



ColorBurst RIP 5.0 Delivers Proofing Accuracy With an Average Delta E Below 1.0

ColorBurst Systems has built a new version of their ColorBurst RIP that is accurate enough to be used for high-end color proofing, with an average Delta E of less than 1.0.

Version 5 of the ColorBurst RIP Queue series (X·Photo, X·Proof, and the new X·Proof Plus for Mac OS X) incorporates significant advances in color proofing, due to major breakthroughs in ColorBurst's linearization and ink limiting technology. ColorBurst's success in the 2006 IPA Color Proofing RoundUP and certification through the new SWOP® and GRACoL® program from IDEALiance® support the detailed in-house studies that prove that the ColorBurst RIP is now capable of extremely accurate, by-the-numbers color that is among the best in the industry.

During the 2006 IPA Color Proofing RoundUP, ColorBurst and other top color proofing vendors participated in a blind test, using only colorimetric numbers to produce a proof that would visually and numerically match a press sheet. The results of the RoundUP proved that vendors who achieved a very close colorimetric match ($<1.5 \Delta E$ average, $<6 \Delta E$ maximum) also produced proofs that were a very close visual match to the press sheet. Through the IPA Proofing RoundUP, it was clearly demonstrated that proofing-by-the-numbers was a viable solution. The ColorBurst RIP ranked 5th out of 21 entries in the hardcopy proofing systems category, which included many software programs costing thousands of dollars more than ColorBurst.

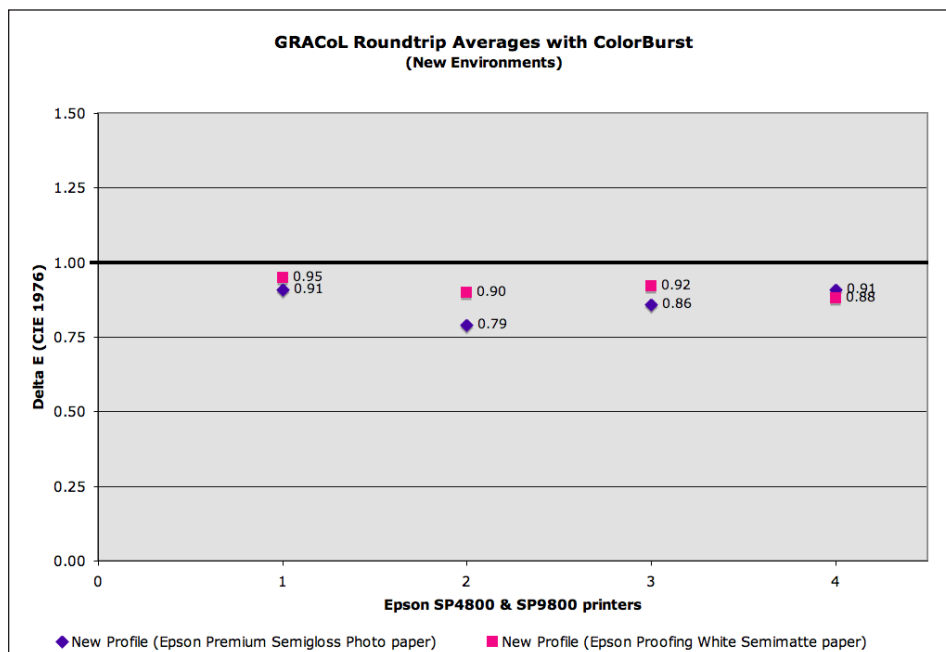


Figure 1. GRACoL Roundtrip Averages with ColorBurst using custom profiles on the Epson Stylus Pro 4800 and 9800 printers.

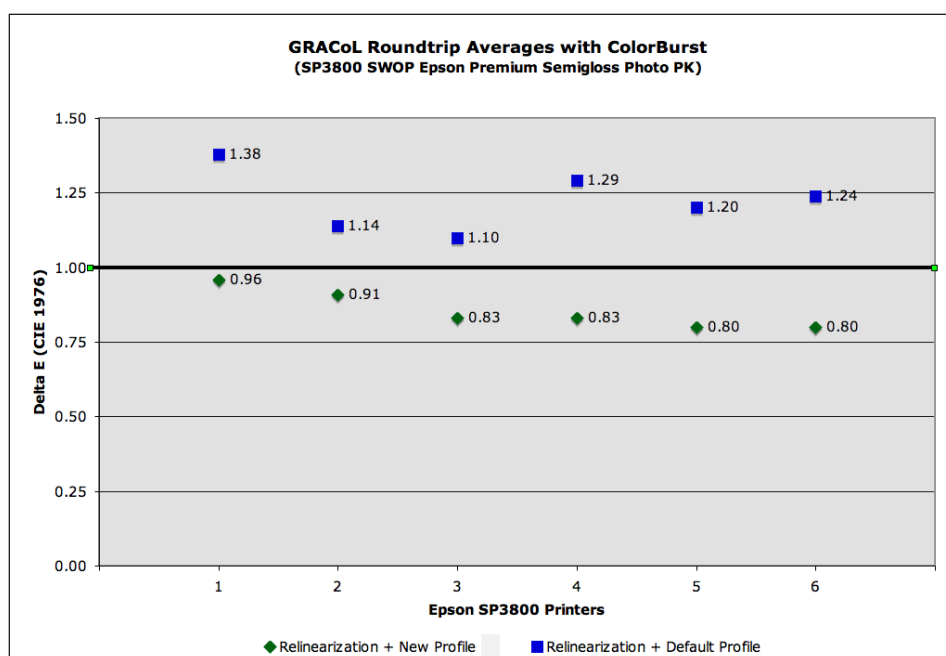


Figure 2. GRACoL Roundtrip Averages with ColorBurst on multiple Epson Stylus Pro 3800 printers; using a custom profile vs. relinearization only.

In the fall of 2006, IDEAlliance® followed suit by launching a new Proofing System Certification Program for SWOP® and GRACoL®. The new certification system is based on proofing-by-the-numbers with strict colorimetric tolerances (rather than purely a visual review) to ensure that each certified system can accurately match reference data from a press that has been calibrated to G7 printing conditions. This shift to using numerical data in order to determine a close visual match (which was backed by research from the IDEAlliance Print Properties Committee) is helping to raise the bar on the quality of color proofing systems. The ColorBurst RIP helped pioneer these new standards by becoming the first proofing system to pass certification by IDEAlliance with its exacting new criteria.

To further confirm that the new ColorBurst RIP could reliably achieve a tight colorimetric match across multiple printers and proofing stocks, ColorBurst

performed several internal tests. The goal was to match the GRACoL2006_Beta04 reference data from IDEAlliance (which represents a press calibrated to G7 printing conditions on a #1 proofing stock) as closely as possible in a “roundtrip” test (the same procedure used in both the IPA Color Proofing RoundUP and the IDEAlliance proofing certification for numerical verification).

Testing performed on the Epson Stylus Pro 4800 and Stylus Pro 9800 showed that an average Delta E of less than 1.0 was easily achieved on two different proofing stocks when ColorBurst’s new color matching technology was used along with a new custom ICC profile (see Figure 1).¹

Additional tests on multiple Epson Stylus® Pro 3800 printers (on which ColorBurst has been certified under the new program by IDEAlliance) showed that ColorBurst was consistently capable

of achieving an average Delta E of less than 1.0 when a custom profile was created for each printer. Without a custom profile, ColorBurst showed an average Delta E of less than 1.5 across multiple printers with nothing more than a re-linearization (see Figure 2).²

ColorBurst is committed to the development of more efficient and precise color proofing, on both the Mac OS X and Windows platforms. In addition to new color technology, ColorBurst X·Proof Plus 5.0 includes PrintCertification, new custom Color Bars, Job Titles, and custom Spot Colors. With these features, ColorBurst has reached a new level of quality and accuracy in line with the evolution of the proofing industry.

1 Tests were printed on both Epson’s Stylus® Pro 4800 and Stylus® Pro 9800 printers using the UltraChrome K3™ inkset. Both the Epson Premium Photo Semi-gloss paper and the Epson Proofing White Semimatte paper were used in testing. Linearization, profiling, and roundtrip measurements were all done with an X-Rite DTP70 (UV). ColorBurst’s SpectralVision Pro was used for measuring and creating linearization files and ICC profiles. GMB ProfileMaker’s MeasureTool was used for comparing roundtrip measurements to the GRACoL data set and reporting the calculated ΔE (CIE 1976) averages.

2 Tests were printed on multiple Epson Stylus® Pro 3800 printers using Epson Premium Photo Semi-gloss paper and the UltraChrome K3™ inkset. The SP3800 SWOP Epson Premium Semigloss Photo PK environment and ICC profile was used in the ColorBurst RIP. Linearization measurements were done with either an X-Rite DTP70 or Eye-One spectrophotometer (both with UV filter). Roundtrip measurements were all done with an X-Rite DTP70 (UV). ColorBurst’s SpectralVision Pro was used for capturing all measurements and saving files from them. GMB ProfileMaker’s MeasureTool was used for comparing roundtrip measurements to the GRACoL data set and reporting the calculated ΔE (CIE 1976) averages.