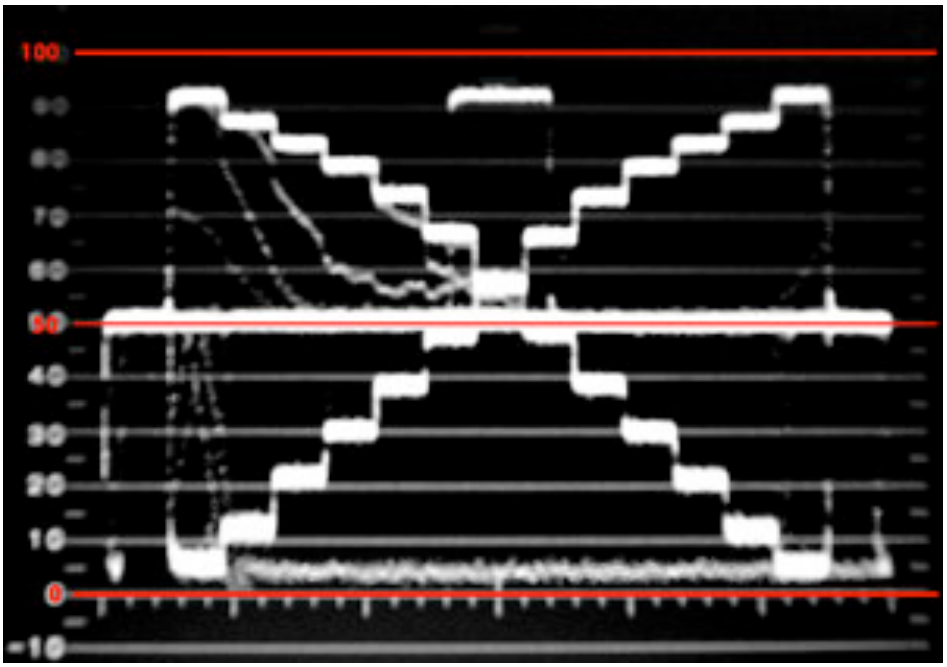
Gamma curves for HD Sony F900/3 camara. (I)



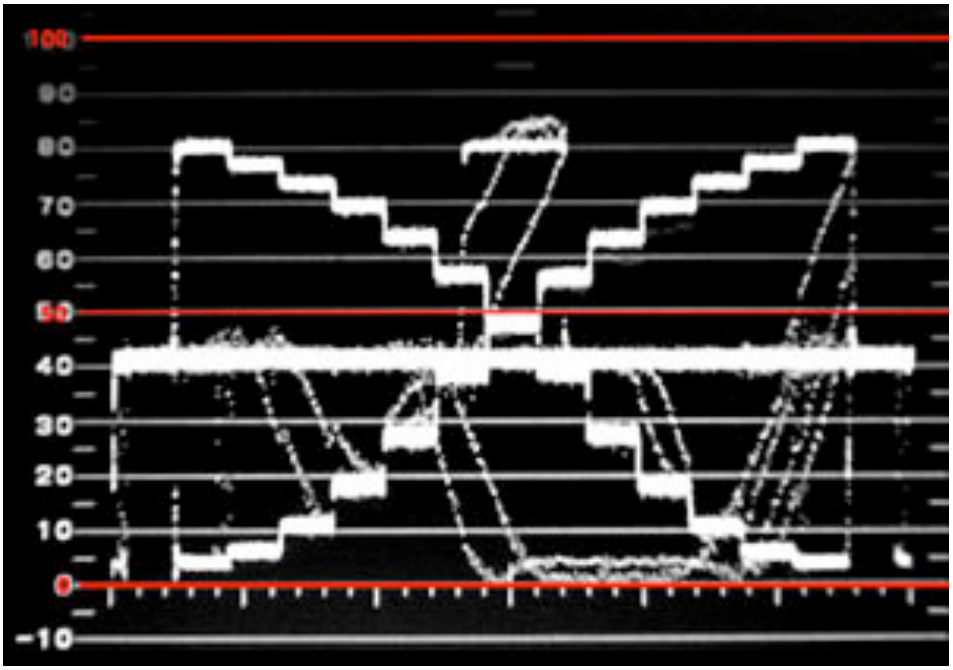
Cinealta curves by Sony This is one of two articles regarding the gamma curves developed by Sony for the HD F900/3's. This first article talks about the gamma curves developed by Sony's for the HD F900/3 camera, which can be found at www.cinealta.com ; the second article refers to the curves developed by Digital Praxis, based on Cineon's logarithmic format. Sony developed these curves to emulate the look of a Kodak 250D's emulsion with different processes and prints on Kodak Vision. To compare these, we filmed them using an Arrilaser with the LUT application called Alice. We shall now describe the different curves:

Curve 7D25NMVA44A

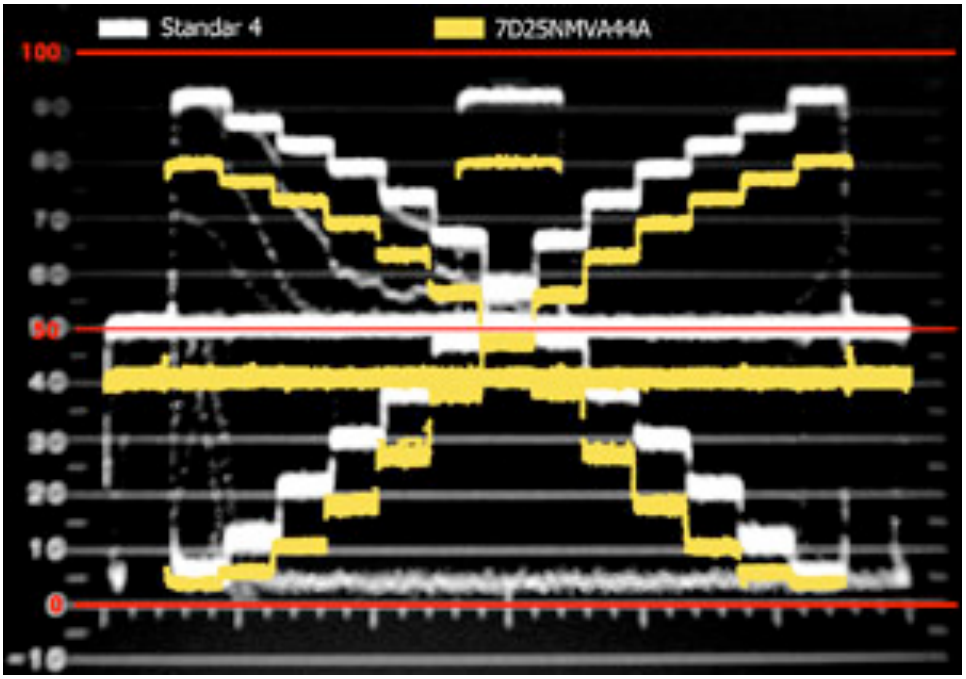
This curve imitates the look achieved by the 250D emulsion with normal developing. In the grey card reading given by the vectorscope we can see how the gamma curve darkens the blacks from its default setting and also increases the range of detail in the high lights. As a whole, the curve gives us a slightly more contrasted image. We can also see how the sensitivity of this camera changes with this curve. If the normal sensitivity is around 320-400 Asa, this curve will bring it down to 200-250 Asa. The curve's latitude offers around 8 F-stops on the diaphragm with a contrast ratio of 350:1. You can specially notice the difference on the high lights, getting to see up to 3 F-stops over the average density, losing detail in a softer way.



Escala de grises Estándar 4



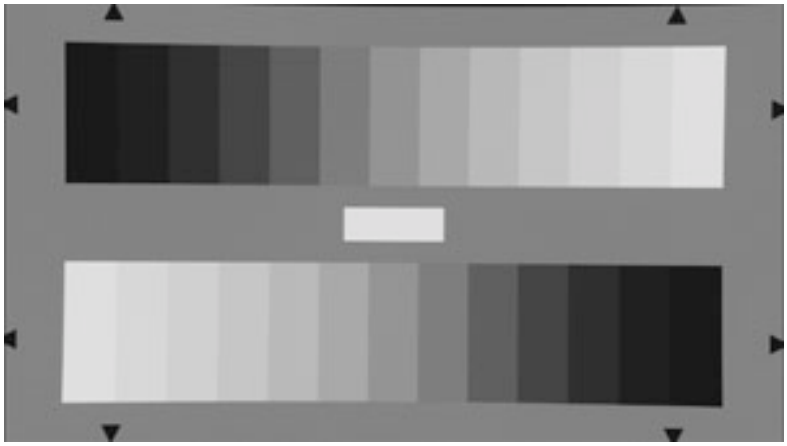
Curva 7D25NMVA44A



Comparación escalas de grisesEscala de grises Estándar 4



Escala de grises Estándar 4



Curva 7D25NMVA44A



En la imagen se pueden ver los valores medidos de luz reflejada en f Stops respecto del gris medio 18%

In the still-life we can see how the image obtained with the curve achieves a higher contrast and loses detail in the shadows but maintains it in the high lights even while sightly overexposed. We can also see how the colours are more saturated than usual



Estándar 4 T 5.6 1/3 Gris18 45%

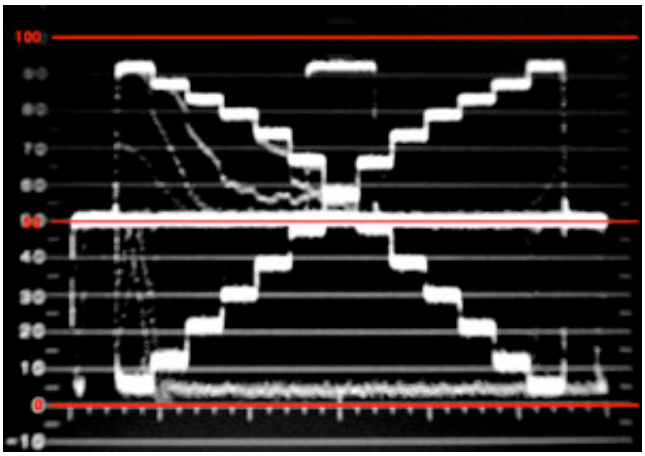


Curva 7D25NMVA44A T 4 1/3 Gris18 45%

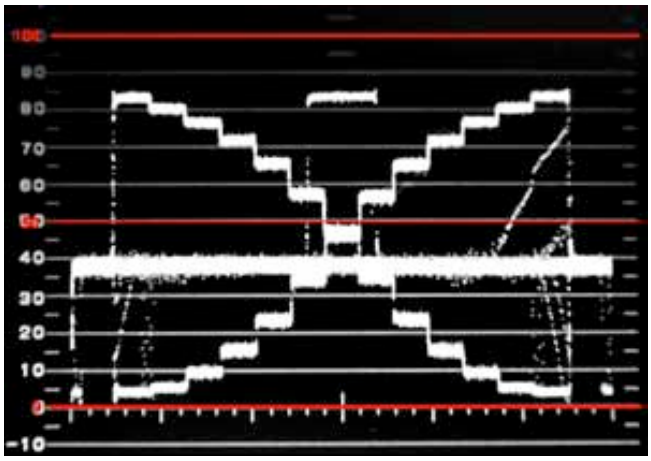
In the following image, we can see the difference in the camera's sensitivity with the 7D25NMVA44A curve. At the same aperture we can see how the image is underexposed with loss of detail in the shadows. A larger aperture will correctly expose the curve's characteristics outlined above.

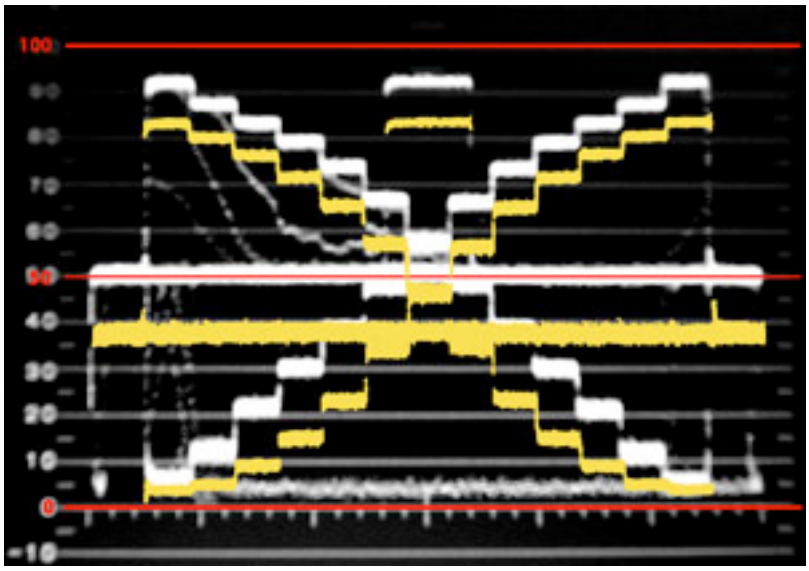
Curve 7D25S2VA44A This curve emulates the look offered by the 250D emulsion pushed 1 stop. We can see how both the contrast and the colour saturation increase. The camera's sensitivity remains around 200 Asa.

Escala de grises Estándar 4



Curva 7D25S2VA44A

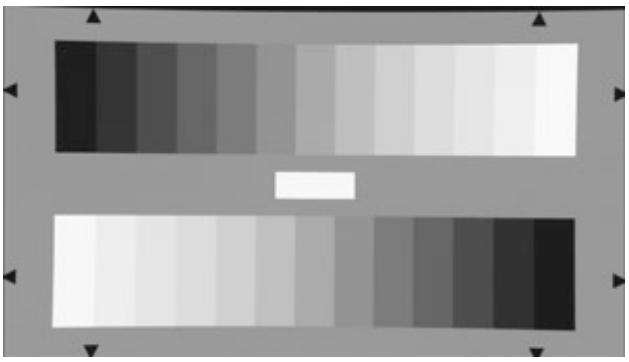




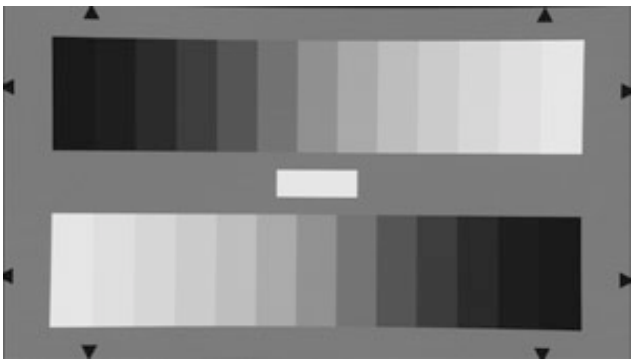
Comparación escalas de grises

Here we see how the blacks are darker with less detail and the whites recover some of their detail, although less than with the NM curve. The image has more contrast than the standard and the NM. The latitude is around 8 F-stops. When it comes to colour-grading we have seen how its possible to recover detail in the shadows but not in the high lights.

Escala de grises Estándar 4



Curva 7D25S4VA44A



In the still life we can see how both the contrast and the colour saturation increase.



Estándar 4 T 5.6 1/3 Gris18 45%

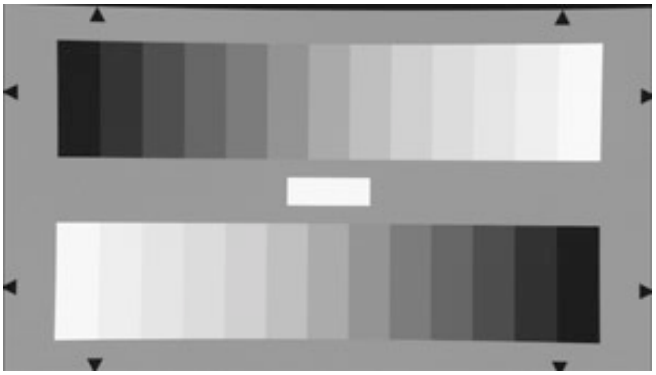


7D25S2VA44A T 4 1/3 Gris18 45%

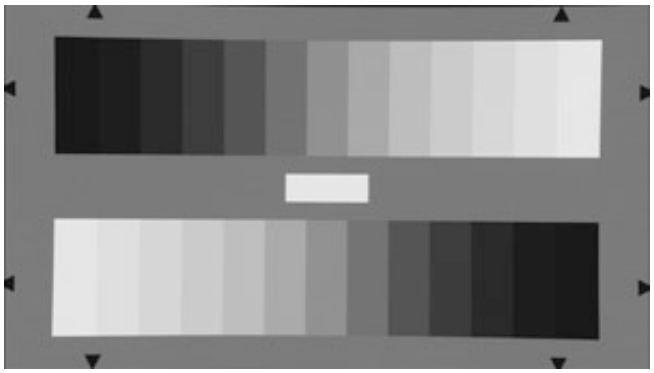
Curve 7D25S4VA44A

The curve imitates the look offered by the 250D emulsion pushed 2 F-stops. We can see how the contrast increases (the whites are closer to the standard than S2 while the blacks remain darker) as well as the colour saturation. The camera's sensitivity remains around 200 Asa.

Here we can see how the blacks are darker with less detail and the whites have less detail than with the NM and S2 curves. The latitude is around 7 F-stops. When it comes to colour-grading we have seen that we were not able to recover the detail in the shadows or the high lights. A slight overexposure results in a loss of detail in the high lights.



Escala de grises Estándar 4



Curva 7D25S4VA44A

In the still life we can see how the contrast increases compared to the other curves, as does the colour saturation.



Estándar 4 T 5.6 1/3 Gris18 45%

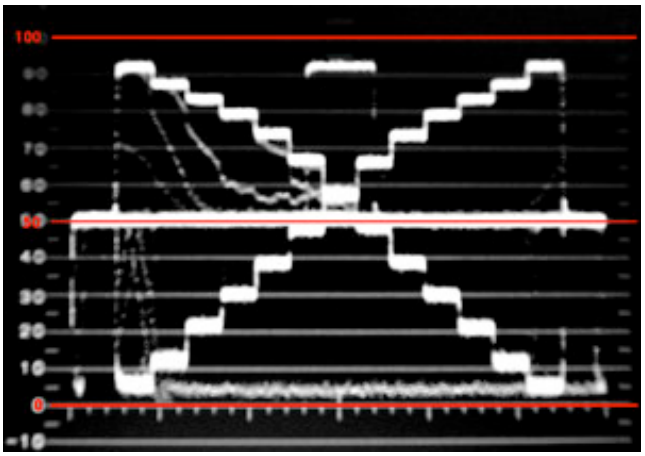


Curva 7D25S2VA44A T 4 1/3 Gris18 45%

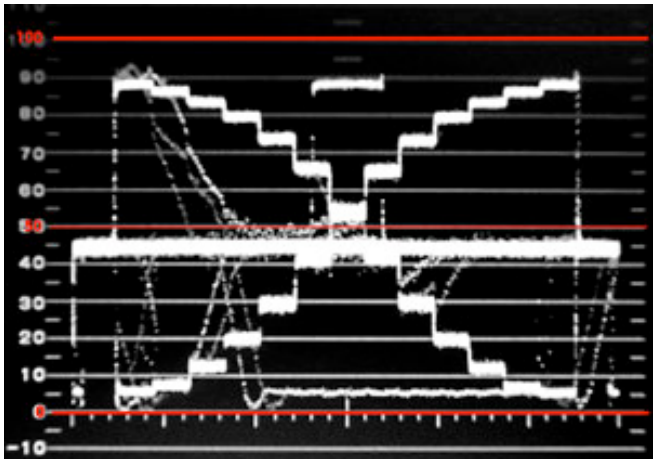
7D25L2VA44A

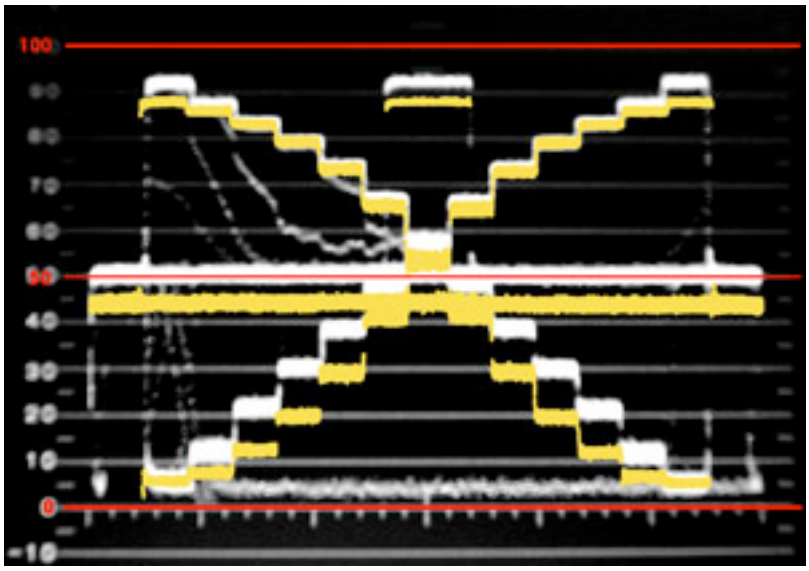
This curve emulates the look of emulsion 250D underdevelopped by 1 F-stop. We can observe how the contrast diminishes in comparison with the curves discussed earlier, as does the colour saturation. The camera's sensitivity remains around 200 Asa.

Escala de grises Estándar 4



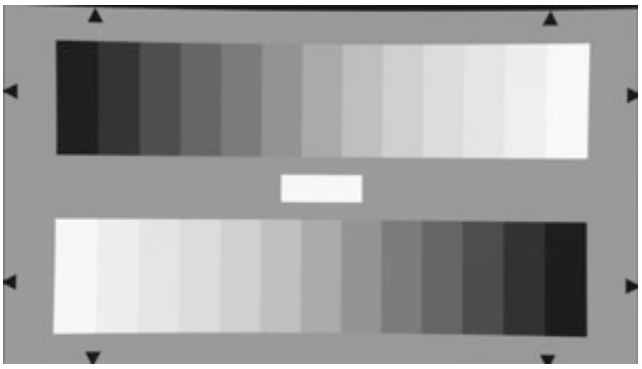
Curva 7D25S4VA44A



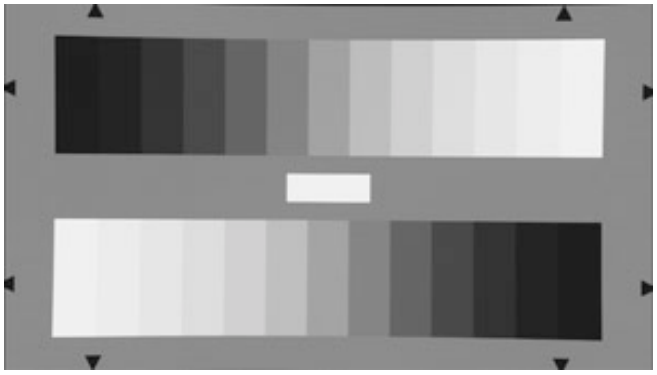


Comparación escalas de grises

In he grey scale we can see how the compression of the whites maintains darker blacks.



Escala de grises Estándar 4



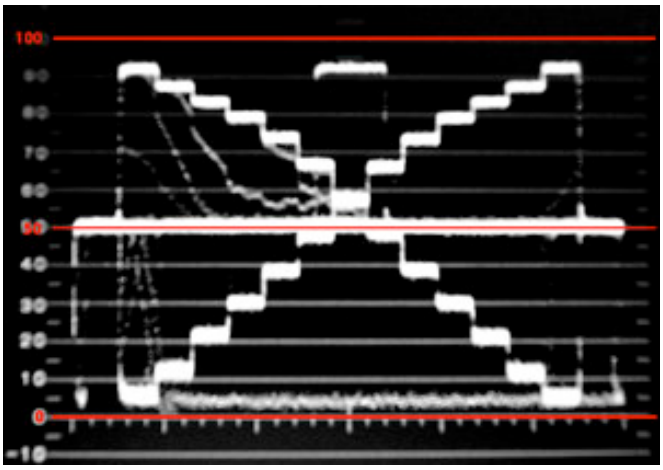
Curva 7D25S4VA44A

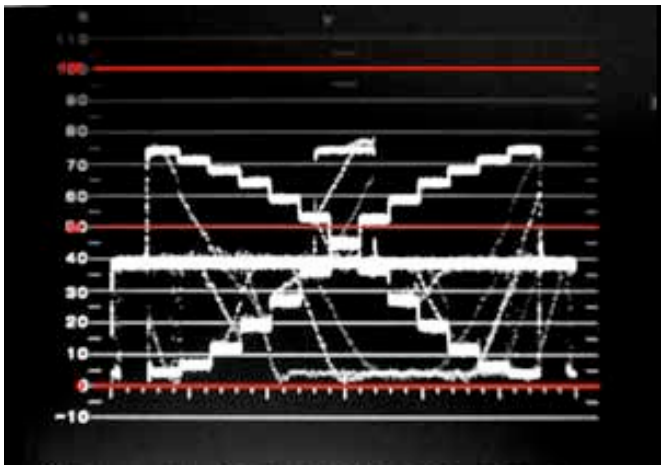


Estándar 4 T 5.6 1/3 Gris18 45%



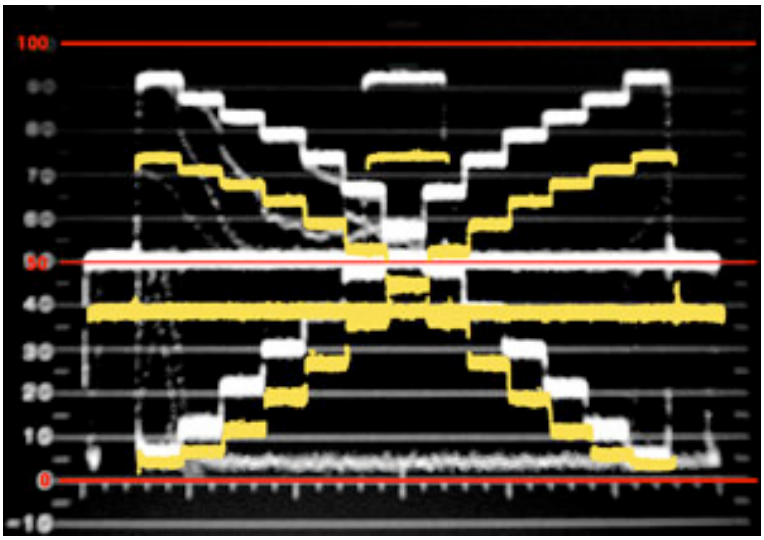
Curva 7D25S4VA44A T 4 1/3 Gris18 45%





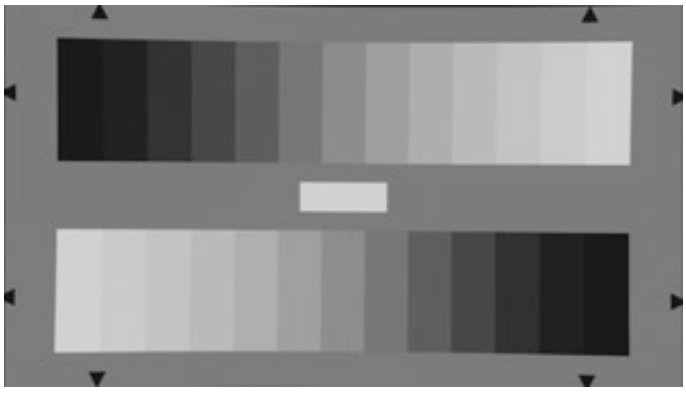
Escala de grises Estándar 4

Curva 7D25L2VA44A



Comparación escalas de grises

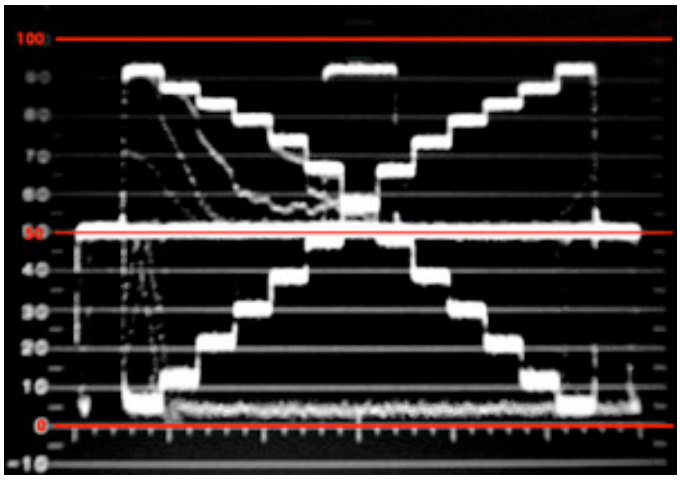


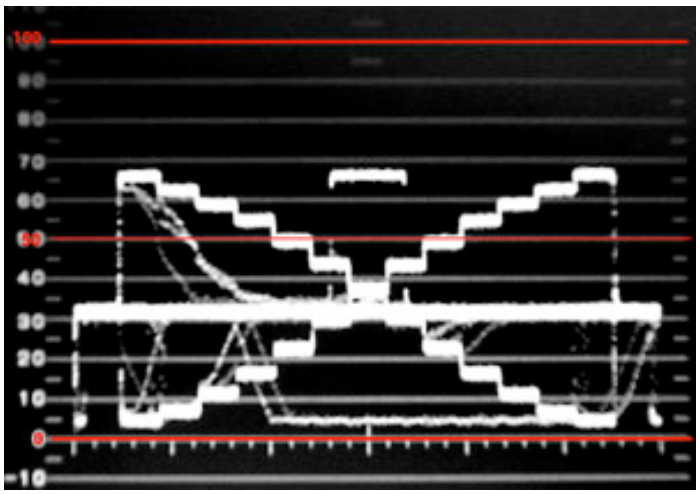


We can see the lower level of the whites and the darkened mid-tones

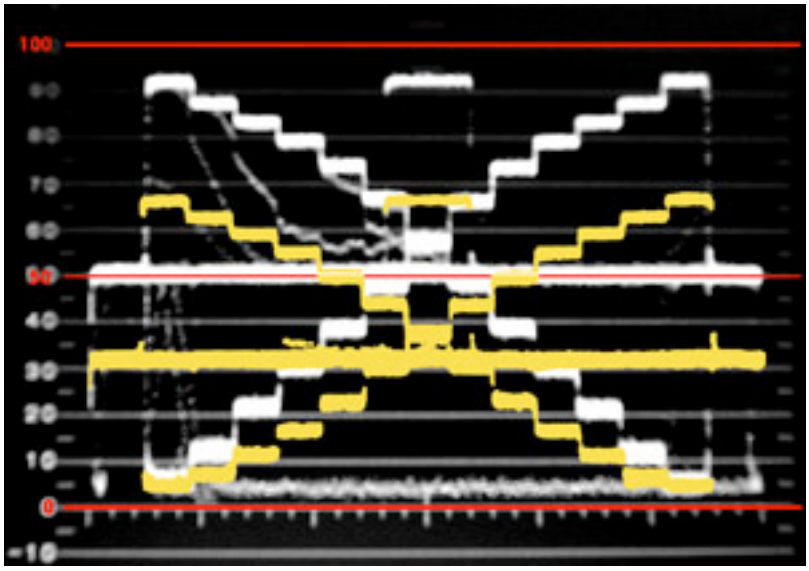




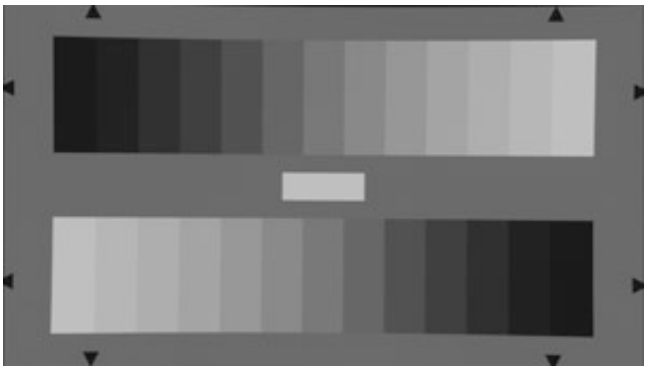




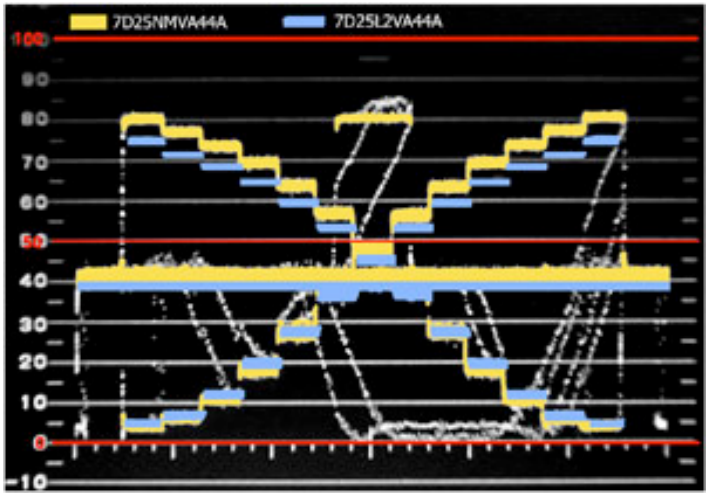
F-stops. We can observe how the compression in the whites is larger, diminishing the contrast and the colour saturation with regards to the other curves. The camera's sensitivity remains around 160 Asa.

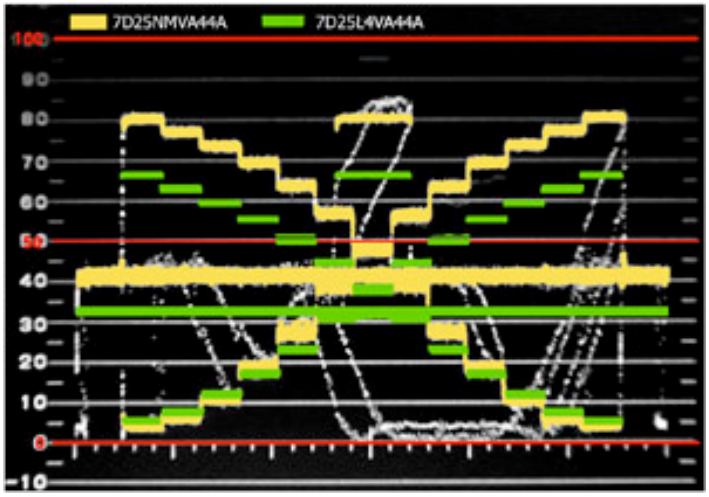


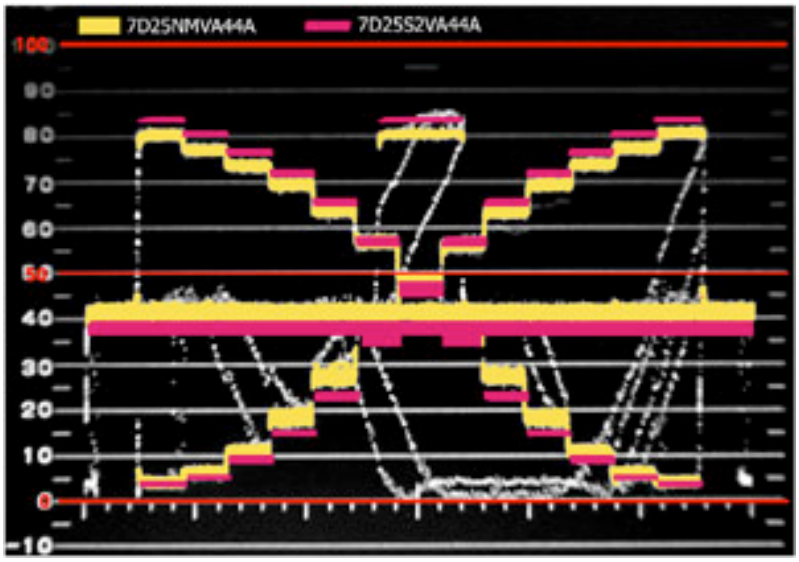


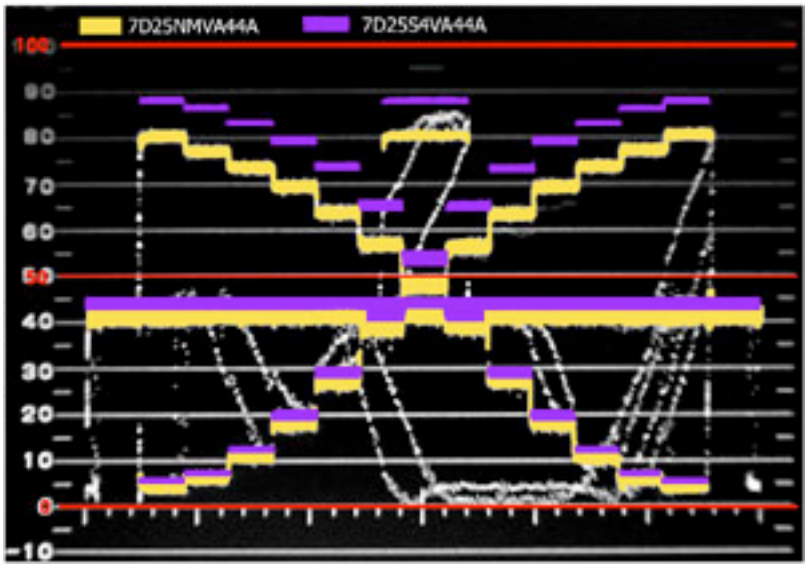


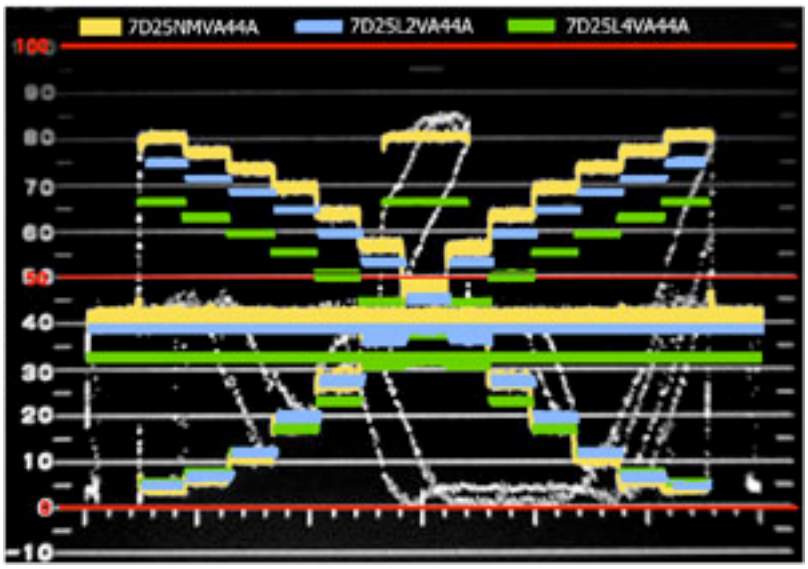
In the still life we can see the lower level of
the whites, in the jug and the scale for example. Lets have a look now at the comparison between the different curves.
n the following images we can see the values on the grey card. We can see clearly the different handling of the high lights, the gamma and the shadows by each curve.






7D25NMVA44A
7D25S2VA44A
100
90
80
70
60
50
40
30
20
10
0
-10


7D25NMVA44A
7D25S4VA44A
100
90
80
70
60
50
40
30
20
10
0
-10


7D25NMVA44A
7D25L2VA44A
7D25L4VA44A
100
90
80
70
60
50
40
30
20
10
0
-10