Mars 2025

Comparatif de deux imprimantes grand format : Canon imagePROGRAF TX-4200 vs. Epson SureColor SC-T7700D

Objectif du test

Canon Europe a mandaté Keypoint Intelligence pour effectuer des tests confidentiels relatifs aux performances des systèmes d'impression Canon imagePROGRAF TX-4200 (dans sa configuration à double rouleau) et Epson SureColor SC-T7700D de 44 pouces. Keypoint a produit un rapport comparant les forces et faiblesses des deux produits en ce qui concerne la qualité d'image, la productivité, l'impression de bannières et de posters, la fonction d'impression directe, l'ensemble des fonctions de l'imprimante, les fonctionnalités du pilote ainsi que la consommation d'encre. Tous les tests ont été réalisés dans le centre d'essai européen de Keypoint à Wokingham, au Royaume-Uni.

Résumé

Catégorie	Canon imagePROGRAF TX-4200	Epson SureColor SC-T7700D
Qualité d'image	✓	
Productivité	✓	
Impression de bannières		✓
Impression de posters	✓	
Envoi d'impression directe	=	=
Consommation d'encre	✓	
Ensemble des fonctions de l'imprimante	=	=
Ensemble des fonctions du pilote d'impression	=	=

✓ indique un avantage ; = indique un niveau de performance équivalent.

L'imprimante Canon imagePROGRAF TX-4200 a pris le dessus sur l'imprimante Epson SureColor SC-T7700D dans différents domaines. Outre son excellente qualité d'image, l'imprimante se démarque par les couleurs éclatantes de ses reproductions photographiques, ses densités optiques supérieures et sa gamme de couleurs plus étendue, quel que soit le type de support. Le rendu du texte et des dessins au trait était particulièrement net et homogène. Comme on peut s'y attendre de la part d'imprimantes visant les marchés de l'architecture, l'ingénierie et la construction (CAD), de la conception assistée par ordinateur (CAO) et des systèmes d'information géographique (SIG), la qualité d'image obtenue avec les deux imprimantes comblera sans peine les attentes des clients. L'imprimante Canon s'est toutefois distinguée par ses étiquettes de texte rouge vif dans les graphiques SIG (résultant de l'intégration d'une nouvelle encre magenta) et ses couleurs plus riches et plus contrastées. Les tests de productivité ont démontré un traitement plus rapide des travaux et une grande efficacité du modèle Canon TX-4200, que ce soit pour gérer des flux de production mixtes ou imprimer à partir de l'état Prêt.

Le modèle Epson revendique, quant à lui, un rendement et des vitesses supérieurs lors de l'impression de posters au format A1 en mode de qualité optimal, et une cadence plus élevée lors du test de productivité portant sur les bannières. Les deux modèles garantissent une grande productivité des employés en déplacement grâce aux puissants logiciels proposés, aux outils d'impression directe et à la prise en charge de l'impression mobile. Même si les deux imprimantes disposent l'une comme l'autre d'un ensemble de fonctions relativement riche, plusieurs fonctionnalités de l'imprimante TX-4200 (système de remplacement des cartouches d'encre à chaud, suivi automatique sans impression de codes-barres et impression sans marge sur tous les types de supports) accroissent la simplicité d'utilisation et la flexibilité des flux de travail. L'imprimante Canon TX-4200 permet de limiter les déchets et de mieux répondre aux enjeux environnementaux grâce à son emballage sans polystyrène. Elle a, en outre, consommé moins d'encre dans deux tests sur trois.

Le modèle Canon TX-4200 a été jugé le plus performant lors de notre évaluation en raison notamment de sa qualité d'image supérieure et de son excellente productivité.

Image Quality

Category	Canon imagePROGRAF TX-4200	Epson SureColor SC-T7700D
Text	✓	
Fine Lines	✓	
Halftone Range	=	=
Halftone Fill	=	=
Solid Density	✓	
AEC Graphics	=	
GIS Graphics	✓	
Colour Photographic Images	✓	
Monochrome Photographic Images	=	=
Colour Gamut (Fast/Speed)	✓	
Colour Gamut (Standard/Quality)	✓	
Colour Gamut (High/Max Quality)	✓	
Colour Gamut (Matte Coated Paper, High/Max Quality)	✓	

✓ denotes a model advantage; = denotes parity in performance. Image quality testing was conducted on Canon Standard Plain Paper 2 and Epson Universal Bond.

- The Canon TX-4200 outperformed in black and colour optical density on plain paper across all modes compared to the Epson SC-T7700D.
- On plain paper, the Canon TX-4200 consistently delivered a larger colour gamut compared to the Epson SC-T7700D. It achieved an 27.8% larger gamut volume in Fast/Speed mode (188,218 vs. 147,314), 102.5% larger gamut in Standard/Quality mode (306,909 vs. 151,558), and 90.5% larger gamut in High/Max Quality settings (326,245 vs. 171,234).
- On matte coated paper in highest quality settings, the Canon model delivered a 16.1% larger colour gamut than that of the Epson unit (401,614 vs. 345,879).
- The Canon TX-4200 consistently excelled in print quality tests across text, fine lines, circles, and grids. It produced clean, crisp text legible down to 3-pt. in all modes, with no bleed. The Epson SC-T7700D delivered legible 3-pt. text with slight ink bleed in all modes. Canon's fine lines and circles were slender and clean at 0.1-pt., while Epson's line art was less crisp owing to some slight bleed at the 0.1pt-level in Speed and Quality modes; in Max Quality, line art quality was clean and well defined. Canon delivered consistent,

well-formed 1x1 pixel grids in CMYK across all modes; Epson's grids were intact but showed inconsistent dot formation in Speed and Quality modes.

- Both devices performed well in producing smooth colour and greyscale halftones across the full range—from the 10% to 100% dot-fill levels—in all modes with distinct transitions between all levels.
- AEC graphic prints from both devices showed excellent detail in all modes. Under magnification, Canon's output was dark and clean in Standard and High, while there was slight ink bleed visible in Fast mode. Epson's output was also bold across all modes.
- The Canon TX-4200 produced high quality GIS graphics in all modes, with better standout text in red, sharp detailing and excellent depth of field for realistic 3D topographical rendering. The Epson produced a high-quality GIS map in Quality mode with comparable detailing and bright colours but in Max Quality there was less contrast and colours were slightly pale.
- The Canon TX-4200's photographic images exhibited bright, punchy colours, very good detailing and contrast, and smooth tonal transitions. Metallics and jewellery in Fast mode lacked depth and appeared less 'premium' but improved in Standard and High modes. Skin tones were warm and natural looking, overall, with a slight magenta bias in High. The Epson SC-T7700D's output had less fine detail and muted colours in Quality and Max Quality modes (although colours were bright in Speed mode); skin tones were consistently pale and lacked contrast.
- Both models produced smooth greyscale images with neutral grey tones in Standard/Quality and High/Max Quality modes. In Fast/Speed mode, the Canon delivered better contrast and detail, while the Epson appeared overly dark with some shadow detail loss. At higher quality levels, Canon's output was slightly too dark, reducing detail in darker areas, whereas Epson's images, though neutral, appeared pale and lacked depth.
- The Canon TX-4200's image quality was judged stronger overall, for its crisper text, cleaner fine lines, richer colours, more natural-looking skin tones, and larger colour gamuts. The Epson SC-T770D delivered high-quality technical output but on plain paper, text and line art suffered from slight ink bleed (under magnification) and it could not match the Canon's bright and vibrant colours and skin tones in photographic images.

Keypoint Intelligence's Colour and Greyscale Halftone Test Targets

Print Productivity

Category	Canon imagePROGRAF TX-4200	Epson SureColor SC-T7700D
First Page Out from Weekend Non-Use	✓	
First Page Out from Ready State	✓	
Throughput Speed (Fast/Speed)	✓	
Throughput Speed (Standard/Quality)	✓	
Throughput Speed (High/Max Quality)		✓
Job Stream	✓	
Dual-Roll Job Stream	✓	
A0 Throughput Speed (Standard/Quality)		✓

✓ denotes a model advantage; = denotes parity in performance.

- After a weekend of non-use, the Canon TX-4200's first page out time was 15.6% faster than that of the Epson SC-T7700D (53.29 seconds versus 63.16 seconds). Start-up time before printing began was also faster at 30.99 seconds, compared with 39.26 seconds for the Epson unit.
- The Canon device had a 25.5% faster first-page-out time of 30.03 seconds from ready state, compared with 40.32 seconds for the Epson unit. Its start-up time before printing commenced was faster, too—9.38 seconds compared with 16.27 seconds for the Epson.
- In the job stream test, designed to simulate a typical mixed workflow for a large-format unit, the Canon TX-4200 was faster than the Epson SC-T7700D in all modes; it was 40.9% faster in Fast/Speed, 28.0% faster in Standard/Quality mode, and 5.4% faster High/Max Quality mode.
- As both models offer a dual-roll design, a further job stream test was conducted. This involved sending the same files as alternate jobs to different rolls so to test both models' efficiency when switching between rolls. The Canon TX-4200 was 33.4% faster than the Epson in Fast/Speed mode.
- In the 12-page colour DWF test, the Canon model was faster than the Epson unit in two modes tested; it was 29.5% faster in Fast/Speed mode, 3.6% faster in Standard/Quality mode, but 2.3% slower in High/Max Quality mode.
- Similarly, when printing the 12-page DWF test file in monochrome, the Canon TX-4200 was 29.6% faster in Fast/Speed mode; 5.7% faster in Standard/Quality mode, but 3.0 slower in High/Max Quality mode than the Epson device.
- In the single-page A0-size test, the Canon delivered a first-page-out time of 87.12 seconds in Standard/Quality, 7.3% faster than that of the Epson (94.00 seconds). It was, however, 3.7% slower to print five A0-size pages (390.46 seconds versus 376.65 seconds for the Epson).

Banner Printing

Category	Canon imagePROGRAF TX-4200	Epson SureColor SC-T7700D
Image Quality	=	=
Productivity (Fast/Speed)		✓

✓ denotes a model advantage; = denotes parity in performance.

- The Canon TX-4200 took 32.05 seconds to generate a preview at the desktop, with an additional print time of 3:38.95 from preview to final paper cut. In contrast, the Epson SC-T7700D took 1:13.84 to create a preview, and a further 1:51.90 to complete the process.
- As the models' output exhibited minimal banding, the banner was printed again with unidirectional feature enabled. The Canon model printed the banner in a similar time of 3:40.79, while the Epson took 2:02.00.

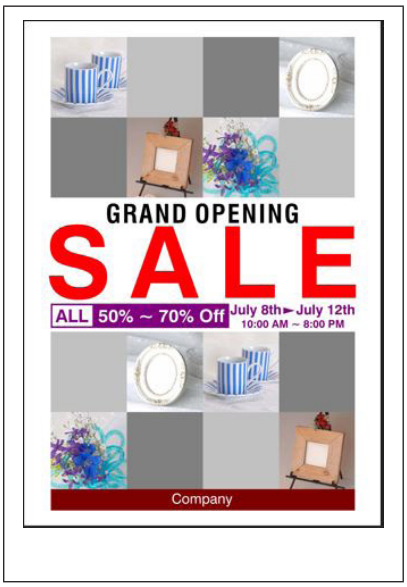
Keypoint Intelligence's 106" x 36" Banner Test Target (4,955-KB PDF)

Poster Printing

Category	Canon imagePROGRAF TX-4200	Epson SureColor SC-T7700D
Image Quality	=	=
Productivity (Fast/Speed)	✓	
Productivity (Standard/Quality)	✓	
Productivity (High/Max Quality)		✓

✓ denotes a model advantage; = denotes parity in performance.

- When printing the A1-sized Poster test target in Fast/Speed mode at 300 dpi, the Canon TX-4200 took 32.98 seconds to complete the job, while the Epson SC-T7700D took 38.42 seconds.
- Banding was evident on both models' output printed in Fast/Speed mode. When unidirectional printing was selected in the Canon driver, banding was largely eliminated with a print time of 42.56 seconds. On the Epson, minimal banding was still visible, and it took 43.79 seconds when operating in unidirectional mode.
- The Canon model took 45.04 seconds to print the poster in Standard mode at 600 dpi, while the Epson took 51.32 seconds in Quality mode.
- When printing the poster in High/Max Quality mode, the Canon model completed the job in a time of 1:35.76, slightly slower than that of the Epson unit (1:16.85).
- At the higher quality modes, there was no observable banding on output from both models.



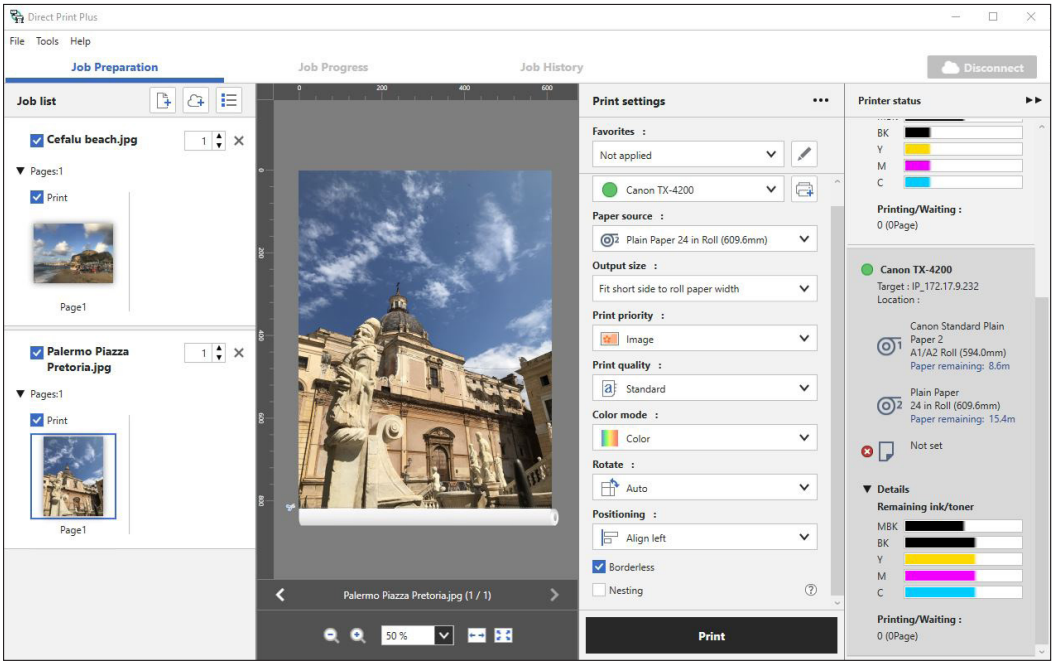
Keypoint Intelligence's A1 Poster Test Target

Direct Print Submission

Category	Canon imagePROGRAF TX-4200	Epson SureColor SC-T7700D
Direct Print Submission	=	=
Mobile App Integration	=	=

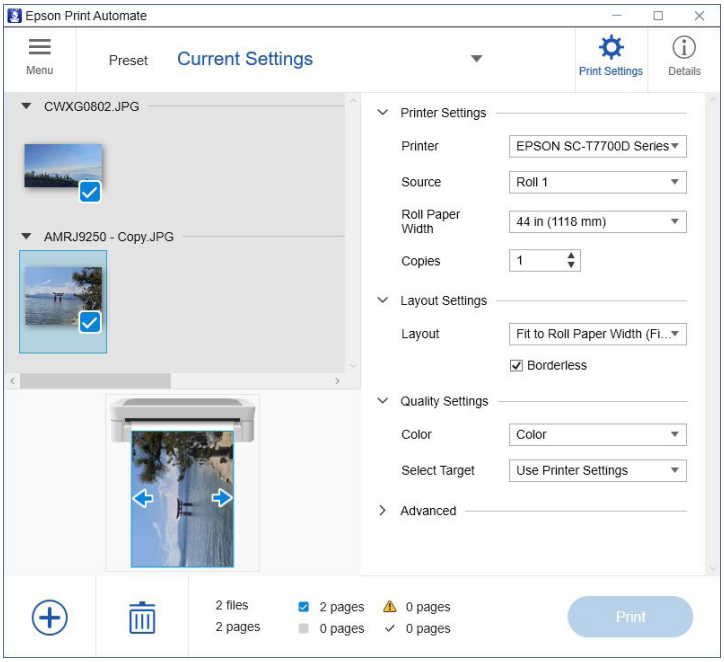
✓ denotes a model advantage; = denotes parity in performance.

- Canon's Direct Print Plus, powered by a proprietary PDF engine, simplifies PDF file processing and printing with its intuitive interface. The Job Preparation tab, which serves as the home screen, provides quick access to job settings, previews, and printer status information, removing the need to rely on the Status Monitor. Bidirectional communication with the printer minimizes the risk of media mismatches, while built-in cloud integration lets users access files directly from services like Dropbox, OneDrive, Google Drive, and Box for added convenience.
- Direct Print Plus supports direct printing of PDF, JPEG, TIFF, and HPGL/2 files without requiring native applications or print drivers. Users can reprint jobs with the same settings as the original print, and the Job Progress tab provides real-time visibility into the number of pages printed, improving operator oversight. Additionally, the utility links with Canon Accounting Manager to help users track project costs efficiently.
- Shortcut Print functionality allows users to create customizable desktop shortcuts. These shortcuts enable drag-and-drop file printing with predefined settings, mimicking a hot folder workflow. Multiple shortcuts can be created, each tailored to specific workflows, making repetitive tasks faster and more consistent.



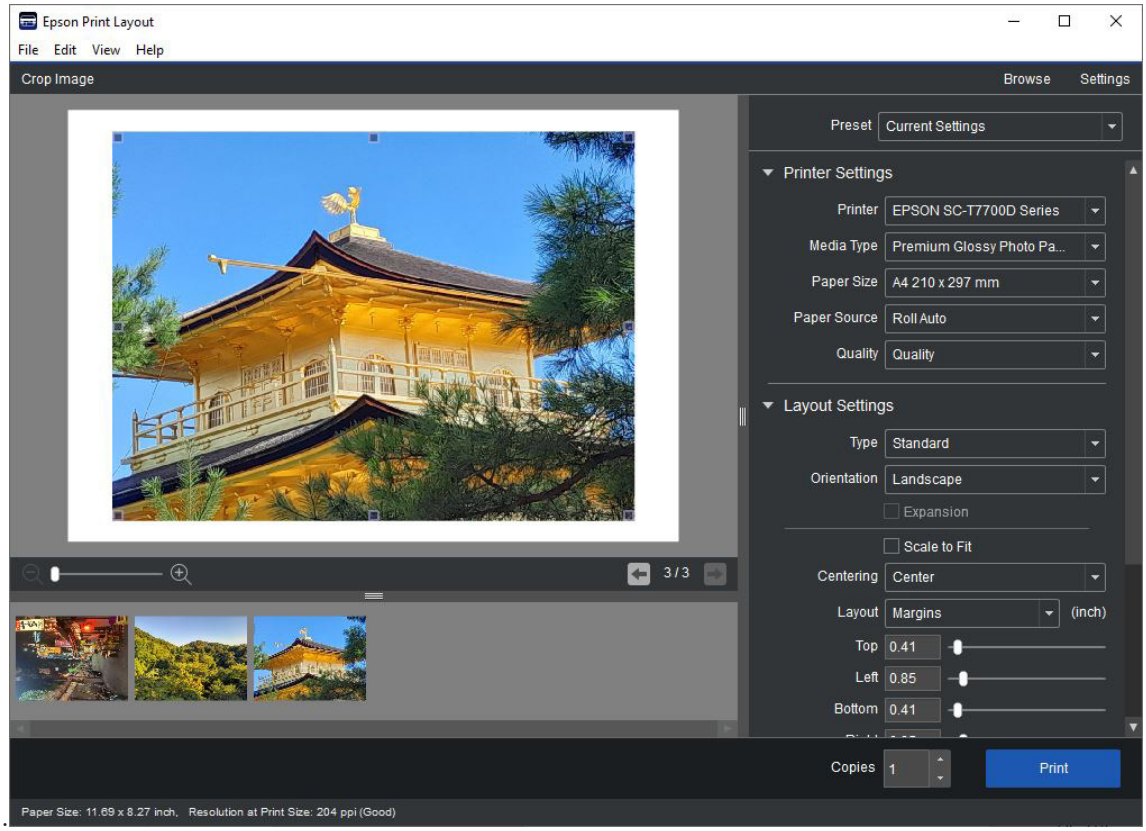
Canon Direct Print Plus

- Epson Print Automate enables users to print a PDF, JPEG, or TIFF file using shortcuts, without opening applications. It enables users to set individual options such as print size, rotation, print quality and number of copies before printing, with the ability to save job settings as presets.



Epson Print Automate

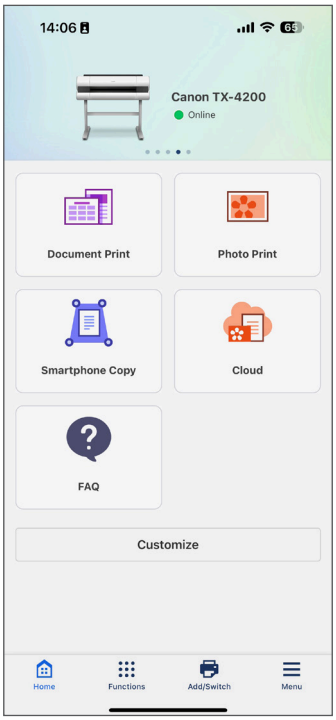
- Epson users can download Epson Print Layout, a free utility, from the vendor's website which enables the direct printing of JPEG and TIFF files. Users can preview print layouts, view thumbnail images of multiple print jobs, and select colour management and print settings directly within the utility. Users can also save job settings as presets (more than 100 presets can be saved) for easy repeat work.



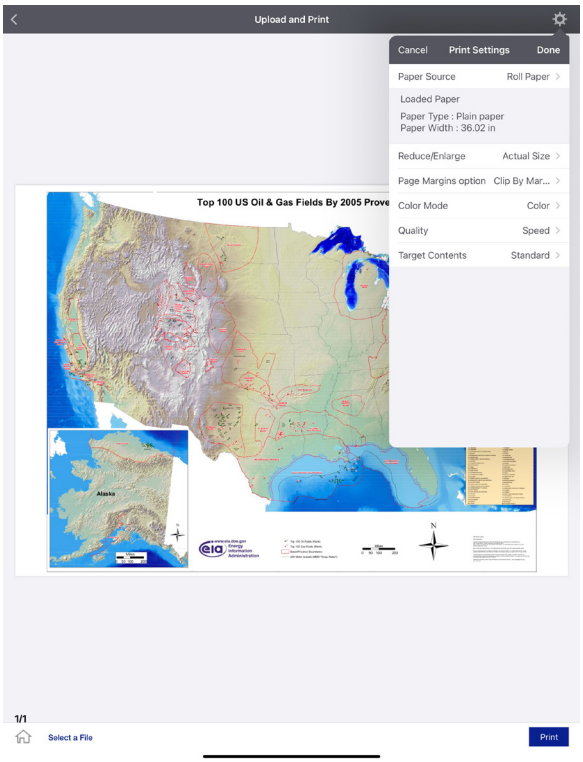
Epson Print Layout

- Both Canon PRINT and Epson Smart Panel mobile print apps enable wirelessly printing to compatible large-format printers on the same WiFi network. With clean interfaces, extensive print settings, and integration with cloud storage services, both apps streamline mobile printing. Canon Android users will need to use Canon Print Service app to print from their smart devices; the Epson Smart Panel app is compatible with iOS and Android platforms.

- Both models support mobile printing via AirPrint for added convenience.



Canon PRINT Mobile Print App



Epson Smart Panel Print App

Ink Consumption

Keypoint Intelligence technicians noted that the inherent variability of inkjet technology—such as unpredictable head flushing and calibration routines—can lead to differing test results at different times. While every effort is made to ensure fair and consistent testing, the results should be seen as indicative of likely performance rather than a precise prediction of actual ink consumption in real-world conditions.

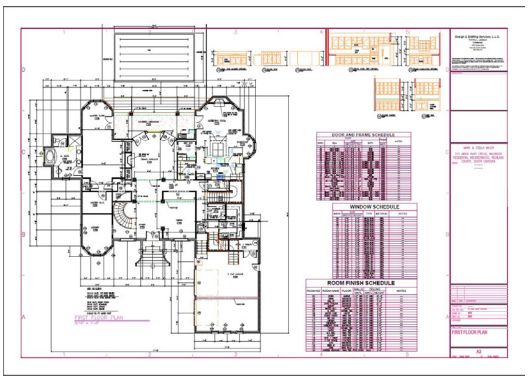
Overall Weight of Ink Used (in Grams)

Document Type	Canon imagePROGRAF TX-4200	Epson SureColor SC-T7700D
Cottage Architectural Plan	42.1	35.7
ISO Office Poster	85.2	149.1
GIS Map	81.4	83.0

✓ denotes a model advantage; = denotes parity in performance.
Results are averaged across three sets of 50-page A0 printing in Standard/Quality mode.

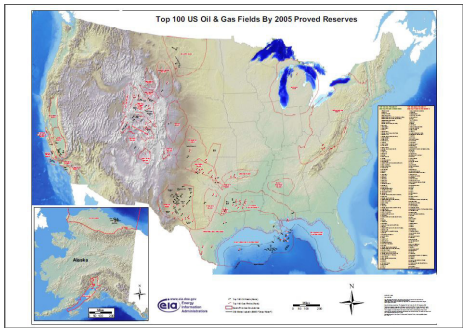
- The Canon TX-4200 device used 17.9% more ink than the Epson SC-T7700D when printing a Cottage Architectural Plan test target on plain media. This translates to the Canon device using 1.1% of its total available ink, while the Epson used 1.5%.

- In the ISO Poster test conducted on matte coated media, the Canon unit used 42.9% less ink compared with the Epson device. In this print scenario, it used 2.3% of its total available ink, while the Epson used 6.4%.
- In the GIS Map ink consumption test conducted on matte coated media, the Canon TX-4200 used 1.9% less ink compared with the Epson device; it used 2.2% of its total available ink, while the Epson model used 3.5%.



Cottage Architectural Plan

ISO Office Poster



GIS Map

Device Feature Set

- The Canon TX-4200 cartridges can be replaced during operation, minimizing downtime, a feature not available with the Epson SC-T7700D. Both models support 700 ml-capacity cartridges for all colours.
- The Canon unit's ink delivery system dispenses a larger 5-picoliter drop size versus the Epson's 3.5-picoliter ink drop size.
- The Canon TX-4200 features a fast, user-friendly media loading process with a smart roll paper set function that automates feeding after securing the roll. A proximity sensor detects the paper edge and enables the printer to complete the loading process, with minimal user input. Built-in sensors identify paper characteristics like type and thickness, saving settings for future use, though first-time media use may require the operator to select the type on the control panel.
- The Epson SC-T7700D offers straightforward media loading process at the front of the device. After raising two spindle lock levers, the user can lift out the entire spindle, remove the media guide edge and slide the new media roll on before reinserting the spindle on the device. The printer will load the paper automatically; the operator must confirm the paper type on the control panel when using a brand-new media roll to complete the process.
- Both models offer a dual-roll design (optional with the Canon, standard on the Epson) for added convenience, allowing users to switch between media types or sizes without reloading. Both systems double as an auto Take-up Roll unit with bi-directional rewind, a useful feature for high-volume production, enabling multiple prints to be stored on a single roll.
- Both models support front media loading; optional stackers (if attached) must be removed for roll access.
- The Canon printer features dual sensors that measure, estimate, and display the remaining roll length on its touchscreen. This feature eliminates barcode printing and reading for partially used rolls, and alerts

operators if there's insufficient media to complete a job, reducing the risk of unexpected runouts. Epson users can enable paper tracking capabilities which allows a remaining media information barcode to be printed on a partially used roll's edge before its removal from the device.

- The Canon TX-4200 supports borderless printing regardless of what media is being used, with a media sensor detecting the edges and automatically adjusting the margin, so there is no ink waste; users can choose free size or three-sided borderless. The Epson SC-T7700D supports borderless printing as well with select media and common media widths.
- The Epson unit supports a higher maximum printable paper roll length of 91 m compared with 18 m (depending on OS and application) for the Canon unit.
- Both models come with a catch bin/basket to collect output from media rolls. Canon's catch basket can be arranged in different positions to suit the paper size and quantity being produced, and whether the roll unit is employed.
- The Canon TX-4200 supports a high-capacity stacker capable of collating up to 100 A0- or A1-sized CAD prints. Mixed size prints cannot be accommodated. It easy to attach by wheeling it into place but operators must remove the stacker assembly to access the front-loading roll mechanism. A production stacker option is available with the Epson model.
- Both devices behave in a similar way when they run out of paper during a print job; they will pause and alert the operator, resuming printing from the start of the interrupted page after a new roll is installed. This approach minimizes ink and paper waste.
- The Canon TX-4200 automatically places jobs requiring unavailable media on hold while continuing to print other compatible jobs. Once the correct media is loaded, the held jobs are printed. Epson users will see a driver alert next to the media selection when an incompatible media type is chosen. On attempting to print, a pop-up window further warns the user about the mismatch, enabling them to cancel the job or proceed with printing.
- PRISMAproduce Tech is an application for production environments, allowing users to manage and submit jobs from a browser to multiple printers. Canon users can also standardize print results using templates.
- Canon's Device Management Console allows users to check the status of the TX-4200 when connected to a network or USB as well as conduct colour calibration routines. Cloud-based Epson Edge Dashboard enables Epson users to monitor and view device and consumable status for all networked SureColor devices. It also offers error conditions and allows printhead cleaning and maintenance routines to be performed remotely from the utility.
- The Canon device utilizes 2 GB of physical RAM and includes a built-in 500 GB encrypted hard drive for secure document storage and improved spooling workflow. The Epson model employs 4 GB of RAM and has an optional 1-TB SSD hard drive.
- The Canon model is lighter, with a net weight of 112 kg compared to the Epson's 155 kg; it has slightly higher active power consumption at 87 watts versus the Epson's 70 watts.
- The Canon TX-4200 does not feature any polystyrene foam in its packaging, minimizing waste, whereas the Epson unit's packaging utilizes it.

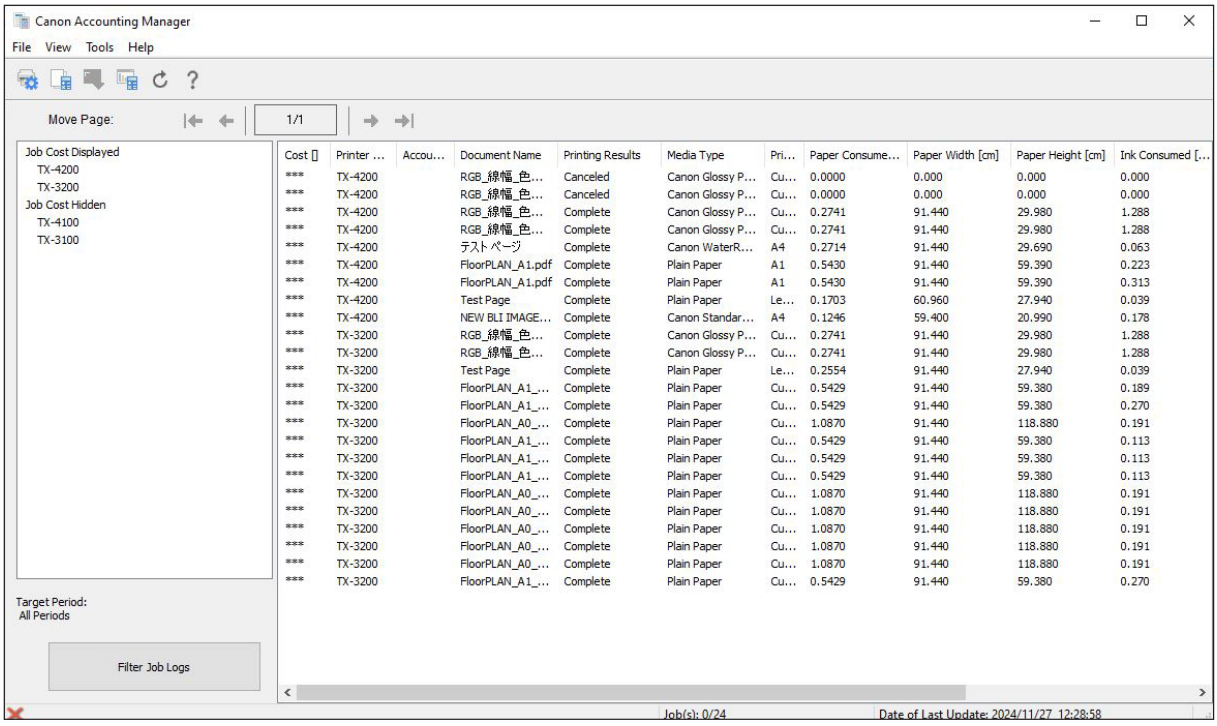
The Canon TX-4200's packaging contains no polystyrene.

The Epson SureColor SC-T7700D's packaging with polystyrene.

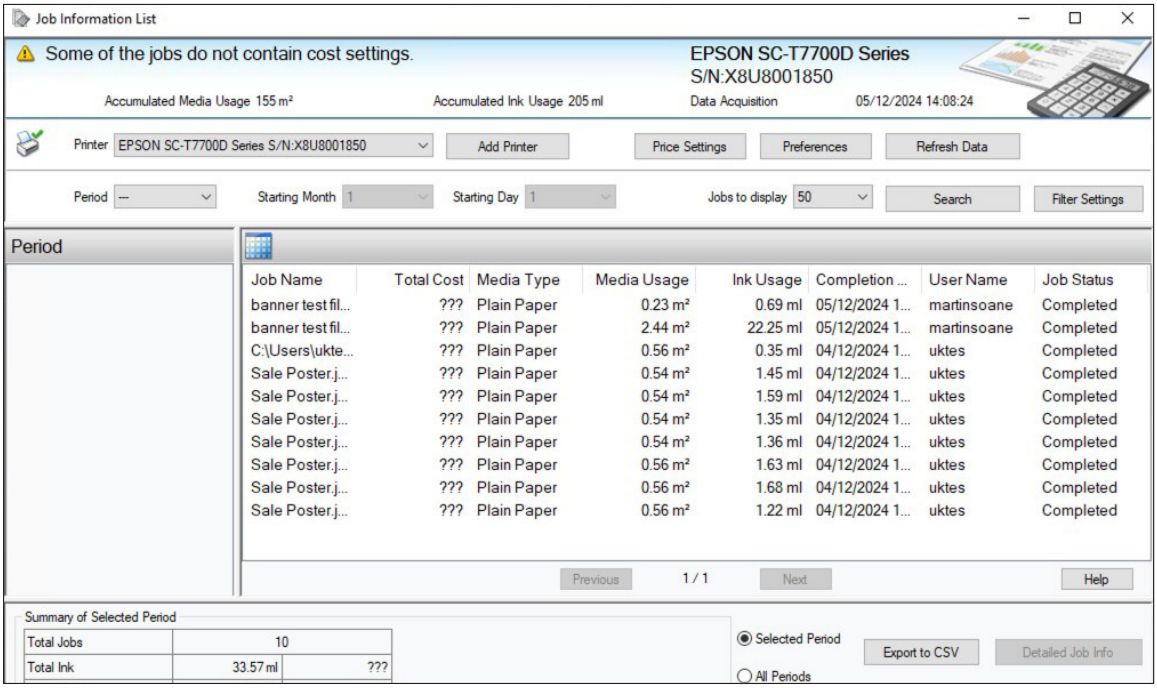
Driver Feature Set

- Both models offer a variety of speed settings and an intuitive overview of selected job settings; the Canon driver offers more media profiles while the Epson features more predefined print profiles.
- Canon's Media Configuration Tool allows for new custom media types to be registered based on custom media information added to the printer, and users can also organize media shown on the control panel or driver, rename and show/hide information. The Epson Media Installer utility (which can be linked via the Utility tab in the printer driver) allows users to create and store additional custom media profiles for use when printing on third-party media or paper that's not supported in the printer driver.

- The Epson driver provides a handy thumbnail preview for users to check the effects on the image as they make colour adjustments in real-time, a feature not available in the Canon driver.
- Canon also provide an additional driver (Driver Select) for Canon Production Printing product users, who can program print settings in a single window following the output workflow from paper selection through layout to finishing.
- Canon offers a watermark capability (not available with the Epson drier), and a maximum 16-up printing with only 2-4 multi-up printing supported on the Epson. It offers a more limited 2x2 poster mode, with the Epson offering 4x4 posters.
- Both printers support unidirectional printing to help reduce and eliminate banding issues in print output. When 'High Speed' feature is disabled in the Epson driver, the printer switches unidirectional mode.
- The Canon driver, available in both 64-bit and 32-bit versions, includes the Color imageRUNNER Enlargement Copy Mode utility. This feature integrates a Canon small-format MFP with the TX-4200, allowing scanned documents to be automatically routed to a monitored hot folder, resized, and printed. This streamlined tool simplifies poster creation for office users.
- The Canon model includes a Microsoft Office plug-in that provides features such as automatic media resizing, nesting, and borderless printing. Epson offers similar free software, LFP Print Plug-in for Office, which adds a 'ribbon' to the Microsoft Office application menu. It offers buttons for fast printing and for printing non-standard size banners in Word, PowerPoint, and Excel (the latter without the banner printing).
- Canon's Accounting Manager, accessible through the Status Monitor, provides detailed accounting for all print jobs. Users can input ink and media costs to automatically calculate and display job costs, along with media type, print area, ink usage, and total print time. Detailed reports can be generated by selecting individual or multiple jobs, with data exportable in .CSV format for use in Excel. Epson offers the free LFP Accounting Tool which automates accounting for SureColor users. In addition to tracking the costs of ink and media, the utility can track ancillary costs such as lamination, labour, and transportation.

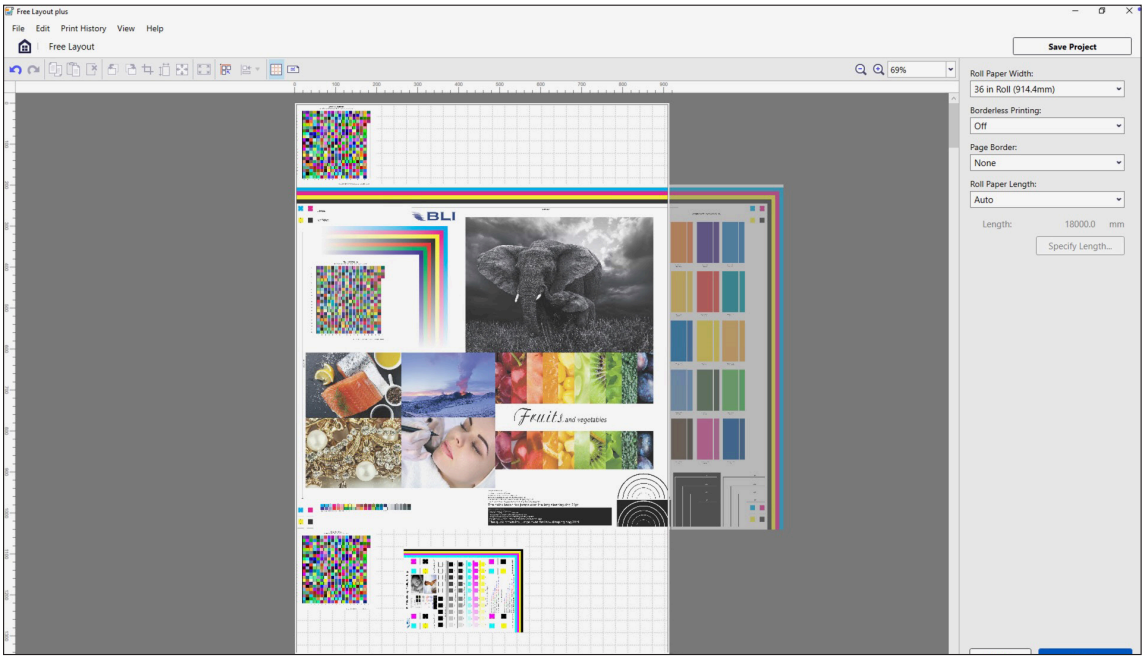


Canon Accounting Manager



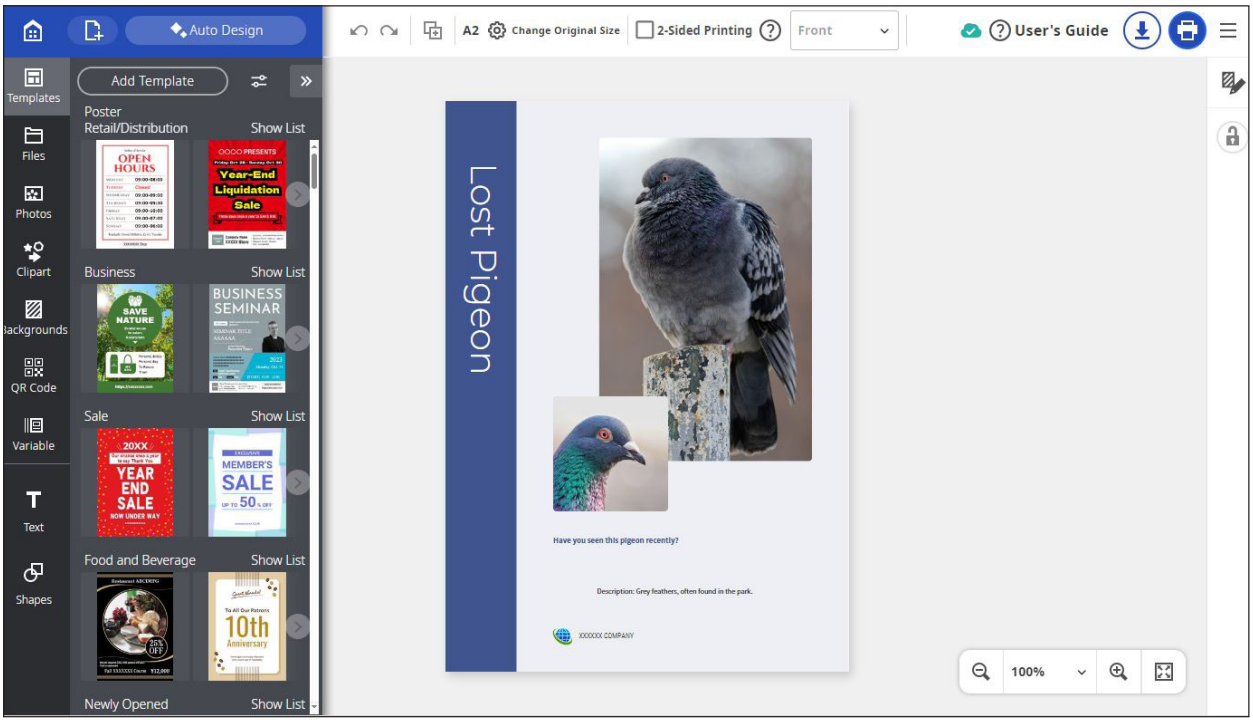
Epson LFP Accounting Tool

- Canon's Free Layout plus software allows users to scale, resize, and group files from different applications into a single job directly from the printer driver. With drag-and-drop functionality, images can be precisely positioned on a single page, reducing paper waste.



Canon's Free Layout plus

- Canon's web-based PosterArtist is a user-friendly tool for creating posters and signage. It provides access to stock photo services like Pixabay, Pexels, and Unsplash, and a wide selection of royalty-free images. The software also offers a variety of pictographic icons and templates sorted by type and event, and supports multi-language poster creation with 900 common expressions across 10 languages.
- Within PosterArtist, users can use Free Layout plus tool enables efficient media use by allowing custom arrangement of files and correct double-sided printing orientation for when folding is required. Epson's Print Layout utility offers resizing options and combines multiple documents for single-layout printing.



Canon PosterArtist Web

SUPPORTING TEST DATA

Print Productivity

Job Stream (in Seconds)

Canon imagePROGRAF TX-4200		Epson SureColor SC-T7700D	
Fast	478.82	**Speed**	810.75
Standard	797.81	**Quality**	1,108.00
High	1,552.18	**Max Quality**	1,640.66

Keypoint Intelligence's job stream consists of nine files, including PDF, TIFF, and DWF files, for a total of 19 pages, all at Arch D-size, ensuring that the files are set to fit to page. This test replicates the type of traffic a typical wide-format device might experience in a real-world, multi-user environment. All files are submitted to the controller in a specific order and sent to the printer as a group, at which time the stopwatch begins; timing ends when the last page of the last file exits the device. Both devices were loaded with 914 mm rolls, with each file set to auto-rotate to save media.

Job Stream, Dual Roll (in Seconds)

Canon imagePROGRAF TX-4200		Epson SureColor SC-T7700D	
Fast	775.00	**Speed**	1,163.26

Keypoint Intelligence's dual-roll job stream consists of nine files, including PDF, TIFF and DWF files, for a total of 19 pages, all at Arch D-size, ensuring that the files are set to fit to page. This test replicates the type of traffic a typical wide-format device might experience in a real-world, multi-user environment. All files are submitted to the controller in a specific order and sent to the printer as a group, sending alternate jobs to different rolls, at which time the stopwatch begins; timing ends when the last page of the last file exits the device. Both devices were loaded with 914 mm rolls.

Colour Output (in Seconds)

Canon imagePROGRAF TX-4200		Epson SureColor SC-T7700D	
Fast	284.87	**Speed**	404.10
Standard	529.82	**Quality**	549.86
High	946.13	**Max Quality**	925.17

The 12-page DWF test file was printed using the device driver set to the plain paper/colour setting. Both devices were loaded with 914-mm rolls. The actual time indicated is the time it took to RIP, image, and deliver all pages of the test document to the collection bin.

Monochrome Output (in Seconds)

Canon imagePROGRAF TX-4200		Epson SureColor SC-T7700D	
Fast	284.49	**Speed**	404.07
Standard	517.63	**Quality**	548.95
High	938.40	**Max Quality**	911.47

The 12-page DWF test file was printed with the Canon driver set to the plain paper/monochrome setting and the Epson driver set to plain paper, black mode. Both devices were loaded with 914-mm rolls. The actual time indicated is the time it took to RIP, image, and deliver all pages of the test document to the collection bin.

First-Page-Out Time After Weekend Non-Use (in Seconds)

	Canon imagePROGRAF TX-4200	Epson SureColor SC-T7700D
Time Before Printing Commences	30.99	39.26
First Page Out	53.29	63.16

First-page-out time was measured by printing an Arch D-size PDF in Speed mode, timed from job release to page out. The Canon driver was set to plain paper/monochrome, the Epson driver to plain paper/black mode, with both devices loaded with 914-mm rolls.

First-Page-Out Time from Ready State (in Seconds)

	Canon imagePROGRAF TX-4200	Epson SureColor SC-T7700D
Time Before Printing Commences	9.38	16.27
First Page Out	30.03	40.32

First-page-out time was measured by printing an Arch D-size PDF in Speed mode, timed from job release to page out. The Canon driver was set to plain paper/monochrome, the Epson driver to plain paper/black mode, with both devices loaded with 914-mm rolls.

A0 First-Page-Out and Throughput Times (in Seconds)

	Canon imagePROGRAF TX-4200	Epson SureColor SC-T7700D
First Page Out	87.12	94.00
Five Pages Out	390.46	376.65

A single-page A0-size Cottage Architectural Plan DWG TrueView Drawing test file was printed with the device driver set to the plain paper/colour setting in Standard/Quality mode. The actual time indicated is the time it took to RIP, image, and deliver five pages of the test document to the collection bin.

Colour Print Quality

Colour Optical Density Evaluation

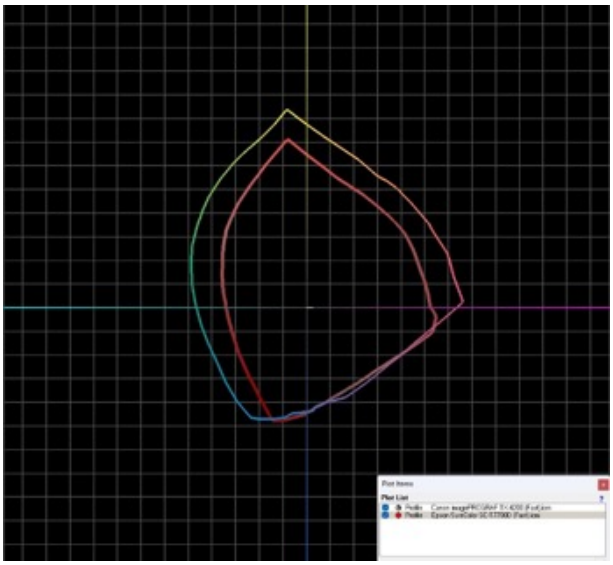
Canon imagePROGRAF TX-4200						
	Fast		Standard		High	
	50%	100%	50%	100%	50%	100%
Cyan	0.50	1.05	0.57	1.30	0.58	1.33
Magenta	0.49	1.04	0.58	1.35	0.59	1.37
Yellow	0.34	0.90	0.53	1.04	0.53	1.07
Black	0.47	1.54	0.65	1.52	0.67	1.52

Epson SureColor SC-T7700D						
	Speed		Quality		Max Quality	
	50%	100%	50%	100%	50%	100%
Cyan	0.45	0.86	0.43	0.90	0.45	0.84
Magenta	0.32	0.80	0.33	0.86	0.35	0.88
Yellow	0.45	0.71	0.46	0.77	0.52	0.86
Black	0.59	1.06	0.62	1.22	0.64	1.34

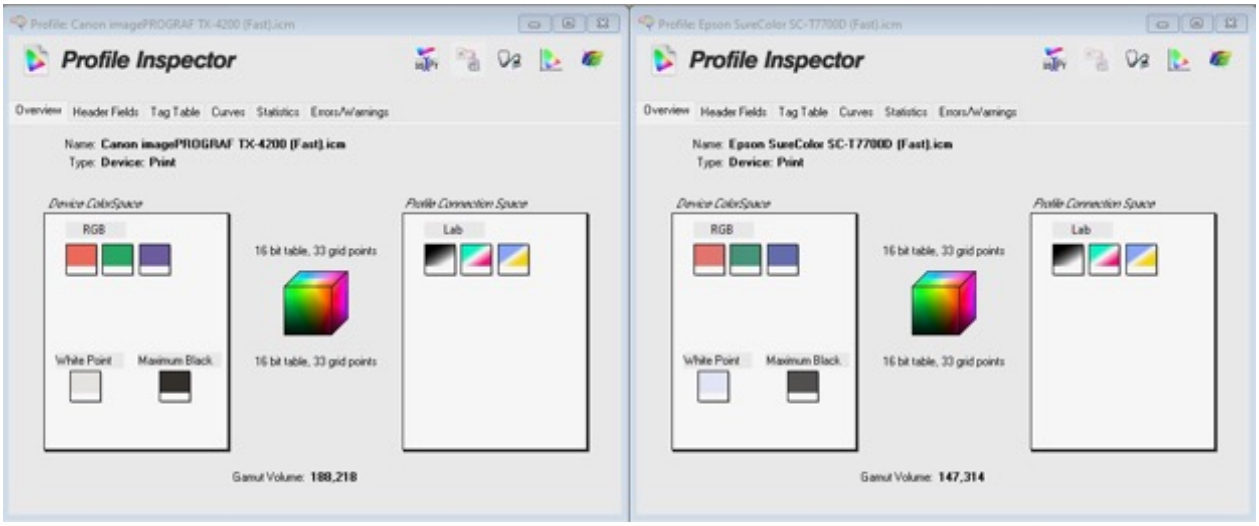
Colour density was measured by printing a Keypoint Intelligence proprietary PDF test target on plain paper using default colour settings across all quality modes. Density readings for 100% and 50% dot fills were taken with an XRite 508 and XRite exact^{Xp} densitometer.

Colour Gamut Cubic L*a*b* Unit Volume Comparisons

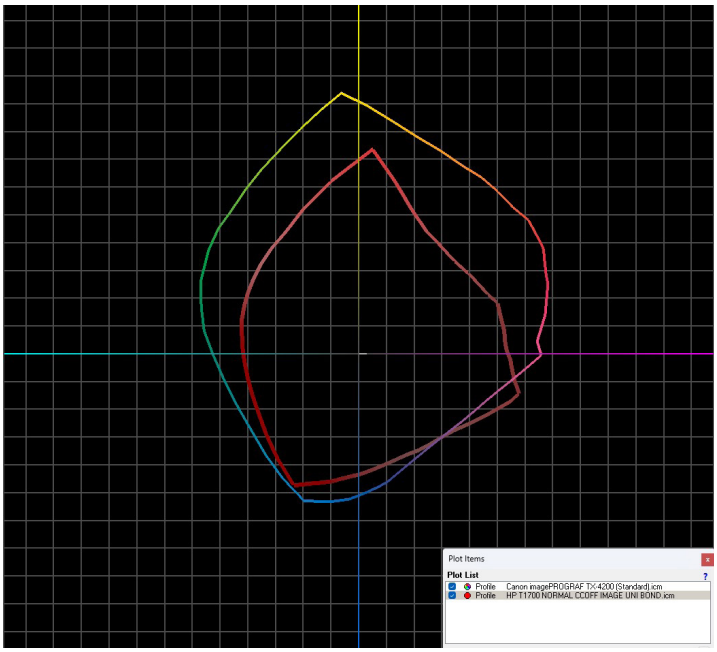
Media Type/Settings	Canon imagePROGRAF TX-4200	Epson SureColor SC-T7700D
Plain Paper Fast/Speed	188,218	147,314
Plain Paper Standard/Quality	306,909	151,558
Plain Paper High/Max Quality	326,245	171,234
Matte Coated High/Max Quality	401,614	345,879



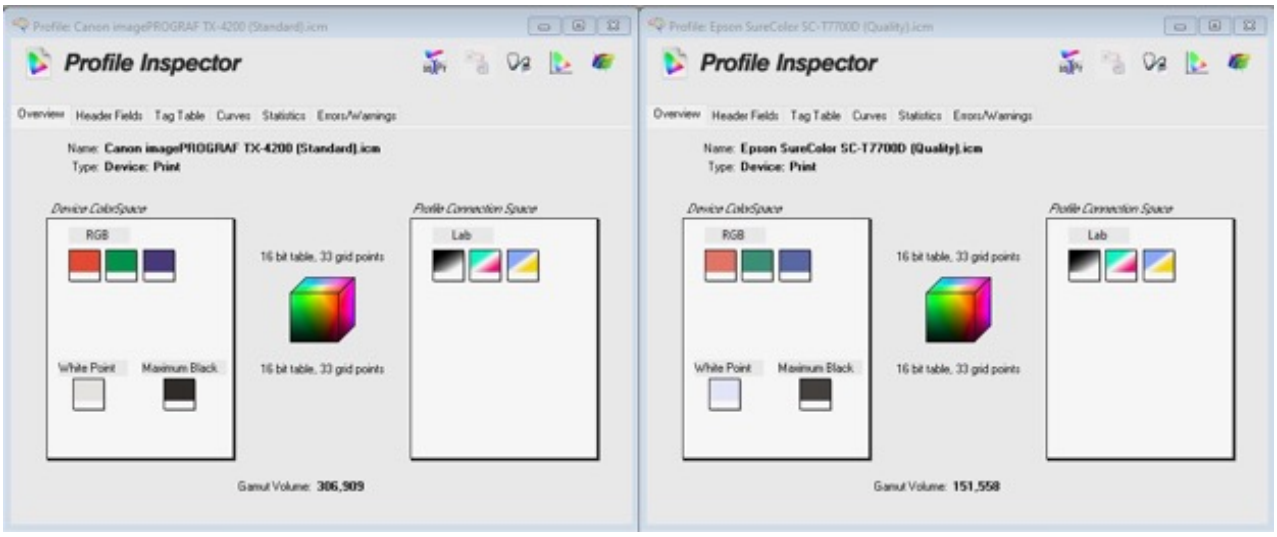
Canon imagePROGRAF TX-4200 colour gamut on plain paper in Fast settings (shown chromatically) vs. Epson SureColor SC-T7700D colour gamut (shown in red) on plain paper in Speed settings.



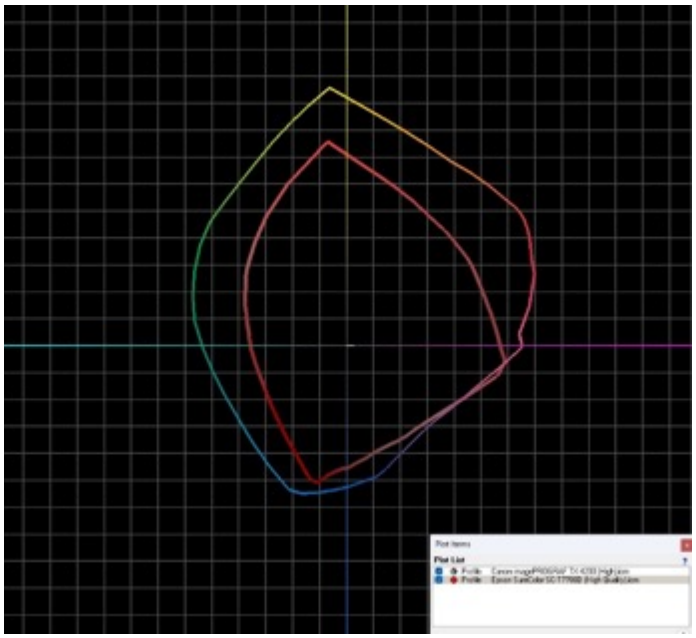
Colour gamut profile for Canon imagePROGRAF TX-4200 (left) and Epson SureColor SC-T7700D (right) on plain paper in Fast/Speed mode.



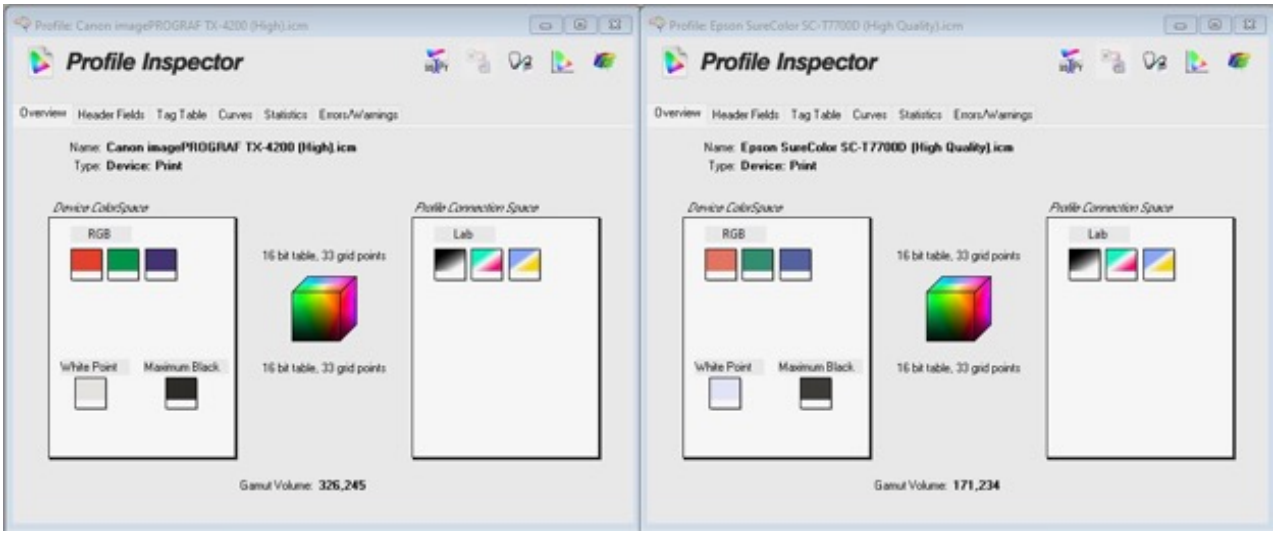
Canon imagePROGRAF TX-4200 colour gamut on plain paper in Standard settings (shown chromatically) vs. Epson SureColor SC-T7700D colour gamut (shown in red) on plain paper in Quality settings.



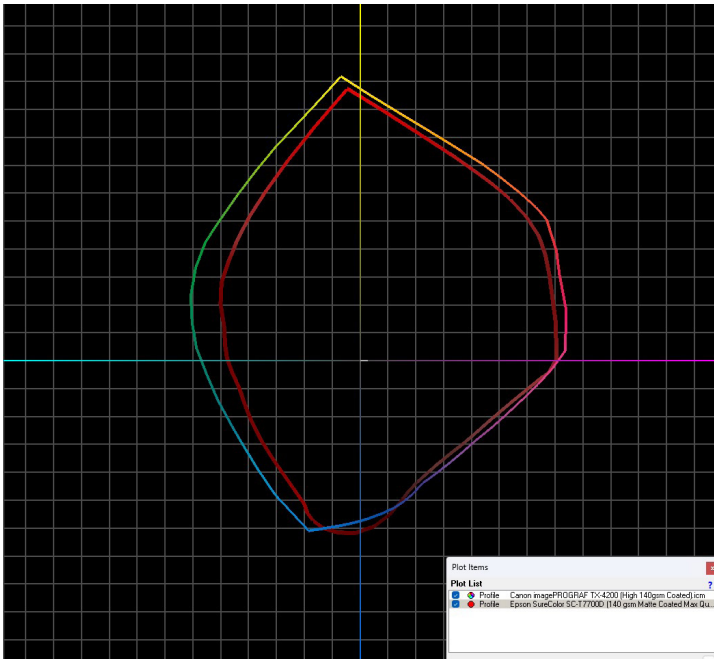
Colour gamut profile for Canon imagePROGRAF TX-4200 (left) and Epson SureColor SC-T7700D (right) on plain paper in Standard/Quality modes.



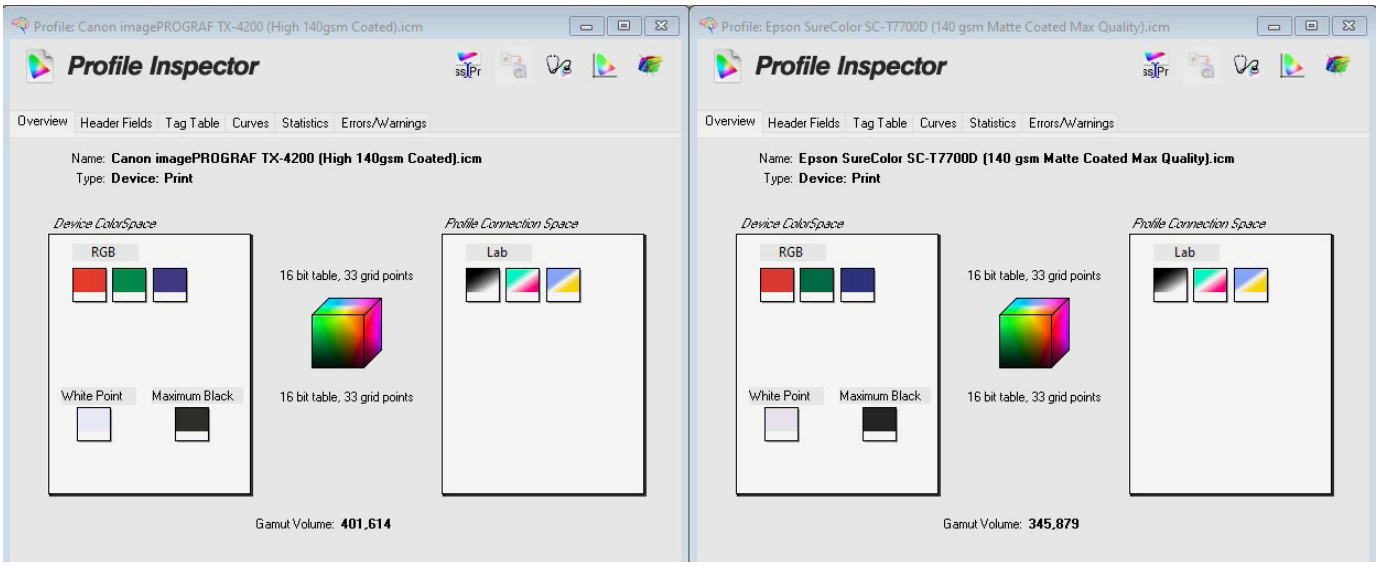
Canon imagePROGRAF TX-4200 colour gamut on plain paper in High settings (shown chromatically) vs. Epson SureColor SC-T7700D colour gamut (shown in red) on plain paper in Max Quality settings.



Colour gamut profile for Canon imagePROGRAF TX-4200 (left) and Epson SureColor SC-T7700D (right) on plain paper in High/Max Quality modes.



Canon imagePROGRAF TX-4200 colour gamut on matte coated paper in High quality settings (shown chromatically) vs. Epson SureColor SC-T7700D colour gamut (shown in red) on matte coated paper in Max Quality settings.



Colour gamut profile for Canon imagePROGRAF TX-4200 (left) and Epson SureColor SC-T7700D (right) on matte coated paper in High/Max Quality modes.

Black Print Quality

Solid Density

	Canon imagePROGRAF TX-4200			Epson SureColor SC-T7700D		
Density Block						
	Fast	Standard	High	Speed	Quality	Max Quality
1	1.51	1.54	1.54	1.09	1.26	1.33
2	1.51	1.54	1.57	1.09	1.27	1.32
3	1.46	1.54	1.52	1.09	1.30	1.34
4	1.50	1.51	1.54	1.10	1.28	1.32

Solid black density measurements are based on four readings taken from a Keypoint Intelligence proprietary PDF test target file corresponding to four different 100% solid black locations on the output. The output was assessed at all quality settings available, with the Canon driver set to plain paper/monochrome setting and the Epson driver set to plain paper, black mode. Density was measured using an XRite 508 densitometer and XRite exact^{Xp} densitometer.

Device Feature Set

Category	Canon imagePROGRAF TX-4200	Advantage ✓		Epson SureColor SC-T7700D
Ink Tanks Replaceable During Operation	Yes	✓		No
Ink Drop Size	Minimum 5 picoliter		✓	3.5 picoliter, with variable-sized droplet technology
Number of Nozzles	MBK: 5,120 nozzles; CMYK: 2,560 nozzles each; 15,360 in total	✓		1,600 nozzles per colour; 9,600 in total
Line Accuracy	+/-0.1%	✓		+/-0.26%
Maximum Printable Paper Roll Length	18 m (depending on OS and application)		✓	91 m
High-Capacity Stacker Assembly	Optional stacker offering three stacking configurations. Flatbed/folding position supports up to 100 A0 or A1 uncoated			Optional production stacker (capacity information not available)
Standard/Maximum RAM	128 GB (2 GB physical)		✓	4 GB
Net Weight (Unpacked)	112 kg (including Roll Holder Set, excluding ink and printhead)	✓		155 kg
Power Consumption (Active)	87 W		✓	70 W

Driver Feature Set

Category	Canon imagePROGRAF TX-4200	Advantage ✓		Epson SureColor SC-T7700D
Predefined Profiles	Default, Photo (Color), Poster, CAD color line drawing, CAD mono line drawing, and Perspective, GIS		✓	Standard; CAD/Line Drawing (Black, Color, Bi-Level); GIS (Black, Color); Poster/Document (Black, Color); Poster (Photo)/Perspective; Poster (Yellow Paper); ICM, Off (No Color Adjustment); Custom. A further 'Simple Settings' option is available.
Media Profiles	50 + 10 user customizable special options	✓		28
Watermark	Yes	✓		No
Multi-Up Printing	Yes (2 to 16)	✓		Yes (2 to 4)
Poster Print Mode	Yes (2 by 2)		✓	Yes (4 by 4)
Saturation Adjustment	No		✓	Yes

Ink Consumption

Canon imagePROGRAF TX-4200: Amount of Ink Used in Each Cartridge (in Grams)

	Matte Black	Black	Yellow	Magenta	Cyan
Weight of Cartridge Prior to Installation	957.5	942.5	937.0	958.0	941.0
Weight of Cartridge at End of Life	205.5	205.5	205.5	205.5	205.5
Net Weight of Ink	752.0	737.0	731.5	752.5	735.5
Total Ink Weight Across Five Cartridges					3,708.5

Epson SureColor SC-T7700D: Amount of Ink Used in Each Cartridge (in Grams)

	Photo Black	Matte Black	Yellow	Magenta	Cyan	Red
Weight of Cartridge Prior to Installation	499.0	503.4	496.5	507.0	497.5	497.5
Weight of Cartridge at End of Life	109.7	109.7	109.7	109.7	109.7	109.7
Net Weight of Ink	389.3	393.7	386.8	397.3	387.8	387.8
Total Ink Weight Across Six Cartridges						2,342.7

Canon imagePROGRAF TX-4200: Ink Used in Three 50-Page Runs of Cottage Architectural Plan Test Document in Standard Mode (in Grams)

	Matte Black	Black	Yellow	Magenta	Cyan
Test Run 1: Net Weight of Ink Used	23.5	3.5	3.0	5.5	6.5
Test Run 2: Net Weight of Ink Used	25.0	3.0	3.0	5.5	6.0
Test Run 3: Net Weight of Ink Used	23.5	3.5	3.5	6.0	6.0
Average Amount of Ink Used Across Three Runs	24.0	3.3	3.1	5.6	6.1
Total Ink Weight Across Five Cartridges for 50-Page Run (based on average)					**42.1**

Epson SureColor SC-T7700D: Ink Used in Three 50-Page Runs of Cottage Architectural Plan Test Document in Quality Mode (in Grams)

	Photo Black	Matte Black	Yellow	Magenta	Cyan	Red
Test Run 1: Net Weight of Ink Used	1.5	15.4	2.0	5.5	9.5	1.5
Test Run 2: Net Weight of Ink Used	1.0	16.0	2.5	5.0	11.0	2.0
Test Run 3: Net Weight of Ink Used	1.0	15.0	2.0	5.1	10.0	2.0
Average Amount of Ink Used Across Three Runs	1.1	15.4	2.1	5.2	10.1	1.8
Total Ink Weight Across Six Cartridges for 50-Page Run (based on average)						**35.7**

Canon imagePROGRAF TX-4200: Ink Used in Three 50-Page Runs of ISO Poster Test Document in Standard Mode (in Grams)

	Matte Black	Black	Yellow	Magenta	Cyan
Test Run 1: Net Weight of Ink Used	24.5	3.5	3.5	21.5	32.0
Test Run 2: Net Weight of Ink Used	25.0	3.5	4.0	21.0	31.3
Test Run 3: Net Weight of Ink Used	25.0	4.0	4.5	21.0	32.0
Average Amount of Ink Used Across Three Runs	24.8	3.6	4.0	21.1	31.7
Total Ink Weight Across Five Cartridges for 50-Page Run (based on average)					**85.2**

Epson SureColor SC-T7700D: Ink Used in Three 50-Page Runs of ISO Poster Test Document in Quality Mode (in Grams)

	Photo Black	Matte Black	Yellow	Magenta	Cyan	Red
Test Run 1: Net Weight of Ink Used	8.5	21.0	12.5	30.5	66.4	11.5
Test Run 2: Net Weight of Ink Used	8.0	20.5	11.5	30.0	66.5	11.0
Test Run 3: Net Weight of Ink Used	7.8	22.3	12.0	30.5	66.5	11.0
Average Amount of Ink Used Across Three Runs	8.1	21.2	12.0	30.3	66.4	11.1
Total Ink Weight Across Six Cartridges for 50-Page Run (based on average)						149.1

Canon imagePROGRAF TX-4200: Ink Used in Three 50-Page Runs of GIS Map Test Document in Standard Mode (in Grams)

	Matte Black	Black	Yellow	Magenta	Cyan
Test Run 1: Net Weight of Ink Used	30.0	3.5	12.0	12.0	22.0
Test Run 2: Net Weight of Ink Used	29.0	3.5	13.0	12.5	23.0
Test Run 3: Net Weight of Ink Used	29.5	4.0	13.7	13.5	23.0
Average Amount of Ink Used Across Three Runs	29.5	3.6	12.9	12.8	22.6
Total Ink Weight Across Five Cartridges for 50-Page Run (based on average)					81.4

Epson SureColor SC-T7700D: Ink Used in Three 50-Page Runs of GIS Map Test Document in Quality Mode (in Grams)

	Photo Black	Matte Black	Yellow	Magenta	Cyan	Red
Test Run 1: Net Weight of Ink Used	1.6	26.0	12.5	11.5	19.0	11.5
Test Run 2: Net Weight of Ink Used	2.5	25.5	13.5	13.5	18.5	10.5
Test Run 3: Net Weight of Ink Used	2.0	25.0	13.5	12.5	19.0	11.5
Average Amount of Ink Used Across Three Runs	2.0	25.5	13.1	12.5	18.8	11.1
Total Ink Weight Across Six Cartridges for 50-Page Run (based on average)						83.0

Test Methodology

Ink Consumption: Keypoint Intelligence analyzed ink consumption using three different document types: a Cottage Architectural Plan, an ISO Office Poster, and a GIS map. Each document was formatted as a PDF file except for the Cottage Architectural Plan which was formatted as a DWG TrueView Drawing, and all were sized at ISO A0.

In Keypoint Intelligence's lab, the Canon imagePROGRAF TX-4200, with the latest "1.04" firmware (as of November 2024) was connected to a Windows 10 workstation via a 1000BaseT TCP/IP connection and maintained in default configuration for testing. Using the Canon imagePROGRAF Printer Driver, the documents were set to print at actual size in Standard (600dpi) mode. The Cottage Architectural Plan was printed on plain paper with print priority settings set to Line Drawing/Text. The ISO Poster and the GIS map were both printed on 140 gsm matte coated media with print priority settings set to Image.

The Epson SureColor SC-T7700D was installed in Keypoint Intelligence's lab with the latest "Vxr02O8" level of firmware (as of November 2024) and connected to a Windows 10 workstation via a 1000BaseT TCP/IP connection and maintained in default configuration for testing. Using the EPSON GL/2 driver in default colour setting, the documents were set to print at actual size in Quality mode. The Cottage Architectural Plan was printed on plain paper; the ISO Poster and the GIS map were both printed on EPSON Heavy Weighted coated media.

Lab technicians weighed each ink cartridge before installation (with the weight of each ink with all packaging removed recorded) and after every 50-print test run, calculated the weight of ink used for each colour. To account for the Canon model's sub-tank, a procedure was followed to ensure that the sub-tank level was at its maximum before the print run commenced and again after the print run was completed, thereby ensuring that ink replenishment of the sub-tanks was considered for each print run. For both models, one cartridge was then run to exhaustion and the weight of the empty cartridge was recorded.

Test Environment: Products were tested in Keypoint Intelligence's environmentally controlled UK test lab, which replicates typical office conditions.

Test Equipment: Keypoint IIntelligence's dedicated test network in Europe, consisting of Windows 10 Professional workstations, 10/100/1000BaseTX network switches and CAT5e/6 cabling.

Test Procedures: Keypoint Intelligence employs proprietary procedures and industry-standard test procedures in its lab test methods. In addition to a number of proprietary test documents, Keypoint Intelligence uses industry-standard files including an ASTM monochrome test document for evaluating black image quality. Alongside a visual observation, colour print quality and gamut size are evaluated using XRite i1 profile software and an i1 Pro colour spectrophotometer and analysed using i1i0 Advanced Scanning Table. Density of black and colour output was measured using XRite 508 and XRite exact^{Xp} densitometers.

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About Keypoint Intelligence

For over 60 years, clients in the digital imaging industry have relied on Keypoint Intelligence for independent hands-on testing, lab data, and extensive market research to drive their product and sales success. Keypoint Intelligence has been recognized as the industry's most trusted resource for unbiased information, analysis, and awards due to decades of analyst experience. Customers have harnessed this mission-critical knowledge for strategic decision-making, daily sales enablement, and operational excellence to improve business goals and increase bottom lines. With a central focus on clients, Keypoint Intelligence continues to evolve as the industry changes by expanding offerings and updating methods, while intimately understanding and serving manufacturers', channels', and their customers' transformation in the digital printing and imaging sector.

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