

Why Can't I Just Use NX Studio ?

AND

WHY Do I Need to Even Bother With NX-D?

WHAT THE HECK IS COLOR SPACE
AND
WHY DO I CARE?

Color Space

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A color space may structured with mathematical rigor as with the ProPhotoRGB, Adobe RGB and sRGB.

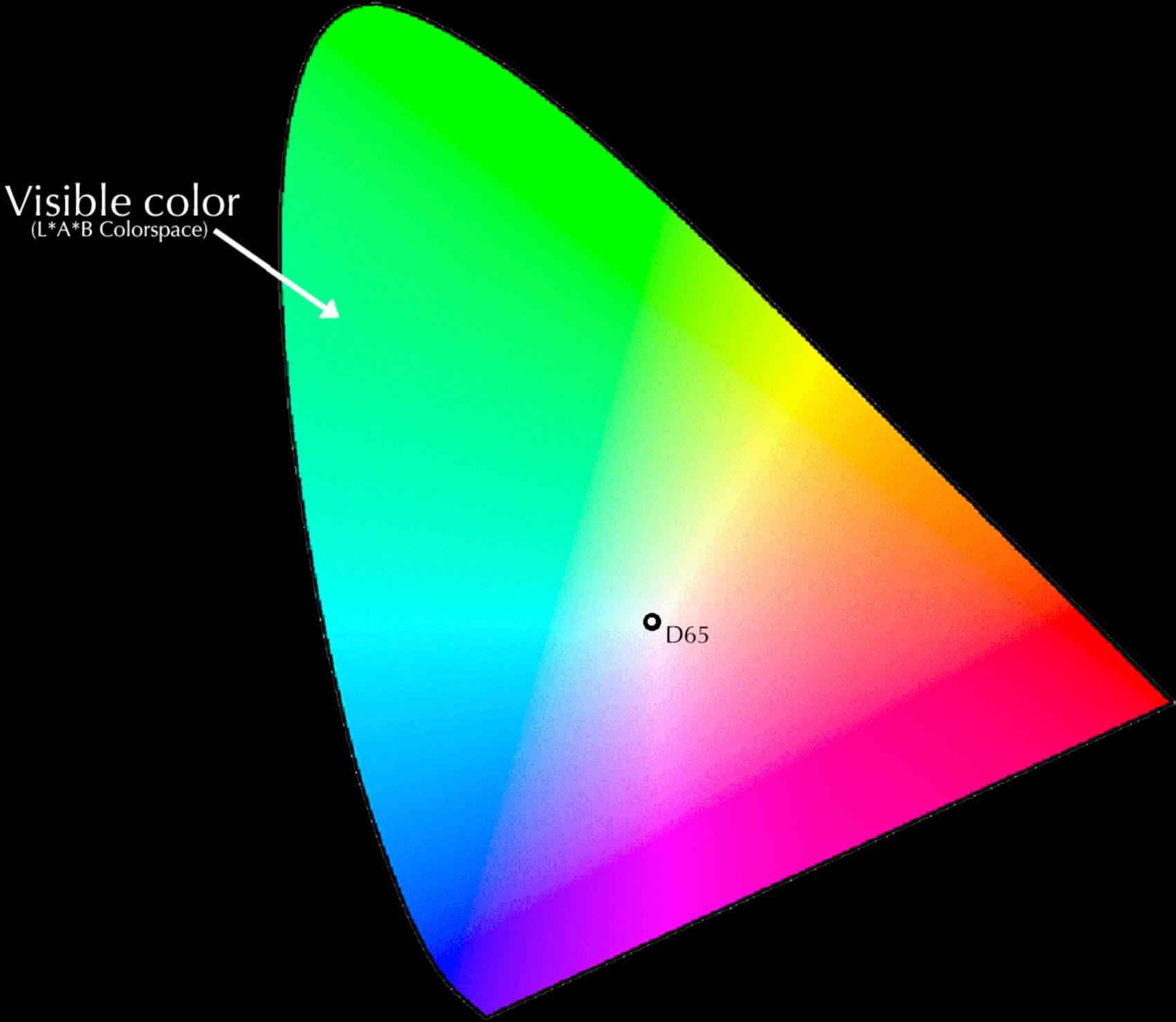
Arbitrary Color Space: Pantone Collection

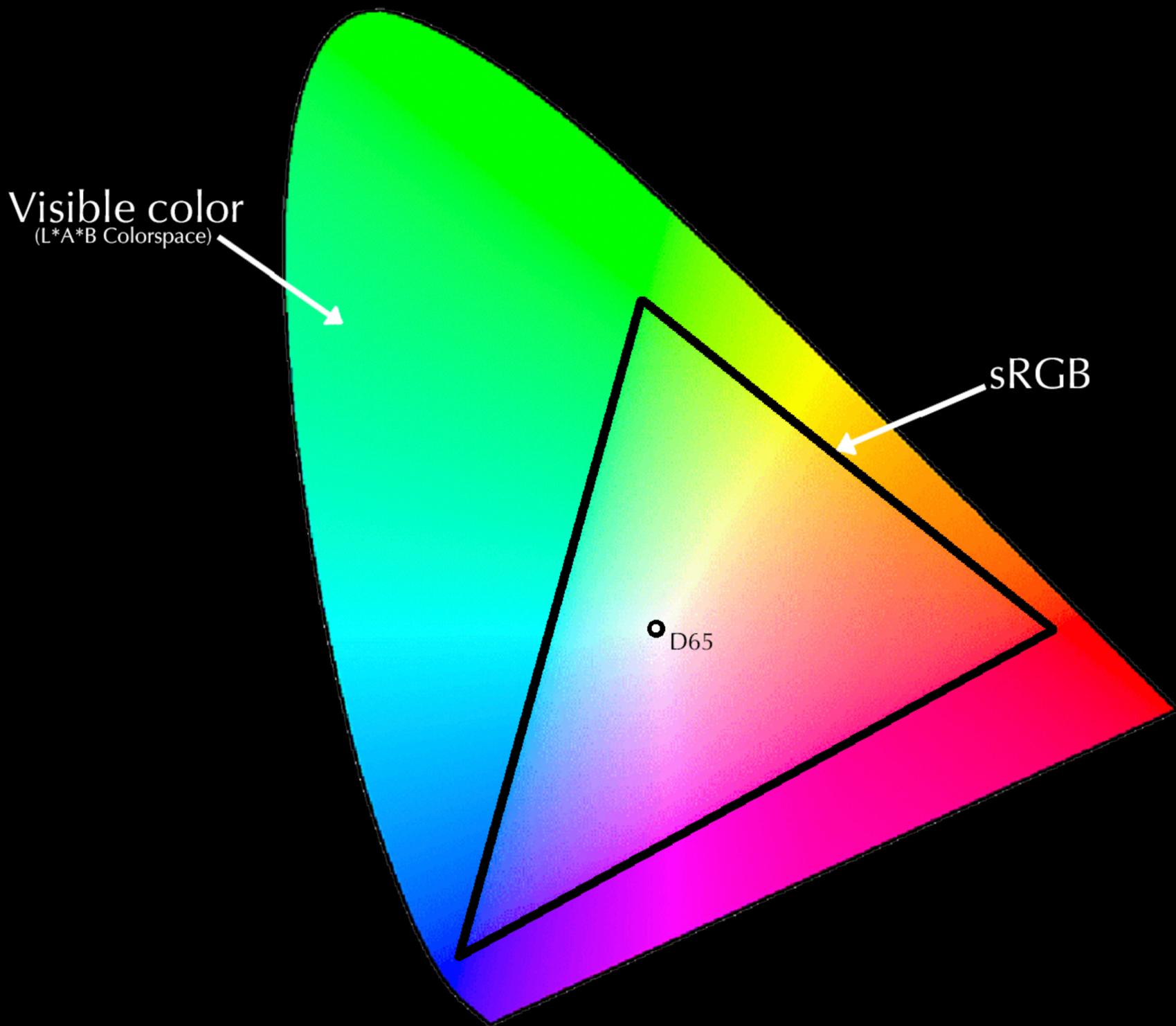


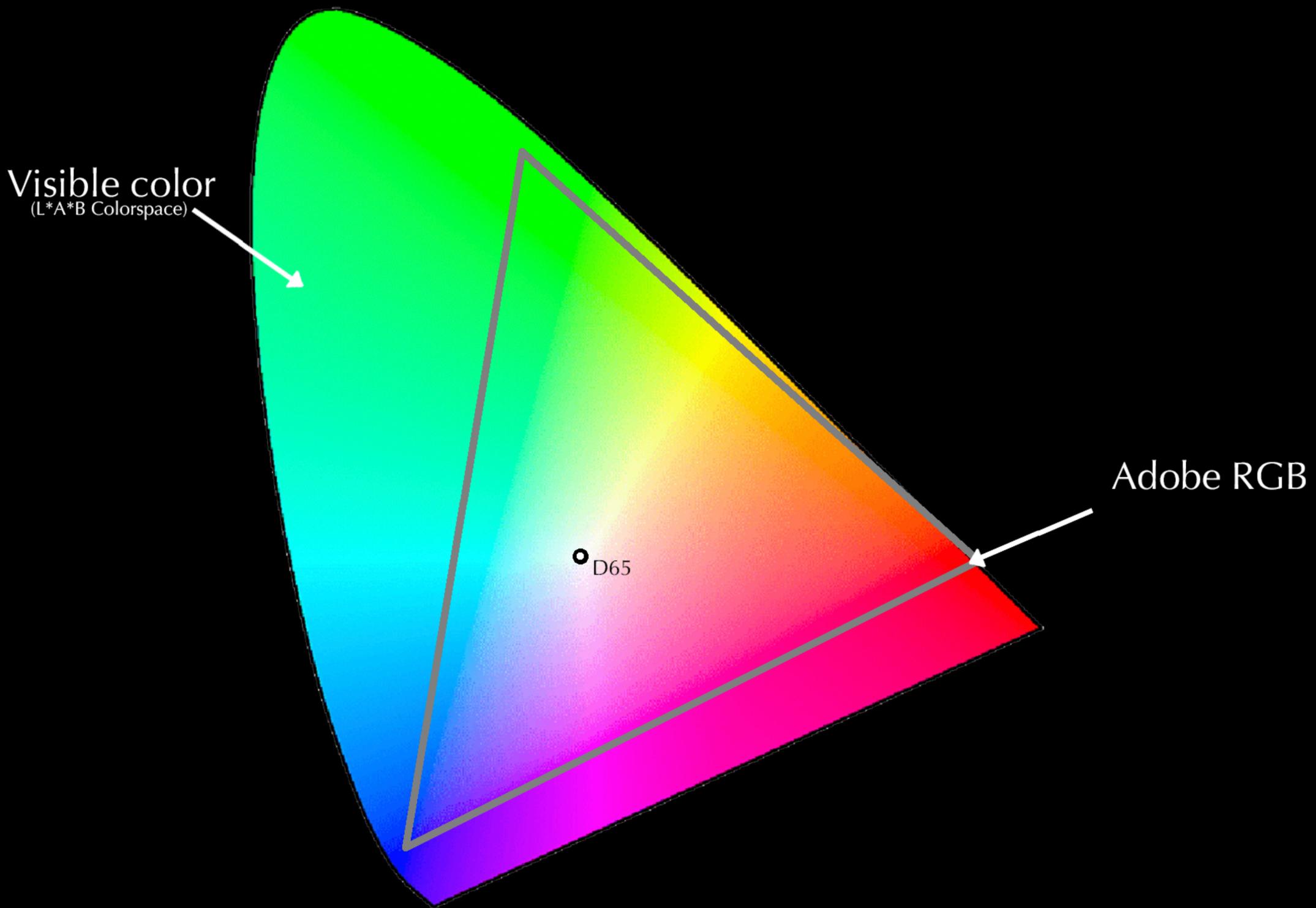
Pantone

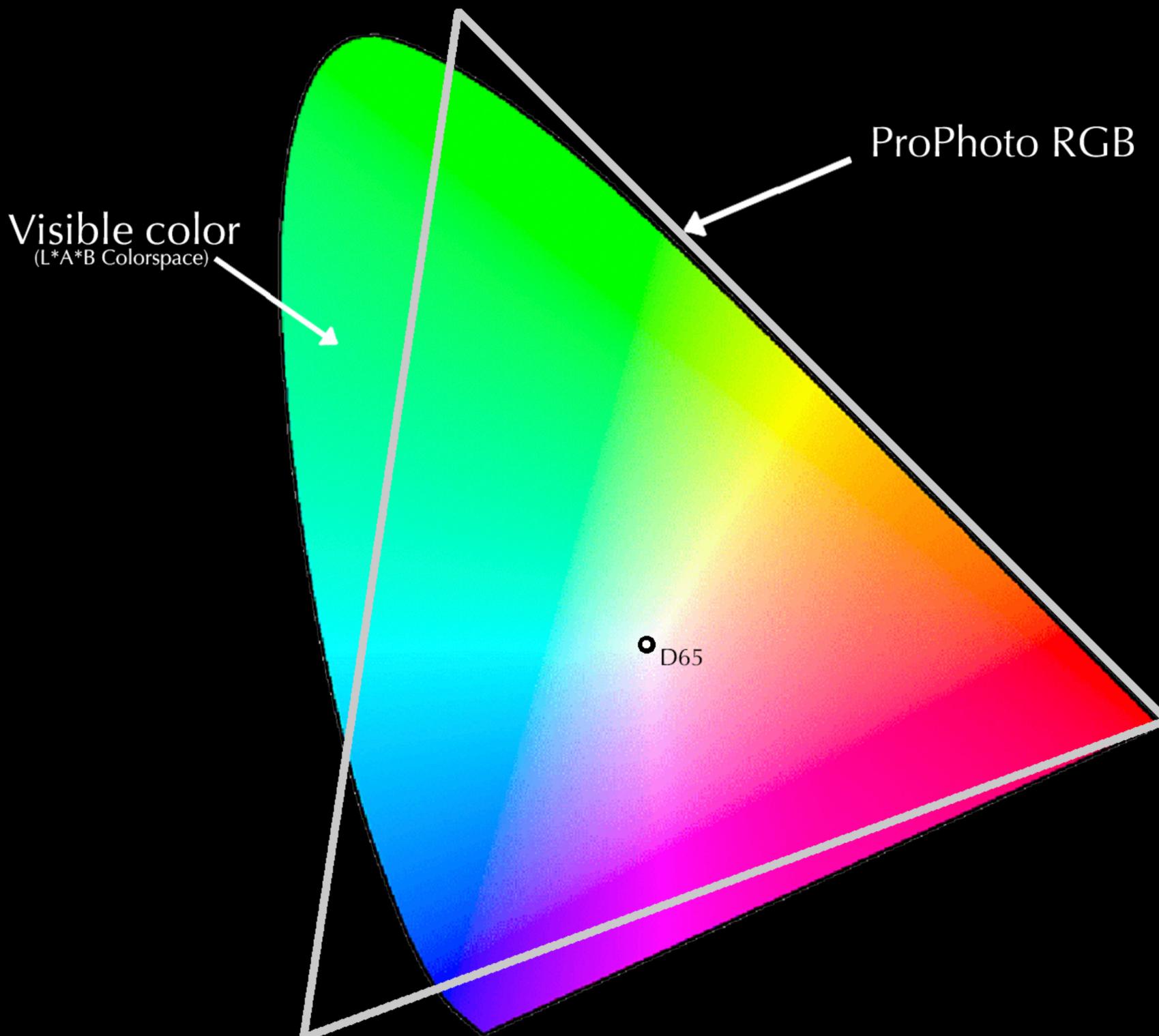


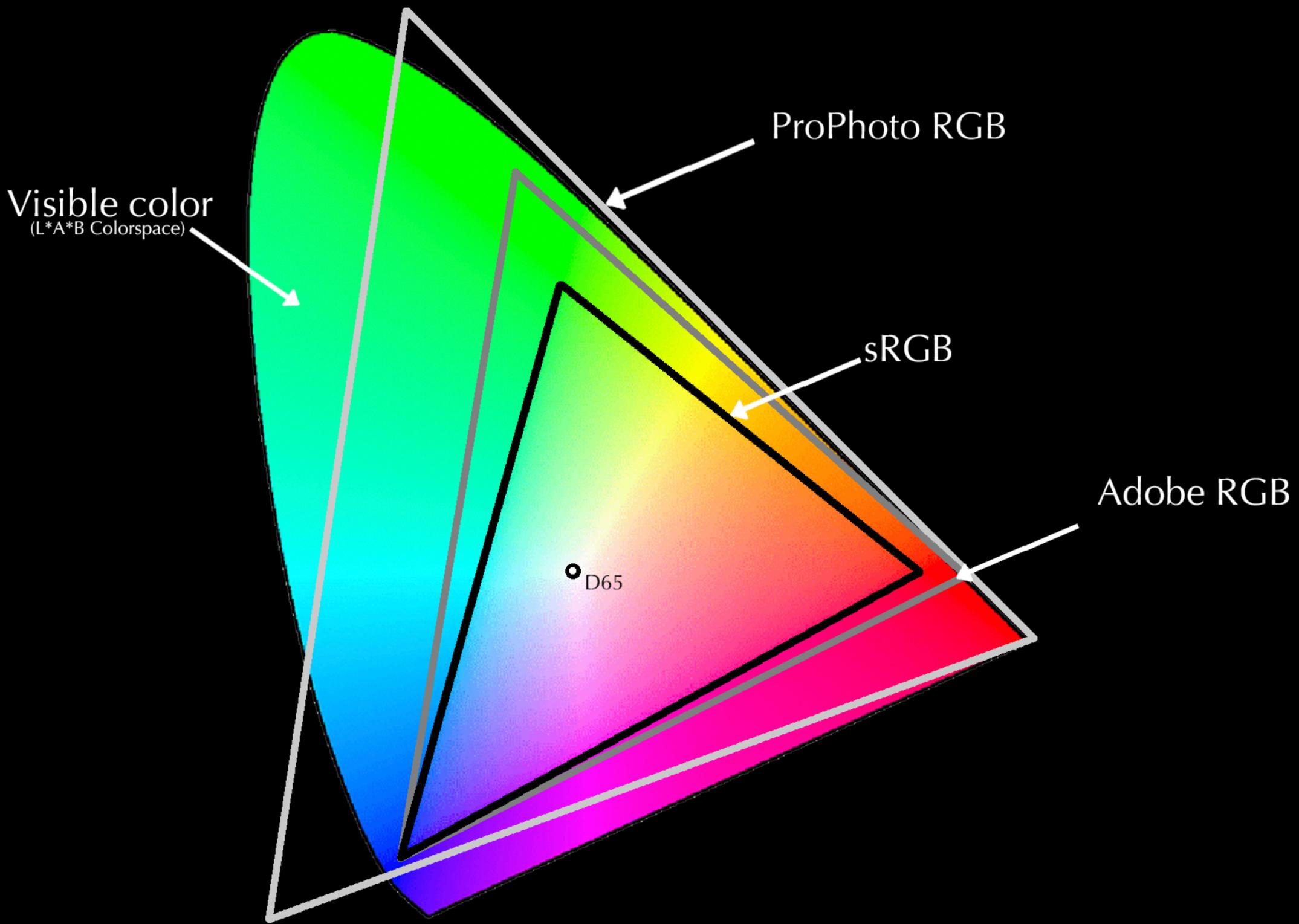
Structured Color Space: L*A*B, sRGB, Adobe RGB and ProPhoto RGB





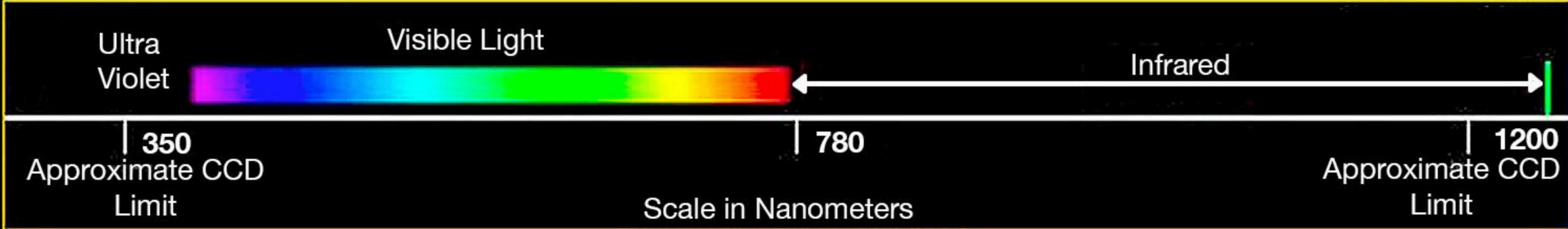




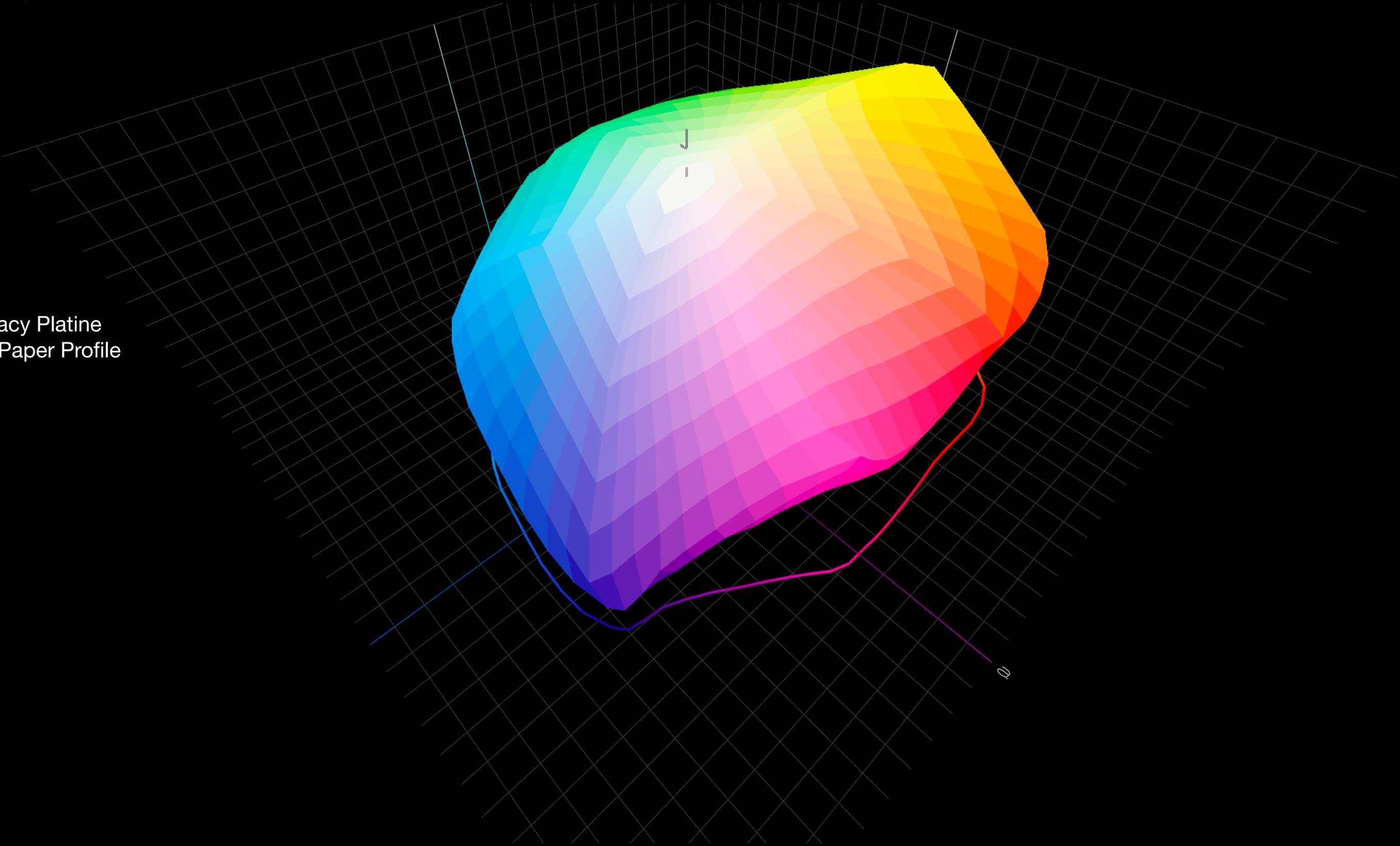


In the Real World What This Means

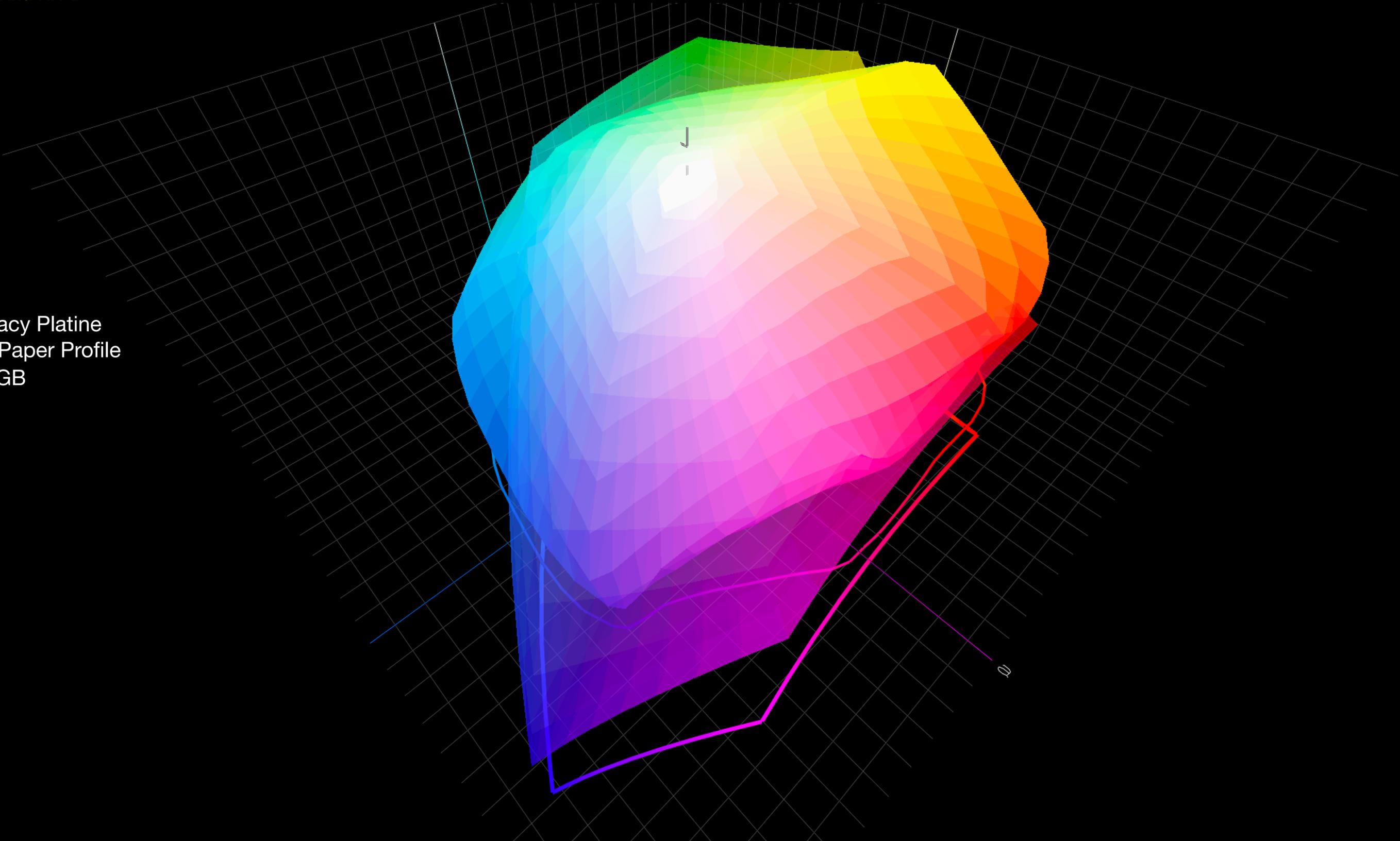
What a Camera Sensor “Sees”



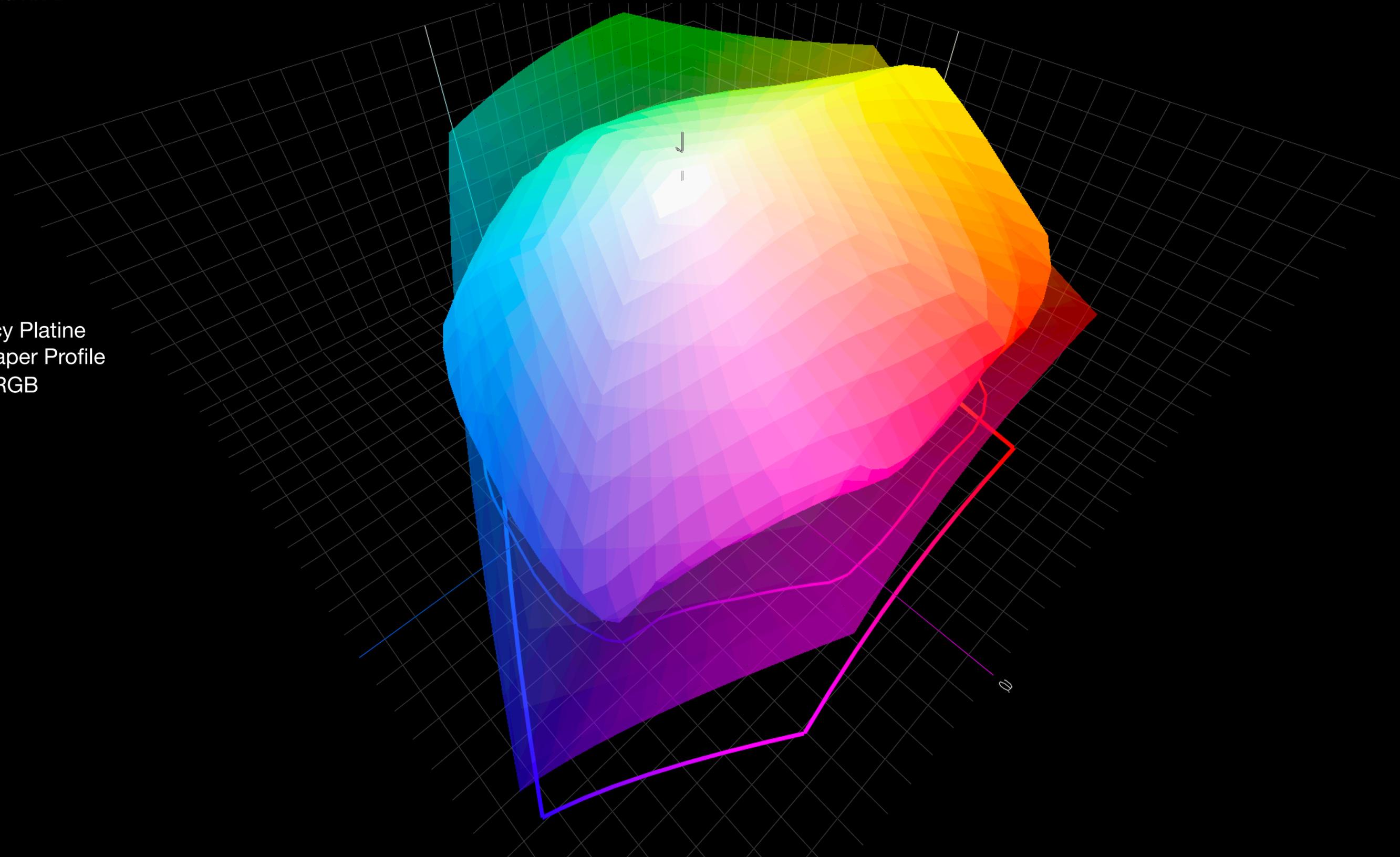
Epson Legacy Platine
7570 Printer Paper Profile



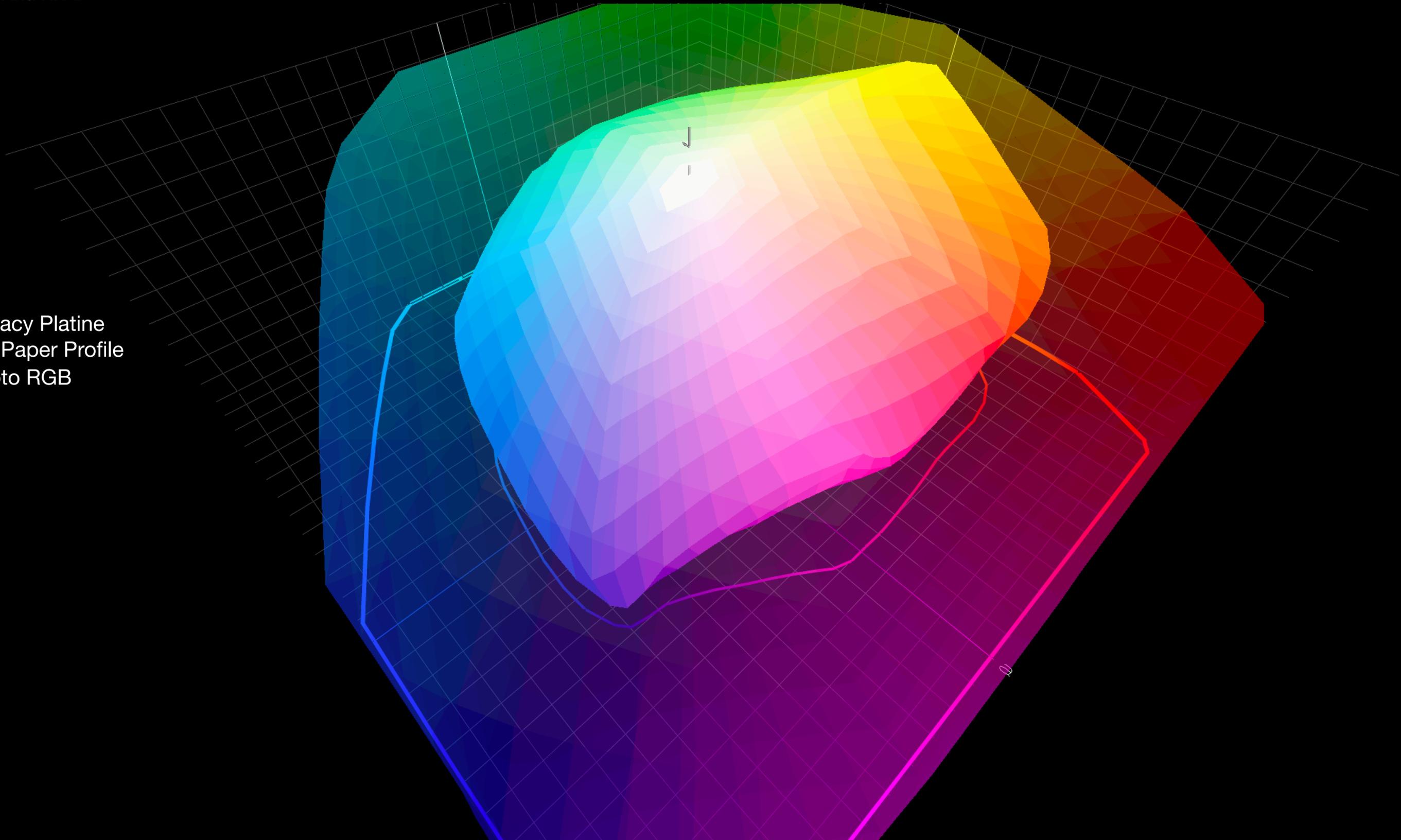
Epson Legacy Platine
7570 Printer Paper Profile
sRGB



Epson Legacy Platine
7570 Printer Paper Profile
Adobe RGB



Epson Legacy Platine
7570 Printer Paper Profile
ProPhoto RGB



THE POINT

A camera sensor is capable of capturing colors greater than structured colorspaces can contain.

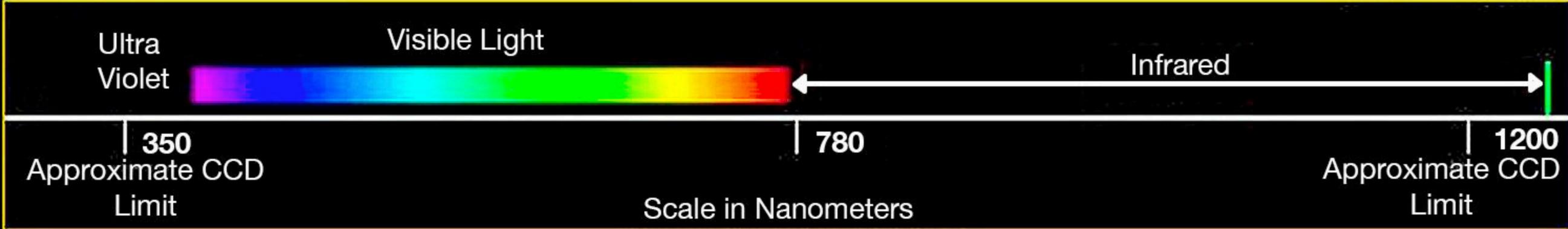
By rendering into smaller colorspaces or smaller bit depths (more on that in a moment) you are in effect practicing premature optimization.

Which means you are not getting everything there is to be had from the camera and the file the camera sensor creates.

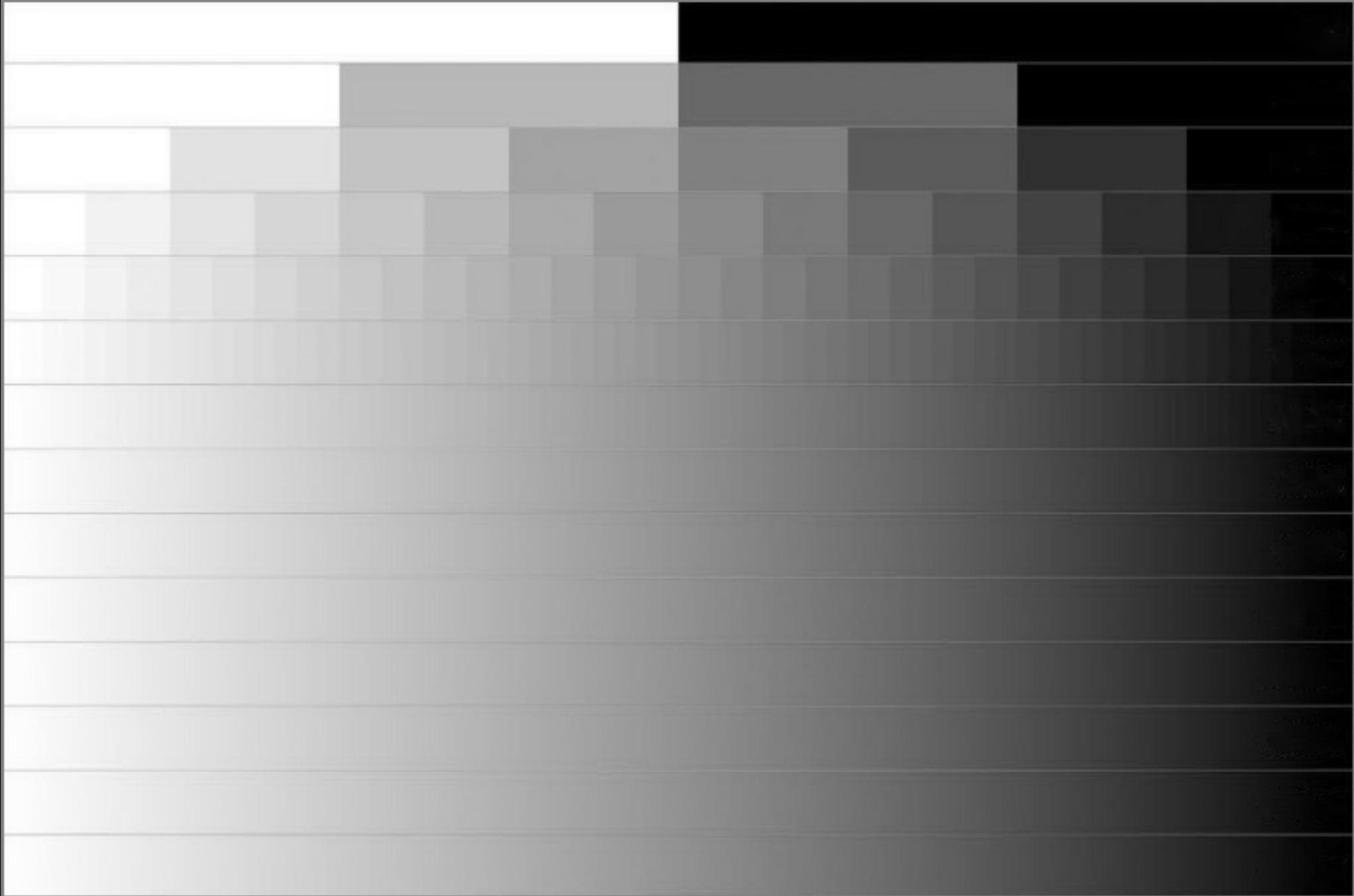
WHAT THE HECK IS BIT DEPTH
AND
WHY DO I CARE?

8 bit vs. 16 Bit when it comes to the smoothness color gradation

What a Camera Sensor “Sees”



1-14 bit Gradations



1 bit
2 bit
3 bit
4 bit
5 bit
6 bit
7 bit
8 bit
9 bit
10 bit
11 bit
12 bit
13 bit
14 bit

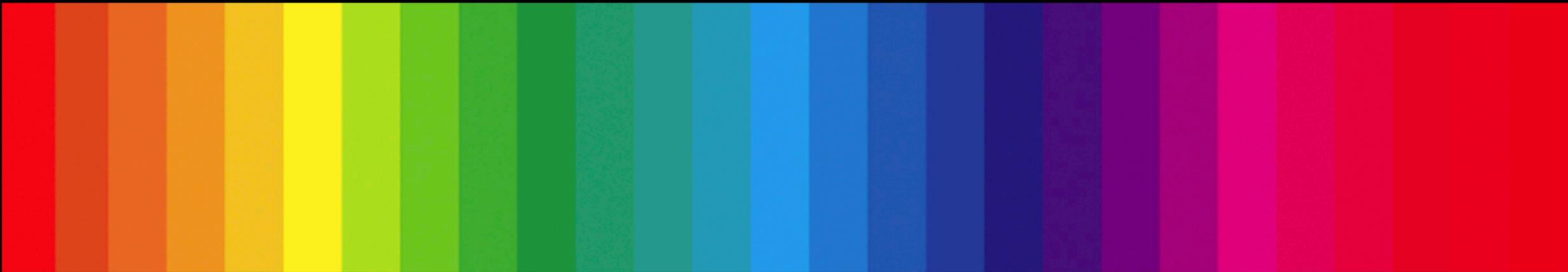


8 Bits per channel
Or
24 Bits

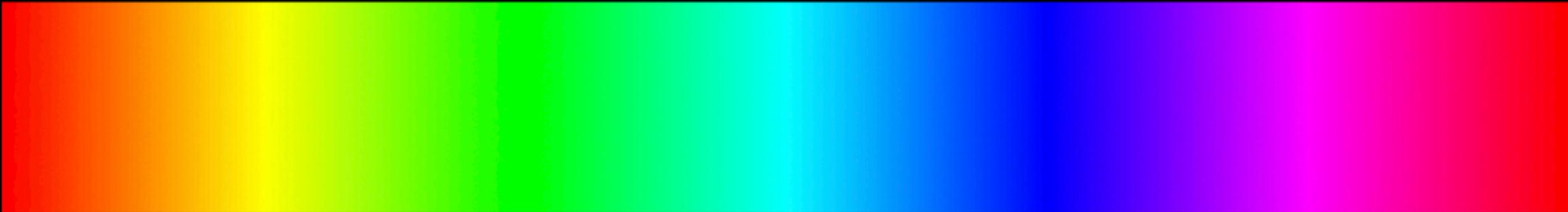


16 Bits per channel
Or
48 Bits

8 bit vs. 16 Bit when it comes to the smoothness color gradation

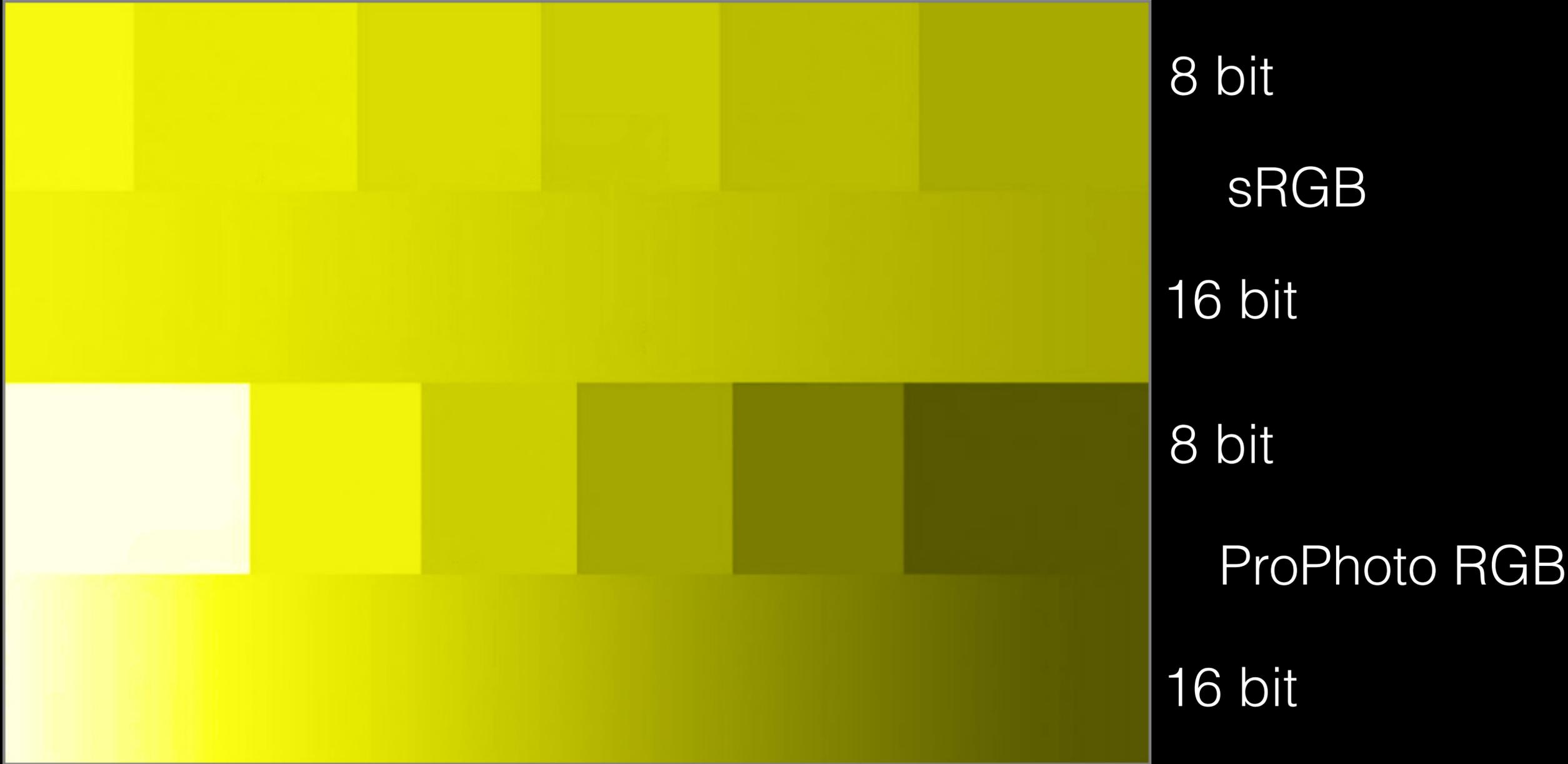


8 bit



16 bit

8 bit vs. 16 Bit vs. Color Gamut when it comes to the smoothness color gradation



8 bit:

8 bit means the data chunk is 8 of bits of data in total.

Computer data is expressed in ones or zeros (1/0)

The math then is 2 to the power of 8. This creates a value range of 0-255

16 bit:

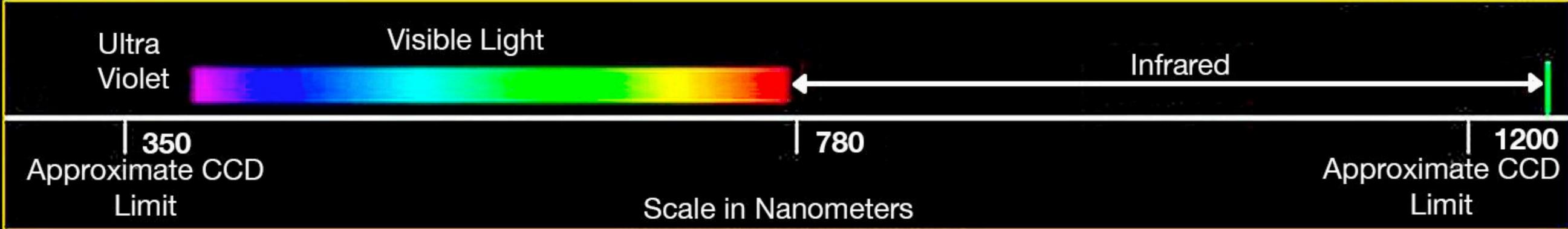
16 bit means the data chunk is 16 of bits in total.

Computer data is expressed in ones or zeros (1/0)

The math then is 2 to the power of 16. This creates a value range of 0-65535

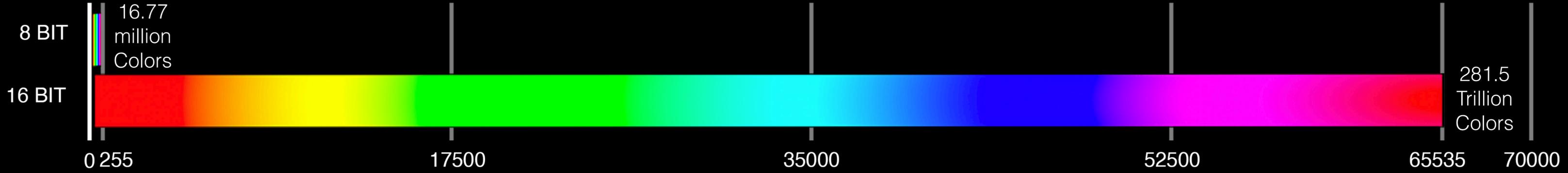
OR

What a Camera Sensor “Sees”



how many colors it can capture by bit depth

8 Bit vs. 16 Bit



OK...

WHY Do I Need to Even Bother with NX-D?

Because....

NX Studio and NX-D are conceptualized to work together.

NX Studio has an export engine (just like it's predecessors View NX and NXi) to be able to export your file as it was shot. If you want more robust functionality with greater capabilities NX-D's export engine is the most developed and most mature Nikon RAW processor to date.

It's development goes all the way back to the very first version of Nikon Capture software .

That's why.



®

VINCENT VERSACE

NIKON AMBASSADOR

UNITED STATES