

Color

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Online Resources

Readings

- ▶ <http://en.wikipedia.org/wiki/Color>
- ▶ http://en.wikipedia.org/wiki/CIE_1931_color_space
- ▶ http://www.gelighting.com/na/business_lighting/spectral_power_distribution_curves/

Color spectrum

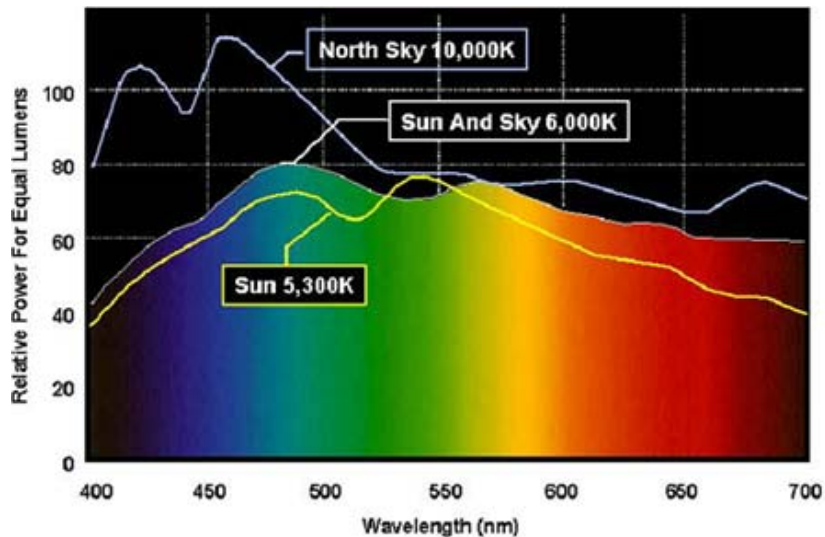


Color spectrum

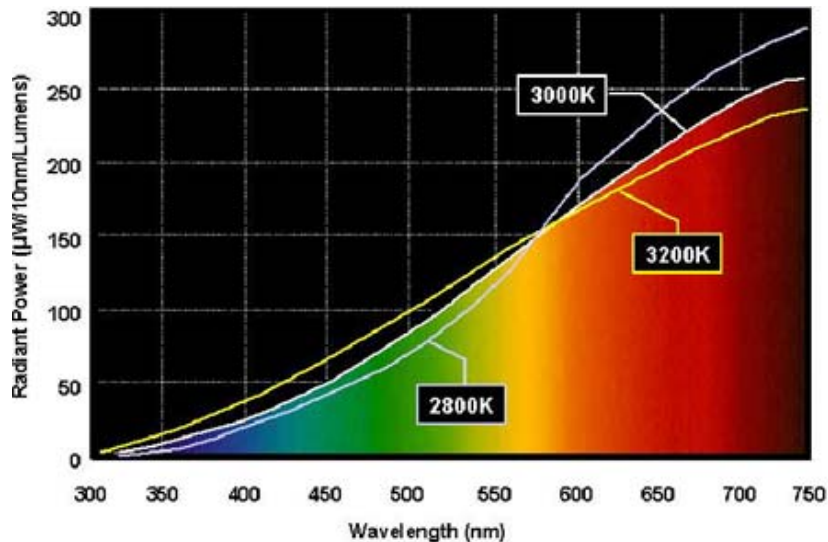


- ▶ Indigo is totally bogus:
- ▶ <http://blog.xkcd.com/2010/05/03/color-survey-results/>

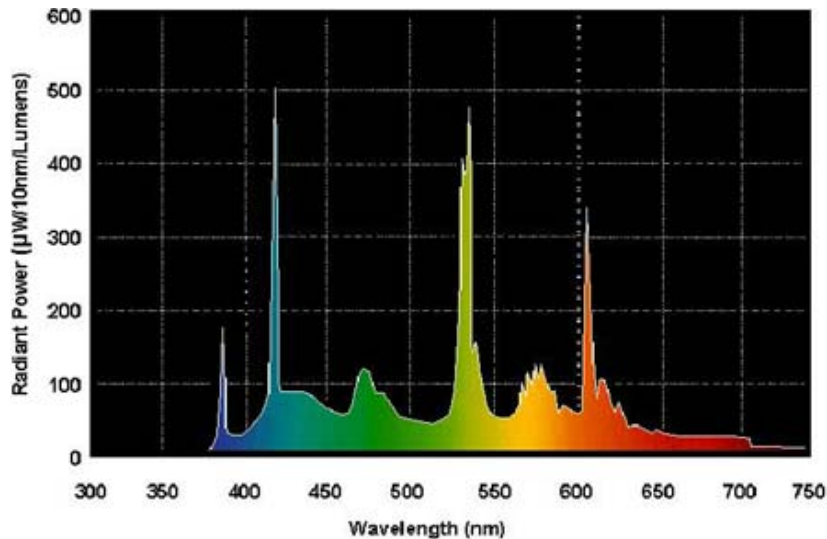
Outdoor light spectral power curve



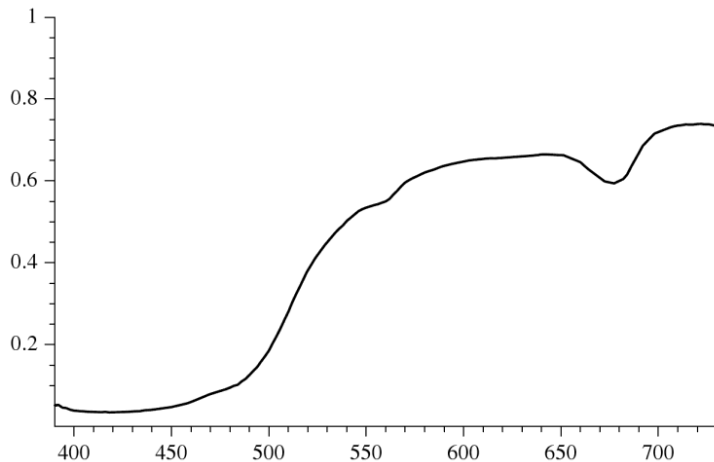
Incandescent spectral power curve



Flourescent spectral power curve

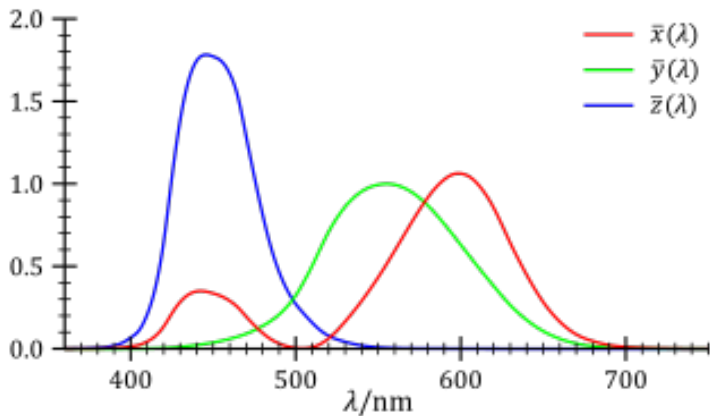


Reflectance properties of objects



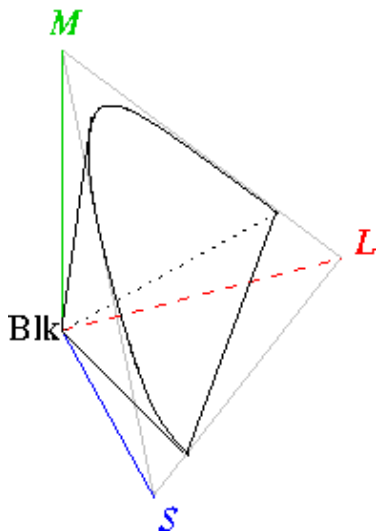
- Reflectance of lemon skin (pbrt book).

Color functions in the eye

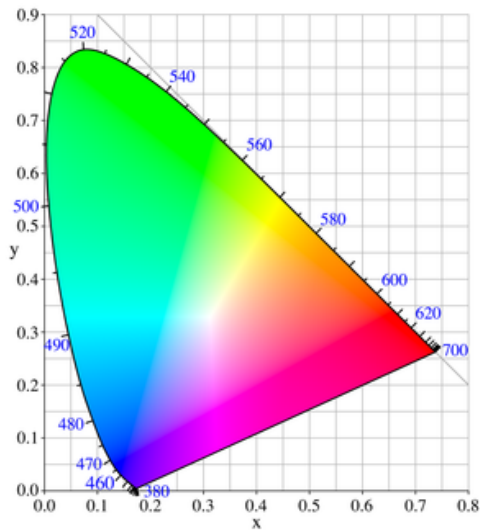


- ▶ Three kinds of cones (color receptive neurons) in the retina.
- ▶ Each overlaps the other two. No pure stimulation of one kind.
- ▶ Blue/green distance greater than green/red.

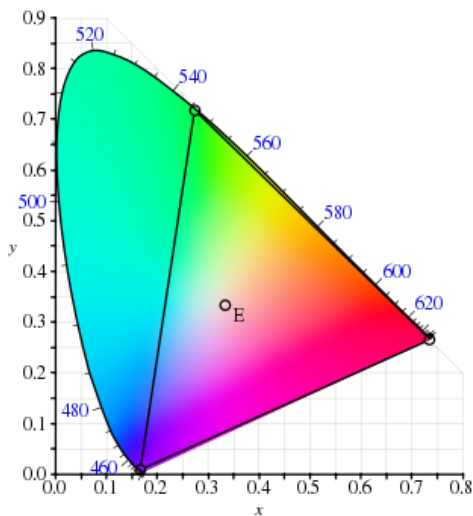
Tristimulus color space



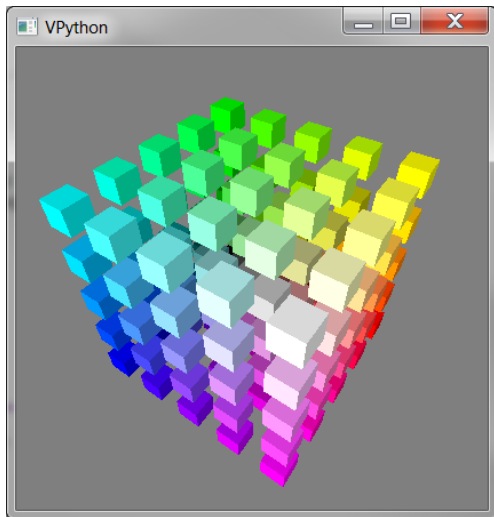
CIE XYZ colors



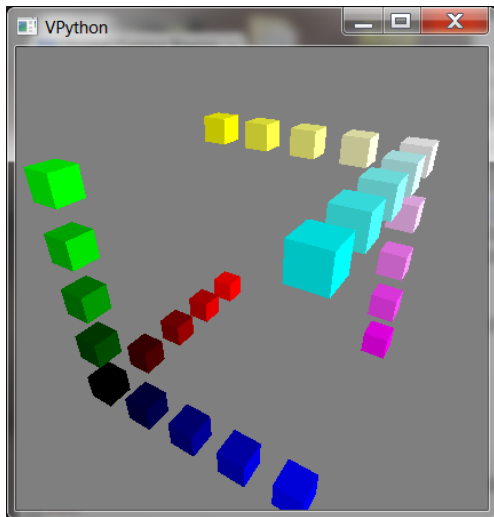
CIE RGB colors



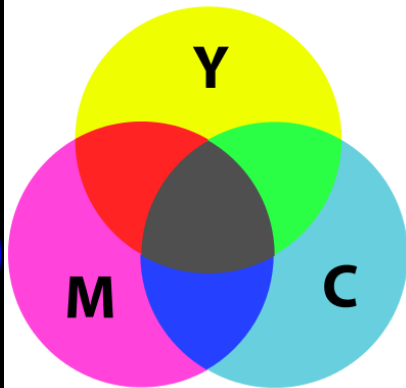
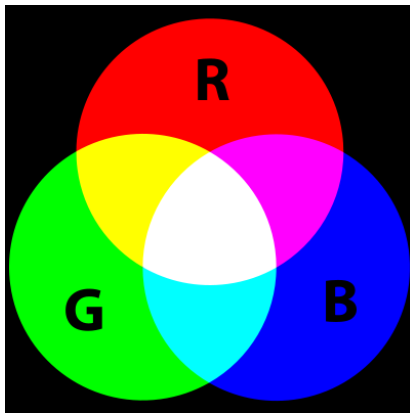
Color cube



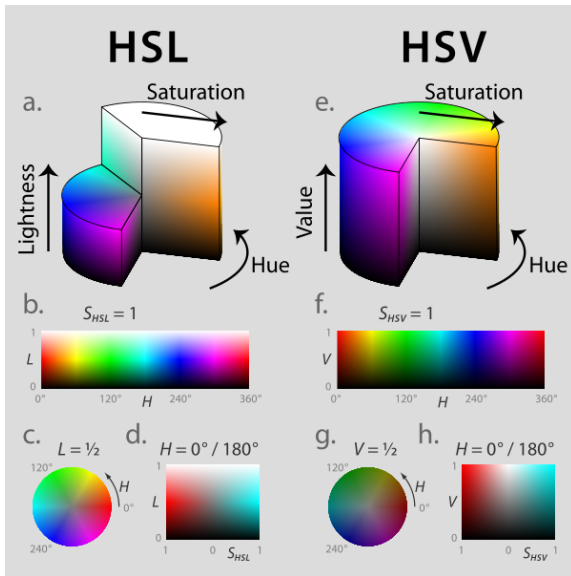
Color cube RGB and CMY axes



Additive and Subtractive Color



HSV and HSL models



Nervous system postprocessing

