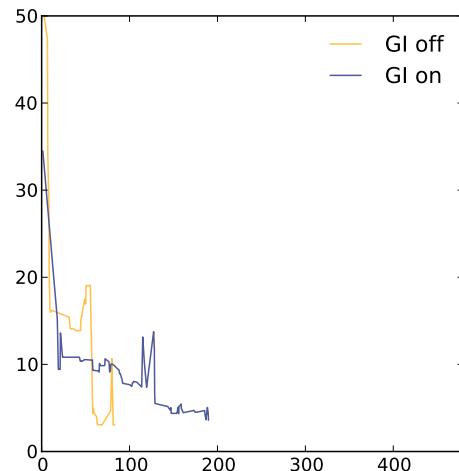
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Architecture scene

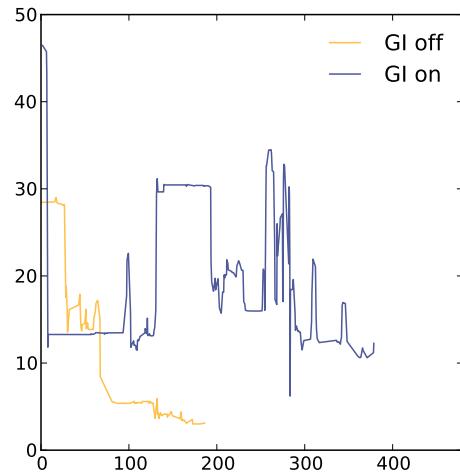
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Experiment 2

Cartoon scene

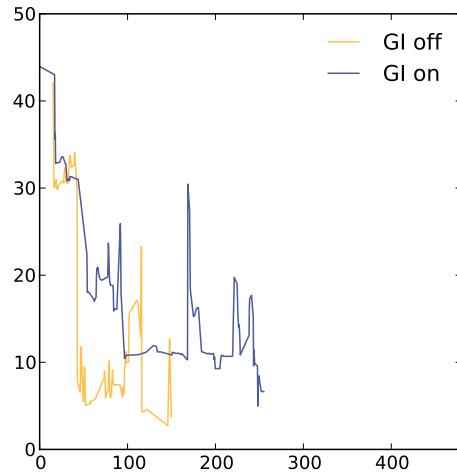
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Architecture scene

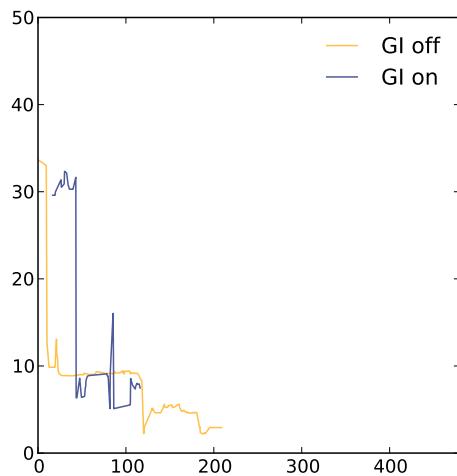
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Experiment 3

Cartoon scene

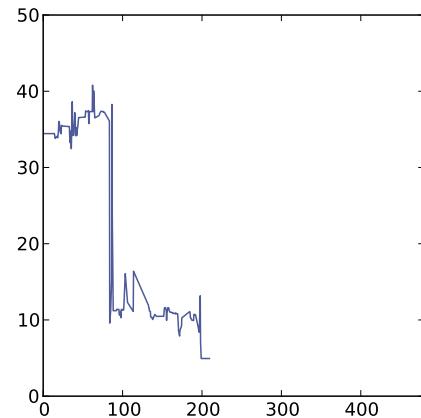
Subject's result



Target image



CIELAB error in time



Architecture scene

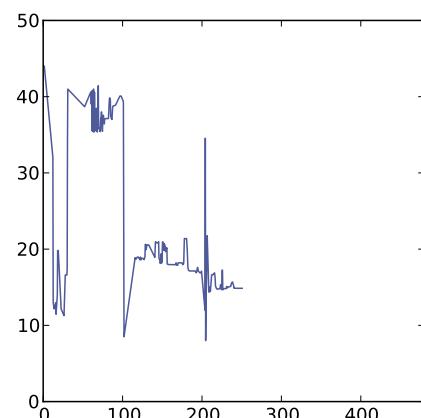
Subject's result



Target image



CIELAB error in time



Experiment 4

Lighting model 1: small key lights, GI off

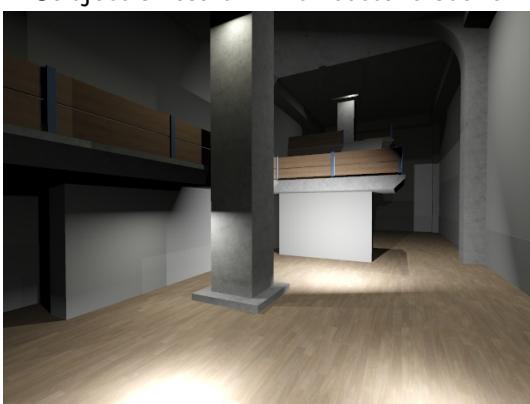
Subject's result - Cartoon scene



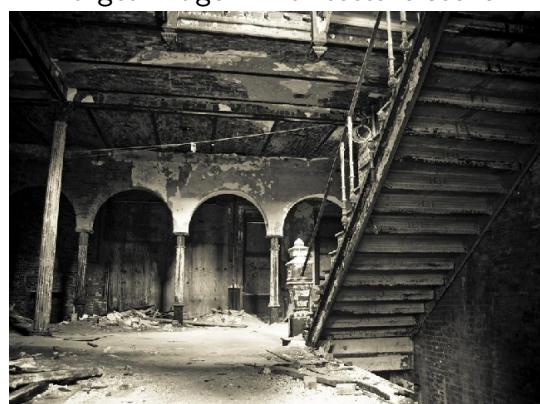
Target image - Cartoon scene



Subject's result - Architecture scene

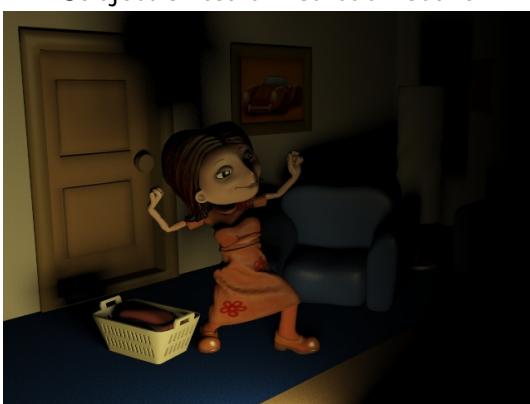


Target image - Architecture scene



Lighting model 2: arbitrary size key lights, GI off

Subject's result - Cartoon scene



Target image - Cartoon scene



Subject's result - Architecture scene



Target image - Architecture scene



Lighting model 3: arbitrary size key lights, GI on
Subject's result - Cartoon scene Target image - Cartoon scene



Subject's result - Architecture scene

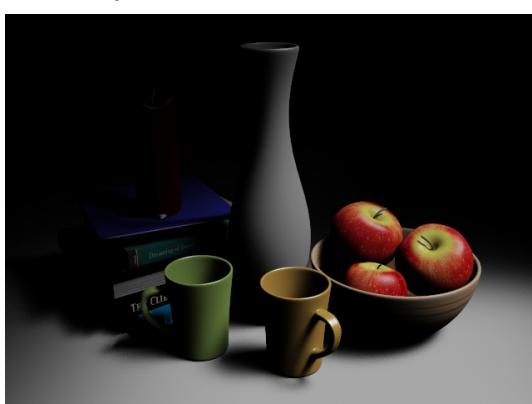


Target image - Architecture scene



Experiment 5

Subject's result - Still life scene



Subject's result - Office scene



Subject 13

Experiment 1

Cartoon scene

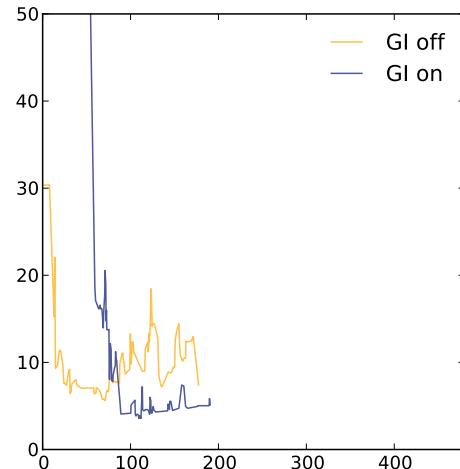
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Architecture scene

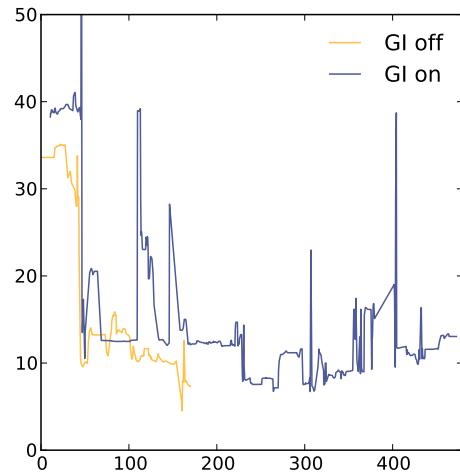
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Experiment 2

Cartoon scene

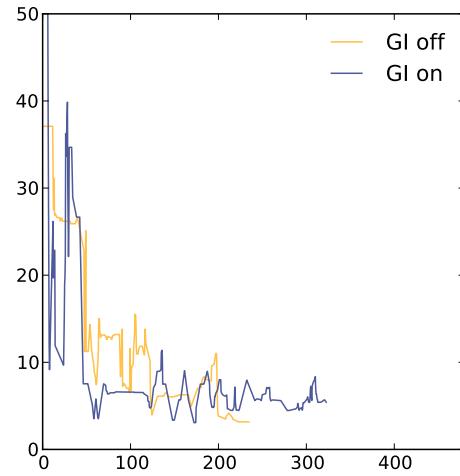
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Architecture scene

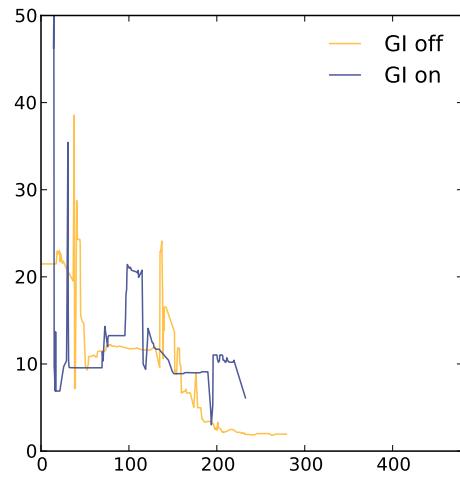
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Experiment 3

Cartoon scene

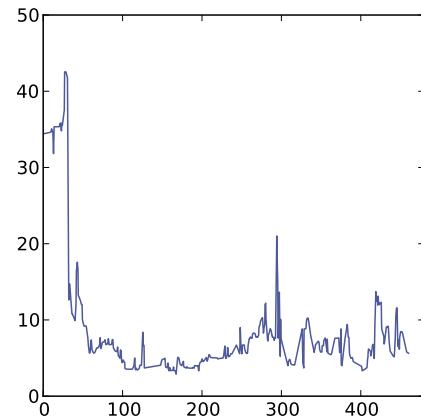
Subject's result



Target image



CIELAB error in time



Architecture scene

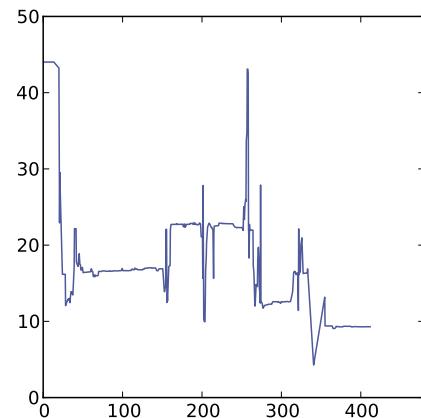
Subject's result



Target image



CIELAB error in time



Experiment 4

Lighting model 1: small key lights, GI off

Subject's result - Cartoon scene



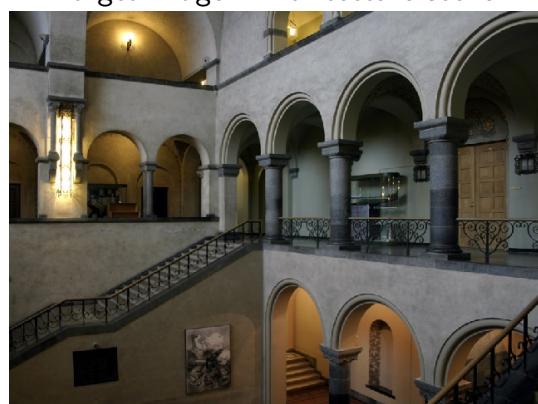
Target image - Cartoon scene



Subject's result - Architecture scene



Target image - Architecture scene



Lighting model 2: arbitrary size key lights, GI off

Subject's result - Cartoon scene



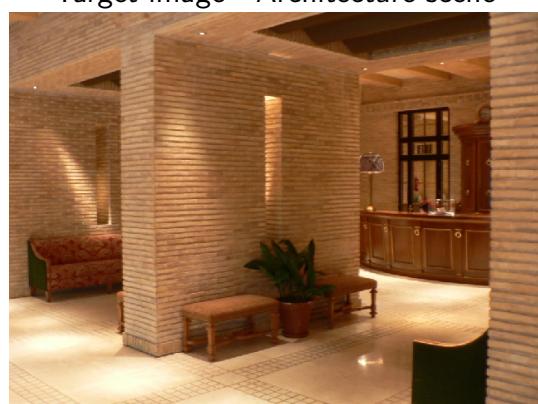
Target image - Cartoon scene



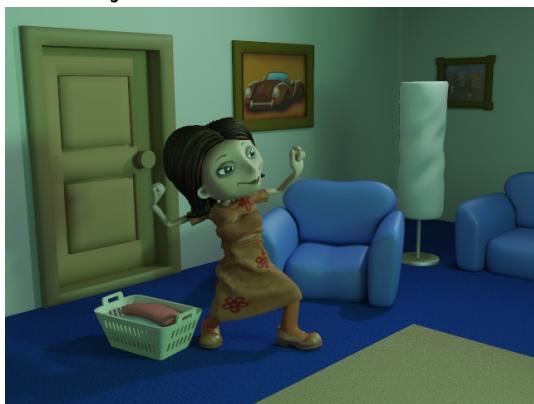
Subject's result - Architecture scene



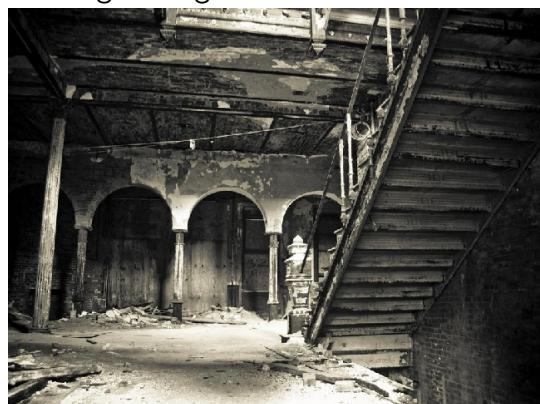
Target image - Architecture scene



Lighting model 3: arbitrary size key lights, GI on
Subject's result - Cartoon scene Target image - Cartoon scene



Subject's result - Architecture scene



Target image - Architecture scene

Experiment 5

Subject's result - Still life scene



Subject's result - Office scene



Subject 14

Experiment 1

Cartoon scene

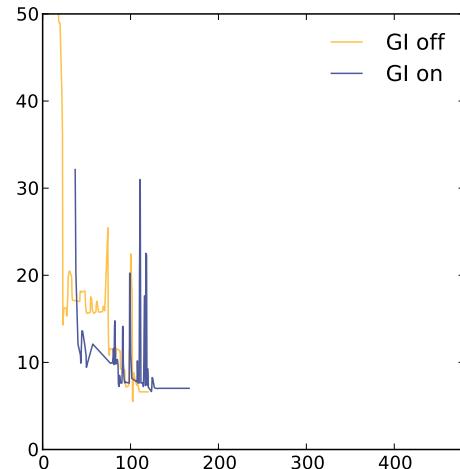
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Architecture scene

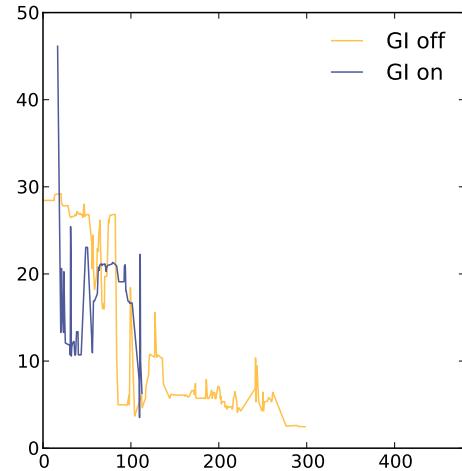
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Experiment 2

Cartoon scene

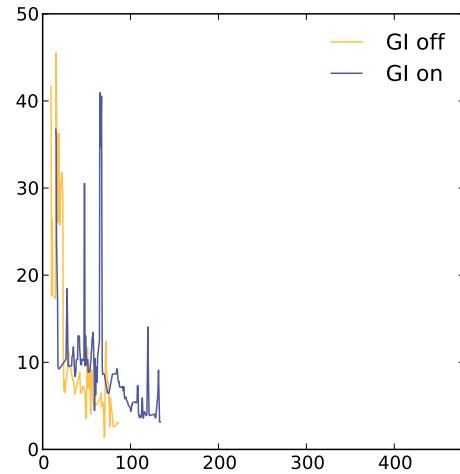
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Architecture scene

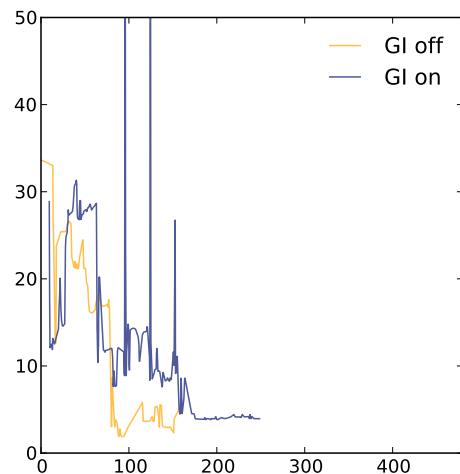
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Experiment 3

Cartoon scene

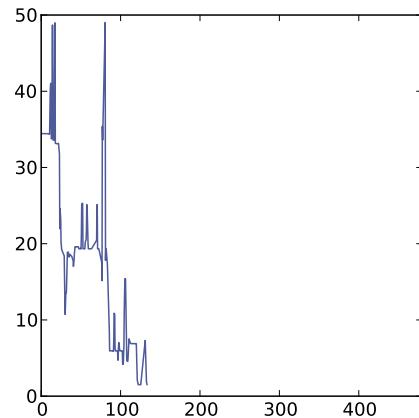
Subject's result



Target image



CIELAB error in time



Architecture scene

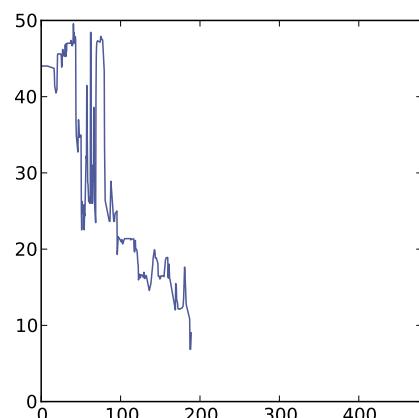
Subject's result



Target image



CIELAB error in time



Experiment 4

Lighting model 1: small key lights, GI off

Subject's result - Cartoon scene



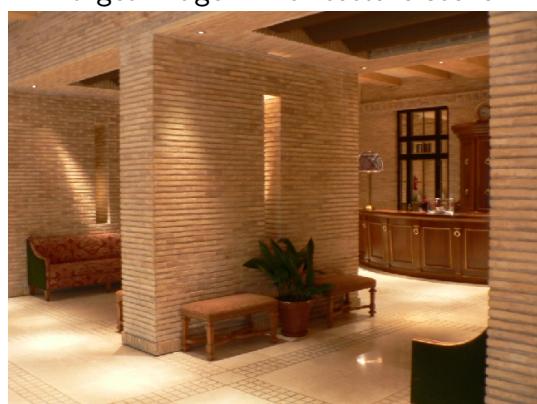
Target image - Cartoon scene



Subject's result - Architecture scene



Target image - Architecture scene



Lighting model 2: arbitrary size key lights, GI off

Subject's result - Cartoon scene



Target image - Cartoon scene



Subject's result - Architecture scene



Target image - Architecture scene



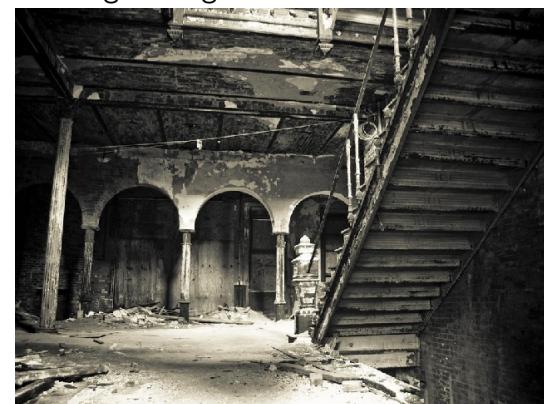
Lighting model 3: arbitrary size key lights, GI on
Subject's result - Cartoon scene Target image - Cartoon scene



Subject's result - Architecture scene



Target image - Architecture scene



Experiment 5

Subject's result - Still life scene



Subject's result - Office scene



Subject 15

Experiment 1

Cartoon scene

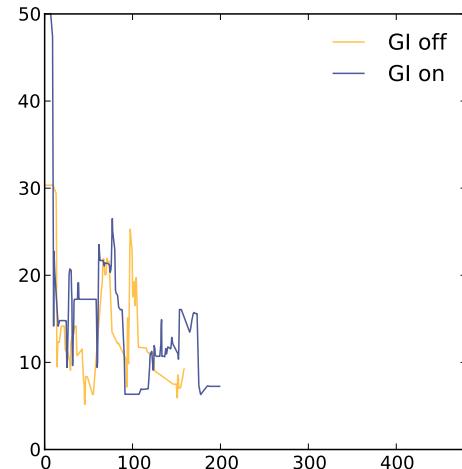
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Architecture scene

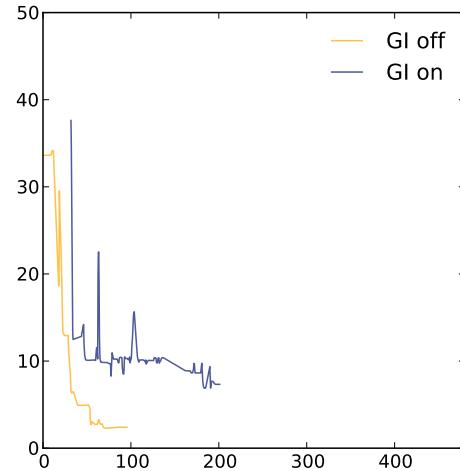
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Experiment 2

Cartoon scene

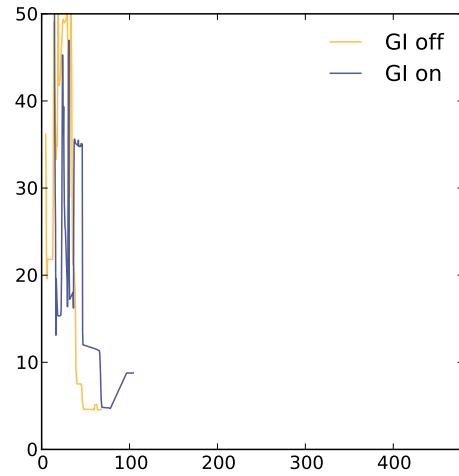
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Architecture scene

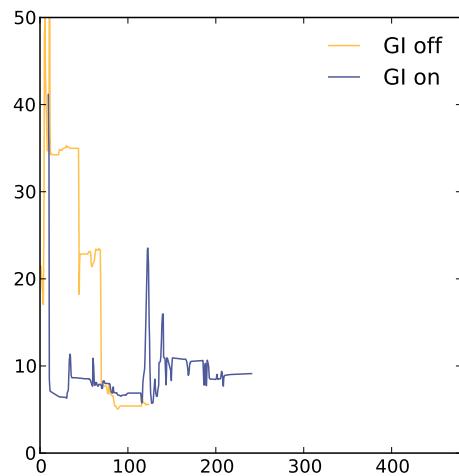
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Experiment 3

Cartoon scene

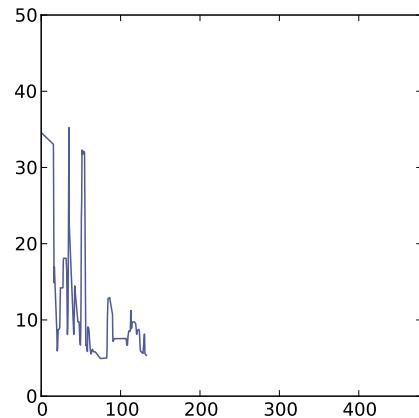
Subject's result



Target image



CIELAB error in time



Architecture scene

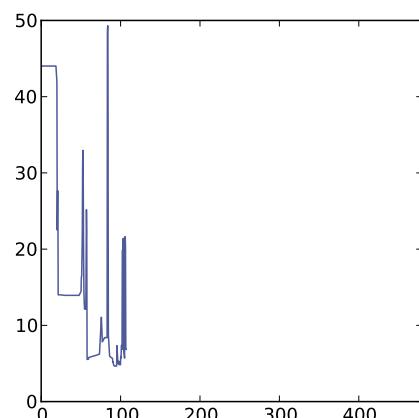
Subject's result



Target image



CIELAB error in time



Experiment 4

Lighting model 1: small key lights, GI off

Subject's result - Cartoon scene



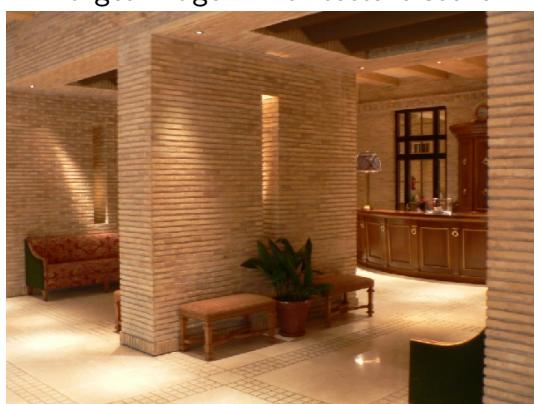
Target image - Cartoon scene



Subject's result - Architecture scene



Target image - Architecture scene



Lighting model 2: arbitrary size key lights, GI off

Subject's result - Cartoon scene



Target image - Cartoon scene



Subject's result - Architecture scene



Target image - Architecture scene



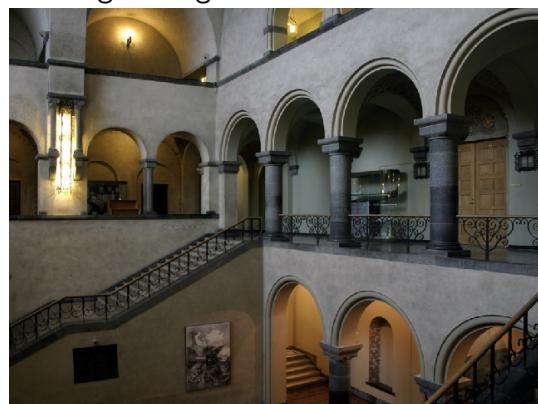
Lighting model 3: arbitrary size key lights, GI on
Subject's result - Cartoon scene Target image - Cartoon scene



Subject's result - Architecture scene



Target image - Architecture scene



Experiment 5

Subject's result - Still life scene



Subject's result - Office scene



Subject 16

Experiment 1

Cartoon scene

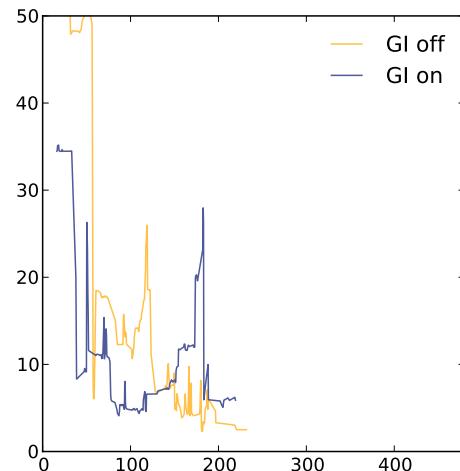
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Architecture scene

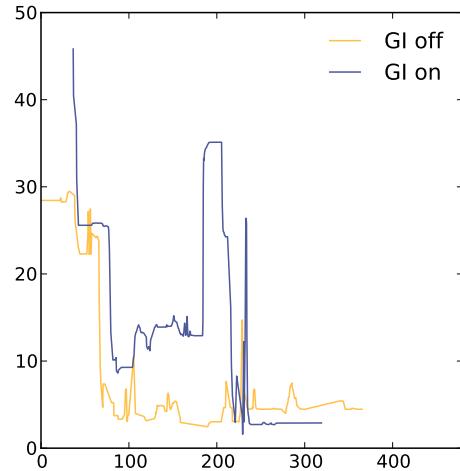
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Experiment 2

Cartoon scene

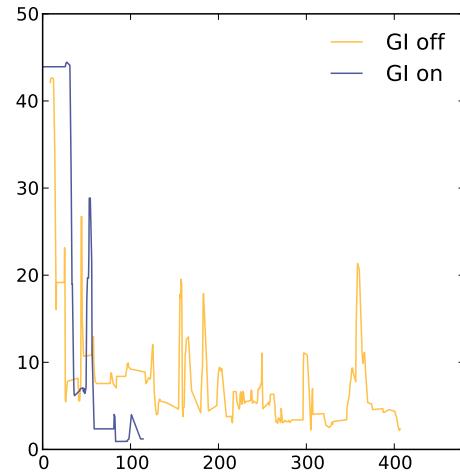
Subject's result - GI off



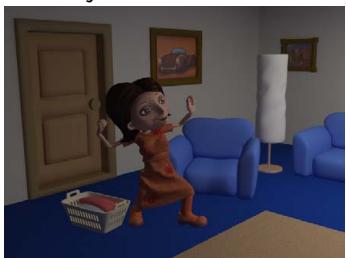
Target image - GI off



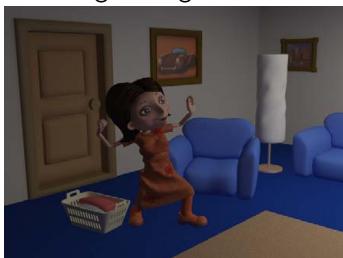
CIELAB error in time



Subject's result - GI on



Target image - GI on



Architecture scene

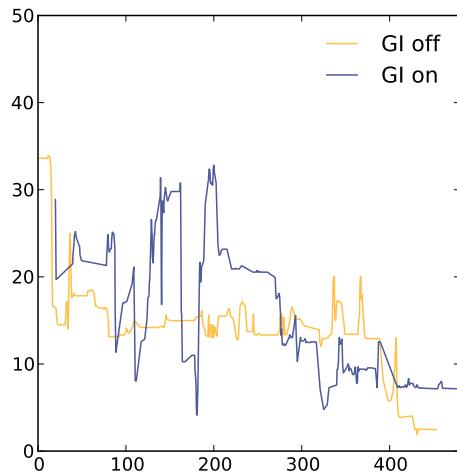
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Experiment 3

Cartoon scene

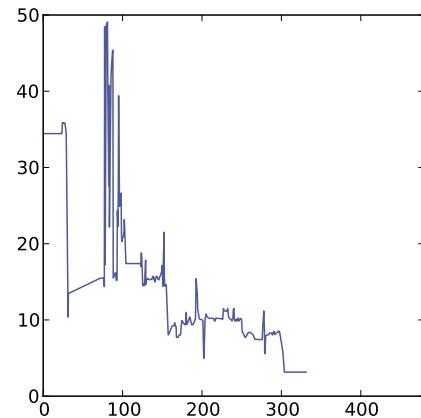
Subject's result



Target image



CIELAB error in time



Architecture scene

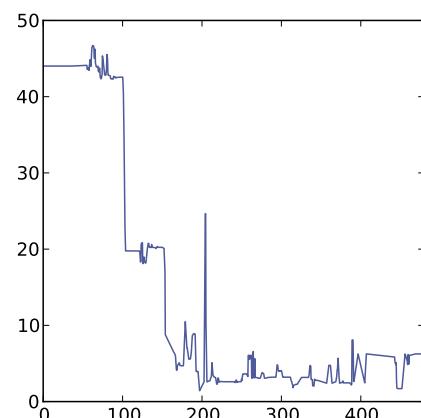
Subject's result



Target image



CIELAB error in time



Experiment 4

Lighting model 1: small key lights, GI off

Subject's result - Cartoon scene



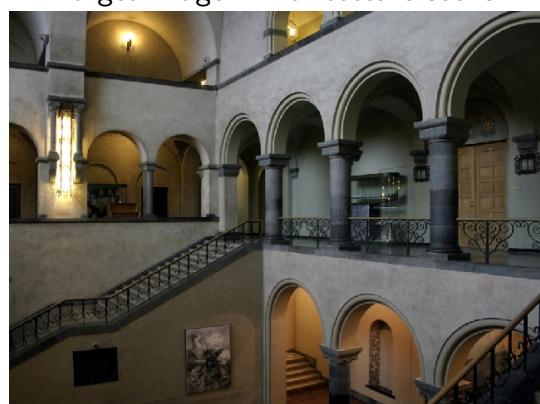
Target image - Cartoon scene



Subject's result - Architecture scene

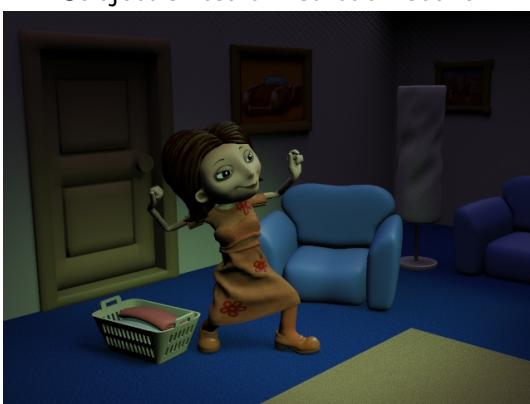


Target image - Architecture scene



Lighting model 2: arbitrary size key lights, GI off

Subject's result - Cartoon scene



Target image - Cartoon scene



Subject's result - Architecture scene



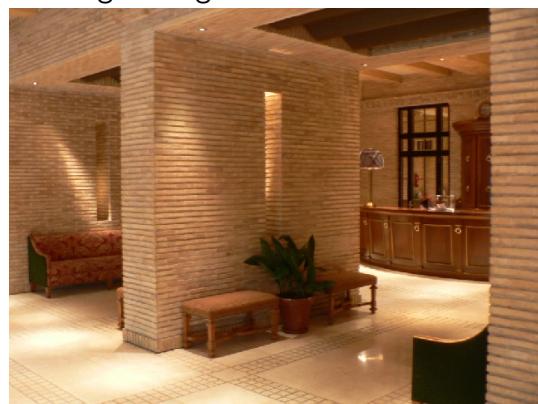
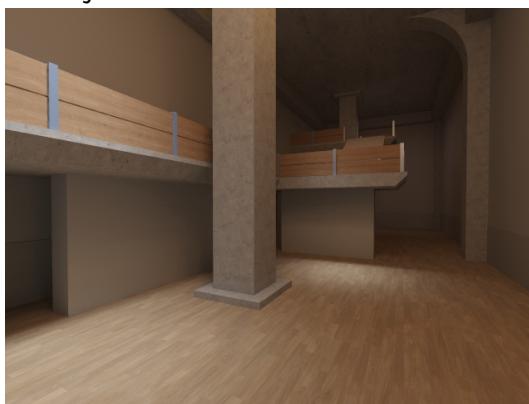
Target image - Architecture scene



Lighting model 3: arbitrary size key lights, GI on
Subject's result - Cartoon scene Target image - Cartoon scene



Subject's result - Architecture scene



Target image - Architecture scene

Experiment 5

Subject's result - Still life scene



Subject's result - Office scene



Subject 17

Experiment 1

Cartoon scene

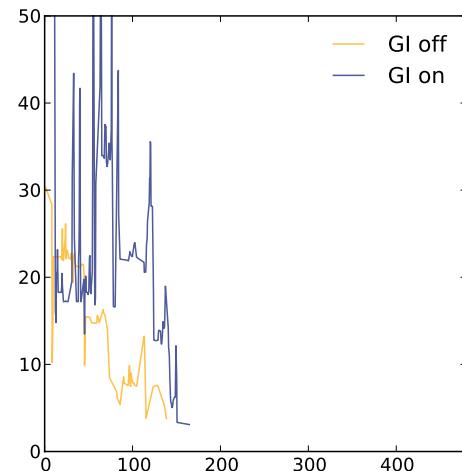
Subject's result - GI off



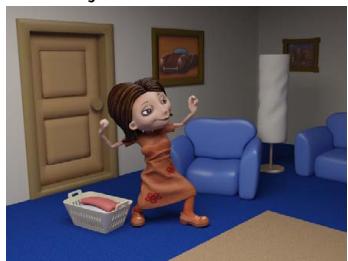
Target image - GI off



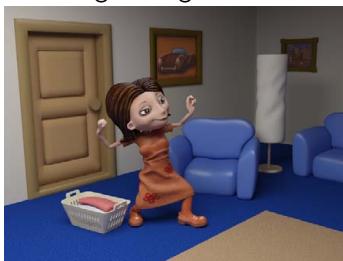
CIELAB error in time



Subject's result - GI on



Target image - GI on



Architecture scene

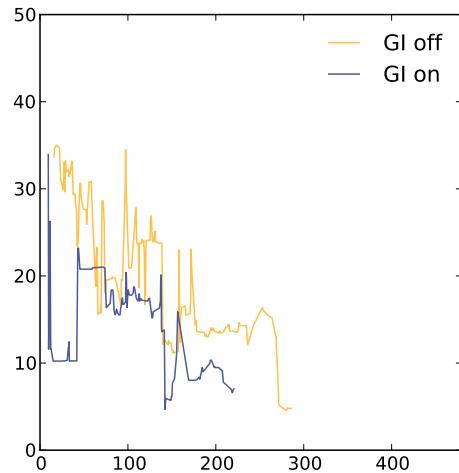
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Experiment 2

Cartoon scene

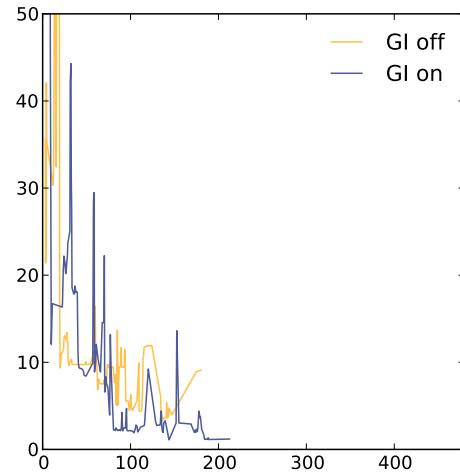
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Architecture scene

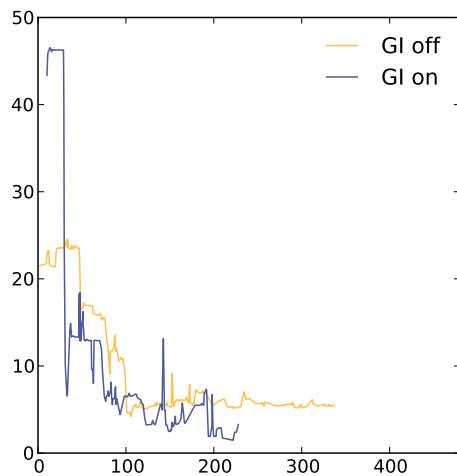
Subject's result - GI off



Target image - GI off



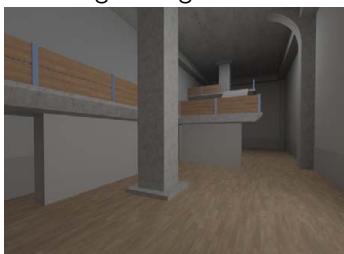
CIELAB error in time



Subject's result - GI on



Target image - GI on



Experiment 3

Cartoon scene

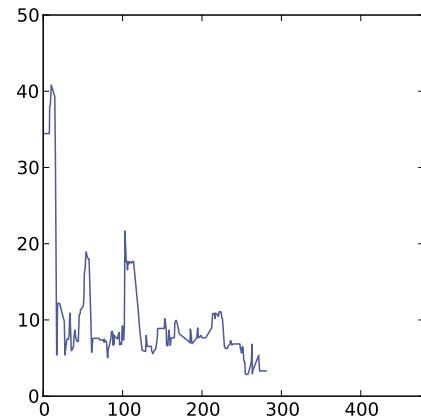
Subject's result



Target image



CIELAB error in time



Architecture scene

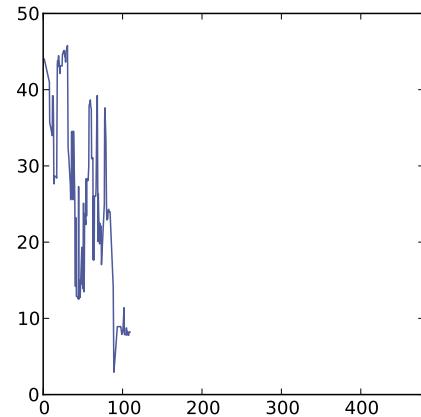
Subject's result



Target image



CIELAB error in time



Experiment 4

Lighting model 1: small key lights, GI off

Subject's result - Cartoon scene



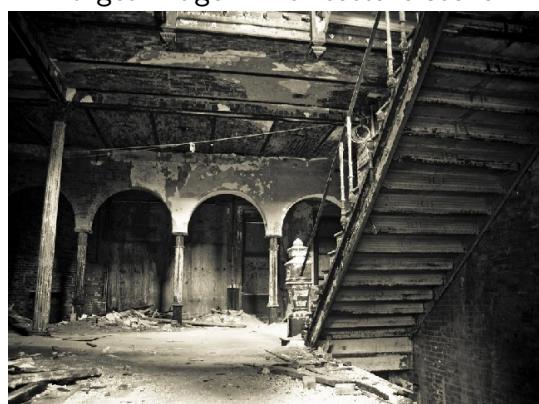
Target image - Cartoon scene



Subject's result - Architecture scene

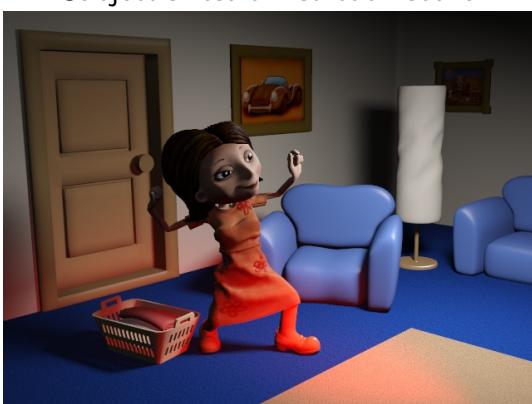


Target image - Architecture scene



Lighting model 2: arbitrary size key lights, GI off

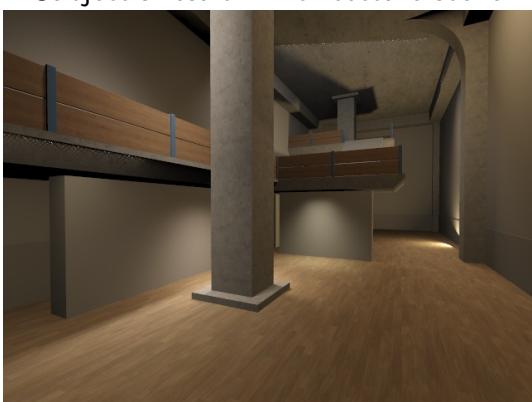
Subject's result - Cartoon scene



Target image - Cartoon scene



Subject's result - Architecture scene



Target image - Architecture scene



Lighting model 3: arbitrary size key lights, GI on
Subject's result - Cartoon scene Target image - Cartoon scene



Subject's result - Architecture scene



Experiment 5

Subject's result - Still life scene



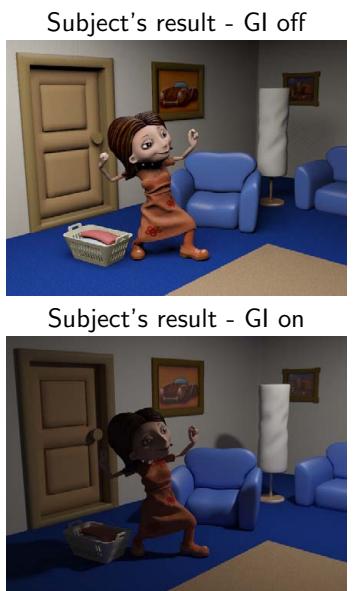
Subject's result - Office scene



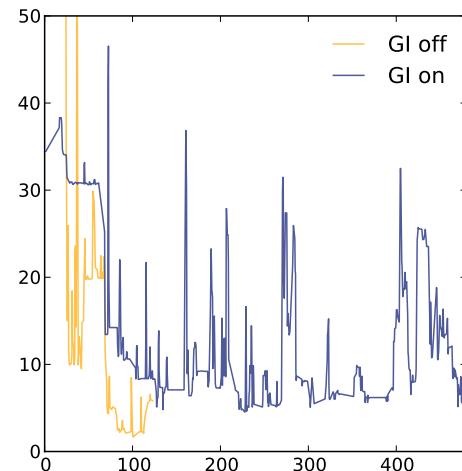
Subject 18

Experiment 1

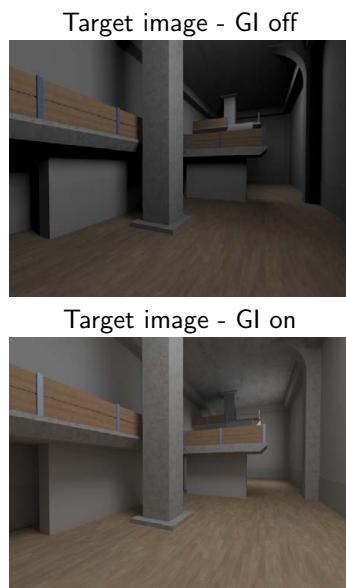
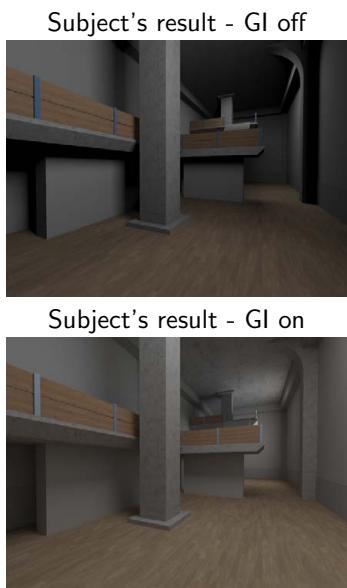
Cartoon scene



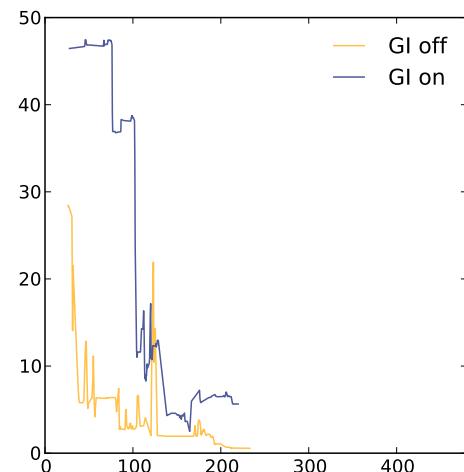
CIELAB error in time



Architecture scene



CIELAB error in time



Experiment 2

Cartoon scene

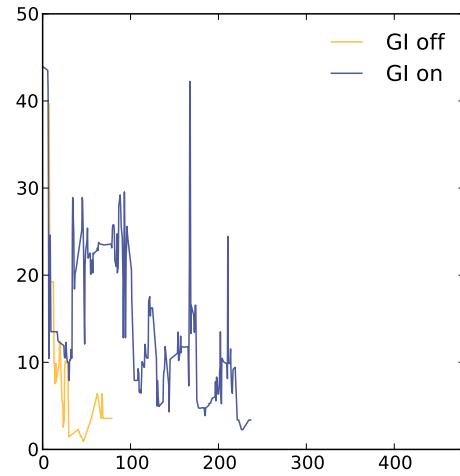
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Architecture scene

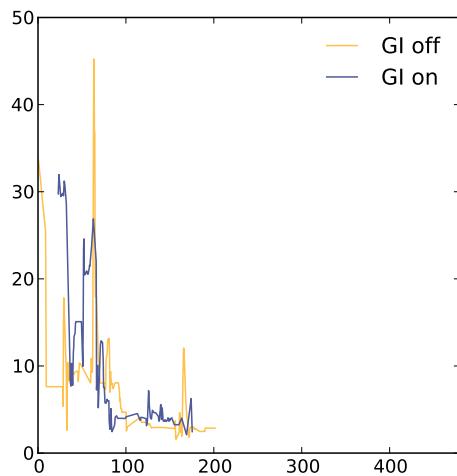
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Experiment 3

Cartoon scene

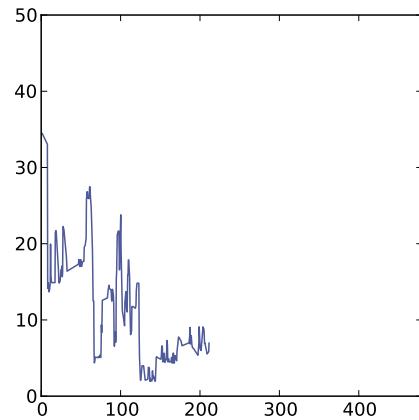
Subject's result



Target image



CIELAB error in time



Architecture scene

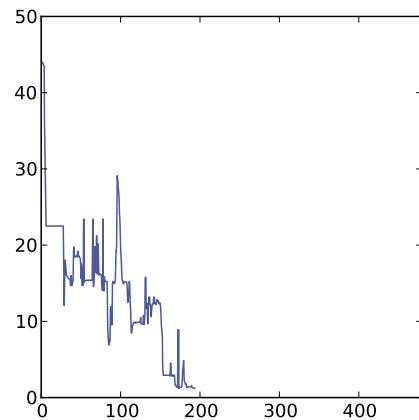
Subject's result



Target image



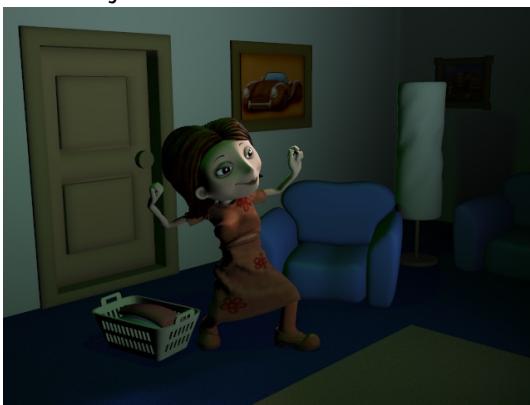
CIELAB error in time



Experiment 4

Lighting model 1: small key lights, GI off

Subject's result - Cartoon scene



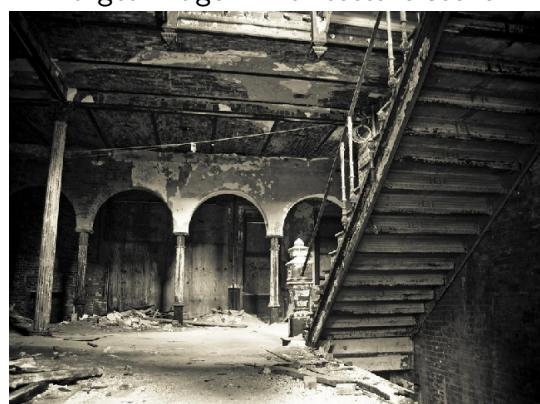
Target image - Cartoon scene



Subject's result - Architecture scene



Target image - Architecture scene



Lighting model 2: arbitrary size key lights, GI off

Subject's result - Cartoon scene



Target image - Cartoon scene



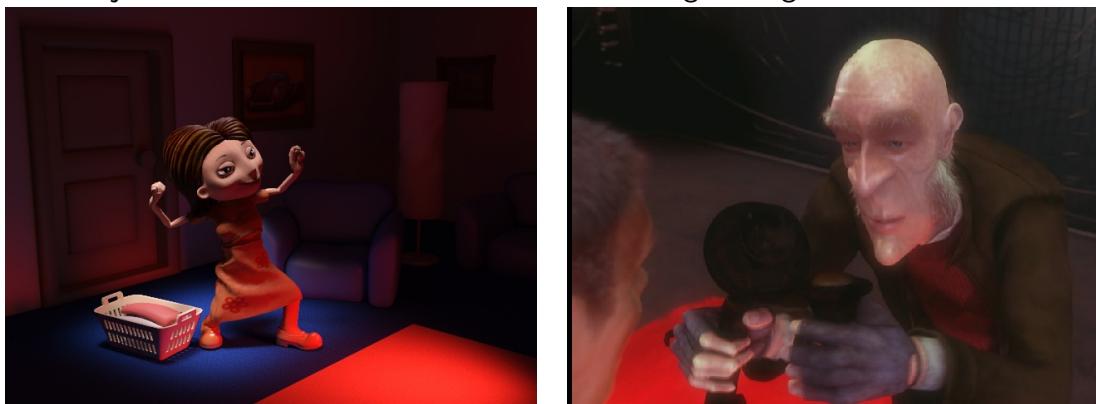
Subject's result - Architecture scene



Target image - Architecture scene



Lighting model 3: arbitrary size key lights, GI on
Subject's result - Cartoon scene Target image - Cartoon scene



Subject's result - Architecture scene



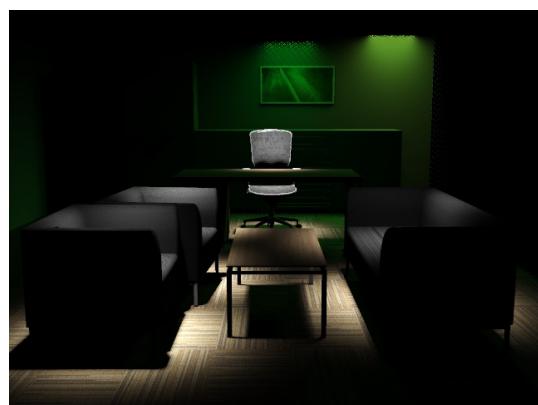
Target image - Architecture scene

Experiment 5

Subject's result - Still life scene



Subject's result - Office scene



Subject 19

Experiment 1

Cartoon scene

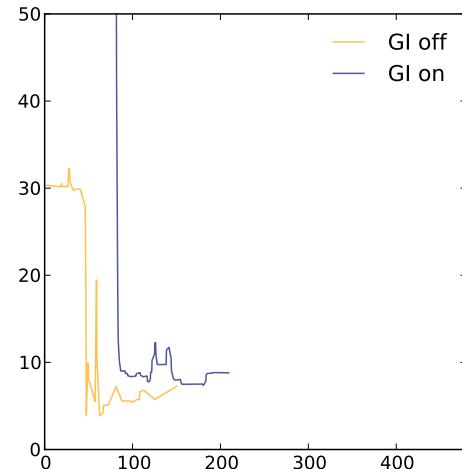
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Architecture scene

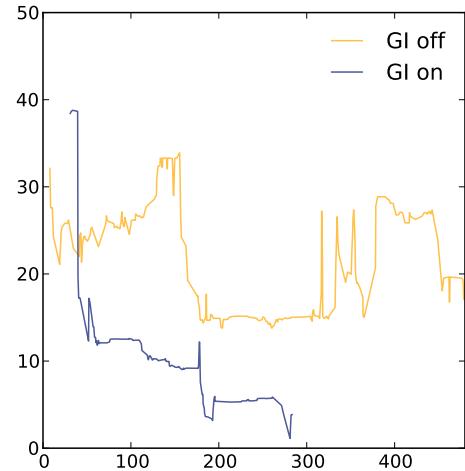
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Experiment 2

Cartoon scene

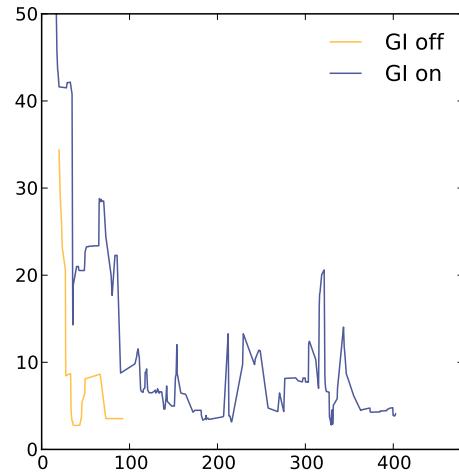
Subject's result - GI off



Target image - GI off



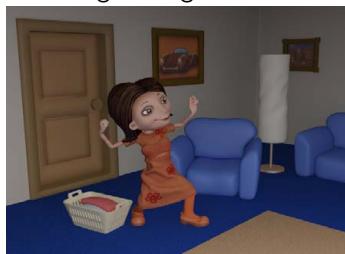
CIELAB error in time



Subject's result - GI on



Target image - GI on



Architecture scene

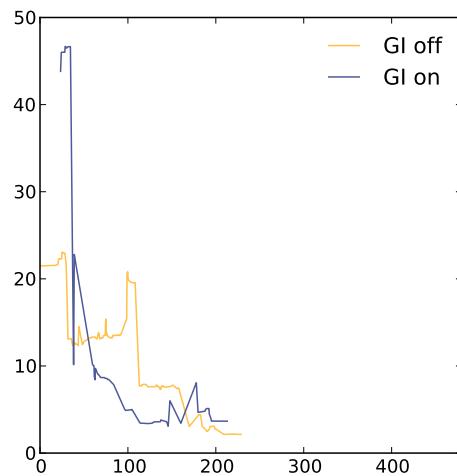
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Experiment 3

Cartoon scene

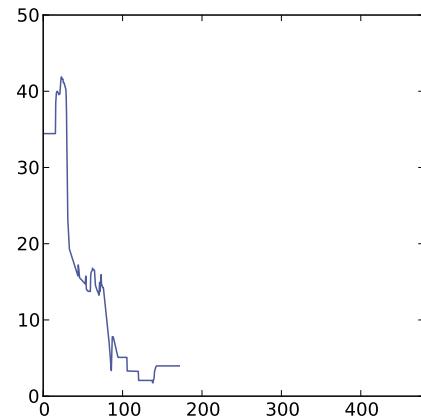
Subject's result



Target image



CIELAB error in time



Architecture scene

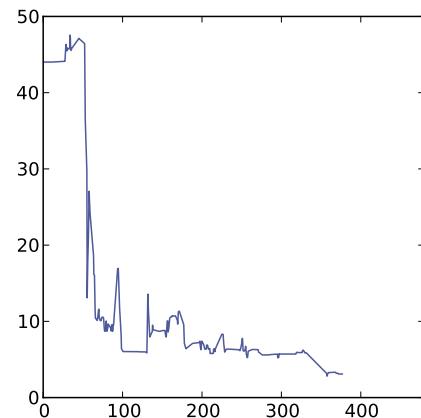
Subject's result



Target image



CIELAB error in time



Experiment 4

Lighting model 1: small key lights, GI off

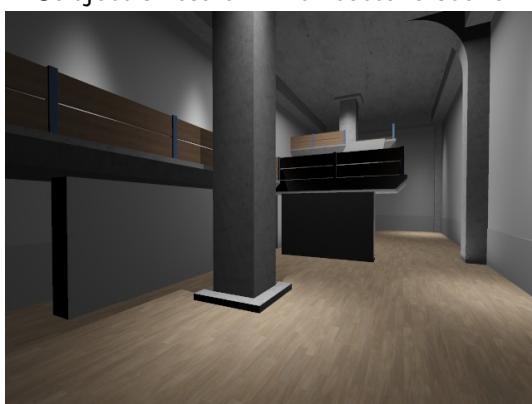
Subject's result - Cartoon scene



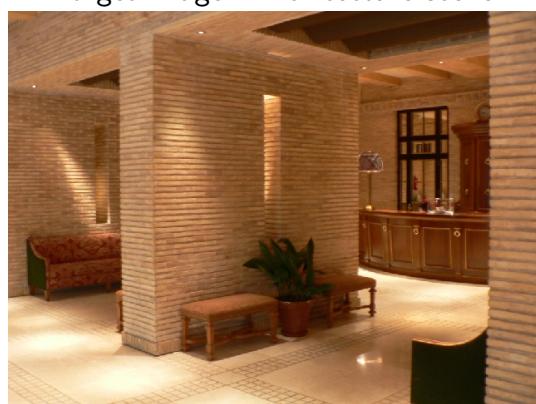
Target image - Cartoon scene



Subject's result - Architecture scene



Target image - Architecture scene



Lighting model 2: arbitrary size key lights, GI off

Subject's result - Cartoon scene



Target image - Cartoon scene



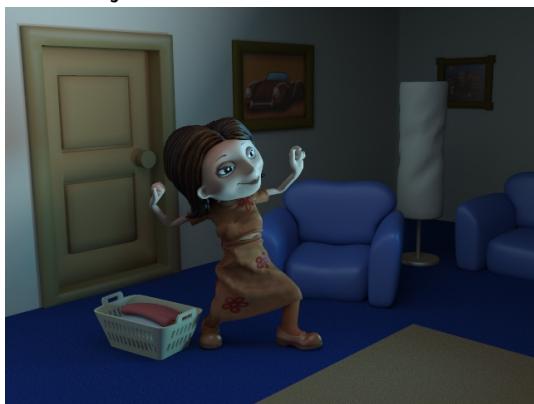
Subject's result - Architecture scene



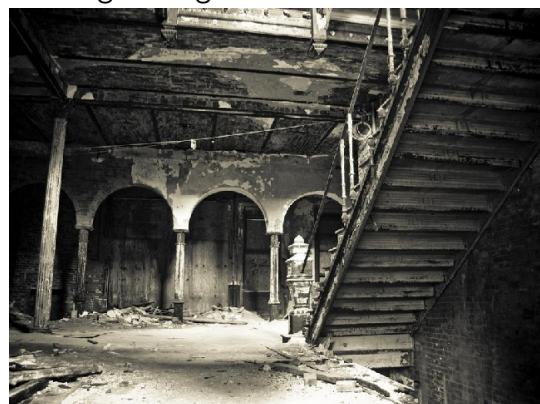
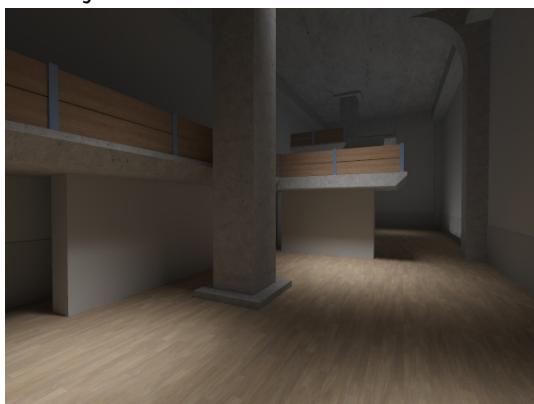
Target image - Architecture scene



Lighting model 3: arbitrary size key lights, GI on
Subject's result - Cartoon scene Target image - Cartoon scene



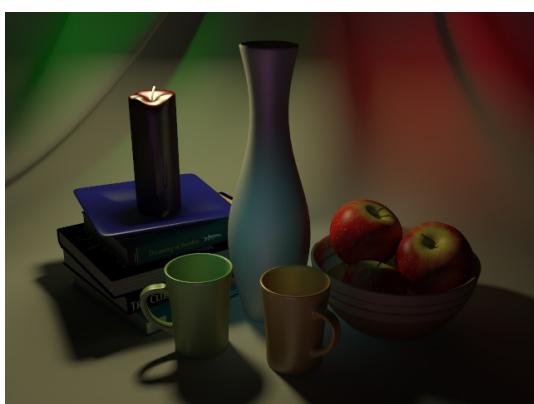
Subject's result - Architecture scene



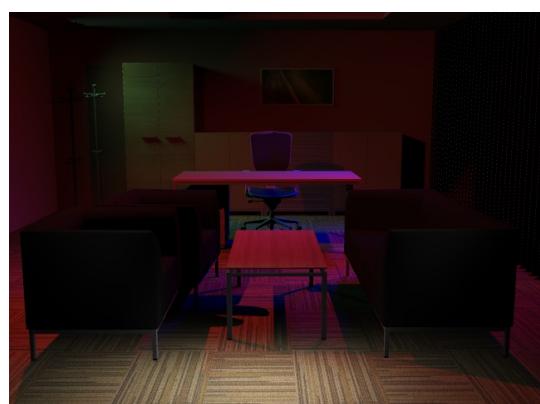
Target image - Architecture scene

Experiment 5

Subject's result - Still life scene



Subject's result - Office scene



Subject 20

Experiment 1

Cartoon scene

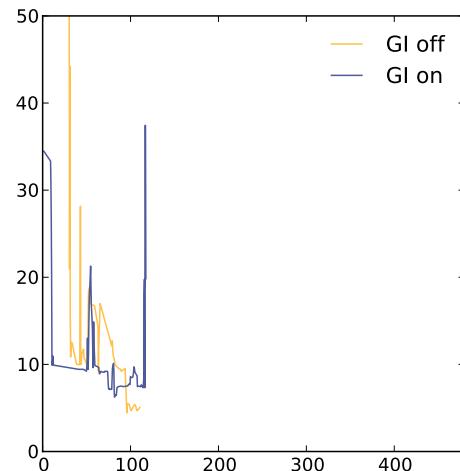
Subject's result - GI off



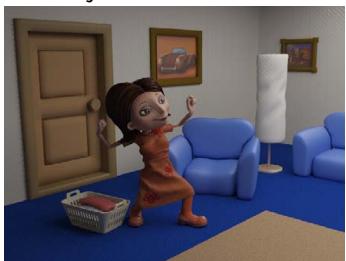
Target image - GI off



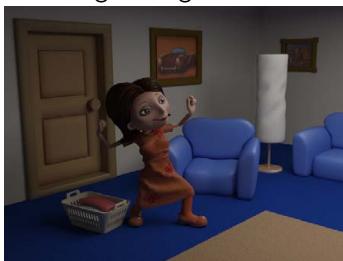
CIELAB error in time



Subject's result - GI on



Target image - GI on



Architecture scene

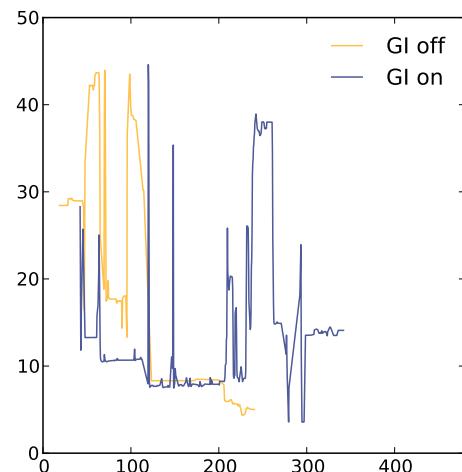
Subject's result - GI off



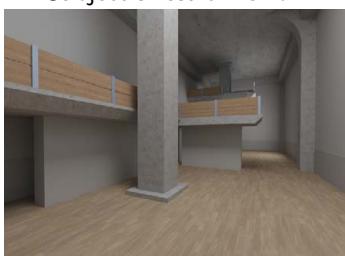
Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Experiment 2

Cartoon scene

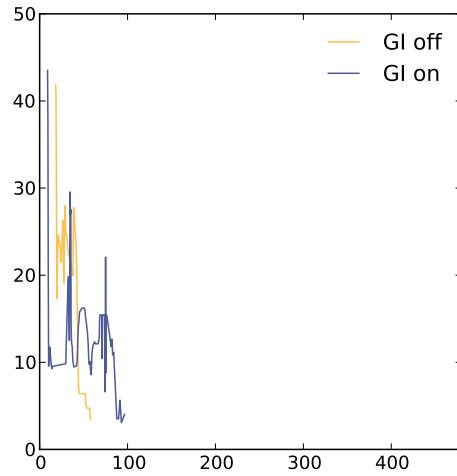
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Architecture scene

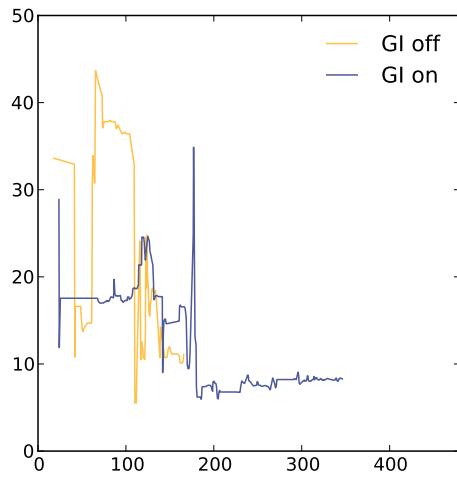
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Experiment 3

Cartoon scene

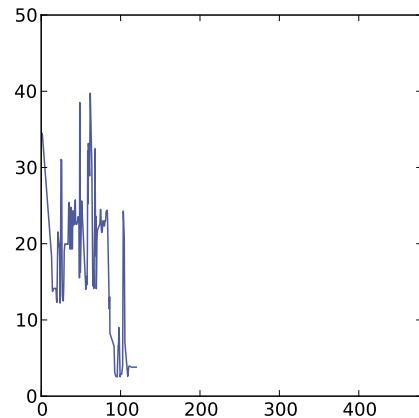
Subject's result



Target image



CIELAB error in time



Architecture scene

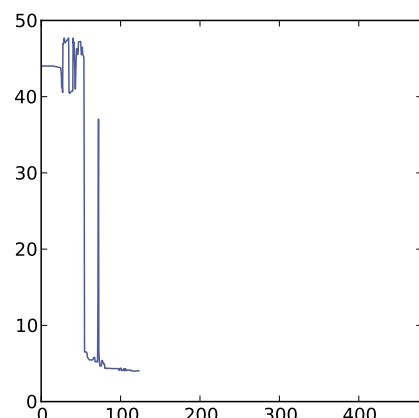
Subject's result



Target image



CIELAB error in time



Experiment 4

Lighting model 1: small key lights, GI off

Subject's result - Cartoon scene



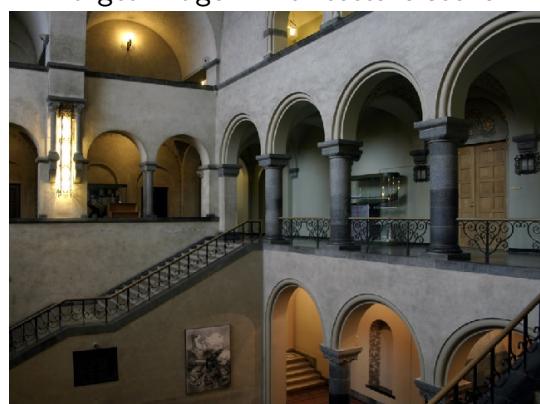
Target image - Cartoon scene



Subject's result - Architecture scene

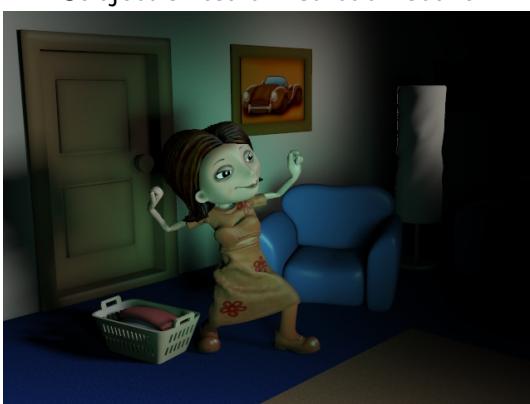


Target image - Architecture scene



Lighting model 2: arbitrary size key lights, GI off

Subject's result - Cartoon scene



Target image - Cartoon scene



Subject's result - Architecture scene



Target image - Architecture scene



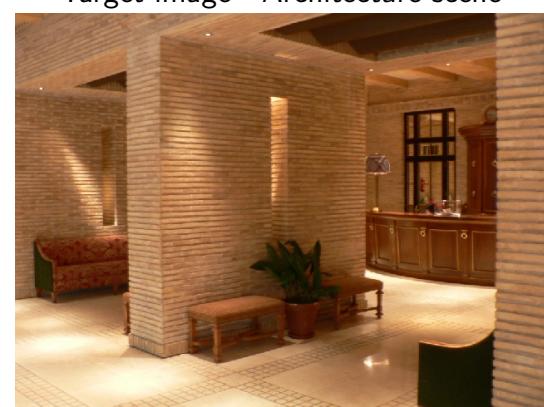
Lighting model 3: arbitrary size key lights, GI on
Subject's result - Cartoon scene Target image - Cartoon scene



Subject's result - Architecture scene



Target image - Architecture scene



Experiment 5

Subject's result - Still life scene



Subject's result - Office scene



Subject 21

Experiment 1

Cartoon scene

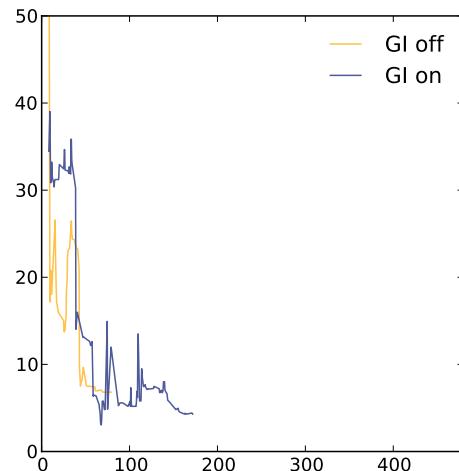
Subject's result - GI off



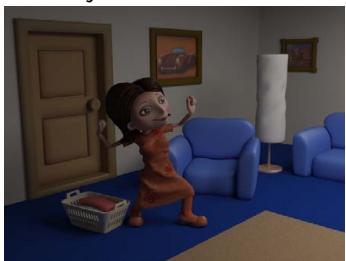
Target image - GI off



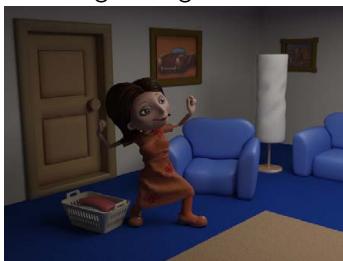
CIELAB error in time



Subject's result - GI on



Target image - GI on



Architecture scene

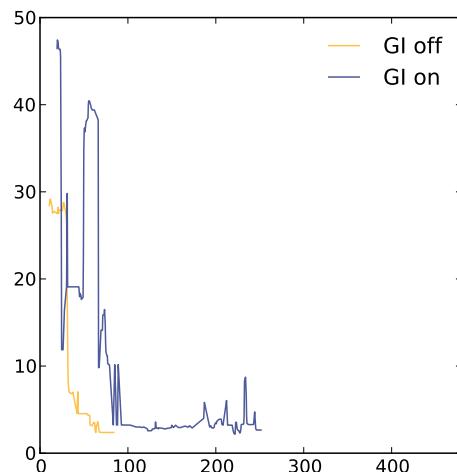
Subject's result - GI off



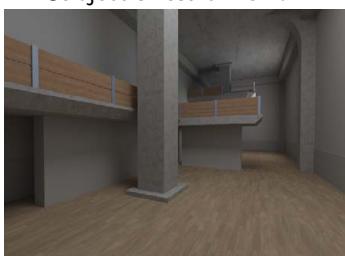
Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Experiment 2

Cartoon scene

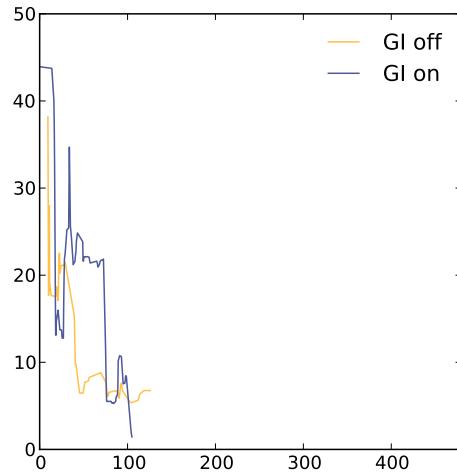
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Architecture scene

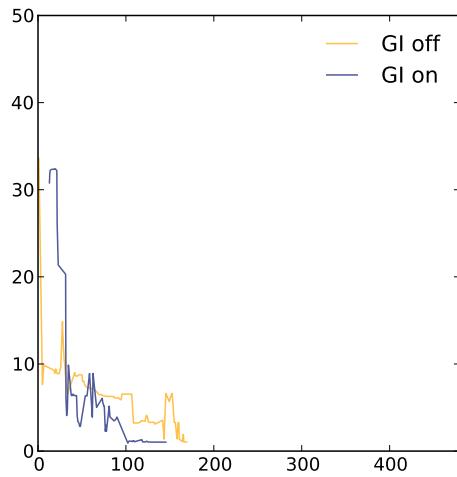
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Experiment 3

Cartoon scene

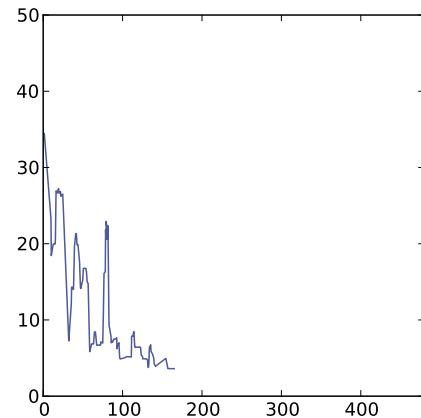
Subject's result



Target image



CIELAB error in time



Architecture scene

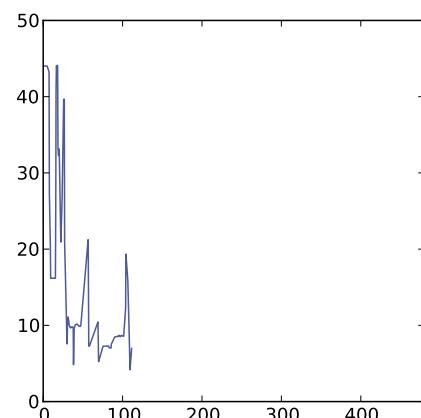
Subject's result



Target image



CIELAB error in time



Experiment 4

Lighting model 1: small key lights, GI off

Subject's result - Cartoon scene



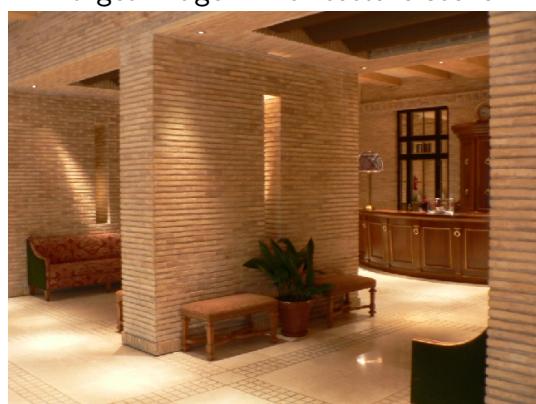
Target image - Cartoon scene



Subject's result - Architecture scene



Target image - Architecture scene



Lighting model 2: arbitrary size key lights, GI off

Subject's result - Cartoon scene



Target image - Cartoon scene



Subject's result - Architecture scene



Target image - Architecture scene



Lighting model 3: arbitrary size key lights, GI on
Subject's result - Cartoon scene Target image - Cartoon scene



Subject's result - Architecture scene



Target image - Architecture scene

Experiment 5

Subject's result - Still life scene



Subject's result - Office scene



Subject 22

Experiment 1

Cartoon scene

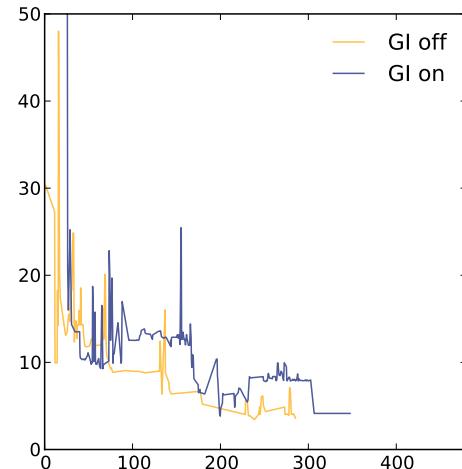
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Architecture scene

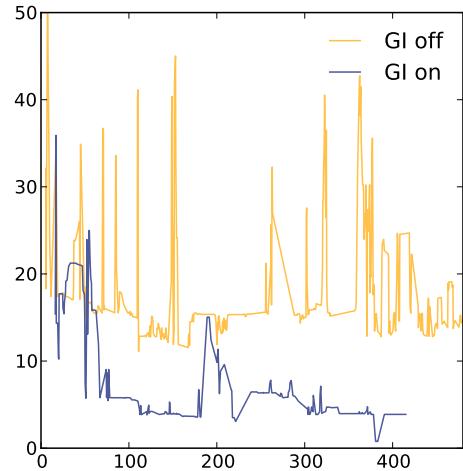
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Experiment 2

Cartoon scene

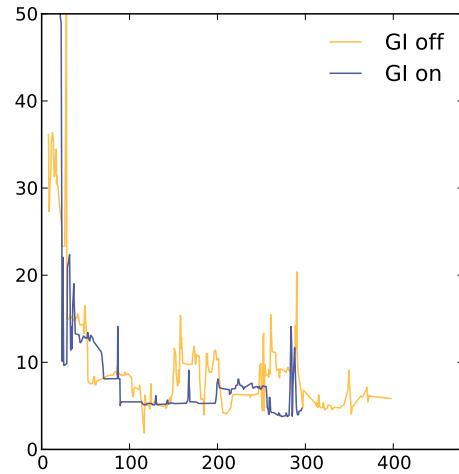
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Architecture scene

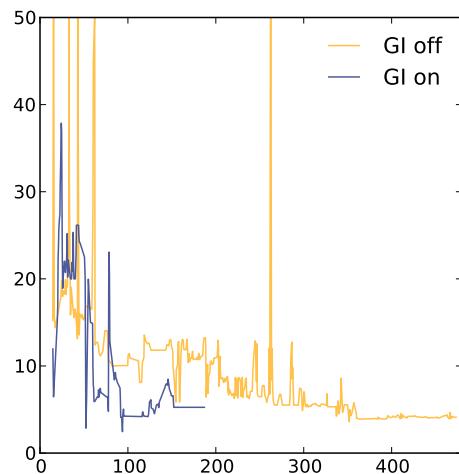
Subject's result - GI off



Target image - GI off



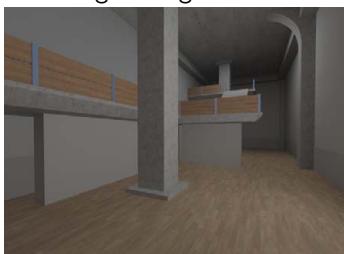
CIELAB error in time



Subject's result - GI on



Target image - GI on



Experiment 3

Cartoon scene

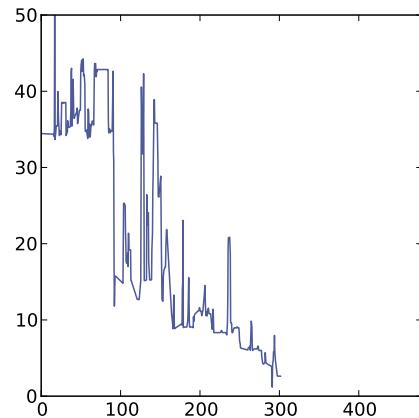
Subject's result



Target image



CIELAB error in time



Architecture scene

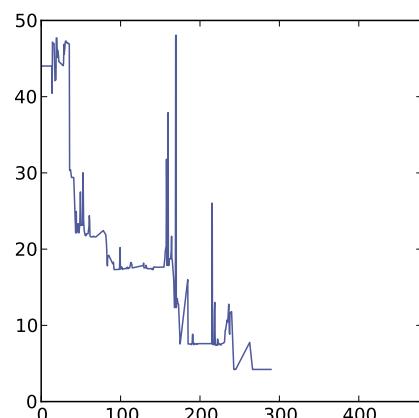
Subject's result



Target image



CIELAB error in time



Experiment 4

Lighting model 1: small key lights, GI off

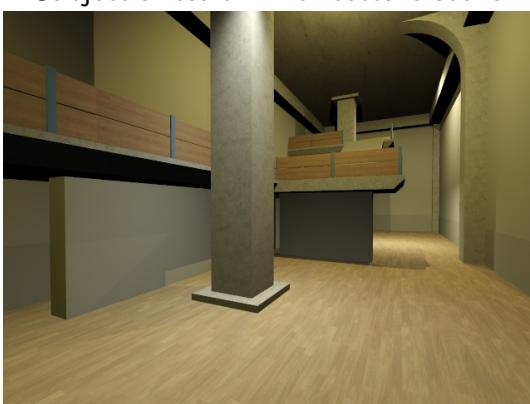
Subject's result - Cartoon scene



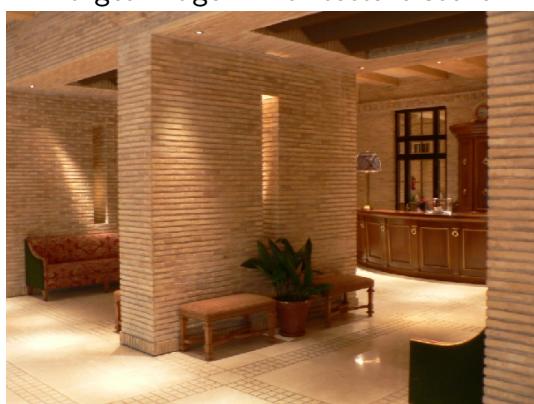
Target image - Cartoon scene



Subject's result - Architecture scene

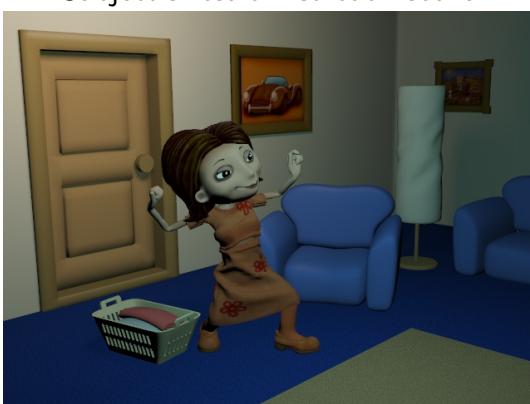


Target image - Architecture scene



Lighting model 2: arbitrary size key lights, GI off

Subject's result - Cartoon scene



Target image - Cartoon scene



Subject's result - Architecture scene



Target image - Architecture scene



Lighting model 3: arbitrary size key lights, GI on
Subject's result - Cartoon scene Target image - Cartoon scene



Subject's result - Architecture scene



Target image - Architecture scene



Experiment 5

Subject's result - Still life scene



Subject's result - Office scene



Subject 23

Experiment 1

Cartoon scene

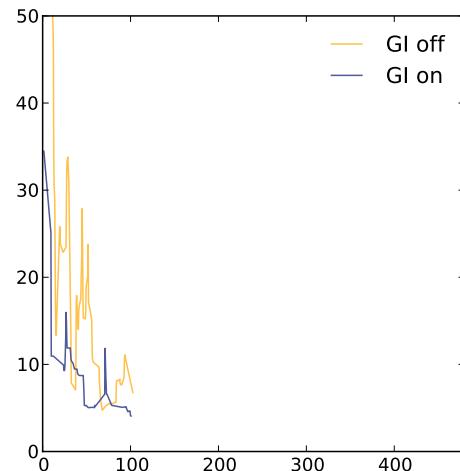
Subject's result - GI off



Target image - GI off



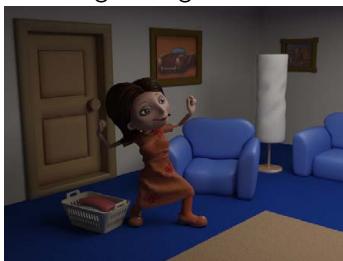
CIELAB error in time



Subject's result - GI on



Target image - GI on



Architecture scene

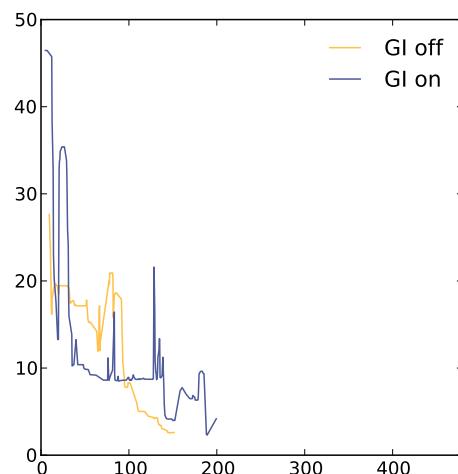
Subject's result - GI off



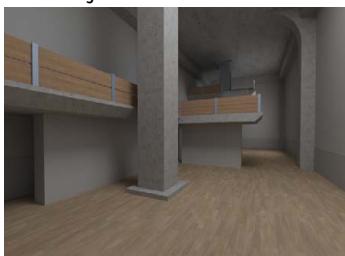
Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Experiment 2

Cartoon scene

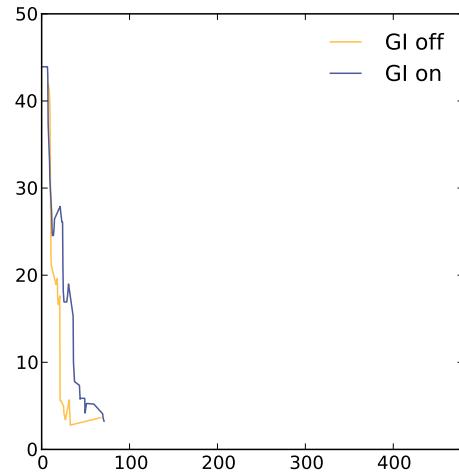
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Architecture scene

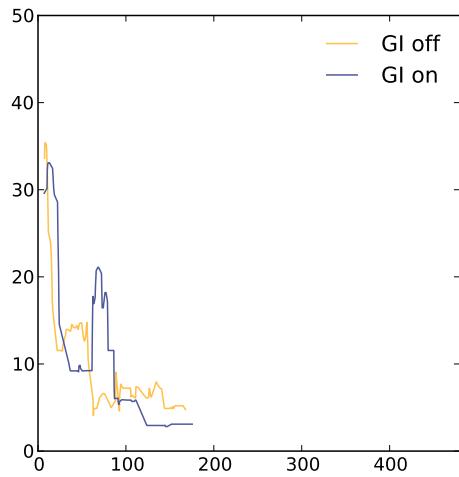
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Experiment 3

Cartoon scene

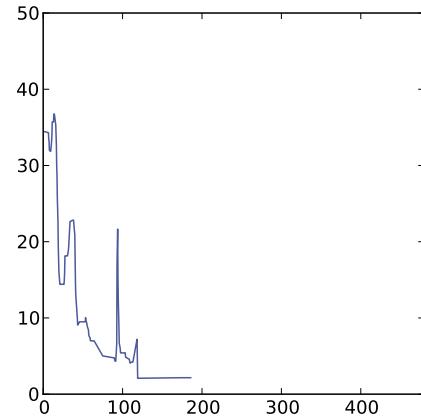
Subject's result



Target image



CIELAB error in time



Architecture scene

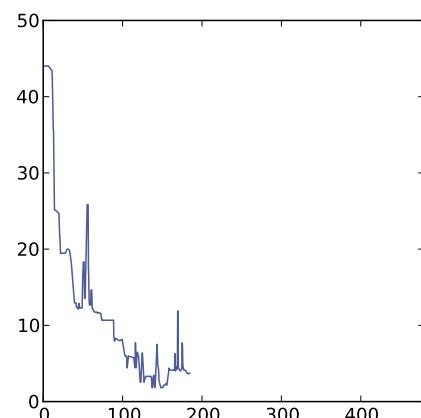
Subject's result



Target image



CIELAB error in time



Experiment 4

Lighting model 1: small key lights, GI off

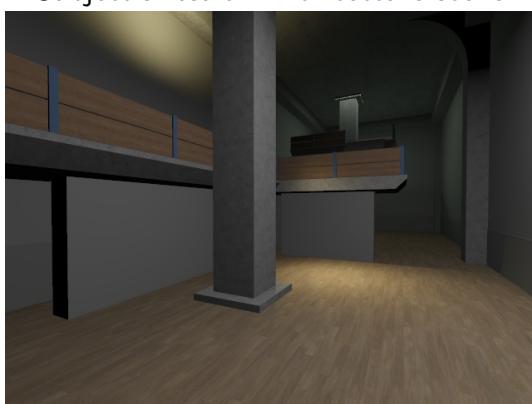
Subject's result - Cartoon scene



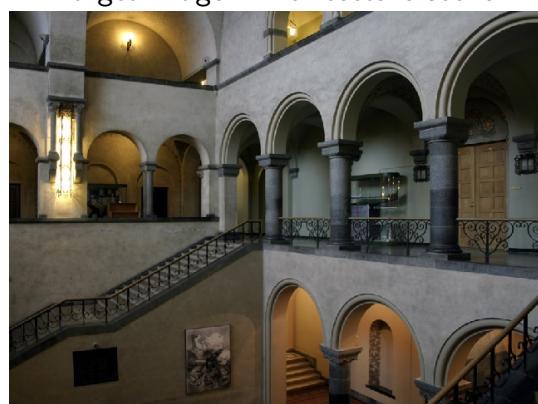
Target image - Cartoon scene



Subject's result - Architecture scene



Target image - Architecture scene



Lighting model 2: arbitrary size key lights, GI off

Subject's result - Cartoon scene



Target image - Cartoon scene



Subject's result - Architecture scene



Target image - Architecture scene



Lighting model 3: arbitrary size key lights, GI on
Subject's result - Cartoon scene Target image - Cartoon scene



Subject's result - Architecture scene



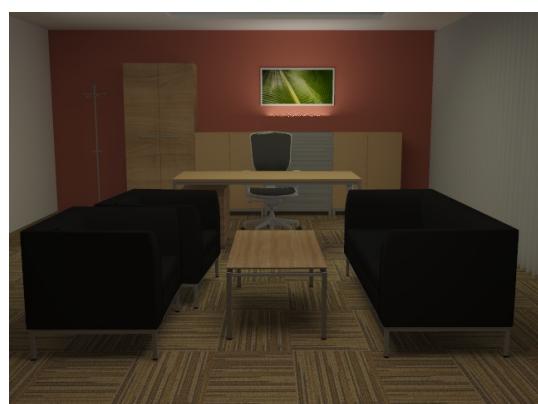
Target image - Architecture scene

Experiment 5

Subject's result - Still life scene



Subject's result - Office scene



Subject 24

Experiment 1

Cartoon scene

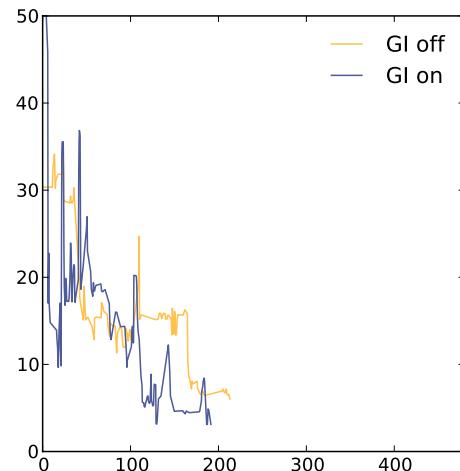
Subject's result - GI off



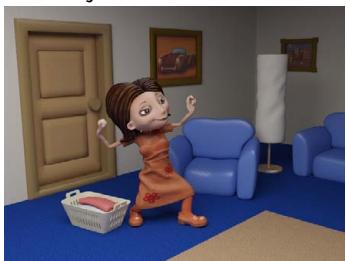
Target image - GI off



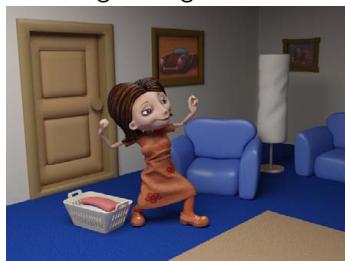
CIELAB error in time



Subject's result - GI on



Target image - GI on



Architecture scene

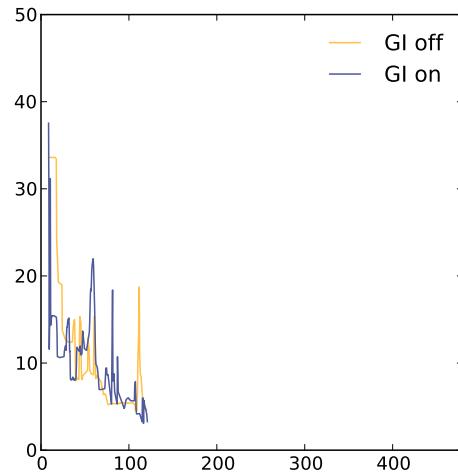
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Experiment 2

Cartoon scene

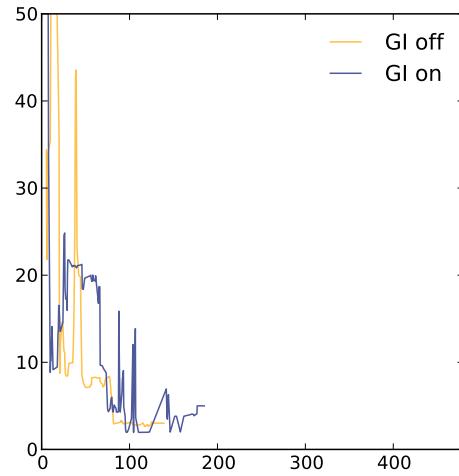
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Architecture scene

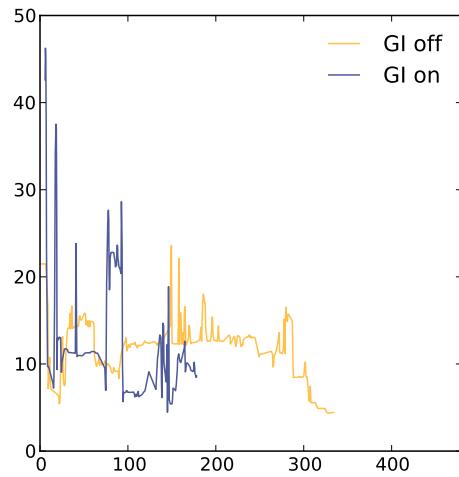
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Experiment 3

Cartoon scene

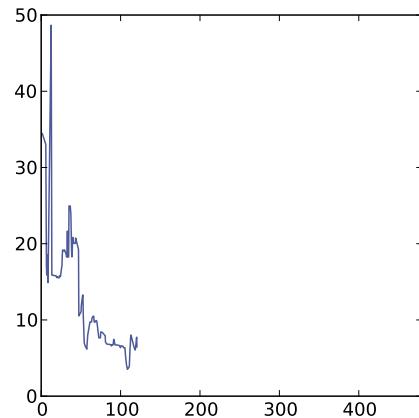
Subject's result



Target image



CIELAB error in time



Architecture scene

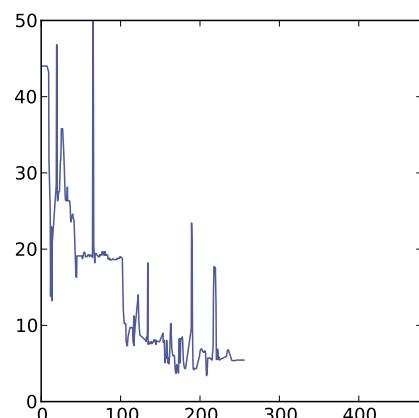
Subject's result



Target image



CIELAB error in time



Experiment 4

Lighting model 1: small key lights, GI off

Subject's result - Cartoon scene



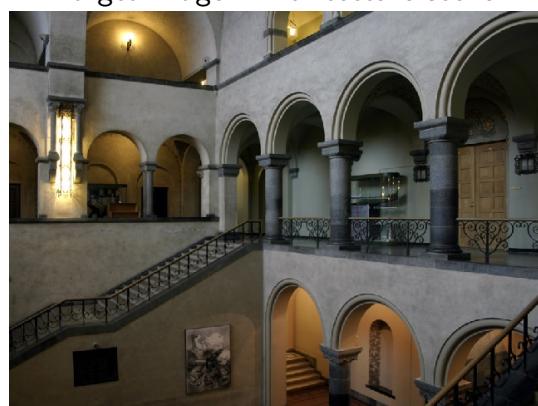
Target image - Cartoon scene



Subject's result - Architecture scene



Target image - Architecture scene

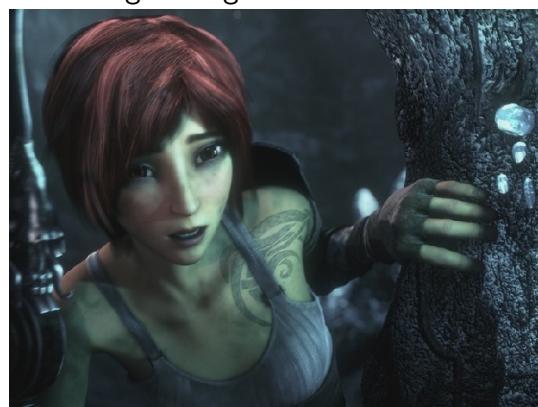


Lighting model 2: arbitrary size key lights, GI off

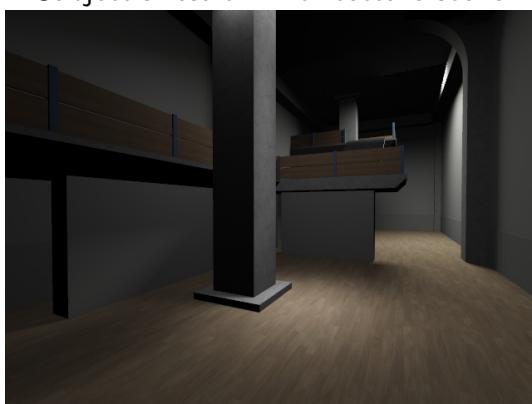
Subject's result - Cartoon scene



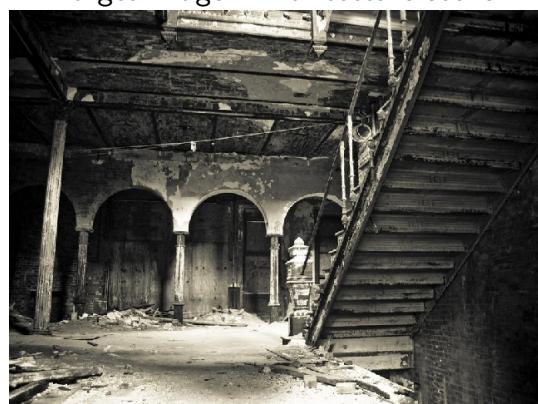
Target image - Cartoon scene



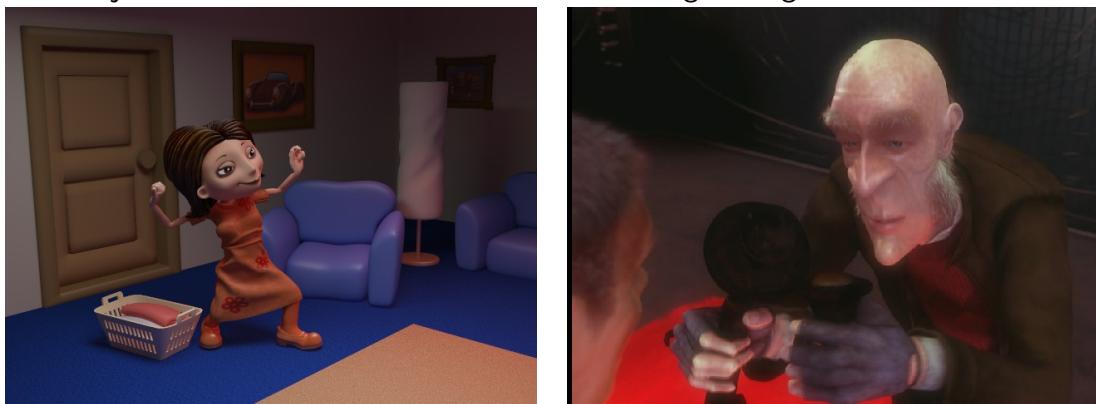
Subject's result - Architecture scene



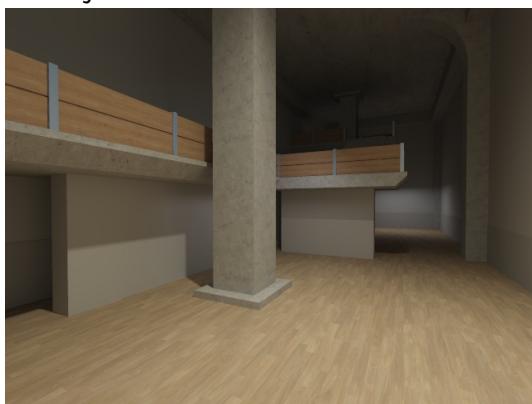
Target image - Architecture scene



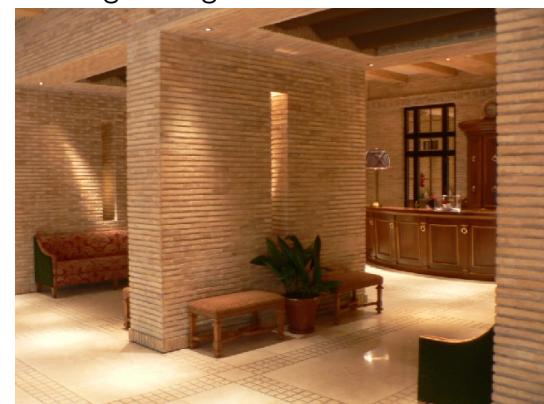
Lighting model 3: arbitrary size key lights, GI on
Subject's result - Cartoon scene Target image - Cartoon scene



Subject's result - Architecture scene



Target image - Architecture scene



Experiment 5

Subject's result - Still life scene



Subject's result - Office scene



Subject 25

Experiment 1

Cartoon scene

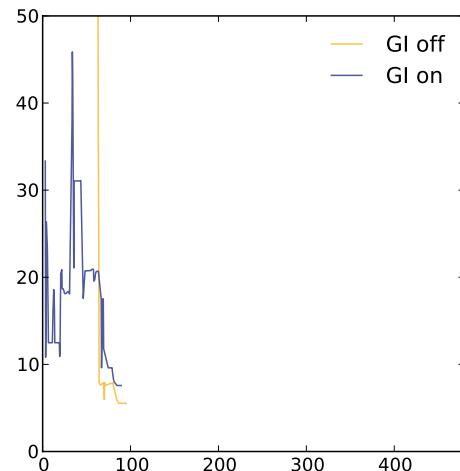
Subject's result - GI off



Target image - GI off



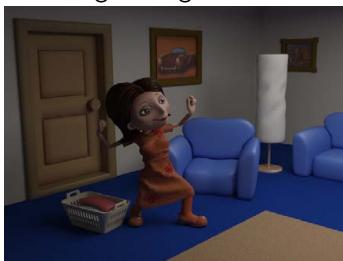
CIELAB error in time



Subject's result - GI on



Target image - GI on



Architecture scene

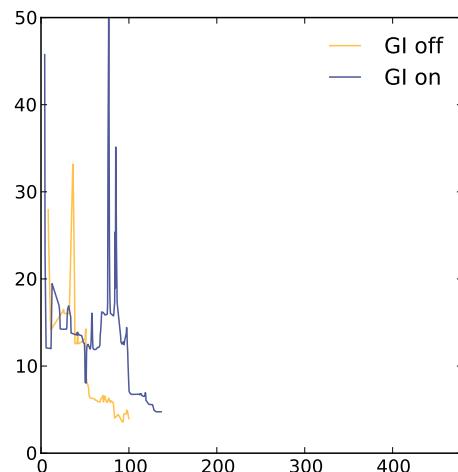
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Experiment 2

Cartoon scene

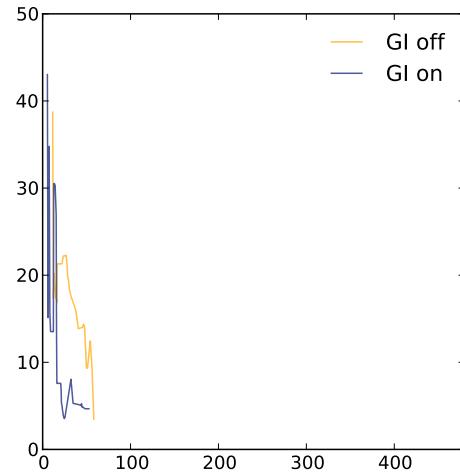
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Architecture scene

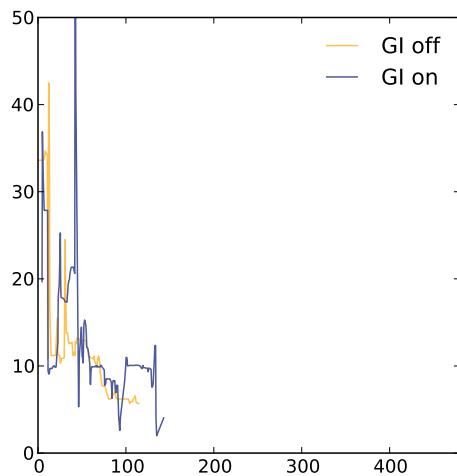
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Experiment 3

Cartoon scene

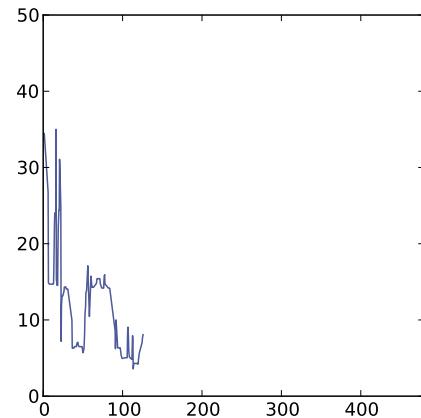
Subject's result



Target image



CIELAB error in time



Architecture scene

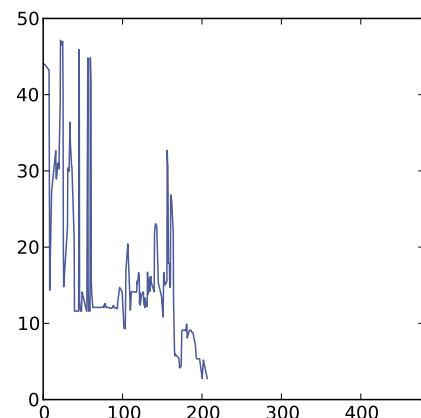
Subject's result



Target image



CIELAB error in time



Experiment 4

Lighting model 1: small key lights, GI off

Subject's result - Cartoon scene



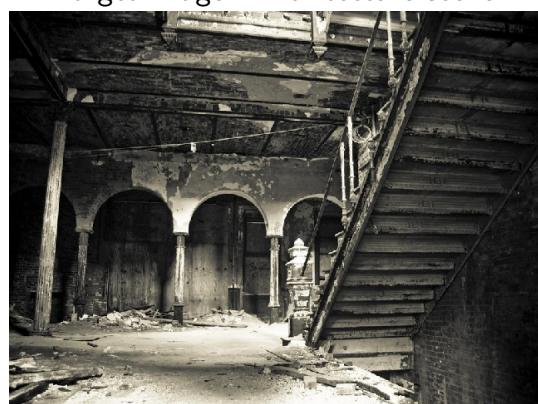
Target image - Cartoon scene



Subject's result - Architecture scene

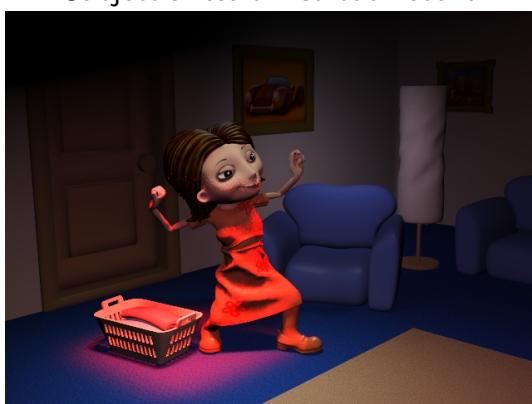


Target image - Architecture scene



Lighting model 2: arbitrary size key lights, GI off

Subject's result - Cartoon scene



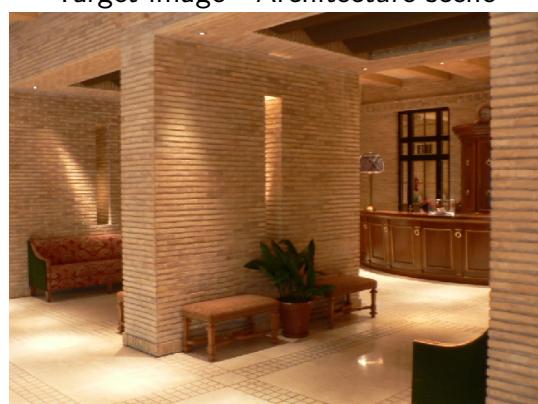
Target image - Cartoon scene



Subject's result - Architecture scene



Target image - Architecture scene



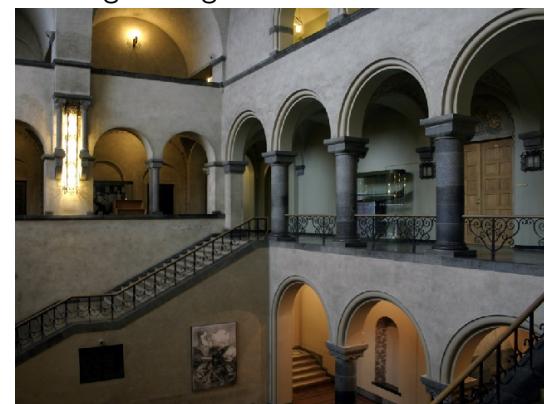
Lighting model 3: arbitrary size key lights, GI on
Subject's result - Cartoon scene Target image - Cartoon scene



Subject's result - Architecture scene



Target image - Architecture scene



Experiment 5

Subject's result - Still life scene



Subject's result - Office scene



Subject 26

Experiment 1

Cartoon scene

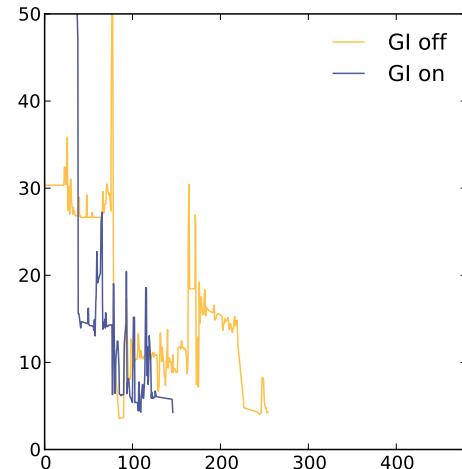
Subject's result - GI off



Target image - GI off



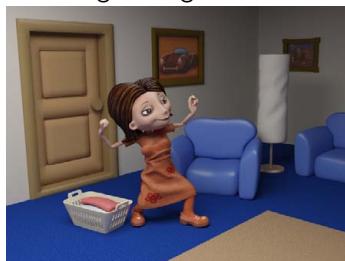
CIELAB error in time



Subject's result - GI on



Target image - GI on



Architecture scene

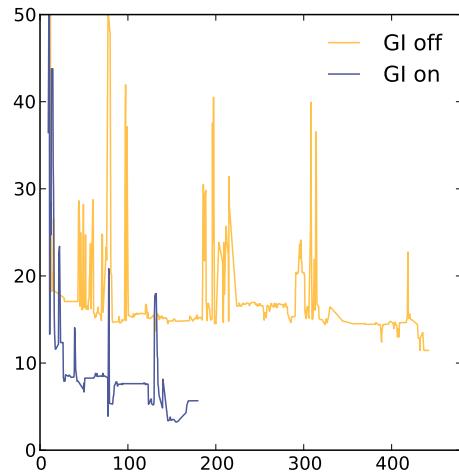
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Experiment 2

Cartoon scene

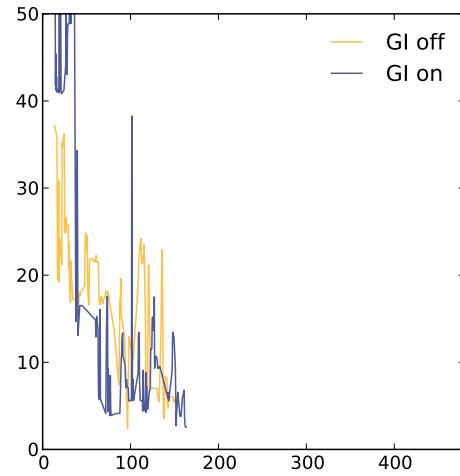
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Architecture scene

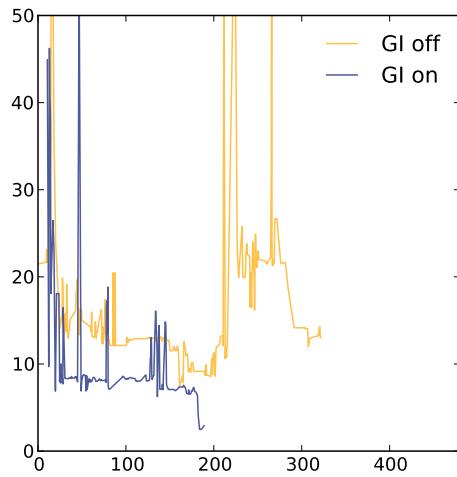
Subject's result - GI off



Target image - GI off



CIELAB error in time



Subject's result - GI on



Target image - GI on



Experiment 3

Cartoon scene

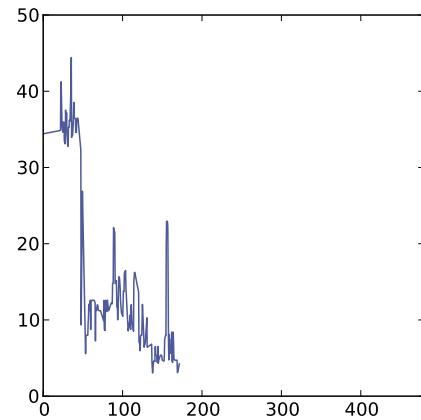
Subject's result



Target image



CIELAB error in time



Architecture scene

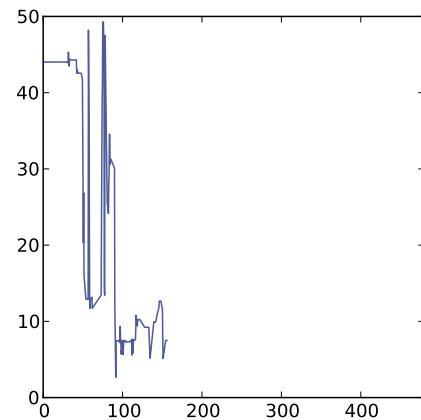
Subject's result



Target image



CIELAB error in time



Experiment 4

Lighting model 1: small key lights, GI off

Subject's result - Cartoon scene



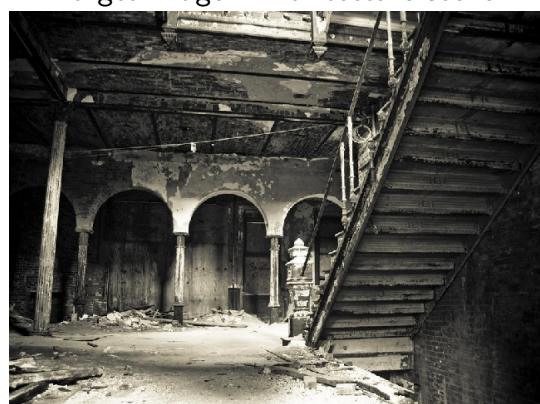
Target image - Cartoon scene



Subject's result - Architecture scene



Target image - Architecture scene

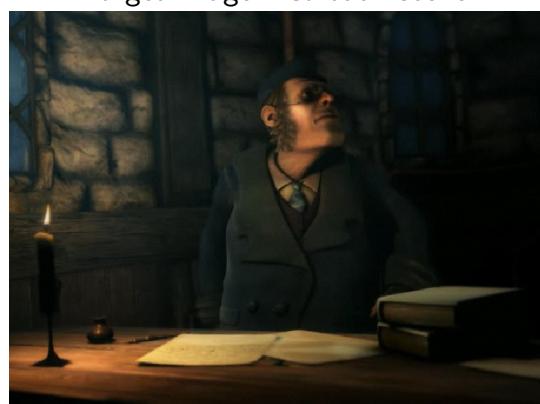


Lighting model 2: arbitrary size key lights, GI off

Subject's result - Cartoon scene



Target image - Cartoon scene



Subject's result - Architecture scene



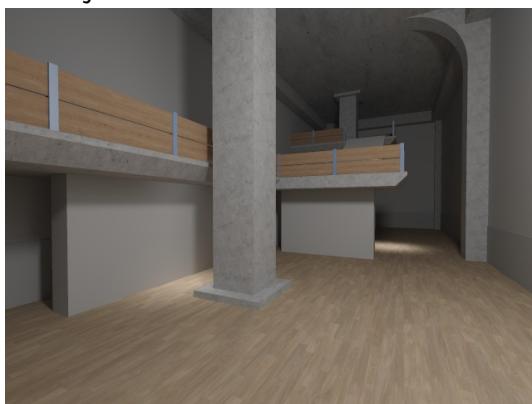
Target image - Architecture scene



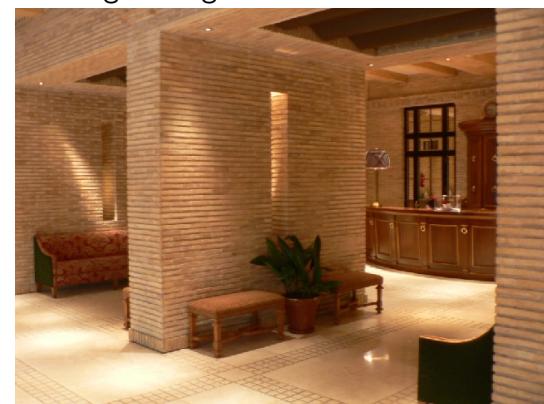
Lighting model 3: arbitrary size key lights, GI on
Subject's result - Cartoon scene Target image - Cartoon scene



Subject's result - Architecture scene



Target image - Architecture scene



Experiment 5

Subject's result - Still life scene



Subject's result - Office scene

