1. Introduction

\*No Deliverables\*

1. Plotting Color Matching Functions and Illuminants
2. Plot of , , color matching functions

Chart

Description automatically generated

*Figure 1:* , , and vs

1. Plot of , , color matching functions

A picture containing diagram

Description automatically generated

*Figure 2:* , , and vs

1. Plot of D65 and fluorescent illuminants

Chart, line chart

Description automatically generated

*Figure 3: D65 and Fluorescent Illuminants vs*

1. Chromaticity Diagrams
2. Labeled chromaticity diagram

A picture containing diagram

Description automatically generated

*Figure 4: Chromaticity Diagram*

1. Rendering an Image from Illuminant, Reflectance, and Color Matching Functions
2. Matrix M709\_D65
3. Two images obtained from D65 and fluorescent light sources

A person with colorful paint on the face

Description automatically generated with low confidence

*Figure 5: D65 Light Source Image Rendering,*

*A picture containing text, person, wearing

Description automatically generated*

*Figure 6: Fluorescent Light Source Image Rendering,*

1. Qualitative description of the differences between the two images

The image rendered with the fluorescent light source appears brighter than the image rendered with the D65 light source. As a result, the girl’s skin color and background appear more vivid in the second image. In addition, the red in the second image appears slightly more saturated than in the first. Subjectively speaking, the image rendered with the D65 light source appears more natural to the eye, whereas the image rendered with the fluorescent light source appears somewhat artificial as if it was processed in a photo editing software.

1. Color Chromaticity Diagram
2. Color diagram



*Figure 7: Color Chromaticity Diagram,*