

# Profile-Test

2018-11-30

## Profile Information

Name	CT_am_v360x1440 .icc
Path	C:/Program Files (x86)/Sai/.../AM.CO.ZA/CT_am_v360x1440 .icc
Size	1420400
Version	4.2
Class	prtr
ColorSpace	CMYK
PCS	Lab
Date	2018-11-30 23:31:34
Rendering	0
Creator	ScAm

## 1. Profile Statistic

The statistic tests the profile integrity and some profile properties.

The profile integrity indicates how precise a profile converts between the color spaces. The integrity values show as average and maximum deviations.

The DCS to PCS statistic shows how precise the profile matches the measurement data and should be very low.

The black point DCS for RGB profiles should be low or 0/0/0

The black point DCS for CMYK+ profiles should match the allowed total amount of ink.

The black point PCS should be dark and approximately neutral.

The white point DCS should match the device white point.

The white point PCS should match Lab-White.

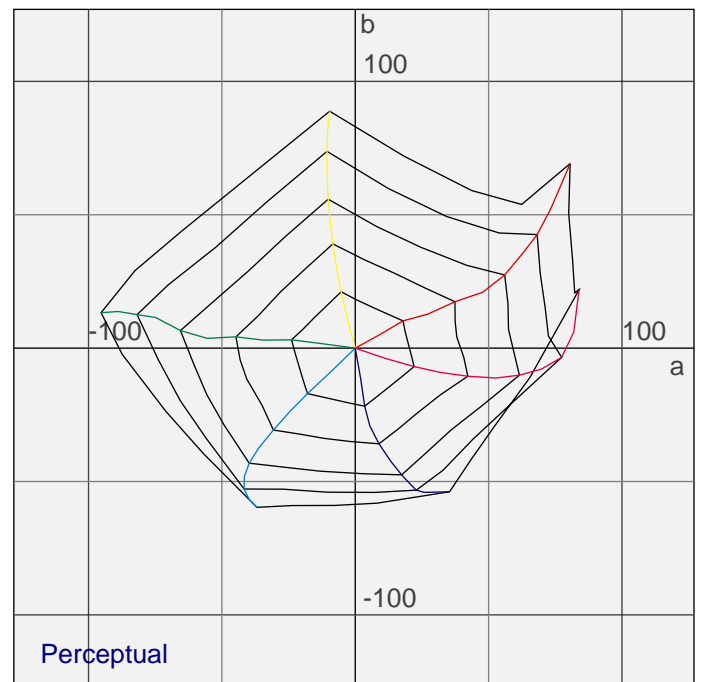
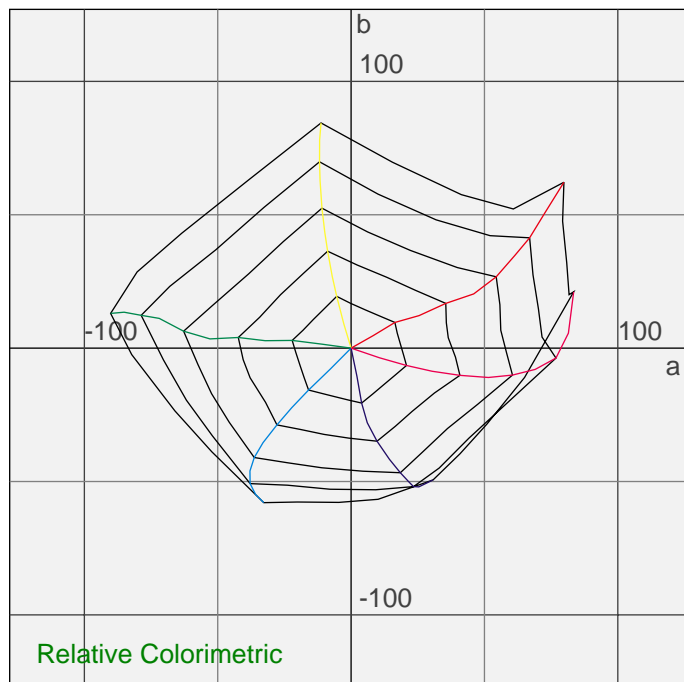
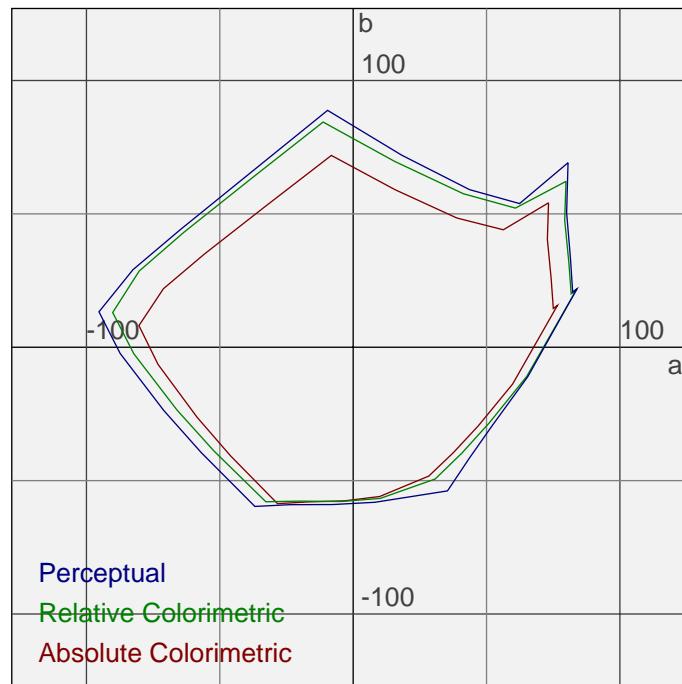
Integrity (DCS) perceptual	1.1/11.4 (Avg/Max CMYK)
Integrity (DCS) relative colorimetric	0.9/16.4 (Avg/Max CMYK)
Integrity (DCS) saturation	1.9/13.9 (Avg/Max CMYK)
Integrity (PCS) perceptual	1.1/12.5 (Avg/Max Lab)
Integrity (PCS) relative colorimetric	0.6/7.8 (Avg/Max Lab)
Integrity (PCS) saturation	1.8/11.1 (Avg/Max Lab)
Precision (DCS-to-PCS) absolute colorimetric	0.4/6.7 (Avg/Max Lab)
BlackPoint (PCS-to-DCS) perceptual	90.5 99.9 97.5 99.9 (CMYK) TAC=387.7%
BlackPoint (PCS-to-DCS) relative colorimetric	90.8 100.0 97.8 100.0 (CMYK) TAC=388.5%
BlackPoint (PCS-to-PCS) perceptual	4.75 1.99 -0.59 (Lab)
BlackPoint (PCS-to-PCS) relative colorimetric	4.71 1.99 -0.58 (Lab)
WhitePoint (PCS-to-DCS) perceptual	0.0 0.0 0.0 0.0 (CMYK)
WhitePoint (PCS-to-DCS) relative colorimetric	0.0 0.0 0.0 0.0 (CMYK)
WhitePoint (DCS-to-PCS) perceptual	100.00 -0.00 0.00 (Lab)
WhitePoint (DCS-to-PCS) relative colorimetric	100.00 -0.00 0.00 (Lab)
WhitePoint (DCS-to-PCS) absolute colorimetric	88.34 2.07 -7.42 (Lab)

## 2. Gamut

The gamut plot illustrates the maximum gamuts in the a/b-diagram when converting from device color space to Lab.

These plots show the gamut for the different rendering intents.

Typically the perceptual gamut is the largest one and the absolute colorimetric gamut is the smallest.



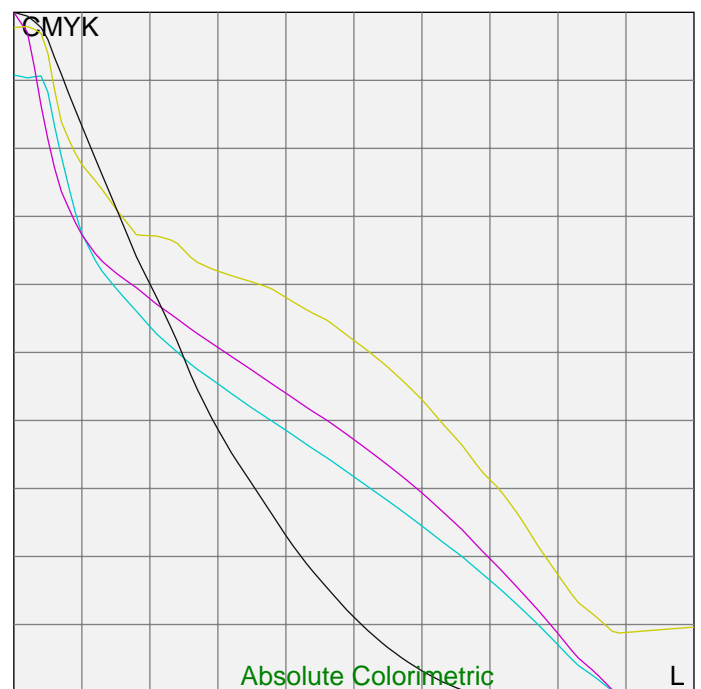
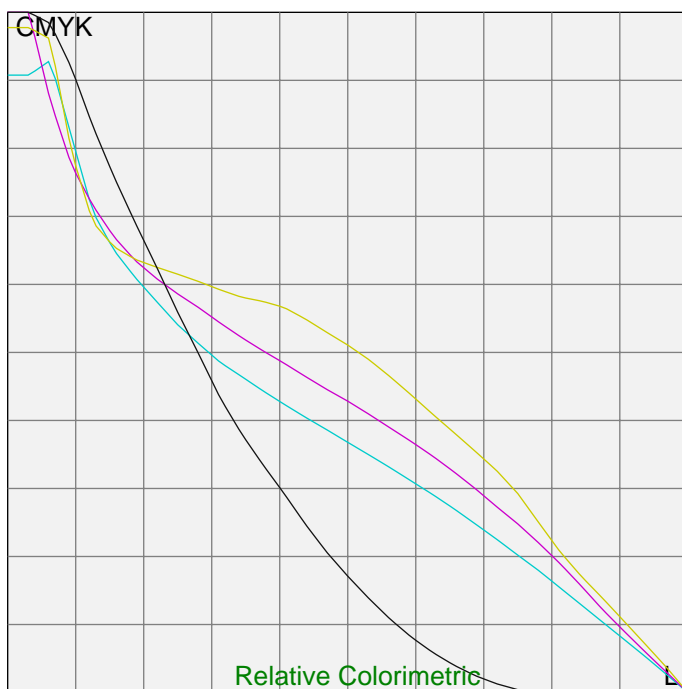
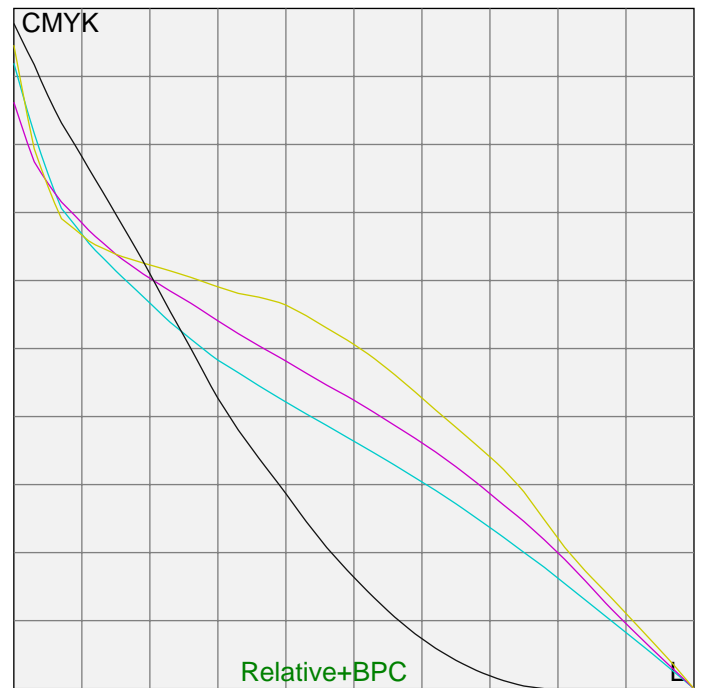
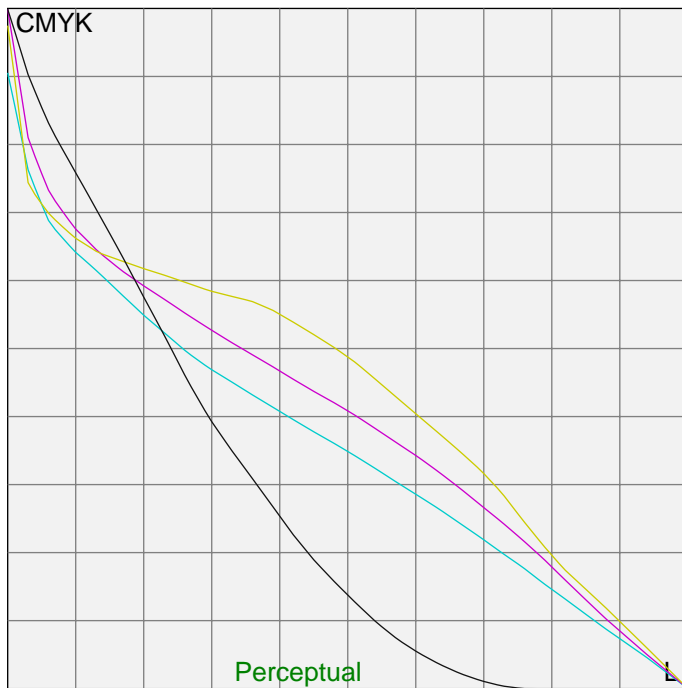
### 3. Gamut Volume

This table shows the gamut size in Lab and compares it to some standard color spaces.

AbsoluteColorimetric	Lab-Volume	%	Intersection	Union
CT_am_v360x1440 .icc	416596	100.0%	-	-
sRGB	826794	198.5%	80.6%	217.8%
AdobeRGB	1179791	283.2%	94.2%	289.0%
CoatedFOGRA39	369189	88.6%	75.7%	113.0%

## 4. Gray Balance

The diagram show the curves for the primaries for a neutral Lab-ramp. The curves should be smooth

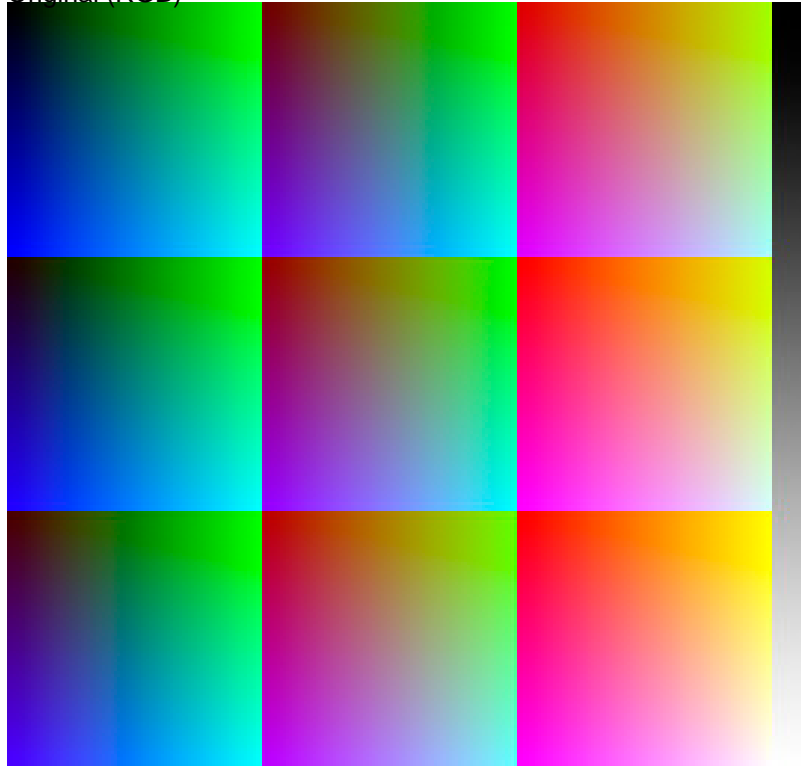


## 5. Sample Images

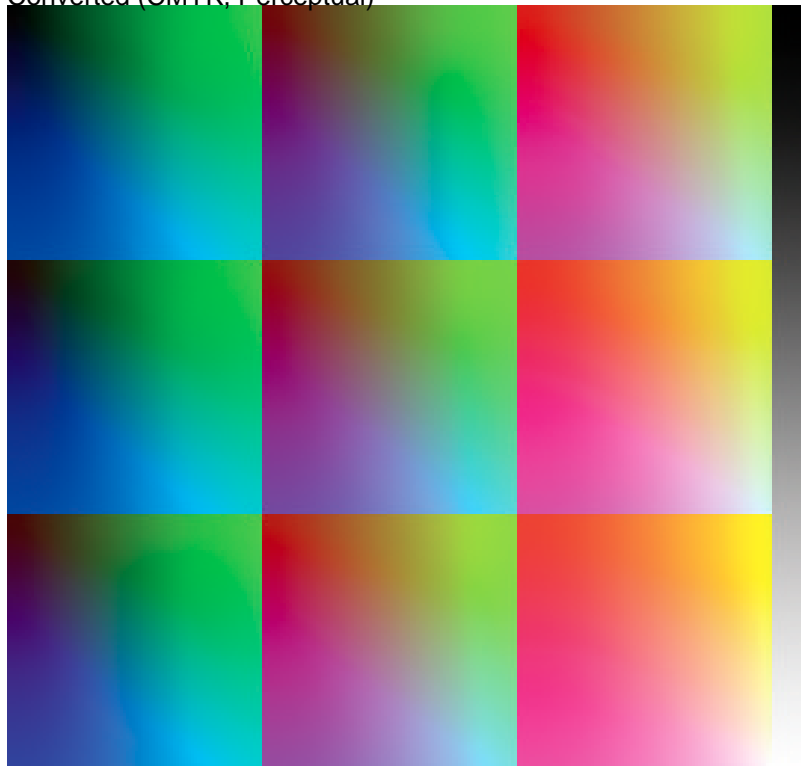
SmoothRGB.tif

Source Profile: Adobe RGB (1998)

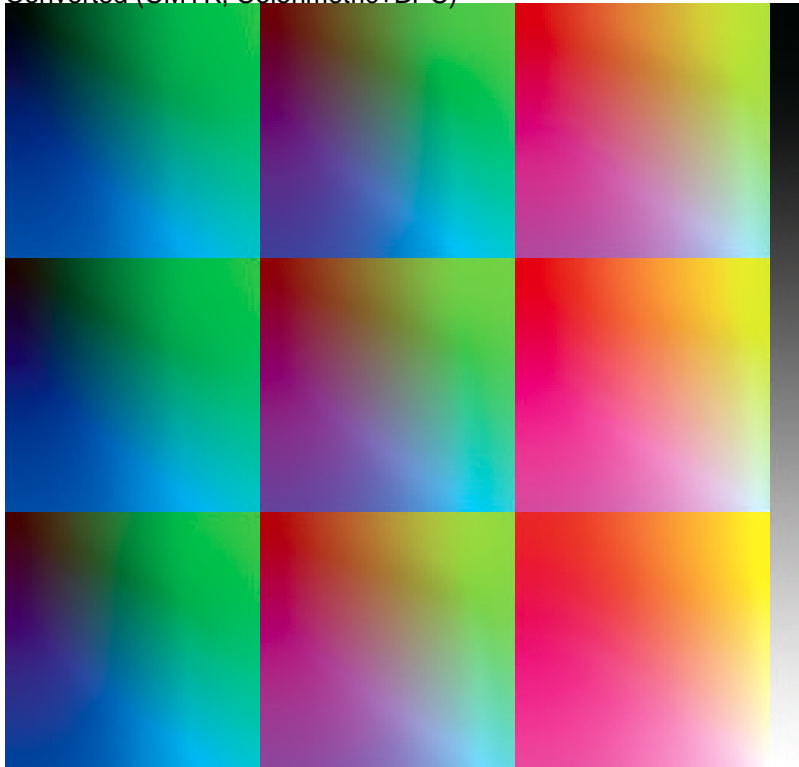
Original (RGB)



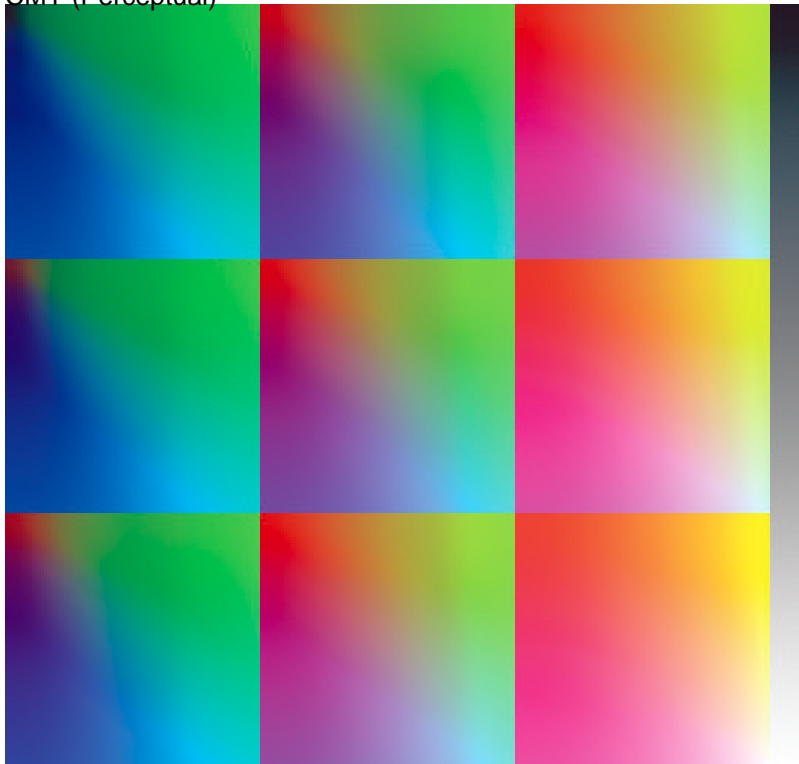
Converted (CMYK, Perceptual)



Converted (CMYK, Colorimetric+BPC)



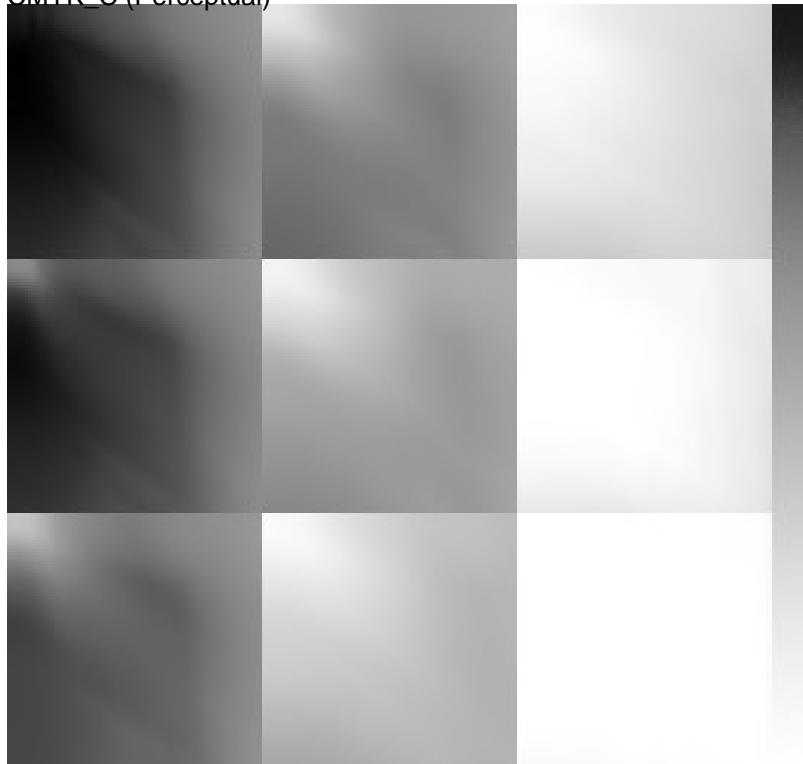
CMY (Perceptual)



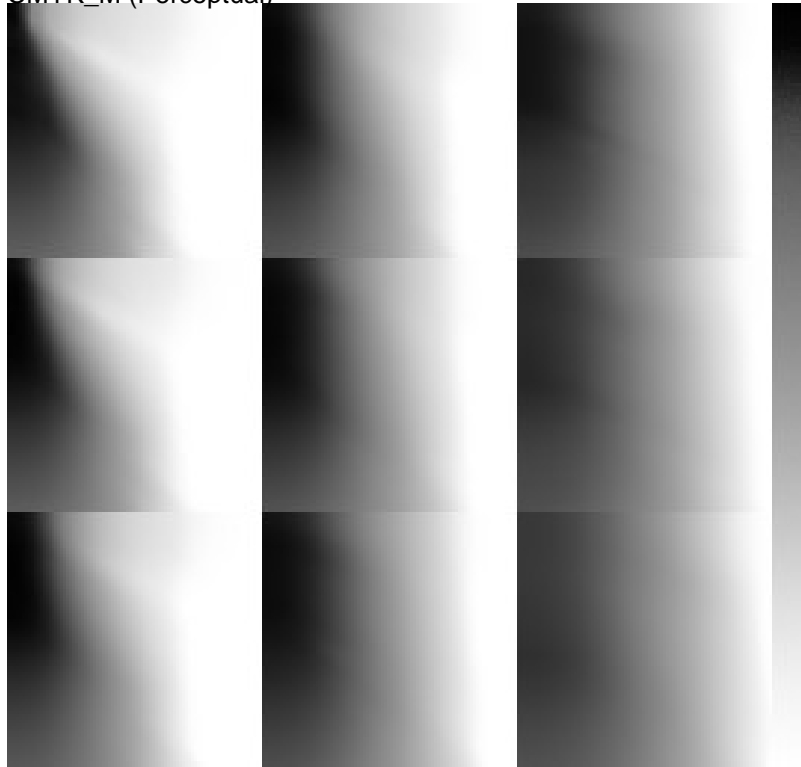
CMYK\_K (Perceptual)



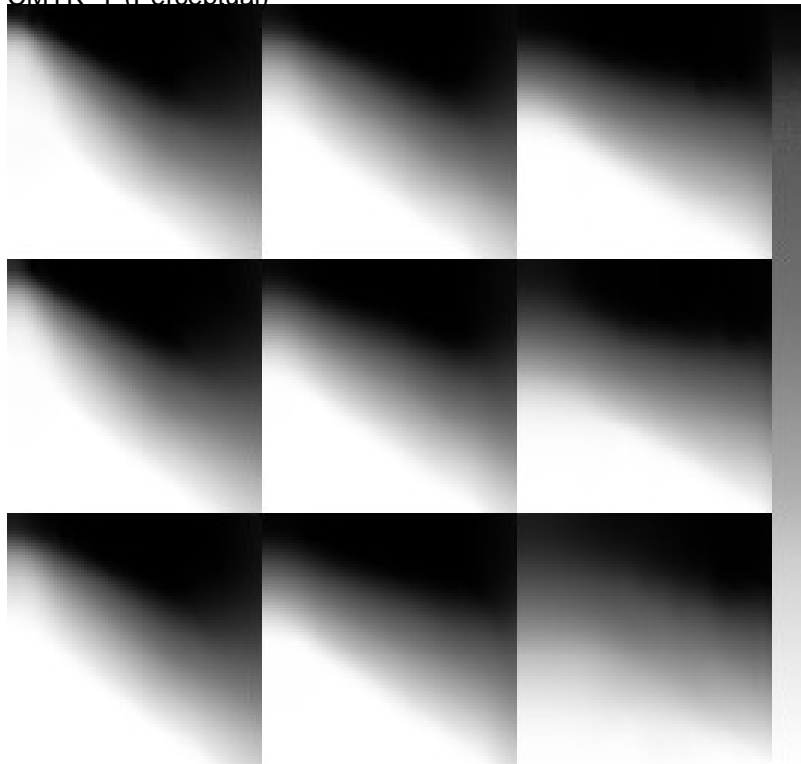
CMYK\_C (Perceptual)



CMYK\_M (Perceptual)



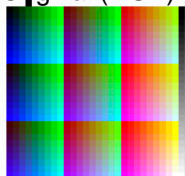
CMYK\_Y (Perceptual)





CLEditRGB.tif  
Source Profile: Adobe RGB (1998)

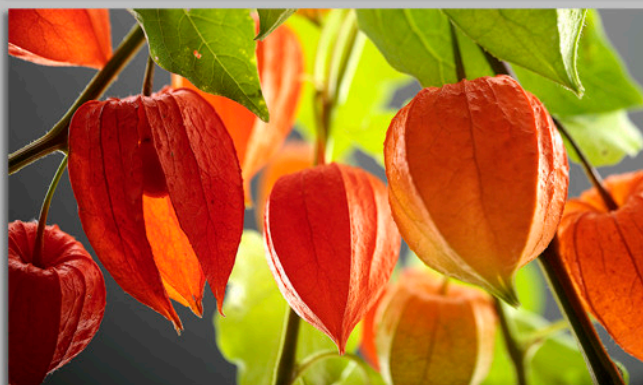
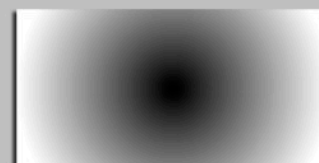
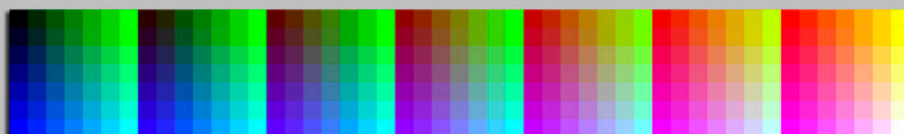
Original (RGB)



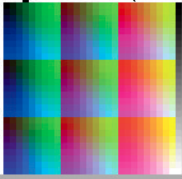
CLEditRGB v2.0  
© ColorLogic GmbH 2006  
Resolution 144dpi



You may add or change pictures in this area. Please do not use masks for editing.  
All corrections must be applied to the whole page. Do NOT scale this page.



Converted (CMYK, Perceptual)



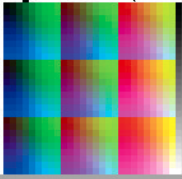
CLEditRGB v2.0  
© ColorLogic GmbH 2006  
Resolution 144dpi



You may add or change pictures in this area. Please do not use masks for editing.  
All corrections must be applied to the whole page. Do NOT scale this page.



Converted (CMYK, Colorimetric+BPC)



CLEditRGB v2.0  
© ColorLogic GmbH 2006  
Resolution 144dpi

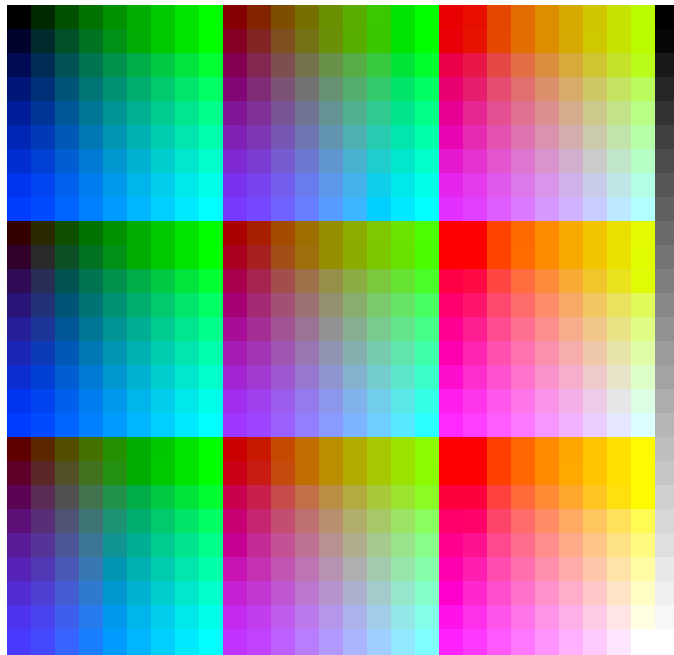


You may add or change pictures in this area. Please do not use masks for editing.  
All corrections must be applied to the whole page. Do NOT scale this page.

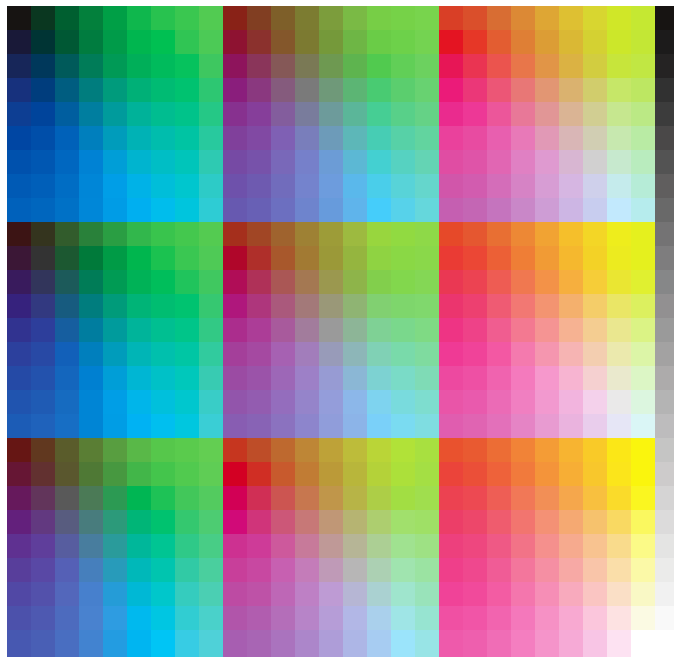


## 6. RGB Conversion (ECI-RGB v1.0)

This test converts RGB samples with the test profile. For CMYK+ color spaces the K-channel will be shown, too. The display of the converted data is relative colorimetric to RGB. The result should be smooth and color consistent. Original RGB Test Patches



Perceptual (RGB -> Perceptual -> TestProfile -> Colorimetric -> RGB)



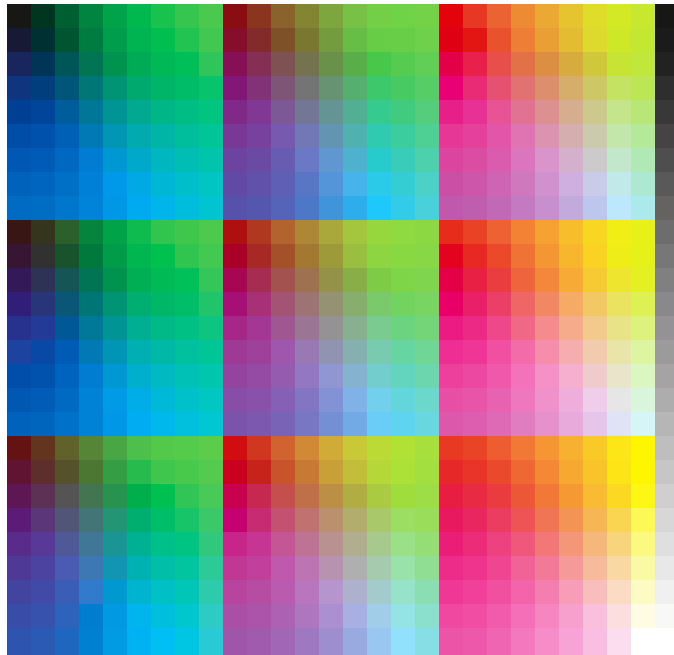
Black Channel (RGB -> Perceptual -> TestProfile)



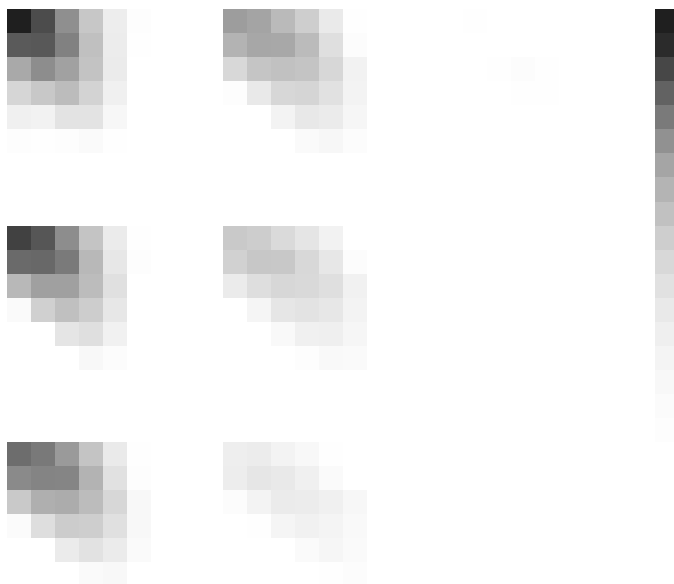
Samples (Perceptual)

Black	91 / 100 / 97 / 100
White	0 / 0 / 0 / 0
Red	1 / 76 / 99 / 0
Green	44 / 0 / 96 / 0
Blue	88 / 50 / 0 / 0
Cyan	49 / 0 / 21 / 0
Magenta	2 / 67 / 1 / 0
Yellow	1 / 1 / 99 / 0
Cyan Light	35 / 0 / 15 / 0
Magenta Light	1 / 44 / 2 / 0
Yellow Light	0 / 1 / 59 / 0

Colorimetric (RGB -> Colorimetric+BPC -> TestProfile -> Colorimetric -> RGB)



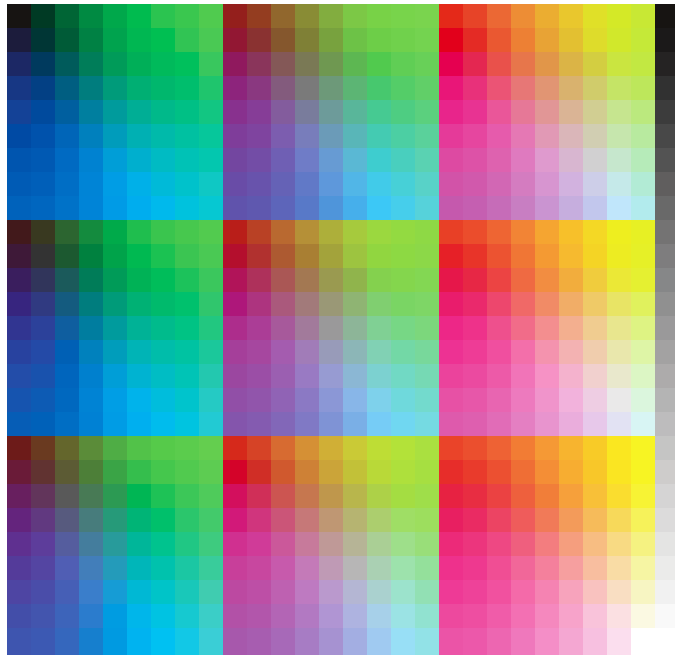
Black Channel (RGB -> Colorimetric+BPC -> TestProfile)



Samples (Colorimetric+BPC)

Black	92 / 86 / 95 / 98
White	0 / 0 / 0 / 0
Red	0 / 87 / 100 / 0
Green	46 / 0 / 99 / 0
Blue	96 / 42 / 0 / 0
Cyan	55 / 0 / 22 / 0
Magenta	2 / 70 / 0 / 0
Yellow	0 / 0 / 100 / 0
Cyan Light	40 / 0 / 15 / 0
Magenta Light	0 / 47 / 1 / 0
Yellow Light	0 / 1 / 62 / 0

Colorimetric (RGB -> Saturation -> TestProfile -> Colorimetric -> RGB)



Black Channel (RGB -> Saturation -> TestProfile)

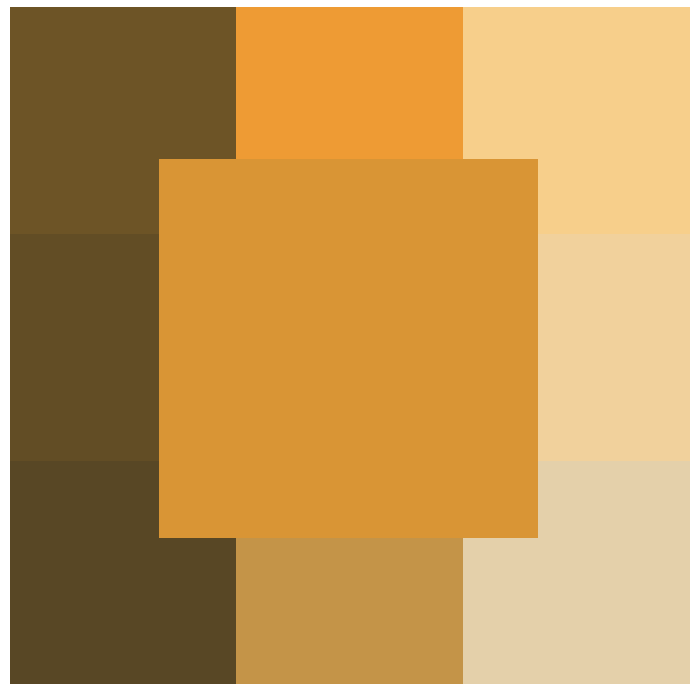
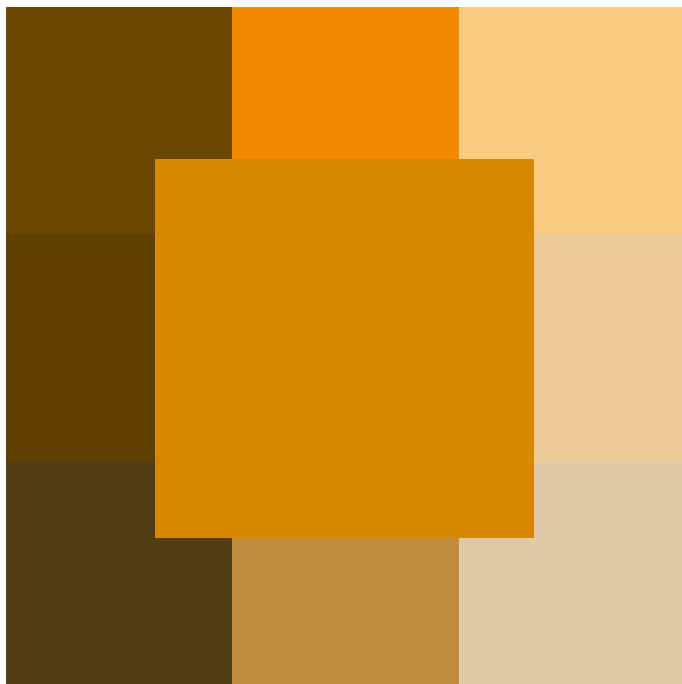
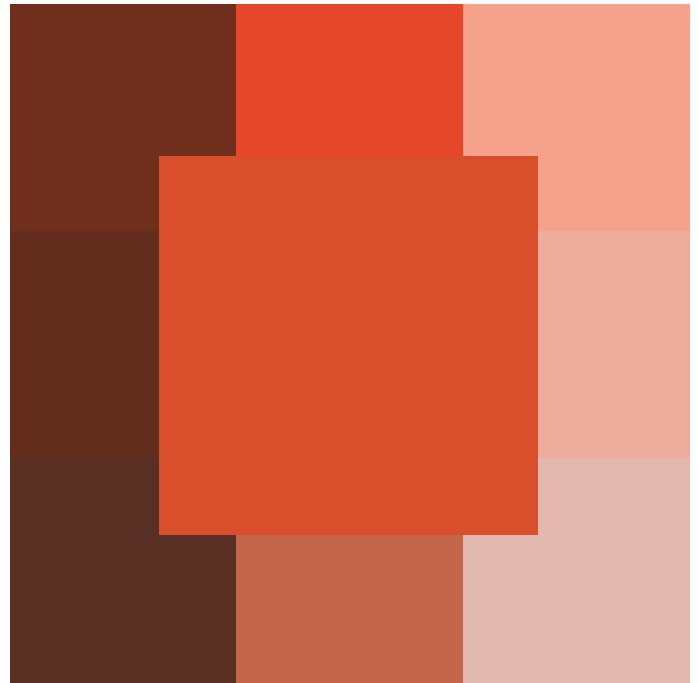
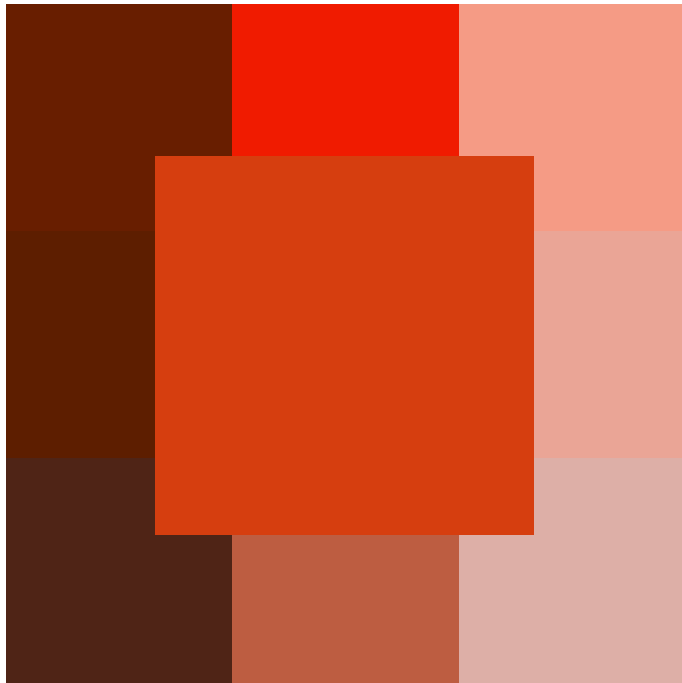


Samples (Saturation)

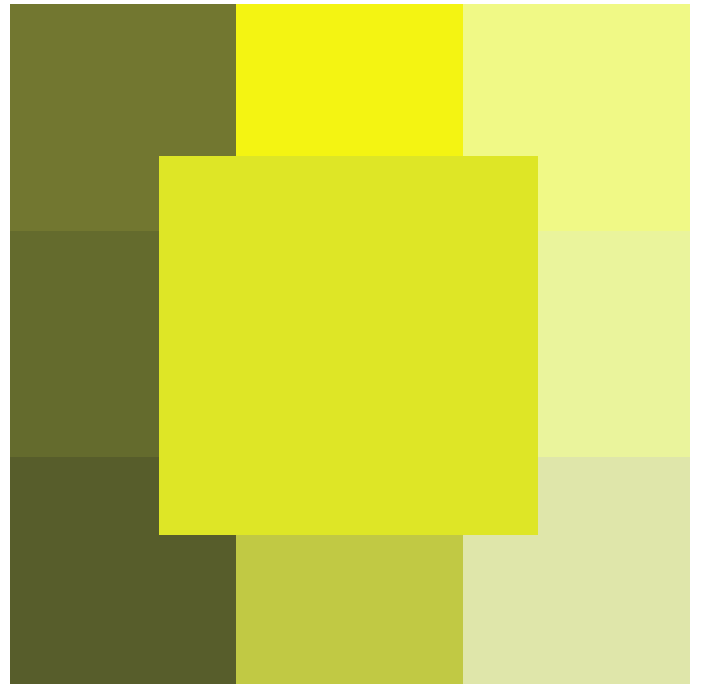
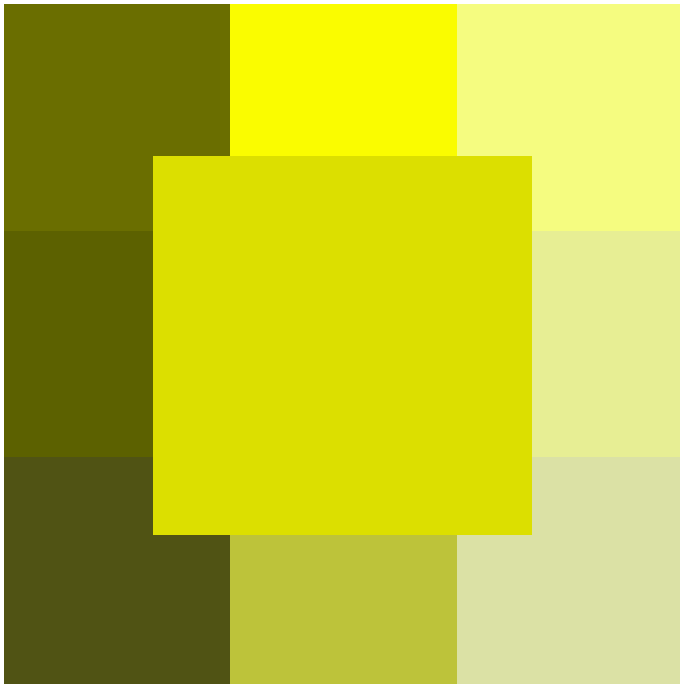
Black	91 / 100 / 98 / 100
White	0 / 0 / 0 / 0
Red	0 / 82 / 99 / 0
Green	45 / 0 / 97 / 0
Blue	90 / 49 / 0 / 0
Cyan	52 / 0 / 21 / 0
Magenta	2 / 70 / 2 / 0
Yellow	2 / 1 / 97 / 0
Cyan Light	38 / 0 / 15 / 0
Magenta Light	1 / 46 / 3 / 0
Yellow Light	2 / 3 / 62 / 0

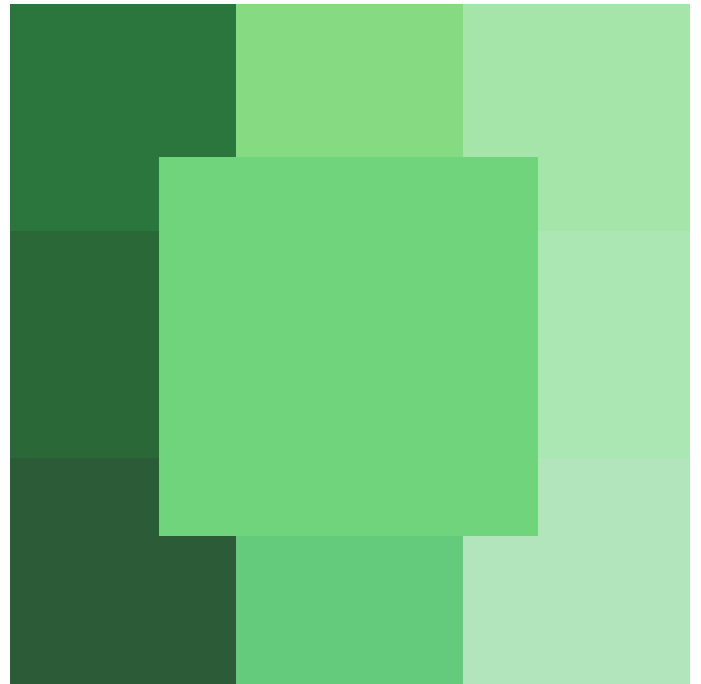
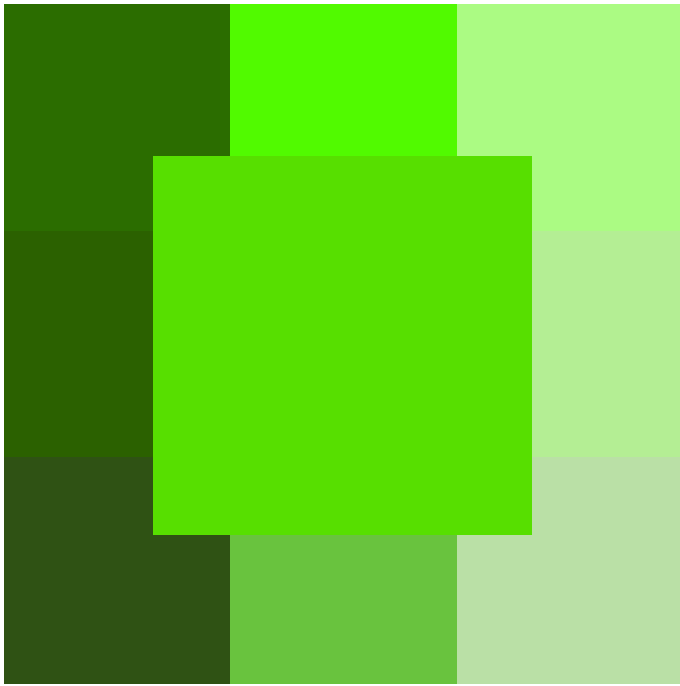
## 7. Hue Samples

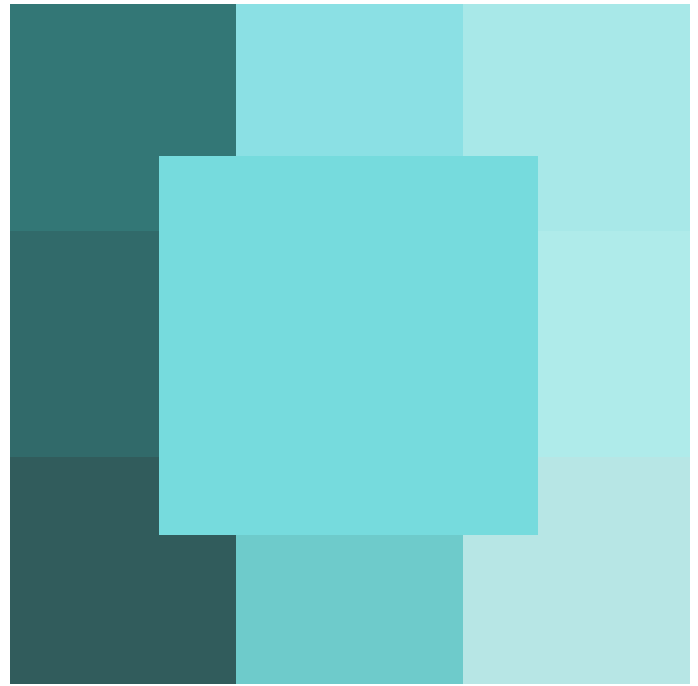
On the left side you see the original colors, on the right side the (perceptual) converted colors.

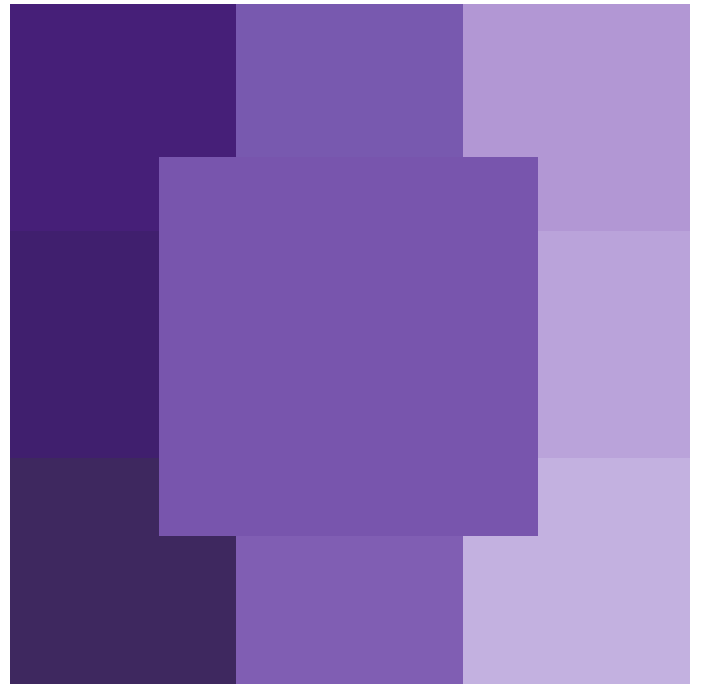
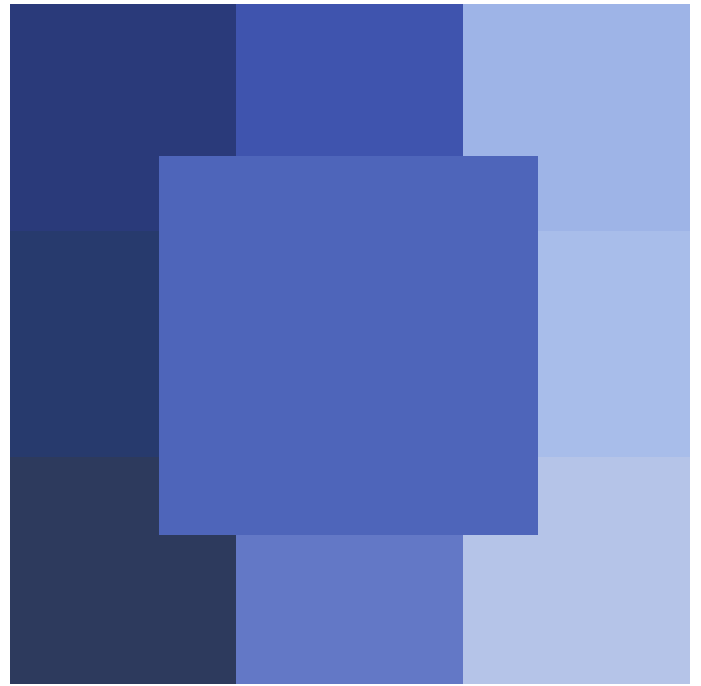
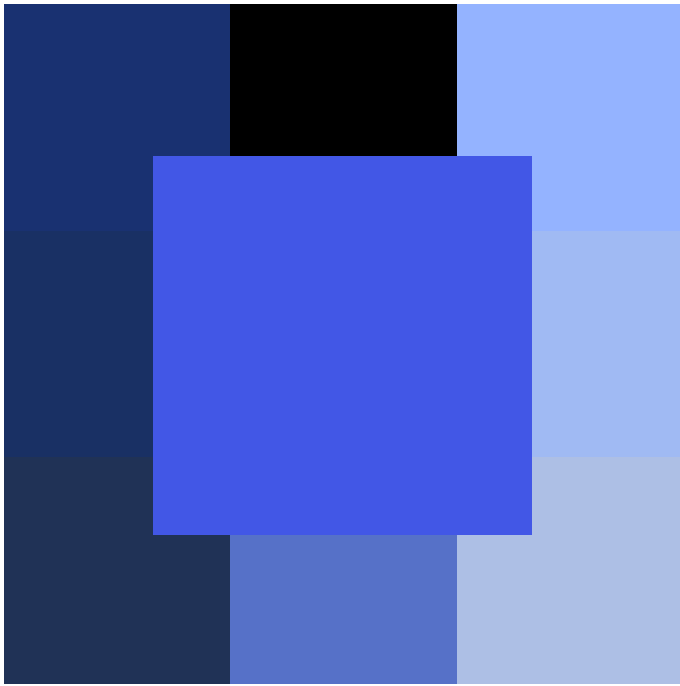


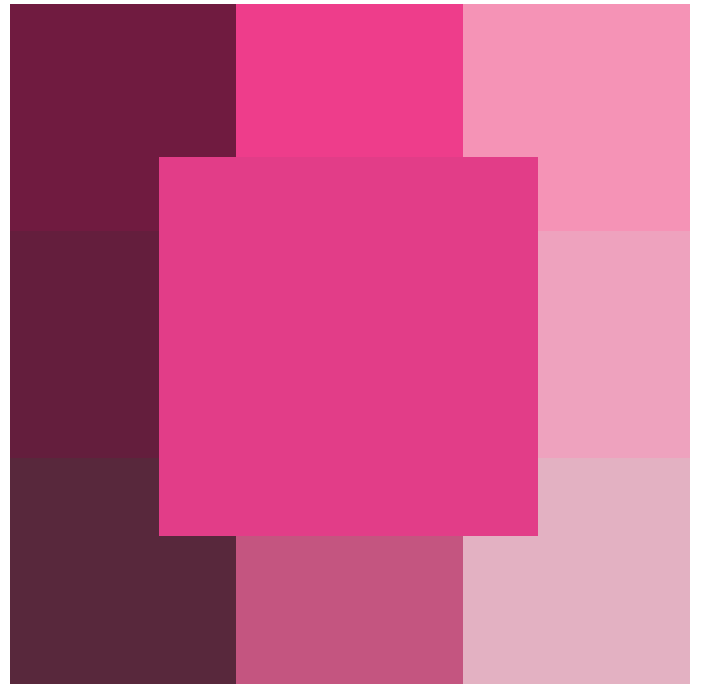
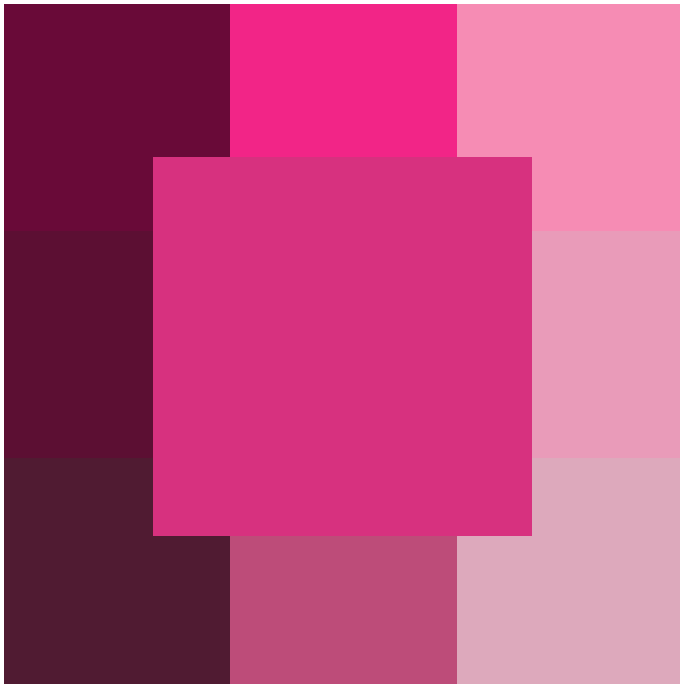
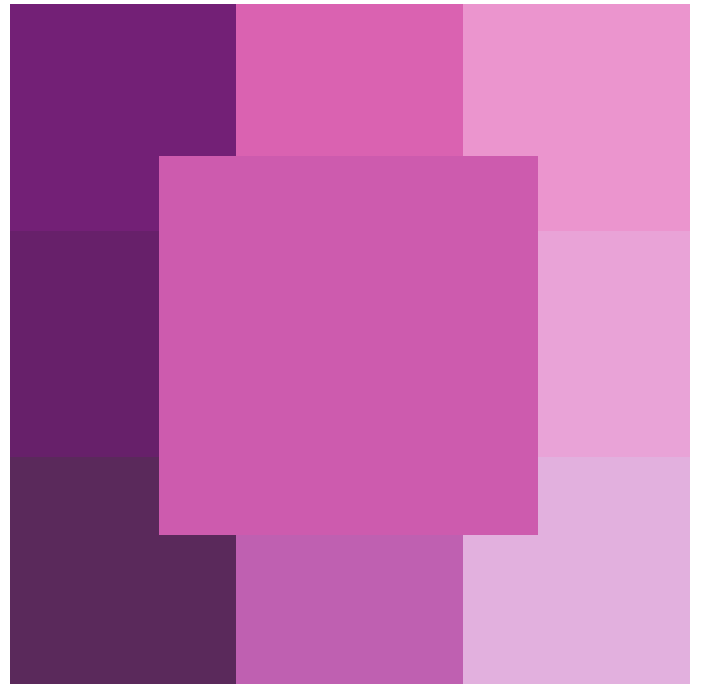
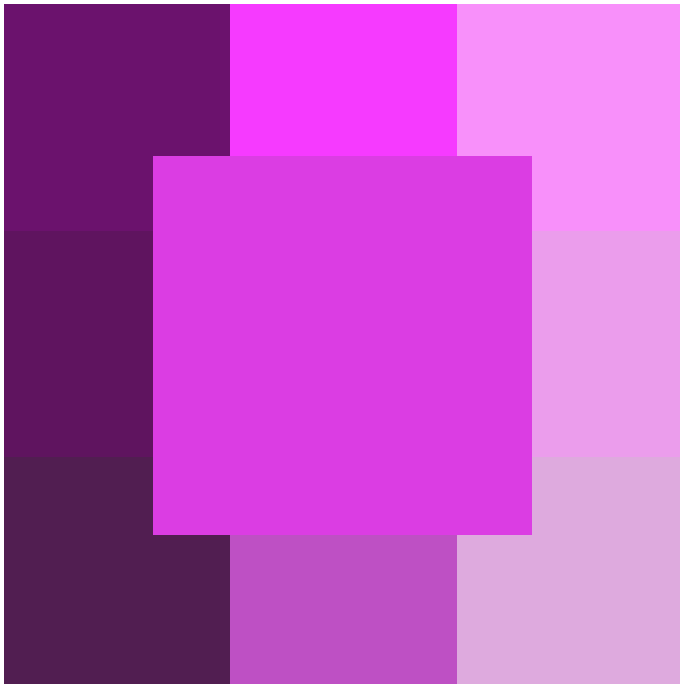








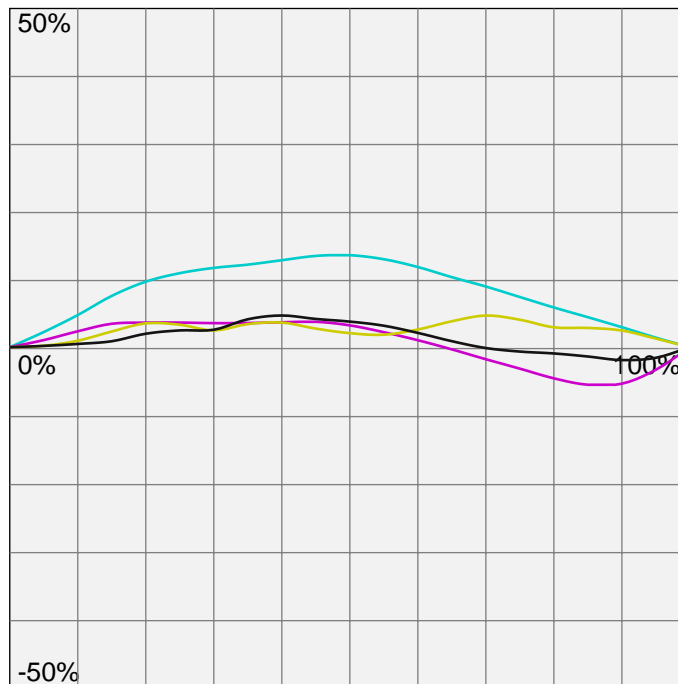




## 8. Linearity

Note: The dot gain cannot be estimated seriously from colorimetric data, therefore we display the deltaE-76 based deviation from linear primaries. Unlike density curves a dot gain is not desirably for colorimetric curves. The colorimetry respects visual distances better than density.

Colorimetric Linearity: The diagram shows the colorimetric linearity of the primaries. Flat curves indicate that the deltaE to white and solid color is proportional.



### Cyan

Tone Value	1.00	2.00	3.00	4.00	5.00	7.00	10.00	15.00	20.00	25.00	30.00	35.00	40.00
Tone Value Increase	0.44	0.89	1.33	1.78	2.24	3.20	4.74	7.55	9.64	10.89	11.67	12.15	12.79
Tone Value	45.00	50.00	55.00	60.00	65.00	70.00	75.00	80.00	85.00	90.00	95.00		
Tone Value Increase	13.43	13.53	12.94	11.79	10.30	8.93	7.38	5.85	4.42	2.94	1.41		

### Magenta

Tone Value	1.00	2.00	3.00	4.00	5.00	7.00	10.00	15.00	20.00	25.00	30.00	35.00	40.00
Tone Value Increase	0.22	0.43	0.64	0.85	1.05	1.47	2.35	3.45	3.62	3.63	3.55	3.57	3.67
Tone Value	45.00	50.00	55.00	60.00	65.00	70.00	75.00	80.00	85.00	90.00	95.00		
Tone Value Increase	3.74	3.22	2.21	1.03	-0.31	-1.76	-3.15	-4.57	-5.51	-5.36	-3.30		

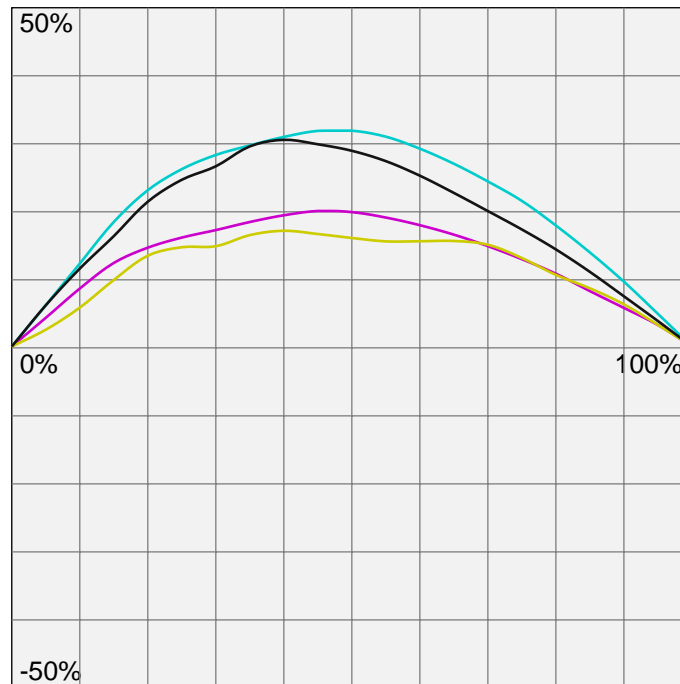
### Yellow

Tone Value	1.00	2.00	3.00	4.00	5.00	7.00	10.00	15.00	20.00	25.00	30.00	35.00	40.00
Tone Value Increase	0.04	0.07	0.11	0.16	0.22	0.36	0.96	2.32	3.51	3.31	2.47	3.40	3.63
Tone Value	45.00	50.00	55.00	60.00	65.00	70.00	75.00	80.00	85.00	90.00	95.00		
Tone Value Increase	2.74	2.07	1.84	2.61	3.82	4.66	4.04	2.92	2.84	2.46	1.26		

### Black

Tone Value	1.00	2.00	3.00	4.00	5.00	7.00	10.00	15.00	20.00	25.00	30.00	35.00	40.00
Tone Value Increase	0.04	0.07	0.11	0.15	0.20	0.31	0.49	0.88	1.99	2.47	2.57	4.11	4.67
Tone Value	45.00	50.00	55.00	60.00	65.00	70.00	75.00	80.00	85.00	90.00	95.00		
Tone Value Increase	4.16	3.77	3.17	2.11	0.89	-0.12	-0.64	-0.91	-1.36	-1.89	-1.55		

Dot-Gain (CIE-based): The diagram shows the dot gain based on the XYZ data of the primaries. Note: Often these curves match the density based dot gain curves very good.



**Cyan**

Tone Value	1.00	2.00	3.00	4.00	5.00	7.00	10.00	15.00	20.00	25.00	30.00	35.00	40.00
Tone Value Increase	1.25	2.47	3.69	4.88	6.08	8.52	12.19	18.31	22.98	26.07	28.16	29.56	30.81
Tone Value	45.00	50.00	55.00	60.00	65.00	70.00	75.00	80.00	85.00	90.00	95.00		
Tone Value Increase	31.70	31.73	30.85	29.08	26.87	24.27	21.41	17.79	13.83	9.54	4.80		

**Magenta**

Tone Value	1.00	2.00	3.00	4.00	5.00	7.00	10.00	15.00	20.00	25.00	30.00	35.00	40.00
Tone Value Increase	0.88	1.74	2.58	3.40	4.22	5.81	8.52	12.28	14.53	16.01	17.11	18.30	19.29
Tone Value	45.00	50.00	55.00	60.00	65.00	70.00	75.00	80.00	85.00	90.00	95.00		
Tone Value Increase	19.92	19.76	18.96	17.84	16.44	14.76	12.83	10.71	8.14	5.68	3.16		

**Yellow**

Tone Value	1.00	2.00	3.00	4.00	5.00	7.00	10.00	15.00	20.00	25.00	30.00	35.00	40.00
Tone Value Increase	0.51	1.00	1.50	1.98	2.47	3.45	5.72	9.78	13.36	14.60	14.74	16.38	17.01
Tone Value	45.00	50.00	55.00	60.00	65.00	70.00	75.00	80.00	85.00	90.00	95.00		
Tone Value Increase	16.53	15.95	15.45	15.47	15.51	14.97	13.01	10.52	8.56	6.20	3.18		

**Black**

Tone Value	1.00	2.00	3.00	4.00	5.00	7.00	10.00	15.00	20.00	25.00	30.00	35.00	40.00
Tone Value Increase	1.27	2.51	3.72	4.90	6.05	8.31	11.45	16.22	21.29	24.51	26.49	29.42	30.39
Tone Value	45.00	50.00	55.00	60.00	65.00	70.00	75.00	80.00	85.00	90.00	95.00		
Tone Value Increase	29.73	28.77	27.25	25.11	22.58	19.91	17.21	14.27	10.97	7.38	3.75		