

# Lab Test Summary

Excerpted From A Comprehensive BLI Laboratory Evaluation | DECEMBER 2014

#### Xerox WorkCentre 3655X

47 PPM Copier • Fax • Printer • Scanner





Reliability	Excellent
Multitasking	Very Good
Administrative Utilities	Excellent
Feedback to Workstations	Excellent
Ease of Network Setup	Very Good
Print Drivers	Excellent
Scan Functions	Very Good
Print Quality	Very Good
Copy Quality	Good
Print Productivity	Very Good
Copy Productivity	
Ease of Use	Very Good
Feature Set	Excellent
Security Features	Not Rated
Environmental Features	Not Rated
Toner Yield	Excellent
Cost per Page	1.159¢
Value	Very Good

# **BLI RECOMMENDATION**

Packed with features that move it beyond a conventional laser printer MFP, the Xerox WorkCentre 3655X gave a stellar showing throughout its lab evaluation. While the unit demonstrated flawless reliability and provided print output that will meet or exceed the general-office needs of mid-size workgroups, it offers a strong value proposition based on performance, the aforementioned robust feature set and a competitive cost of ownership. The WorkCentre 3655X includes the Xerox Extensible Interface Platform (EIP), open architecture that enables integration with time- and money-saving solutions developed by the OEM or third parties-critical in making devices more dynamic. Support for the Xerox Mobile Print app and Apple AirPrint let users print from mobile devices, which can help boost worker productivity in offices where BYOD is encouraged. Ease of use from both the desktop and at the control panel are also hallmarks of the unit: the well-designed drivers let users save settings for frequently used jobs, while the touchscreen, which is very similar to that on Xerox A3 hardware, allows for quick and efficient programming of walk-up jobs. Other noteworthy device attributes include a high memory capacity and a standard 250-GB hard drive, the ability for administrators to control features and functions via the embedded web server, and an outstanding level of feedback that keeps users well informed of status. BLI highly recommends the Xerox WorkCentre 3655X.

Rating scale: Excellent, Very Good, Good, Fair and Poor.

**Test duration:** Two months, including a 75,000-impression durability test completed in BLI's product testing facilities.

Tests were conducted using U.S. letter-size paper; A4 results may vary slightly.

About BLI: Since 1961, BLI has been a leading test laboratory in the world of digital imaging equipment. BLI is completely independent in all of its testing processes and subsequent reporting. All of BLI's product evaluations are conducted by highly experienced employees in its on-site testing facilities in the United Kingdom and United States where hundreds of new copiers, printers, wide-format devices, scanners, faxes and multi-function (MFP) products are evaluated and reported on each year.

This lab test report summary is summarized from BLI's Lab Test Report. More information on the Xerox WorkCentre 3655X is available through bliQ (www.buyerslab.com/bliQ).



#### **STRENGTHS**

- Highly reliable—flawless durability performance
- Strong value proposition based on performance, features and TCO
- · Open architecture enables integration with time- and money-saving solutions
- Supports mobile printing via standard AirPrint compatibility and two available for-pay mobile print solutions
- Well-designed drivers allow users to save settings for frequently used jobs; compatible with Xerox's Global and Mobile print drivers, which streamline deployment
- Touchscreen makes programming walk-up activity, including capture and send jobs, easy; simple routine maintenance procedures
- Eco-friendly features include standard automatic duplexing and toner-save mode (PostScript only), both of which help reduce TCO; EarthSmart settings in the drivers simplify programming "green" settings
- High memory capacity and the standard 250-GB hard drive aid in job processing; high bypass capacity; accommodates heavier media than most competitive devices
- Crisp text, consistent line art, the entire range of grayscale, and smooth transitions from light to dark shades in black-and-white photos, in print mode
- Fast running speed when printing the job stream; fast scan speed for double-sided document in black mode; small scan-file sizes in all tested modes
- Outstanding package of utilities that allow administrators to manage the unit and a misxed fleet of hardware, track output by device and user, and control features and functions such as color usage (including by application type)
- Users are kept well informed of status via pop-up messages and information in the driver

#### **WEAKNESSES**

- Slow first-print time from overnight sleep
- Slow first-copy times from the platen and document feeder
- Because of the size and weight of the unit, it might be cumbersome to turn the unit around when clearing misfeeds in the back

## RELIABILITY

Products are tested for two months, three weeks of which consists of a durability test during which the product is run at half of its manufacturer-rated maximum monthly duty cycle, with 75 percent of the test volume consisting of print jobs and 25 percent consisting of copy jobs.

Test Period Duration	75,000 Impressions	
Total Misfeeds/ Misfeed Rate	0	
Total Service Calls (incl. PMs)	0	

BLI's daily test usage is designed to replicate real-world use over an eight-hour workday, and as such includes a mix of various-size documents, simplex and duplex modes, and a mix of short, moderate and long run lengths, and on/off cycles, throughout the day. The durability evaluation also includes testing of the document feeder/scanner for an additional 10 percent of the monthly maximum volume, evenly divided over the course of the test.



# PRODUCTIVITY AND EFFICIENCY

Productivity is a measure of the speed at which copy, print and scan jobs are completed. Efficiency is the percentage of the device's advertised speed at which it runs in testing. BLI's experienced test technicians complete a comprehensive series of speed-related tests to simulate real-world conditions.

#### Copy Mode

#### **Black**

Manufacturer's Rated Speed		47.0 PPM		
	# of Sets	СРМ	Efficiency	
	1	26.9	57.3%	
1:1	5	41.3	87.8%	
Simplex Mode	10	44.4	94.5%	
1	20	45.8	97.5%	
	Average	39.6	84.3%	
1:2 Duplex Mode	1	18.1	38.5%	
	5	26.2	55.7%	
	10	27.7	58.9%	
	20	28.5	60.7%	
	Average	25.1	53.5%	
2:2 Duplex Mode	1	14.2	30.2%	
	5	24.0	51.0%	
	10	26.5	56.4%	
	20	27.9	59.3%	
	Average	23.2	49.2%	
Document Feeder F	Document Feeder First-Copy-Out Time		12.98 Seconds	

#### **Print Mode**

#### Black

Manufacturer's Ra	ted Speed	47.0	O PPM
	# of Sets	PPM	Efficiency
1:1 Simplex Mode	1	32.8	69.9%
	5	43.9	93.4%
	10	46.0	97.8%
	20	46.8	99.5%
	Average	42.4	90.2%
1:2 Duplex Mode	1	22.3	47.5%
	5	27.5	58.5%
	10	28.4	60.4%
	20	28.8	61.4%
	Average	26.8	57.0%
Job Stream Speed		37.4 PPM	
Job Stream Efficiency		79.6 %	

Scan Mode	Black	Full Color
Scan to E-Mail Speed Single-Sided Originals	38.7 IPM	25.1 IPM
Scan to E-Mail Speed Two-Sided Originals	24.1 IPM	13.5 IPM



#### First-Page Times

Windows XP	Word	PowerPoint	Acrobat
File Type	Black Text	Color Graphic/Text	Black Graphic/Text
File Extension	DOC	PPT	PDF
First-Print Time (Seconds)	6.73	6.99	6.97

Key

Print Modes:

Manufacturer's Rated Speed: The manufacturer's advertised speed (copies per minute [cpm] or pages per minute [ppm]) for the device.

Originals: Describes the type of originals (single sided or two sided) used in the scan test.

Document Feeder First-Copy-Out Time: The time it takes in seconds for a copy to completely exit the device when a copy is made from an original placed in the document feeder.

Job Stream Speed: The speed at which the device runs at when completing BLI's job stream test.

Job Stream Efficiency: The percentage of the device's advertised running speed at which it produces the job stream, derived by dividing the tested speed of the device

by the manufacturer's rated speed and multiplying by 100. The closer the rate is to 100%, or if it exceeds 100%, the more efficient the unit.

Copy Modes: 1:1 Simplex Mode: Single-sided original to single-sided copy
1:2 Duplex Mode: Single-sided original to two-sided copy
2:2 Duplex Mode: Two-sided original to two-sided copy

1:1 Simplex Mode: Single-sided print 1:2 Duplex Mode: Two-sided print

# of Sets: Indicates the number of sets produced of BLI's 10-page two-sided test original.

CPM / IPM / PPM: Copies per minute / Images per minute / Prints per minute. Entries under this heading indicate the speed at which the device operated when

completing the test.

INA: Information not available. Test was not performed on the device.

"--": Not applicable

Copier productivity tests are based on tests performed by BLI using a variation of ASTM Standard Test Method F1318.

BLI tests a unit's copy and print productivity by making multiple sets (the number of sets depends on the rated speed of the device) of BLI's 10-page two-sided Word document test original in three copy modes (1:1, 1:2 and 2:2) and in both simplex (1:1) and duplex (1:2) print modes.

BLI's job stream includes Word documents, Outlook e-mail messages, Excel spreadsheets, PowerPoint, HTML and Acrobat PDF files. This test, conducted using the PCL driver, simulates the type of traffic a typical device might experience in a real-world, multi-user environment.

BLI tests a device's scan speed by sending BLI's 10-page two-sided test original to an e-mail address as a 300-dpi PDF file. Scan speed is determined by measuring the time it takes for BLI's 10-two-sided test original to feed through the document feeder.

Additional information on productivity and BLI's test methodology is available in the Help section on bliQ. See Glossary of Terms in the Table of Contents.

## **IMAGE QUALITY**

BLI evaluates image quality using a combination of industry-recognized copy and print documents plus BLI proprietary test charts. A wide variety of factors are assessed using a combination of BLI technicians' expert visual opinion in addition to scientific measurements using densitometry and color spectrophotometry equipment.

	Print Quality	Copy Quality
Text	Very Good	Very Good
Line Art	Very Good	Very Good
Halftone Pattern/Fill	Excellent	Fair
Halftone Range	Very Good	Good
Solids	Good	Very Good

# LAB TESTING OVERVIEW

Test Environment: This product was tested in BLI's environmentally controlled US test lab, which replicates typical office conditions.

**Test Equipment:** BLI's dedicated test network, consisting of Windows 2008 and Microsoft Exchange servers, Windows 7 workstations and 10/100/1000BaseTX network switches.

Test Procedures: BLI's lab testing includes both BLI proprietary and industry-standard test procedures and documents. In addition to a visual image quality evaluation, optical density of primary colour (CMYK) solid fill output is measured using a densitometer, and colour gamut and consistency are evaluated using a colour spectrophotometer. The reliability test is conducted using Georgia Pacific Spectrum and Boise Cascade paper in the US and UPM, Data Copy and Mondi paper in the UK. In both cases, 30 percent of the paper is recycled paper The media used for image quality testing is Georgia-Pacific Printing Paper (24 lb., 96 brightness) in the US and UPM Future ImageTech 100gsm paper in the UK.