Aardenburg

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IMAGING & ARCHIVES

Accelerated Light Fading Test Results

Epson R1800 Printer, MIS R800/R1800 Ultrachrome Equivalent Ink, Red River Ultra Pro Gloss Plus

Sample # AaI_20071008_SN002

20 Megalux-hours completed

Test Image: AaI_StandardColorSet(v1)_forARGB.tif
Printed: August 20, 2007

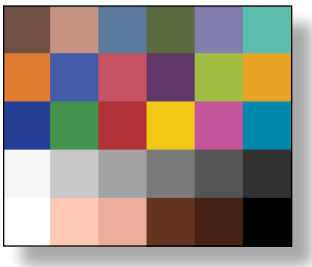
Document #: AaI_20071008_SN002(Lf).pdf Rev: April 23, 2008
Test Print Prepared by: Member #2, category: Amateur.

For more information please contact: info@aardenburg-imaging.com

About this Report

This report contains light fastness information about a single test print produced by a specific digital printing system. "System" refers to all hardware, software, and materials used to make the finished print. The hardware, software, material components, and printmaker's skills contribute to the final image quality and image permanence. The tested sample is made with current or recently discontinued stocks of commercially available products unless otherwise stated. Each sample has been prepared by Aardenburg Imaging & Archives or one of its members in accordance with customary print making practices unless otherwise noted. The sample may also contain additional finishing materials such as overcoats and laminates which are also noted when used. Finally, the sample has been tested under standardized conditions that are defined on the Sample Description page (see page 2). AaI&A makes every effort to ensure but cannot guarantee that the samples are properly identified and documented and that test results are accurate. For this reason, AaI&A also strives to test independently produced sample replicates in order to increase sampling confidence and to provide information on process variability. Please compare the results in this report to replicate test samples when the data become available.

Understanding the Test Results



AaI_StandardColorSet(v1)_forARGB.tif

The magnitude and visual appearance of fading depends not only on the chosen printing system but the chosen image as well. In other words, different images are comprised of different colors, and the fading relationships between those colors dictate how the image will look as it fades. The sample print in this test report was made by reproducing the digital image shown on the left. It contains 30 standard colors. 24 of the colors are colorimetrically matched to the Macbeth ColorChecker™ chart viewed under D50 illumination. The remaining six colors supplement the ColorChecker™ array with four additional skin tone colors, one patch for paper white, and another for maximum black. The additional colors also round out the distribution of L* lightness values in the test target.

This report includes I* metric scores that compare the color and tonal relationships of the light exposed samples to the color and tonal relationships existing in the original print prior to light exposure. Perfect I* scores of 100% can be approached when no significant fading occurs. Average scores above 90% generally indicate excellent retention of original quality, 80% good, 70% fair, etc., but your conclusions may vary depending on your image quality requirements. Page 4 and all subsequent pages provide information about the fading characteristics of the product in three ways:

1) You can visually assess the fading. All target images reproduced in this report are digitally reconstructed from the spectrally measured color data rather than scanning or otherwise reproducing the physical print by conventional techniques. This method ensures a colorimetrically accurate representation of the print appearance as the print fades. A calibrated monitor is recommended to experience the best possible reproduction of the test sample appearance. The side-by-side presentation of the target images beginning on page 5 simulates looking at the light exposed print along side a perfect duplicate of the unexposed original print. A multi layer "overlay" mode is provided on page 4. Computer and video card performance must be adequate for smooth transitions between the layers. Zooming in on the image will also help to produce a more instantaneous transition. Toggle between the layers using the layers feature of Adobe Reader to directly switch between the light exposed print colors and the initial print colors.

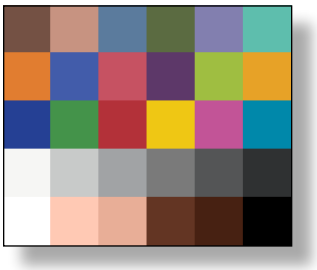
2) Color and tonal accuracy scores are reported. ***I* color*** rates the retained color accuracy (hue and chroma) while ***I* tone*** rates the retained tonal accuracy (lightness and contrast). The score is on a percentile scale where 100% is a perfect match between the comparison image (e.g., "after" light exposure) and the reference image (e.g., "before" any light exposure). 0% ***I* color*** means no color accuracy is left. 0% ***I* tone*** means essentially no tonality remains and all image information content is lost. Negative I* values have significance as well and contribute to the average I* score when they occur. Negative I* color values mean false color has occurred, for example, when a skin tone turns green or a neutral gray becomes distinctly colorful. Negative I* tone scores mean visual contrast between colors has become inverted (i.e., like the tonal relationships in a photographic film negative). Serious image quality problems must arise before false colors and/or tones appear. For more information on the I* metric, please refer to the AaI&A web site.

3) Lastly, color changes are also reported using the classic color difference model, ΔE. Note that ΔE values lose perceptual scaling significance when they become large (e.g., > 15). Also, the ΔE equation does not unambiguously measure changes in image contrast. This limitation is generally not a problem for paints and textiles, but can be a serious oversight when evaluating photographic images. It was a major reason behind the development of the I* metric.

Sample Description

Printer: Epson R1800
Ink: MIS Associates (www.inksupply.com) R800/R1800 Ultrachrome Equivalent
Paper: Red River Ultra Pro Gloss Plus*

Sample #: AaI_20071008_SN002
Test Print Prepared by: Member #2
Membership category: Amateur.



AaI_StandardColorSet(v1)_forARGB.tif

Test Image: AaI_StandardColorSet(v1)_forARGB.tif
RIP/Driver settings: Qimage and Epson driver set to "Color Controls" with no compensation, "Best photo", High speed– off, Gloss Optimizer (MIS ink) "on"
Media Setting: "Premium Photo Paper Glossy"
Printed: August 20, 2007
Original print colors measured on: January 08, 2008
Test started on: January 10, 2008

Profile: MIS1800_RR_UPgloss_PP.icc **Rendering Intent:** Relative Colorimetric with BPC
Profile type: custom
Profile Creation Software: Profile Prism

Paper White Color (UV–included versus UV–excluded) and Maximum Printed Black						
Optical Brighteners present? yes	L*		a*		b*	
	UV inc	UV exc	UV inc	UV exc	UV inc	UV exc
Maximum Paper White (no colorants printed)	95.0	94.8	1.6	-0.3	-8.7	-2.7
(1) ΔL*, Δa*, Δb* respectively	0.2		1.9		6.0	
(1) Calculated differences, especially for Δb*, indicate the role and magnitude of fluorescence on original paper color						
Maximum Printed black (UV included)	L* =9.7		a* = 0.0		b* = -1.8	

Light Source: Phillips Colortone F40T12/C50
Filter/Glazing: Sample framed under Glass**
Light Exposure Cycle: 8 hours on, 4 hours off, twice per 24 hours
Average Illuminance during "on" cycle: 14,176
Average Temperature: 23.0˚C over full test duration, 24.5˚C during light exposure
Average Relative humidity: 55.8%RH full test period , 57.1%RH during light exposure
CIELAB measurements: D50 2˚ observer, Xrite Gretag/Macbeth Spectrolino/Spectroscan

Notes/Comments:

* Red River Paper (www.redriverpaper.com) appears to be phasing out this paper formulation and replacing with a new Ultra Pro Gloss 2.0 formulation. This sample is probably best regarded as recently discontinued stock (March, 2008).

** The Phillips Colortone F40T12/C50 fluorescent light source and ordinary glass picture frame glazing yields UVA content and overall spectral power similar to natural 5000˚K daylight entering a window and then striking a print that has been framed by **standard acrylic glazing** rather than ordinary glass. Other light sources and/or different glazing options may yield greater or lesser fade rates (generally, a 2-5x increase in fade rate for direct sunlight compared to UV–excluded sources at the same Lux level). The spectral quality of the light can also affect individual colors differently.

Notes/Comments continued on last page of this report

Table to Convert Megalux-hours of Light Exposure to estimated "Years on Display"											
Indoor Light Levels for Print Display		Multiply Mlux-hrs by	Megalux-hours in test									
Light Exposure	**Description**		**10**	**20**	**30**	**40**	**50**	**60**	**70**	**80**	**90**	**100**
≤ 10 Lux 24 hours per day	Interior rooms, storage areas, or hallways without windows, illuminated sparingly by artificial lighting	**11.42**	114	228	342	457	571	685	799	913	1027	1142
50 Lux 12 hours per day	"Museum Standard" display condition	**4.57**	46	91	137	183	228	274	325	365	411	457
120 Lux 12 hours per day "Kodak Display Years" (1)	Average home illumination level for photos is ~ 60 lux. 90% of all displayed photos do not exceed 120 lux (1).	**1.90**	19	38	57	76	95	114	133	152	171	190
228 Lux 12 hours per day	Relatively bright home or office. Note the simple 1:1 relationship between "years on display" and Mlux-hr values at this condition.	**1.00**	10	20	30	40	50	60	70	80	90	100
450 Lux 12 hours per day "WIR Display Years" (2) Also equals 500 lux for 11.8 hours per day	A bright home or commercial office building illumination level is 200-500 lux. Also, good illumination for color critical viewing and color matching tasks begins at about 500 lux.	**0.51**	5	10	15	20	25	30	35	41	46	51
2000 Lux 12 hours per day	Commercial Gallery. Also, critical color evaluation standards call for 2000 lux and a D50 illumination source.	**0.15**	1.1	2.3	3.4	4.6	5.7	6.8	8.0	9.1	10.3	11.4
5000 Lux 12 hours per day	E.g., Sunlight through a window striking print at an angle.	**0.045**	0.5	0.9	1.4	1.8	2.3	2.7	3.2	3.7	4.1	4.6
10,000 Lux 12 hours per day	South-facing window in U.S.A. , e.g., storefront display with photos directly facing window.	**0.023**	0.2	0.5	0.7	0.9	1.1	1.4	1.6	1.8	2.1	2.3

Light levels commonly encountered in the real world fluctuate widely throughout indoor print display environments and produce large variations in how long it takes for artwork to acquire light-induced damage. Use this table as a guide to estimate how many "years on display" (denoted in red text) it takes to accumulate the light exposure test dosage. Review the test results to decide which Megalux-hour dose has caused fading to your level of concern (e.g., just noticeable, easily noticeable, objectionable, etc.). Then choose the print display description that best represents how your print is likely to be displayed. You may want to obtain a lux meter and make some measurements in your own display environment!

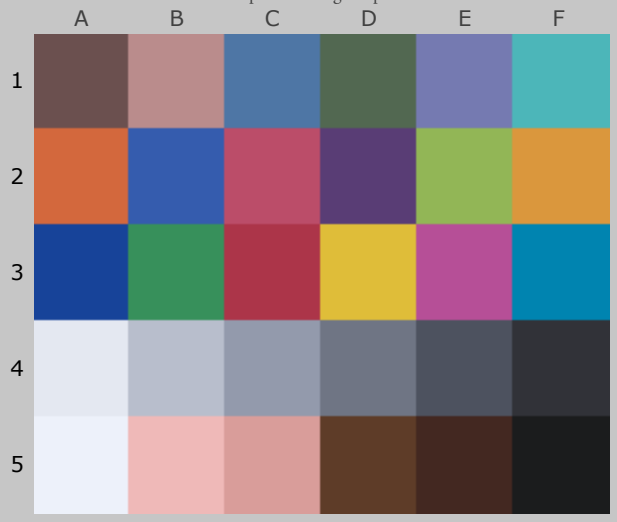
Note that as the years of display time increase, light-induced fading can be eclipsed by other serious aging mechanisms such as fading and/or staining caused by heat, humidity, and air pollutants. Mould damage can also occur at high humidity. Even when colorants remain water fast, direct contact with liquids may result in physical deformation and staining of the substrate. Also, temperature and especially humidity cycling can cause physical cracks and/or flaking, etc. Handling damage such as scratching, abrasion, tears and creases, and catastrophic damage by smoke, fire, flood, etc., also degrade print quality over time. Thus, as illumination levels are reduced other forms of degradation take on greater proportion of risk and may appear in shorter time intervals.

(1) Eastman Kodak has cited this exposure condition and 90% confidence limit as a rationale for estimating print fading times of traditional color photo materials in typical home display environments. For recent light fading claims regarding its line of pigment-based inkjet printers, Kodak has adopted the higher level of 450lux/12 hours per day which is also used by Wilhelm Imaging Research, Inc. (See below).

(2) Wilhelm Imaging Research (WIR) has standardized its light fastness ratings on 450 lux for 12 hours per day in order to estimate the years on display necessary to reach "noticeable" fading. This average light exposure condition, an assumed 75°F/60%RH temperature and humidity level, and WIR's visually weighted densitometric endpoint criteria set V3.0 has become a de facto industry standard for most predictive light fading estimates in the absence of a published International Standards Organization (ISO) test standard.

88.9 *color* / 97.4 *tone*

compared to original print



Print Colors after

20 Megalux-hours Light Exposure

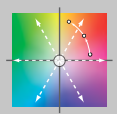
Epson R1800 Printer, MIS R800/R1800 Ultrachrome Equivalent Ink,

Red River Ultra Pro Gloss Plus

20 Mlux-hrs Light Exposure (i.e., after) Compared to Original Print Colors (i.e., before)

				L*		a*		b*	
Column/row	Color Patch	I*Color	ΔE	Before	After	Before	After	Before	After
A1	dark Skin	81.2	3.4	36.4	37.0	12.9	12.2	7.9	4.6
B1	light Skin	81.6	4.6	62.1	62.8	18.4	17.8	11.8	7.3
C1	blue sky	93.5	2.5	47.5	48.3	-4.3	-4.3	-27.7	-30.0
D1	foliage	83.2	3.6	40.7	41.4	-11.7	-12.5	13.7	10.3
E1	blue flower	98.3	1.2	52.0	52.7	8.8	8.2	-29.5	-30.4
F1	bluish green	89.4	3.9	67.7	68.4	-31.1	-30.7	-6.7	-10.5
A2	orange	95.7	3.2	56.4	56.8	42.9	41.4	46.8	44.0
B2	purplish blue	99.2	1.1	39.0	39.6	8.9	8.0	-49.4	-49.1
C2	moderate red	91.9	4.5	48.2	48.6	47.3	46.9	12.5	8.1
D2	purple	93.7	2.7	30.2	30.9	21.7	21.8	-25.4	-28.0
E2	yellow green	93.0	4.3	69.0	69.9	-22.9	-23.9	48.0	43.9
F2	orange yellow	95.8	3.2	67.5	68.2	21.6	19.9	59.0	56.4
A3	blue	99.7	0.9	29.3	29.9	12.4	11.8	-51.8	-52.0
B3	green	92.2	4.0	52.4	53.3	-35.7	-36.6	23.6	19.9
C3	red	93.2	4.3	41.1	41.4	50.6	50.0	21.5	17.3
D3	yellow	95.3	3.9	77.2	78.1	4.7	3.1	70.5	67.1
E3	magenta	95.2	3.0	48.8	49.3	49.0	48.9	-16.1	-19.1
F3	cyan	96.0	2.4	48.8	49.6	-27.5	-27.1	-33.1	-35.3
A4	white	75.3	2.9	91.7	91.9	1.5	0.4	-7.7	-5.1
B4	neutral 8	86.9	1.9	76.1	76.8	0.7	0.3	-6.7	-8.4
C4	neutral 6.5	71.7	3.3	62.8	63.7	0.6	0.3	-6.6	-9.8
D4	neutral 5	60.4	4.4	48.1	49.1	0.5	0.3	-5.1	-9.3
E4	neutral 3.5	78.7	2.6	34.4	35.1	0.2	0.1	-5.5	-8.0
F4	black	100.0	0.6	20.4	20.8	0.8	0.5	-3.4	-3.8
A5	paper white	61.1	4.2	94.9	95.0	1.9	0.5	-8.7	-4.8
B5	skin highlight L*=89	86.0	3.9	79.5	80.2	20.9	20.1	11.6	7.9
C5	skin highlight L*=75	82.3	5.6	69.8	70.5	23.2	22.7	16.3	10.8
D5	skin shadow L*=25	96.5	1.5	28.6	29.1	15.0	14.5	19.9	18.6
E5	skin shadow L*=11	99.5	0.7	19.2	19.6	12.5	12.3	10.5	9.9
F5	Max Black	100.0	0.4	9.7	10.0	0.0	0.0	-1.8	-1.5

Summary Results	I*Color	I*tone	ΔE
Average Score for all patches	88.9	97.4	3.0
Average Score for the Worst 10% (3 lowest scoring patches)	64.4	95.0	4.9



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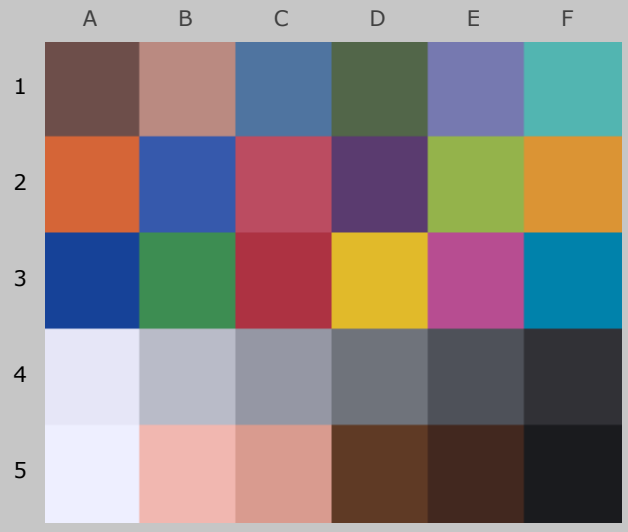
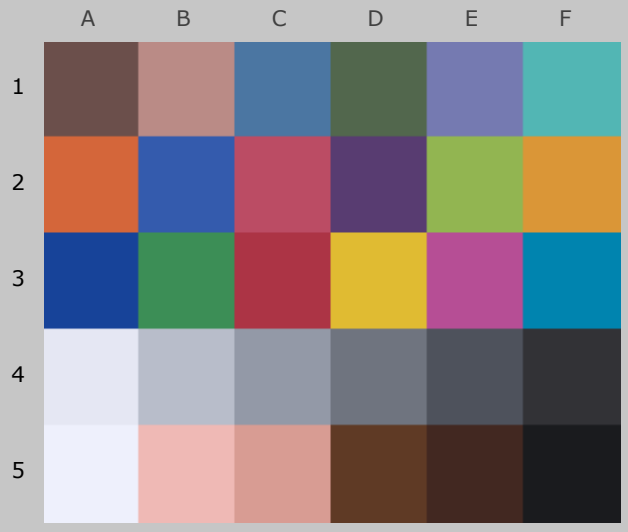
95.4$_{color}$ /98.3$_{tone}$



Original Print Colors
(measured before light exposure)



Colors after 10 Megalux-hours
light exposure

Epson R1800 Printer, MIS R800 Ultrachrome Equivalent Ink, Red River Ultra Pro Gloss Plus

10 Mlux-hrs Light Exposure (i.e., after) Compared to Original Print Colors (i.e., before)

				L*		a*		b*	
Column/row	Color Patch	I*Color	ΔE	Before	After	Before	After	Before	After
A1	dark Skin	93.6	1.5	36.4	36.6	12.9	12.2	7.9	6.6
B1	light Skin	92.9	2.1	62.1	62.5	18.4	17.6	11.8	9.9
C1	blue sky	98.0	1.1	47.5	47.9	-4.3	-4.7	-27.7	-28.6
D1	foliage	93.5	1.7	40.7	41.0	-11.7	-12.4	13.7	12.2
E1	blue flower	99.2	0.8	52.0	52.4	8.8	8.1	-29.5	-29.7
F1	bluish green	96.8	1.6	67.7	68.0	-31.1	-31.3	-6.7	-8.2
A2	orange	97.9	1.8	56.4	56.6	42.9	41.7	46.8	45.5
B2	purplish blue	99.5	0.8	39.0	39.4	8.9	8.2	-49.4	-49.2
C2	moderate red	96.1	2.4	48.2	48.4	47.3	46.7	12.5	10.2
D2	purple	98.1	1.2	30.2	30.5	21.7	21.4	-25.4	-26.5
E2	yellow green	97.6	1.8	69.0	69.5	-22.9	-23.6	48.0	46.4
F2	orange yellow	98.2	1.7	67.5	67.8	21.6	20.4	59.0	58.0
A3	blue	99.8	0.7	29.3	29.6	12.4	11.8	-51.8	-51.8
B3	green	97.3	1.7	52.4	52.9	-35.7	-36.5	23.6	22.2
C3	red	96.5	2.4	41.1	41.2	50.6	49.9	21.5	19.2
D3	yellow	98.2	1.8	77.2	77.7	4.7	3.6	70.5	69.1
E3	magenta	97.5	1.8	48.8	49.1	49.0	48.6	-16.1	-17.9
F3	cyan	99.1	1.0	48.8	49.3	-27.5	-27.7	-33.1	-34.0
A4	white	81.5	2.3	91.7	91.8	1.5	0.6	-7.7	-5.7
B4	neutral 8	97.6	0.8	76.1	76.5	0.7	0.1	-6.7	-7.1
C4	neutral 6.5	92.1	1.3	62.8	63.3	0.6	0.0	-6.6	-7.8
D4	neutral 5	85.3	2.0	48.1	48.7	0.5	-0.1	-5.1	-6.9
E4	neutral 3.5	94.1	1.1	34.4	34.8	0.2	-0.1	-5.5	-6.5
F4	black	100.0	0.3	20.4	20.6	0.8	0.5	-3.4	-3.4
A5	paper white	74.0	3.0	94.9	94.9	1.9	0.9	-8.7	-5.9
B5	skin highlight L*=89	95.2	1.7	79.5	79.9	20.9	20.0	11.6	10.3
C5	skin highlight L*=75	92.5	2.7	69.8	70.2	23.2	22.4	16.3	13.8
D5	skin shadow L*=25	100.0	0.5	28.6	28.8	15.0	14.6	19.9	19.5
E5	skin shadow L*=11	100.0	0.3	19.2	19.4	12.5	12.4	10.5	10.3
F5	Max Black	100.0	0.2	9.7	9.6	0.0	0.0	-1.8	-1.6

Summary Results	I*Color	I*tone	ΔE
Average Score for all patches	95.4	98.3	1.5
Average Score for the Worst 10% (3 lowest scoring patches)	80.2	96.7	2.7

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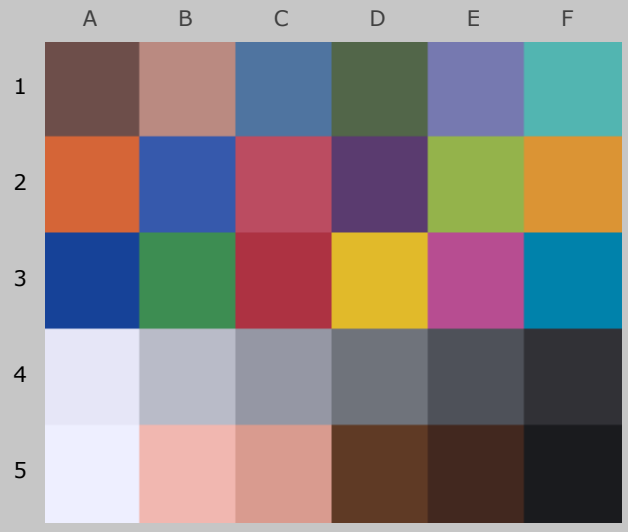
88.9 color / 97.4 tone



Original Print Colors
(measured before light exposure)

Colors after 20 Megalux-hours
light exposure

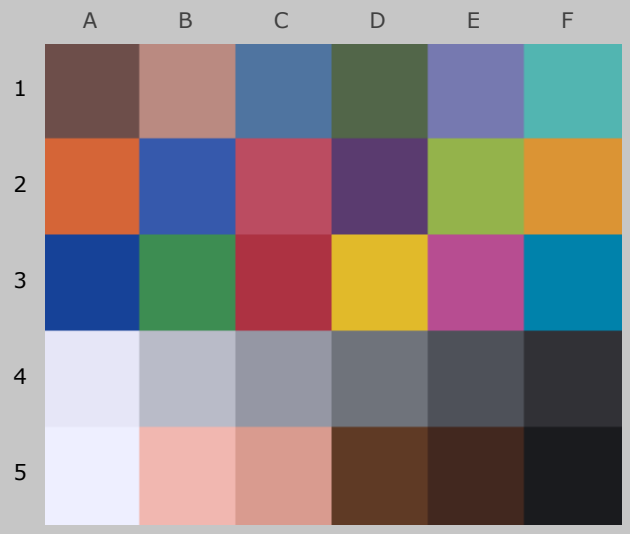
Epson R1800 Printer, MIS R800 Ultrachrome Equivalent Ink, Red River Ultra Pro Gloss Plus

20 Mlux-hrs Light Exposure (i.e., after) Compared to Original Print Colors (i.e., before)

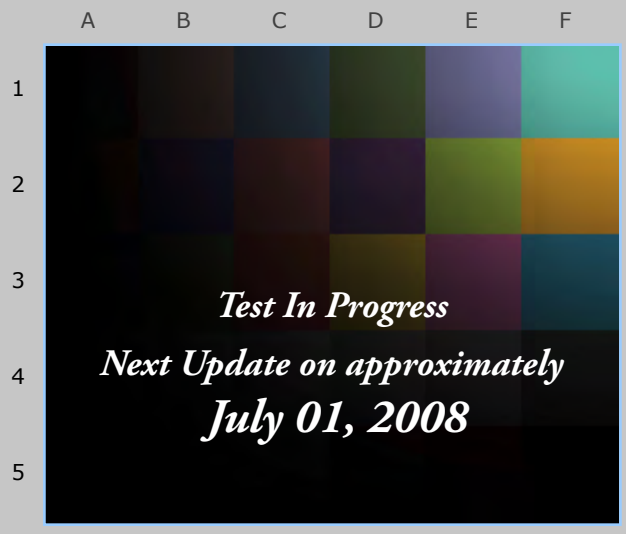
				L*		a*		b*	
Column/row	Color Patch	I*Color	ΔE	Before	After	Before	After	Before	After
A1	dark Skin	81.2	3.4	36.4	37.0	12.9	12.2	7.9	4.6
B1	light Skin	81.6	4.6	62.1	62.8	18.4	17.8	11.8	7.3
C1	blue sky	93.5	2.5	47.5	48.3	-4.3	-4.3	-27.7	-30.0
D1	foliage	83.2	3.6	40.7	41.4	-11.7	-12.5	13.7	10.3
E1	blue flower	98.3	1.2	52.0	52.7	8.8	8.2	-29.5	-30.4
F1	bluish green	89.4	3.9	67.7	68.4	-31.1	-30.7	-6.7	-10.5
A2	orange	95.7	3.2	56.4	56.8	42.9	41.4	46.8	44.0
B2	purplish blue	99.2	1.1	39.0	39.6	8.9	8.0	-49.4	-49.1
C2	moderate red	91.9	4.5	48.2	48.6	47.3	46.9	12.5	8.1
D2	purple	93.7	2.7	30.2	30.9	21.7	21.8	-25.4	-28.0
E2	yellow green	93.0	4.3	69.0	69.9	-22.9	-23.9	48.0	43.9
F2	orange yellow	95.8	3.2	67.5	68.2	21.6	19.9	59.0	56.4
A3	blue	99.7	0.9	29.3	29.9	12.4	11.8	-51.8	-52.0
B3	green	92.2	4.0	52.4	53.3	-35.7	-36.6	23.6	19.9
C3	red	93.2	4.3	41.1	41.4	50.6	50.0	21.5	17.3
D3	yellow	95.3	3.9	77.2	78.1	4.7	3.1	70.5	67.1
E3	magenta	95.2	3.0	48.8	49.3	49.0	48.9	-16.1	-19.1
F3	cyan	96.0	2.4	48.8	49.6	-27.5	-27.1	-33.1	-35.3
A4	white	75.3	2.9	91.7	91.9	1.5	0.4	-7.7	-5.1
B4	neutral 8	86.9	1.9	76.1	76.8	0.7	0.3	-6.7	-8.4
C4	neutral 6.5	71.7	3.3	62.8	63.7	0.6	0.3	-6.6	-9.8
D4	neutral 5	60.4	4.4	48.1	49.1	0.5	0.3	-5.1	-9.3
E4	neutral 3.5	78.7	2.6	34.4	35.1	0.2	0.1	-5.5	-8.0
F4	black	100.0	0.6	20.4	20.8	0.8	0.5	-3.4	-3.8
A5	paper white	61.1	4.2	94.9	95.0	1.9	0.5	-8.7	-4.8
B5	skin highlight L*=89	86.0	3.9	79.5	80.2	20.9	20.1	11.6	7.9
C5	skin highlight L*=75	82.3	5.6	69.8	70.5	23.2	22.7	16.3	10.8
D5	skin shadow L*=25	96.5	1.5	28.6	29.1	15.0	14.5	19.9	18.6
E5	skin shadow L*=11	99.5	0.7	19.2	19.6	12.5	12.3	10.5	9.9
F5	Max Black	100.0	0.4	9.7	10.0	0.0	0.0	-1.8	-1.5

Summary Results	I*Color	I*tone	ΔE
Average Score for all patches	88.9	97.4	3.0
Average Score for the Worst 10% (3 lowest scoring patches)	64.4	95.0	4.9

Aardenburg Imaging & Archives



Original Print Colors
(measured before light exposure)



Next update is for 30 Megalux-hours
light exposure

Epson R1800 Printer, MIS R800 Ultrachrome Equivalent Ink, Red River Ultra Pro Gloss Plus

30 Mlux-hrs Light Exposure (i.e., after) Compared to Initial Print Colors (i.e., before)

				L*		a*		b*	
Column/row	Color Patch	I*Color	ΔE	Before	After	Before	After	Before	After
A1	dark Skin			36.4		12.9		7.9	
B1	light Skin			62.1		18.4		11.8	
C1	blue sky			47.5		-4.3		-27.7	
D1	foliage			40.7		-11.7		13.7	
E1	blue flower			52.0		8.8		-29.5	
F1	bluish green			67.7		-31.1		-6.7	
A2	orange			56.4		42.9		46.8	
B2	purplish blue			39.0		8.9		-49.4	
C2	moderate red			48.2		47.3		12.5	
D2	purple			30.2		21.7		-25.4	
E2	yellow green			69.0		-22.9		48.0	
F2	orange yellow			67.5		21.6		59.0	
A3	blue			29.3		12.4		-51.8	
B3	green			52.4		-35.7		23.6	
C3	red			41.1		50.6		21.5	
D3	yellow			77.2		4.7		70.5	
E3	magenta			48.8		49.0		-16.1	
F3	cyan			48.8		-27.5		-33.1	
A4	white			91.7		1.5		-7.7	
B4	neutral 8			76.1		0.7		-6.7	
C4	neutral 6.5			62.8		0.6		-6.6	
D4	neutral 5			48.1		0.5		-5.1	
E4	neutral 3.5			34.4		0.2		-5.5	
F4	black			20.4		0.8		-3.4	
A5	paper white			94.9		1.9		-8.7	
B5	skin highlight L*=89			79.5		20.9		11.6	
C5	skin highlight L*=75			69.8		23.2		16.3	
D5	skin shadow L*=25			28.6		15.0		19.9	
E5	skin shadow L*=11			19.2		12.5		10.5	
F5	Max Black			9.7		0.0		-1.8	

Summary Results	I*Color	I*tone	ΔE
Average Score for all patches			
Average Score for the Worst 10% (3 lowest scoring patches)			

Notes/Comments (Continued from page 2)

April 23, 2008 –20 Megalux-hours: Loss of yellow colorant is now causing colors to shift towards blue color balance. This fading is most affecting color accuracy in the low chroma colors, especially skin tones and neutrals. Compare this result to same printer and ink but different paper in sample # AaI_20071008_SN007.

March 19, 2008 -10 Megalux-hours: Some loss of optical brightener activity (confirmed by blacklight evaluation of sample) is affecting mainly the white patches A4 and A5.