

# **Purdue University, West Lafayette**

Spring 2022

ECE 63700 – Digital Image Processing I

## **Lab-6**

Submission Date- 03/11/2022

### **Submitted by**

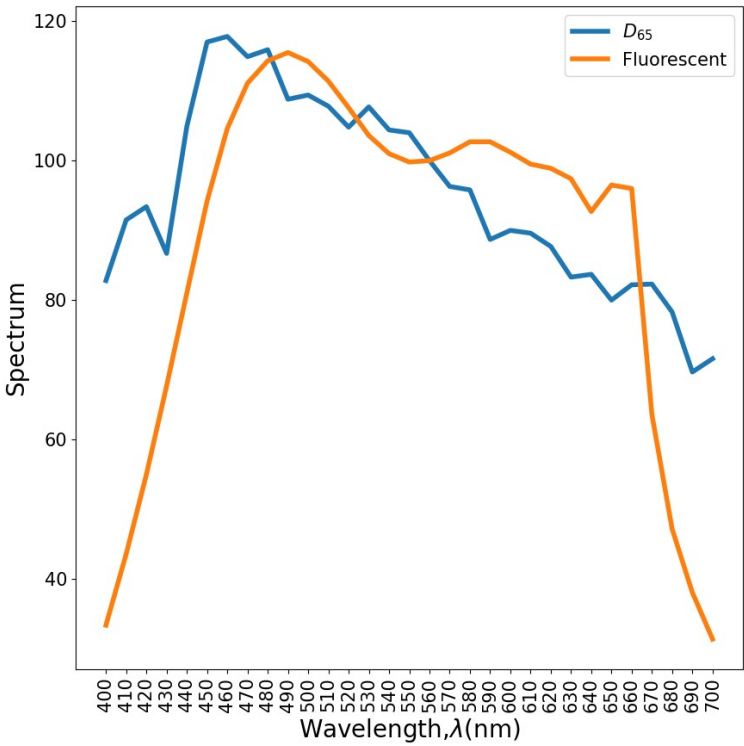
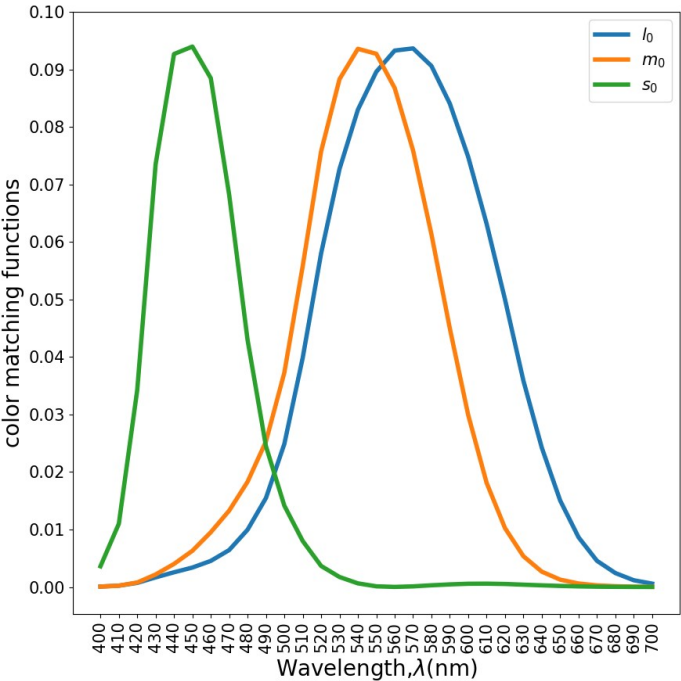
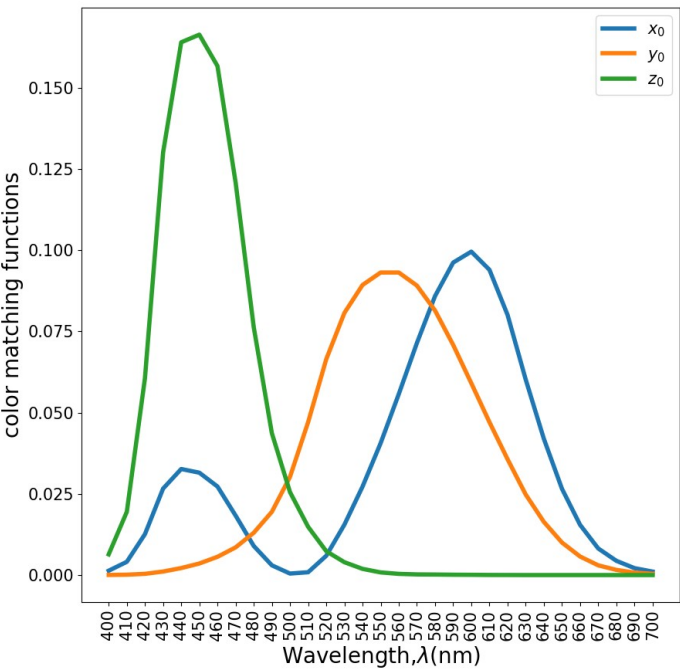
Nahian Ibn Hasan

PUID: 0032764564

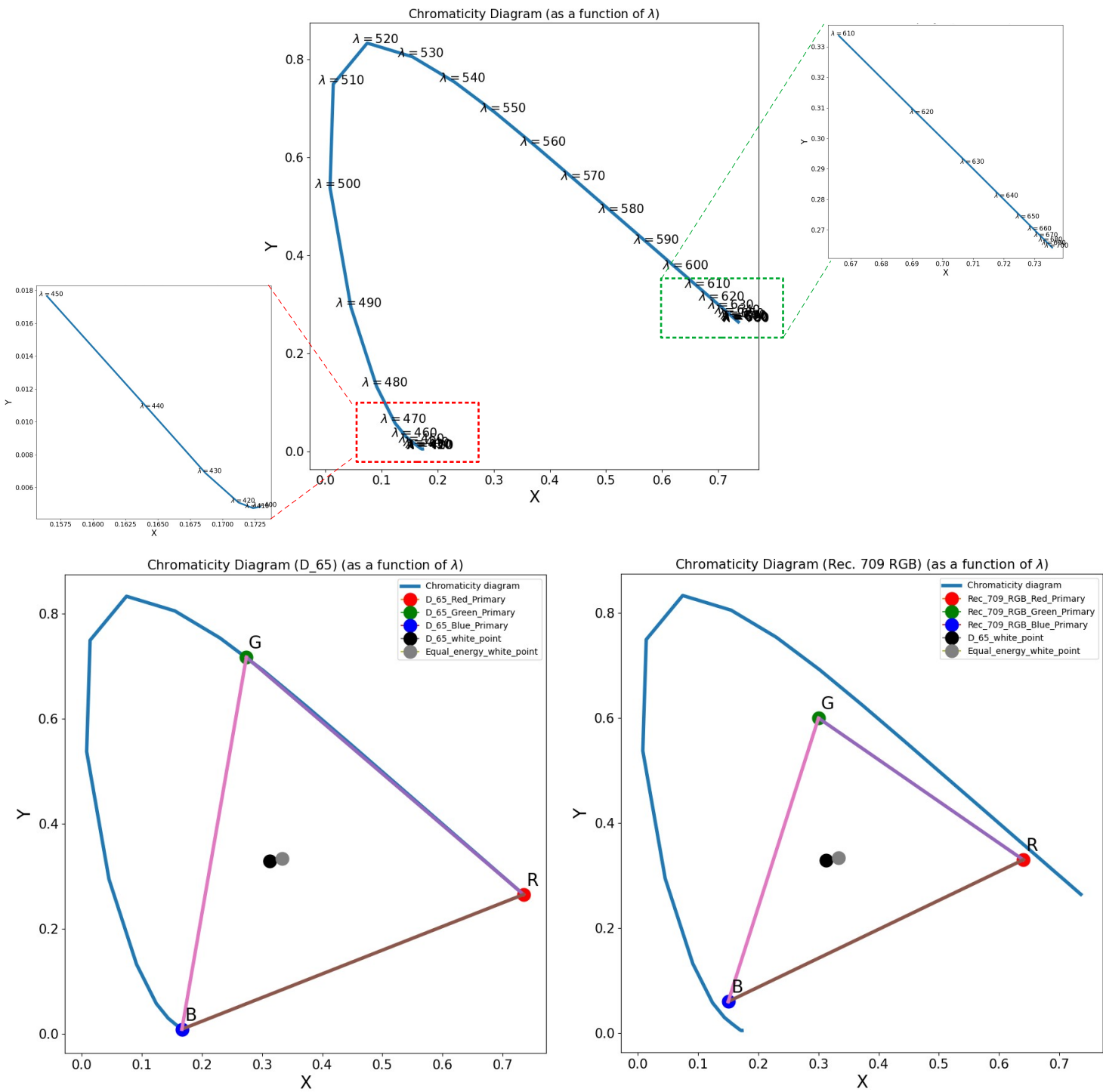
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Section 2



# Section 3

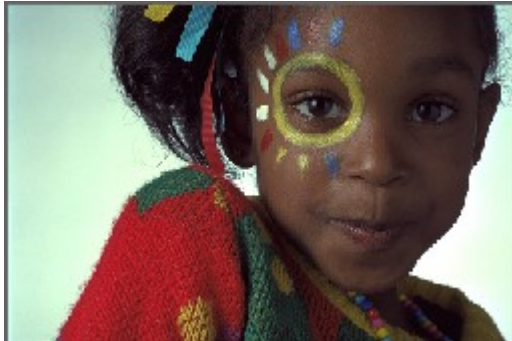


## Section 4

1.  $M_{709\_D65} = \begin{bmatrix} 0.4123908 & 0.35758434 & 0.18048079 \\ 0.21263901 & 0.71516868 & 0.07219232 \\ 0.01933082 & 0.11919478 & 0.95053215 \end{bmatrix}$

2.

Gamma Corrected with  
 $D_{65}$  illuminant

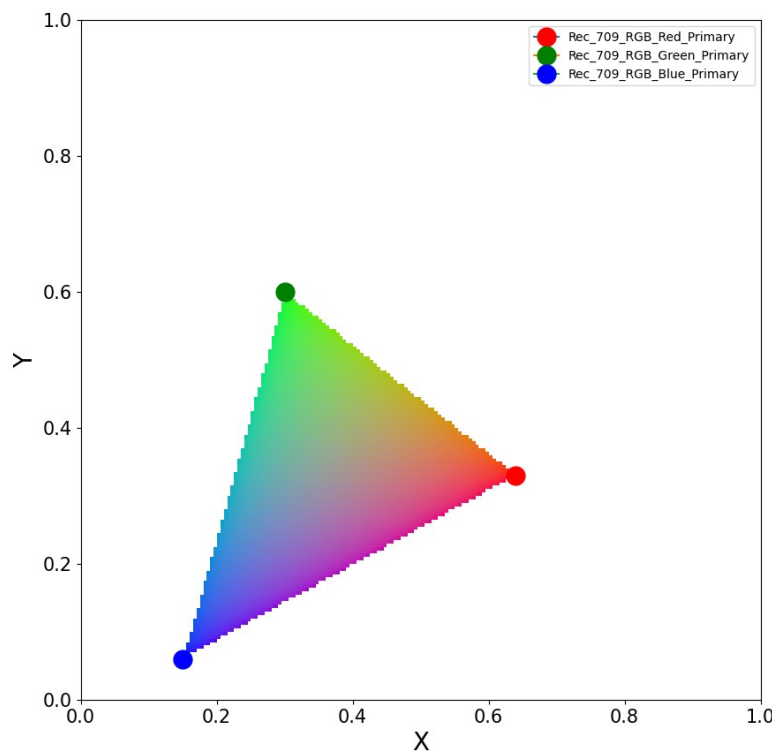


Gamma Corrected with  
fluorescent illuminant



3. It seems the fluorescent light source effected image cannot show the white pixels as effectively as  $D_{65}$  illuminant image. It's obvious from the spectrum of the two illuminants.

## Section 5



NB: The code for this lab can be found in the following github repository:

Link: [https://github.com/NahianHasan/ECE63700-Digital\\_Image\\_Processing/tree/main/Lab\\_6\\_Introduction\\_to\\_Colorimetry](https://github.com/NahianHasan/ECE63700-Digital_Image_Processing/tree/main/Lab_6_Introduction_to_Colorimetry)