

ISO/IEC 24734 Printing Productivity Report: Office Category

Full Detailed Test Report - LETTER

HP Color LaserJet Enterprise Flow MFP M681z

Printing device and settings

Test Start Date and Time	4/11/2017 7:16
Tester	TQW
Machine name/model	HP Color LaserJet Enterprise Flow MFP M681z
Colour or B&W	Colour
FW Version	2403298 006039
Temperature and Humidity	73 degF / 23 degC 20.0 %H
Voltage	110V
Test End Date and Time	3/25/2018 12:18

Item	Value
Mode and Setting	Driver Version:UPD 6.4
	Media/Quality Setting:Default / Default
	Simplex B&W Settings:Print in Greyscale
	Duplex B&W Settings:Print in Greyscale
	Setting N set count:Application
Paper Path	Collating function:Activated (application)
	Paper Sending Direction:Default
	Paper Size Setting:Default
	Paper Feeding:Tray 2
	Paper Exit:Standard Exit Tray
Paper	Output Orientation:Default (face down)
	Duplexing Unit (Yes/No):Yes
	Paper Manufacturer:HP / Xerox
	Paper Weight:208 / 75 gsm2
	Paper Size:Letter / A4
	Paper type/name:HP Multipurpose Ultra White / HP Office

Summary Report: Letter

Office Category Test for Color Device		FSOT (seconds)	ESAT (ipm)
Color	Simplex	10.17	50.28
	Duplex	12.87	50.59
B&W	Simplex	9.28	50.26
	Duplex	11.86	50.65

Notes  
1) All printing device and driver settings were default mode.  
2) For the B&W results, the print driver was set to "print in B/W".  
3) For more information see <http://www.hp.com/go/printerclaims>.  
4) Port monitor not configured to follow device if the IP address changes.

Detailed Report: LETTER

	Office Category Test	FSOT (secs)	EFTP (ipm)				ESAT (ipm)
		1 set only (1 set)	1 set only (1 set)	1 set + 30sec (# of sets)	1 set + 4min (# of sets)	1 set + 30sec	
Color Mode	Simplex - Adobe Reader	10.69	22.46 (1 set)	43.44 (8 sets)	48.17 (54 sets)	50.25	
	Simplex - Word	10.00	24.02 (1 set)	44.45 (8 sets)		50.26	
	Simplex - Excel	9.80	24.48 (1 set)	44.28 (8 sets)		50.27	
	Simplex - Average	10.17	23.65	44.05	48.17	50.28	
	Duplex - Adobe Reader	13.32	18.00 (1 set)	40.84 (8 sets)		50.60	
	Duplex - Word	12.53	19.14 (1 set)	41.76 (8 sets)		50.58	
	Duplex - Excel	12.74	18.86 (1 set)	41.54 (8 sets)		50.60	
	Duplex - Average	12.87	18.66	41.38		50.59	
	Simplex - Adobe Reader	9.76	24.58 (1 set)	44.08 (8 sets)	48.07 (52 sets)	50.25	
	Simplex - Word	8.93	26.89 (1 set)	45.16 (8 sets)		50.26	
B&W mode (optional for color device)	Simplex - Excel	8.13	26.28 (1 set)	44.96 (8 sets)		50.28	
	Simplex - Average	8.28	25.91	44.73	48.1	50.26	
	Duplex - Adobe Reader	12.21	19.66 (1 set)	41.42 (8 sets)		50.66	
	Duplex - Word	11.53	20.80 (1 set)	42.58 (8 sets)		50.66	
	Duplex - Excel	11.82	20.30 (1 set)	42.12 (8 sets)		50.64	
	Duplex - Average	11.86	20.25	42.04		50.65	

Notes  
1) All printing device and driver settings were default mode.  
2) For the B&W results, the print driver was set to "print in B/W".  
3) For more information see <http://www.hp.com/go/printerclaims>.  
4) Port monitor not configured to follow device if the IP address changes.

Test System Parameters

Item	Value
Computer	HP Compaq Elite 8300 Small Form Factor
Processor	Intel Core i7 -3770, 3.4 GHz
System Chip Set	Intel C216 Chipset Family SMBus Host Controller
System Board	system devices, default system BIOS
System Memory	4 GB
Hard Drive Subsystem	Standard disk drive (Seagate)
Video Subsystem	AMD Radeon HD 6350
Optical Drive	HP DVD A DH16aCSHR ATA
IO Subsystem	Builtin
USB Subsystem	USB 2.0/3.0
FCPIB	FCPIB 10/1000
Operating System	Windows 7 64 Bit
Printing Applications	Microsoft Office 2010
Print Driver	Office 2010
Test files and location	N/A

# ISO/IEC 24734 Printing Productivity Report: Office Category

Full Detailed Test Report - A4

HP Color LaserJet Enterprise Flow MFP M681z

## Printing device and settings

Test Start Date and Time	4/11/2017 7:16
Tester	TQW
Machine name/model	HP Color LaserJet Enterprise Flow MFP M681z
Colour or B&W	Colour
FW Version	2403298 006039
Temperature and Humidity	73 degF / 23 degC 20.0 %H
Voltage	110V
Test End Date and Time	3/25/2018 12:18

Item	Value
Mode and Setting	Driver Version:UPD 6.4
	Media/Quality Setting:Default / Default
	Simplex B&W Settings:Print in Greyscale
	Duplex B&W Settings:Print in Greyscale
	Setting N set count:Application
Paper Path	Collating function:Activated (application)
	Paper Sending Direction:Default
	Paper Size Setting:Default
	Paper Feeding:Tray 2
	Paper Exit:Standard Exit Tray
Paper	Output Orientation:Default (face down)
	Duplexing Unit (Yes/No):Yes
	Paper Manufacturer:HP / Xerox
	Paper Weight:208 / 75 g/m2
	Paper Size:Letter / A4
	Paper type/name:HP Multipurpose Ultra White / HP Office

## Summary Report: A4

Office Category Test for Color Device		FSOT (seconds)	ESAT (ipm)
Colour	Simplex	10.55	47.39
	Duplex	12.97	48.00
B&W	Simplex	9.68	47.40
	Duplex	12.32	48.00

Notes  
1) All printing device and driver settings were default mode.  
2) For the B&W results, the print driver was set to "print in B&W".  
3) For more information see <http://www.hp.com/go/printerclaims>.  
4) Port monitor not configured to follow device if the IP address changes.

## Detailed Report: A4

	Office Category Test	FSOT (secs) 1 set only (1 set)	1 set only (1 set)	EFTP (ipm) 1 set + 30sec (# of sets)	1 set + 4min (# of sets)	ESAT (ipm) 1 set + 30sec
Colour Mode	Simplex - Adobe Reader	11.23	21.38 ( 1 set )	42.58 ( 6 sets )	45.61 ( 55 sets )	47.41
	Simplex - Word	10.12	23.72 ( 1 set )	41.90 ( 8 sets )		47.45
	Simplex - Excel	10.29	23.32 ( 1 set )	41.46 ( 7 sets )		47.32
	Simplex - Average	10.55	22.80	41.98	45.61	47.39
	Duplex - Adobe Reader	13.63	17.60 ( 1 set )	39.38 ( 9 sets )		48.02
	Duplex - Word	12.60	19.04 ( 1 set )	39.54 ( 8 sets )		47.98
	Duplex - Excel	12.66	18.94 ( 1 set )	39.52 ( 8 sets )		48.00
	Duplex - Average	13.0	18.52	39.46		48.00
	Simplex - Adobe Reader	10.20	23.52 ( 1 set )	40.73 ( 4 sets )	45.59 ( 50 sets )	47.32
	Simplex - Word	9.43	25.45 ( 1 set )	42.82 ( 8 sets )		47.46
B&W mode (optional for color device)	Simplex - Excel	8.40	25.54 ( 1 set )	42.65 ( 8 sets )		47.42
	Simplex - Average	9.7	24.83	42.06	45.6	47.40
	Duplex - Adobe Reader	12.65	18.96 ( 1 set )	40.38 ( 9 sets )		48.02
	Duplex - Word	12.31	19.50 ( 1 set )	39.94 ( 8 sets )		48.00
	Duplex - Excel	12.00	20.00 ( 1 set )	39.02 ( 7 sets )		47.98
	Duplex - Average	12.3	19.48	39.76		48.00

Notes  
1) All printing device and driver settings were default mode.  
2) For the B&W results, the print driver was set to "print in B&W".  
3) For more information see <http://www.hp.com/go/printerclaims>.  
4) Port monitor not configured to follow device if the IP address changes.

## Test System Parameters

Item	Value
Computer	HP Compaq Elite 8300 Small Form Factor
Processor	Intel Core i7 -3770, 3.4 GHz
System Chip Set	Intel C216 Chipset Family SMBus Host Controller
System Board	system devices, default system BIOS
System Memory	4 GB
Hard Drive Subsystem	Standard disk drive (Seagate)
Video Subsystem	AMD Radeon HD 6350
Optical Drive	HP DVD A DH16aCSHR ATA
IO Subsystem	Builtin
USB Subsystem	USB 2.0/3.0
FCPIB	FCPIB 10/1000
Operating System	Windows 7 64 Bit
Printing Applications	Microsoft Office 2010
Print Driver	Office 2010
Test files and location	N/A

ISO/IEC 24734 Printing Productivity Report: Office Category

Feature Performance Full Report - Office Feature Performance Test  
HP Color LaserJet Enterprise Flow MFP M681z

Printing device and settings		
	Test Start Date and Time	4/11/2017 7:16
	Tester	TQW
	Machine name/model	HP Color LaserJet Enterprise Flow MFP M681z
	Colour or B&W	Colour
	FW Version	2403298 006039
	Temperature and Humidity	73 degF / 23 degC 20.0 %H
	Voltage	110V
	Test End Date and Time	3/25/2018 12:18

Item		Value
Mode and Setting	Driver Version	UPD 6.4
	Media/Quality Setting	Default / Default
	Simplex B&W Settings	Print in Greyscale
	Duplex B&W Settings	Print in Greyscale
	Setting N set count	Application
Paper Path	Collating function	Activated (application)
	Paper Sending Direction	Default
	Paper Size Setting	Default
	Paper Feeding	Tray 2
	Paper Exit	Standard Exit Tray
Paper	Output Orientation	Default (face down)
	Duplexing Unit (Yes/No)	Yes
	Paper Manufacturer	HP / Xerox
	Paper Weight	208 / 75 g/m2
	Paper Size	Letter / A4
Paper	Paper type/name	HP Multipurpose Ultra White / HP Office

ISO Print Productivity Report: Feature Performance Test Summary

Printing Modes (Feature Adobe Reader - Office test file)		Feature Performance Ratio	
		FSOT (base)	ESAT (feature)
		FSOT (feature)	ESAT (base)
A5, Landscape Feed, Simplex, Colour	Simplex	129%	158%
A5, Portrait Feed, Simplex, Colour	Simplex	86%	17%
Legal, Simplex, Colour	Simplex		
Legal, Duplex, Colour	Duplex		
A4, 1200 dpi, Simplex, Colour	Simplex		
Letter, 1200 dpi, Simplex, Colour	Simplex		
A4, HP High Speed, Simplex, Colour	Simplex		
Letter, HP High Speed, Simplex, Colour	Simplex		
A4, General Office, Simplex, Colour	Simplex		
Letter, General Office, Simplex, Colour	Simplex		
A5, Landscape Feed, Simplex, B/W	Simplex	127%	160%
A5, Portrait Feed, Simplex, B/W	Simplex	78%	17%
Legal, Simplex, B/W	Simplex		
Legal, Duplex, B/W	Duplex		
A4, 1200 dpi, Simplex, B/W	Simplex		
Letter, 1200 dpi, Simplex, B/W	Simplex		
A4, HP High Speed, Simplex, B/W	Simplex		
Letter, HP High Speed, Simplex, B/W	Simplex		
A4, General Office, Simplex, B/W	Simplex		
Letter, General Office, Simplex, B/W	Simplex		

Notes  
1) All printing device and driver settings were default mode.  
2) Test conducted with 8-paper Office Feature Performance file.  
3) For more information see <http://www.hp.com/go/printerclaims>.  
4) Port monitor not configured to follow device if the IP address changes.

Feature Performance Full Report - Feature Printing Mode: 'Office' Feature Performance Test

Printing Modes Feature Adobe Reader - Office test file (8-page)		Base Printing Mode		Feature Performance		
		FSOT Base	ESAT Base	1 set FSOT (secs)	1 set + 30 sec ESAT (ipm)	FSOT (base) FSOT (feature)
						ESAT (feature) ESAT (base)
A5, Landscape Feed, Simplex, Colour	16.6	47.41	12.93	74.9	129%	158%
A5, Portrait Feed, Simplex, Colour	16.6	47.41	19.32	8.1	86%	17%
Legal, Simplex, Colour						
Legal, Duplex, Colour						
A4, 1200 dpi, Simplex, Colour	16.6	47.41				
Letter, 1200 dpi, Simplex, Colour						
A4, HP High Speed, Simplex, Colour	16.6	47.41				
Letter, HP High Speed, Simplex, Colour						
A4, General Office, Simplex, Colour	16.6	47.41				
Letter, General Office, Simplex, Colour						
A5, Landscape Feed, Simplex, B/W	16.02	47.32	12.63	75.9	127%	160%
A5, Portrait Feed, Simplex, B/W	16.02	47.32	20.66	8.3	78%	17%
Legal, Simplex, B/W						
Legal, Duplex, B/W						
A4, 1200 dpi, Simplex, B/W	16.02	47.32				
Letter, 1200 dpi, Simplex, B/W						
A4, HP High Speed, Simplex, B/W	16.02	47.32				
Letter, HP High Speed, Simplex, B/W						
A4, General Office, Simplex, B/W	16.02	47.32				
Letter, General Office, Simplex, B/W						

Notes  
1) All printing device and driver settings were default mode.  
2) Test conducted with 8-paper Office Feature Performance file.  
3) For more information see <http://www.hp.com/go/printerclaims>.  
4) Port monitor not configured to follow device if the IP address changes.

Test System Parameters		
Item	Value	
Test System	Computer	HP Compaq Elite 8300 Small Form Factor
	Processor	Intel Core i7 -3770, 3.4 GHz
	System Chip Set	Intel C216 Chipset Family SMBus Host Controller
	System Board	system devices, default system BIOS
	System Memory	4 GB
	Hard Drive Subsystem	Standard disk drive (Seagate)
	Video Subsystem	AMD Radeon HD 6350
	Optical Drive	HP DVD A DH16aCSHR ATA
	I/O Subsystem	Builtin
	USB Subsystem	USB 2.0/3.0
IO	TCPIP	10/1000
Software	Operating System	Windows 7 64 Bit
	Printing Applications	
		Microsoft Office 2010
	Print Driver	Office 2010
Test files and location		N/A

# ISO/IEC 17629 First Print Out Time Report: Office Category

## Full Detailed Test Report - LETTER

HP Color LaserJet Enterprise Flow MFP M681z

Printing device and settings	
Test Start Date and Time	4/11/2017 7:16
Tester	TQW
Machine name/model	HP Color LaserJet Enterprise Flow MFP M681z
Colour or B&W	Colour
FW Version	2403298_006039
Configuration (options)	Default
Controller	7.143
Printing device page count	Not Specified
Printing supplies page count	Not Specified
Temperature and Humidity	73 degF / 23 degC 20.0 %rH
Voltage	110V
Test End Date and Time	7/18/2017 7:52

Item	Value
Mode and Setting	PDL and driver version
	UPD 6.4
	Print Quality mode
	default
Paper	B&W settings
	default
	Paper feed orientation
Paper Path	Short Edge
	Paper type setting
	default
	Paper feeding
	Standard cassette
	Paper exit
	Standard exit tray
	Output orientation
	default (face up or face down)

## ISO First Page Out Time Summary Report: Office Category

Summary Report: <b>Letter</b>						
		FPOT from Ready (seconds)				
Color	Simplex	6.36				
	Duplex					
B&W	Simplex	5.78				
	Duplex					

ISO First Page Out Time Report: Office Category						
Detailed Report: <b>LETTER</b>						
		Word (seconds)	Excel (seconds)	Adobe Reader (seconds)	Average (seconds)	Delay Time
Color Mode	FPOT from Ready - Simplex	6.03	6.14	6.90	6.36	20 Seconds
	FPOT from Ready - Duplex					
	FPOT from Sleep - Simplex			17.44		105 Minutes
	Recovery Time			10.5		
	FPOT from Off - Simplex			195.49		
	Warm-up Time			188.59		
B&W Mode	FPOT from Ready - Simplex	5.31	6.10	5.91	5.78	20 Seconds
	FPOT from Ready - Duplex					
	FPOT from Sleep - Simplex			16.99		105 Minutes
	Recovery Time			11.1		
	FPOT from Off - Simplex			197.81		
	Warm-up Time			191.90		

### Notes

- 1) All printing device and driver settings were default mode.
- 2) For the B/W results, the print driver was set to "print in B/W".
- 3) For more information see <http://www.hp.com/go/printerclaims>.
- 4) Port monitor not configured to follow device if the IP address changes.
- 5) Page counts were collected after completion of the tests.
- 6) Details for FPOT from Sleep are shown below.

## HP Data Table

Detailed Report: <b>LETTER</b>							
		FPOT Avg (secs)	FPOT (secs) Iteration 1	FPOT (secs) Iteration 2	FPOT (secs) Iteration 3	Application	Delay Time
Color Mode	FPOT from Sleep	17.44	17.62	17.26	N/A	Adobe Reader	105 Minutes
	FPOT from Sleep (15 minutes) HP/Non ISO Test	12.67	12.67	12.67	N/A	Adobe Reader	15 Minutes
	FPOT from Sleep	16.99	16.99	16.98	N/A	Adobe Reader	105 Minutes
B&W Mode	FPOT from Sleep (15 minutes) HP/Non ISO Test	12.75	12.78	12.72	N/A	Adobe Reader	15 Minutes

Test System Parameters	
Item	Value
Test System	Computer
	HP Compaq Elite 8300 Small Form Factor
	Processor
	Intel Core i7 -3770, 3.4 GHz
	System Chip Set
	Intel C216 Chipset Family SMBus Host Controller
	System Board
	system devices, default system BIOS
	System Memory
	4 GB
Printing Device Connection	Hard Drive Subsystem
	Standard disk drive (Seagate)
	Video Subsystem
	AMD Radeon HD 6350
	Optical Drive
	HP DVD A DH16aCSHR ATA
Software	I/O Subsystem
	Builtin
	USB Subsystem
	USB 2.0/3.0
Printing Device Connection	TCP/IP
	10/1000
Software	Operating System
	Windows 7 Business/Ultimate, 64 bit, Build 7601, SP 1
	Printing Applications
	Microsoft Office 2010 SP2
	Adobe Reader 10.1.4
	Print Driver
	UPD 6.4

ISO/IEC 17629 First Print Out Time Report: Office Category

Full Detailed Test Report - A4

HP Color LaserJet Enterprise Flow MFP M681z

Printing device and settings		
Test Start Date and Time	4/11/2017 7:16	
Tester	TQW	
Machine name/model	HP Color LaserJet Enterprise Flow MFP M681z	
Colour or B&W	Colour	
FW Version	2403298_006039	
Configuration (options)	Default	
Controller	7.143	
Printing device page count	Not Specified	
Printing supplies page count	Not Specified	
Temperature and Humidity	73 degF / 23 degC 20.0 %rH	
Voltage	110V	
Test End Date and Time	7/18/2017 7:52	

Item		Value
Mode and Setting	PDL and driver version	UPD 6.4
	Print Quality mode	default
	B&W settings	default
	Paper feed orientation	Short Edge
Paper	Paper type setting	default
	Paper feeding	Standard cassette
	Paper exit	Standard exit tray
Paper Path	Output orientation	default (face up or face down)

ISO First Page Out Time Summary Report: Office Category		
Summary Report: A4		
		FPOT from Ready (seconds)
Colour	Simplex	6.48
	Duplex	
B&W	Simplex	5.76
	Duplex	

ISO First Page Out Time Report: Office Category						
Detailed Report: A4						
		Word (seconds)	Excel (seconds)	Adobe Reader (seconds)	Average (seconds)	Delay Time
Color Mode	FPOT from Ready - Simplex	6.24	6.28	6.91	6.48	20 Seconds
	FPOT from Ready - Duplex					
	FPOT from Sleep - Simplex			17.36		105 Minutes
	Recovery Time			10.5		
	FPOT from Off - Simplex			198.20		
	Warm-up Time			191.29		
B&W Mode	FPOT from Ready - Simplex	5.57	5.60	6.10	5.76	20 Seconds
	FPOT from Ready - Duplex					
	FPOT from Sleep - Simplex			16.62		105 Minutes
	Recovery Time			10.5		
	FPOT from Off - Simplex			195.06		
	Warm-up Time			188.96		
Notes						
1) All printing device and driver settings were default mode.						
2) For the B/W results, the print driver was set to "print in B/W".						
3) For more information see <a href="http://www.hp.com/go/printerclaims">http://www.hp.com/go/printerclaims</a> .						
4) Port monitor not configured to follow device if the IP address changes.						
5) Page counts were collected after completion of the tests.						
6) Details for FPOT from Sleep are shown below.						

HP Data Table							
Detailed Report: A4							
		FPOT Avg (secs)	FPOT (secs) Iteration 1	FPOT (secs) Iteration 2	FPOT (secs) Iteration 3	Application	Delay Time
Color Mode	FPOT from Sleep	17.36	17.34	17.38	N/A	Adobe Reader	105 Minutes
	FPOT from Sleep (15 minutes) HP/Non ISO Test	12.71	12.62	12.79	N/A	Adobe Reader	15 Minutes
	FPOT from Sleep	16.62	16.57	16.67	N/A	Adobe Reader	105 Minutes
B&W Mode	FPOT from Sleep (15 minutes) HP/Non ISO Test	11.86	11.87	11.84	N/A	Adobe Reader	15 Minutes
	FPOT from Sleep						

Test System Parameters		
Item		Value
Test System	Computer	HP Compaq Elite 8300 Small Form Factor
	Processor	Intel Core i7 -3770, 3.4 GHz
	System Chip Set	Intel C216 Chipset Family SMBus Host Controller
	System Board	system devices, default system BIOS
	System Memory	4 GB
	Hard Drive Subsystem	Standard disk drive (Seagate)
	Video Subsystem	AMD Radeon HD 6350
	Optical Drive	HP DVD A DH16aCSHR ATA
	I/O Subsystem	Builitn
	USB Subsystem	USB 2.0/3.0
Printing Device Connection	TCP/IP	10/1000
Software	Operating System	Windows 7 Business/Ultimate, 64 bit, Build 7601, SP 1
	Printing Applications	Microsoft Office 2010 SP2
	Print Driver	Adobe Reader 10.1.4
		UPD 6.4

# ISO/IEC 29183 Copy Productivity Report

## Full Detailed Test Report - LETTER

HP Color LaserJet Enterprise Flow MFP M681z

### Machine Setup Information

	Test Start Date and Time	4/14/2017 7:34
	Tester	TQW
	Machine name/model	HP Color LaserJet Enterprise Flow MFP M681z
	Colour or B&W	Colour
	FW Version	2403298_006039
	Configuration (options)	Not Specified
	Temperature and Humidity	73 degF / 23 degC 20.0 %rH
	Test End Date and Time:	4/14/2017 11:51

	Pre-set Item	Pre-set Value
<b>Mode</b>	Output Resolution	Default
	Output Quality	Default
	Copying Mode	Colour for Colour and B&W for B&W
	Auto Density Adjustment	Default
	Collating function	Set in Control Panel
<b>Paper</b>	Paper Sending Direction	Default
	Paper Type Setting	Default
<b>Paper Path</b>	Paper Feeding	Tray 2
	Paper Exit	Default
	Face Up Exit	Default (face down)
<b>Temporary Stop</b>	Fixing Capability	Default
	Image Quality Stability	Default
	Capacity of Paper	Default
	Others	None
<b>Paper</b>	Paper Manufacturer	HP / Xerox
	Paper Weight	20lb / 75 g/m2
	Paper Size	Letter / A4
	Paper type/name	HP Multipurpose Ultra White / HP Office

### Summary Report: Letter

	sFCOT	sESAT (ipm)
<b>Color</b>	6.8	51.2
<b>B&amp;W</b>	6.1	50.2

Notes  
First Copy Out and Copy Speed measured using ISO/IEC 29183, excludes first set of test documents. For more information see <http://www.hp.com/go/printerclaims>. Exact speed varies depending on the system configuration and document.  
Only Target A was used, all test documents have the same Saturated throughput. Reference ISO/IEC29183:2010 Clause 5, Sections 5.3.1 and 5.3.2

### Detailed Report: LETTER

	Target	sFCOT (secs)	sEFTP (ipm)			sESAT (ipm)
			1copy	1copy+30sec	1copy+4minutes	
<b>Color</b>	A	6.84	8.78	41.63	48.07	51.15
				28 sets	212 sets	
	B					
	C					
	D					
	Average	6.8	8.8	41.6	48.1	51.2
<b>B&amp;W</b>	A	6.06	10.11	41.58	48.92	50.16
				28 sets	214 sets	
	B					
	C					
	D					
	Average	6.1	10.1	41.6	48.9	50.2

#### Notes

First Copy Out and Copy Speed measured using ISO/IEC 29183, excludes first set of test documents. For more information see <http://www.hp.com/go/printerclaims>. Exact speed varies depending on the system configuration and document.  
Only Target A was used, all test documents have the same Saturated throughput. Reference ISO/IEC29183:2010 Clause 5, Sections 5.3.1 and 5.3.2

## ISO/IEC 29183 Copy Productivity Report

### Full Detailed Test Report - A4

HP Color LaserJet Enterprise Flow MFP M681z

#### Machine Setup Information

Test Start Date and Time	4/14/2017 7:34
Tester	TQW
Machine name/model	HP Color LaserJet Enterprise Flow MFP M681z
Colour or B&W	Colour
FW Version	2403298_006039
Configuration (options)	Not Specified
Temperature and Humidity	73 degF / 23 degC 20.0 %rH
Test End Date and Time	4/14/2017 11:51

	Pre-set Item	Pre-set Value
Mode	Output Resolution	Default
	Output Quality	Default
	Copying Mode	Colour for Colour and B&W for B&W
	Auto Density Adjustment	Default
	Collating function	Set in Control Panel
Paper	Paper Sending Direction	Default
	Paper Type Setting	Default
Paper Path	Paper Feeding	Tray 2
	Paper Exit	Default
	Face Up Exit	Default (face down)
Temporary Stop	Fixing Capability	Default
	Image Quality Stability	Default
	Capacity of Paper	Default
	Others	None

Paper	Paper Manufacturer	HP / Xerox
	Paper Weight	20lb / 75 g/m2
	Paper Size	Letter / A4
	Paper type/name	HP Multipurpose Ultra White / HP Office

#### Summary Report: A4

	sFCOT	sESAT (ipm)
Colour	6.8	47.8
B&W	5.9	47.4

#### Notes

First Copy Out and Copy Speed measured using ISO/IEC 29183, excludes first set of test documents. For more information see <http://www.hp.com/go/printerclaims>. Exact speed varies depending on the system configuration and document.

Only Target A was used, all test documents have the same Saturated throughput. Reference ISO/IEC29183:2010 Clause 5, Sections 5.3.1 and 5.3.2

#### Detailed Report: A4

	Target	sFCOT (secs)	sEFTP (ipm)			sESAT (ipm)
			1copy	1copy+30sec	1copy+4minutes	
Colour	A	6.82	8.79	37.82	44.35	47.79
				26 sets	197 sets	
	B					
	C					
	D					
	Average	6.8	8.8	37.8	44.4	47.8
B&W	A	5.85	10.25	39.64	45.56	47.36
				26 sets	200 sets	
	B					
	C					
	D					
	Average	5.9	10.3	39.6	45.6	47.4

#### Notes

First Copy Out and Copy Speed measured using ISO/IEC 29183, excludes first set of test documents. For more information see <http://www.hp.com/go/printerclaims>. Exact speed varies depending on the system configuration and document.

Only Target A was used, all test documents have the same Saturated throughput. Reference ISO/IEC29183:2010 Clause 5, Sections 5.3.1 and 5.3.2

## Full Detailed Test Report - LETTER

ISO/IEC 24735 Copy Productivity Report						
Detailed Report: LETTER						
	Copying Mode	FSOT (secs)	EFTP (ipm)			ESAT (ipm)
		1 set only	1 set only	1 set + 30sec	1 set + 4min	1 set + 30sec
Color Mode	1:1	10.82	22.17	42.37	48.51	50.51
			( 1 set )	11 sets	54 sets	
	1:2	14.39	16.68	41.32		50.70
			( 1 set )	9 sets		
	2:2	15.66	15.32	39.48		50.72
			( 1 set )	9 sets		
B&W mode	1:1	10.36	23.16	42.99	48.38	50.27
				8 sets	54 sets	
	1:2	13.58	17.68	41.66		50.70
				9 sets		
	2:2	15.32	15.66	39.42		50.72
				9 sets		

Notes  
 Reports located: <http://www.hp.com/go/printerclaims>



## Full Detailed Test Report - A4

Pre-set Item	Pre-set Value
Output Resolution	Default
Output Quality	Default
Copying Mode	Default
Auto Density Adjustment	Default
Collating function	Activated (if not activated in default mode)
Paper Sending Direction	Default
Paper Type Setting	Default
Paper Feeding	Standard cassette
Paper Exit	Standard exit tray
Face Up Exit	Default
Fixing Capability	Default
Image Quality Stability	Default
Capacity of Paper	Default
Others	Default

ISO/IEC 24735 Copy Productivity Report						
Detailed Report: A4						
	Copying Mode	FSOT (secs)	EFTP (ipm)			ESAT (ipm)
		1 set only	1 set only	1 set + 30sec	1 set + 4min	1 set + 30sec
Colour Mode	1:1	13.20	18.19	40.72	42.87	47.53
			( 1 set )	9 sets	52 sets	
	1:2	14.83	16.18	38.04		48.02
			( 1 set )	9 sets		
	2:2	16.50	14.54	37.10		48.00
			( 1 set )	9 sets		
B&W mode	1:1	11.18	21.47	40.87	45.47	47.55
				9 sets	51 sets	
	1:2	14.22	16.86	37.18		47.98
				8 sets		
	2:2	15.95	15.04	37.10		47.96
				8 sets		

Notes  
 Reports located: <http://www.hp.com/go/printerclaims>

## ISO/IEC 17991 Scanning Productivity Report

### Full Detailed Test Report - LETTER

Machine Setup Information		
	Test Start Date and Time	4/13/2017 13:29
	Tester	TQW
	Machine name/model	HP Color LaserJet Enterprise Flow MFP M681z
	Colour or B&W	Colour
	Configuration (options)	Default
	Temperature and Humidity	73 degF / 23 degC 20.0 %rH
	Voltage	110V
	Test End Date and Time	4/13/2017 17:17

	Preset Item	Preset Value
Mode and Setting	Scanning resolution	default (200 dpi)
	Colour or grey scale/B&W	default (colour)
	Duplex / simplex	default (simplex)
	Original page size	default (A4)
	Paper feed orientation	default (long edge)
	Scan destination	default (shared network)
	Storing File Type	default (PDF-multi)
	Auto scan quality adjustment	default (factory preset default setting)
ADF Paper-path	Paper feed direction	default (long edge)
	Output orientation	default
	Scanning unit	default (duplex ADF)

### ISO/IEC 17991 - Scan Summary Report: ADF Productivity Measurement

#### Summary Report: Letter

	Scanning Mode			Measurement result
	File format version	Resolution	Scanning side	scESAT 30secA (ipm)
Colour	PDF 1.4	200	single sided	93.69
			double sided	188.26
B&W	PDF 1.4	200	single sided	93.45
			double sided	188.23

#### Notes

- 1) For more information see <http://www.hp.com/go/printerclaims>.  
 2) For the B/W results, the device scan setting is set to "Scan in B/W".

### ISO/IEC 17991 - Scan Summary Report: Network Folder Productivity Measurement

#### Summary Report: Letter

	Scanning Mode			Measurement result		
	File format version	Resolution	Scanning side	scEFTP 30secF (ipm)	File size 30secF (Mbyte)	Number of Sets (30secF)
Colour	PDF 1.4	200	single sided	67.10	4.25	13.00
			double sided	79.00	9.65	25.00
B&W	PDF 1.4	200	single sided	70.90	2.23	13.00
			double sided	75.00	4.75	25.00

#### Notes

- 1) For more information see <http://www.hp.com/go/printerclaims>.  
 2) For the B/W results, the device scan setting is set to "Scan in B/W".

### ISO/IEC 17991 - Scan Full Report: ADF Productivity Measurement

#### Summary Report: Letter

	Scanning Mode			Measurement result		
	File format version	Resolution	Scanning side	scEFTP 1setA (ipm)	scEFTP 30secA (ipm)	scESAT 30secA (ipm)
Colour	PDF 1.4	200	single sided	44.98	85.67	93.69
			double sided	46.59	170.52	188.26
B&W	PDF 1.4	200	single sided	41.77	84.31	93.45
			double sided	48.24	170.1	188.23

#### Notes

- 1) For more information see <http://www.hp.com/go/printerclaims>.  
 2) For the B/W results, the device scan setting is set to "Scan in B/W".

### ISO/IEC 17991 - Scan Full Report: Network Folder Productivity Measurement

#### Summary Report: Letter

	Scanning Mode			Measurement result			
	File format version	Resolution	Scanning side	scEFTP 1setF (ipm)	scEFTP 30secF (ipm)	File size 30secF (Mbyte)	Number of Sets (30secF)
Colour	PDF 1.4	200	single sided	30.00	67.10	4.25	13
			double sided	26.66	79.00	9.65	25
B&W	PDF 1.4	200	single sided	28.33	70.90	2.23	13
			double sided	24.00	75.00	4.75	25

#### Notes

- 1) For more information see <http://www.hp.com/go/printerclaims>.  
 2) For the B/W results, the device scan setting is set to "Scan in B/W".

Test System Parameters		
	Item	Value
System	Computer name	HP Compaq Elite 8300 Small Form Factor
	Processor	Intel Core i7 -3770, 3.4 GHz
	System Chip Set	Intel C216 Chipset Family SMBus Host Controller
	System Board	System devices, default system BIOS
	System Memory	4 GB
	Hard Drive Subsystem	Standard disk drive (Seagate)
	Video Subsystem	AMD Radeon HD 6350
	Optical Drive	HP DVD A DH16aCSHR ATA
	I/O Subsystem	Builitin
	USB Subsystem	USB 2.0/3.0
Scanning Device Connection	Operating System	Windows 7 Business/Ultimate, 64 bit, Build 7601, SP 1
	Location of network folder	PC
	Internet Protocol	IPv4
	Transfer Protocol	SMB
	Hub	Trendnet Router and Gbit Switch
	Network Speed	TCP 10/1000 Mbit Ethernet
	Connction Cable	Cat6 Straight cable
	Wireless router	No use
	Others	No use

## ISO/IEC 17991 Scanning Productivity Report

### Full Detailed Test Report - A4

Machine Setup Information		
	Test Start Date and Time	4/13/2017 13:29
	Tester	TQW
	Machine name/model	HP Color LaserJet Enterprise Flow MFP M681z
	Colour or B&W	Colour
	Configuration (options)	Default
	Temperature and Humidity	73 degF / 23 degC 20.0 %rH
	Voltage	110V
	Test End Date and Time	4/13/2017 17:17

Preset Item		Preset Value
Mode and Setting	Scanning resolution	default (200 dpi)
	Colour or grey scale/B&W	default (colour)
	Duplex / simplex	default (simplex)
	Original page size	default (A4)
	Paper feed orientation	default (long edge)
	Scan destination	default (shared network)
	Storing File Type	default (PDF-multi)
	Auto scan quality adjustment	default (factory preset default setting)
ADF Paper-path	Paper feed direction	default (long edge)
	Output orientation	default
	Scanning unit	default (duplex ADF)

### ISO/IEC 17991 - Scan Summary Report: ADF Productivity Measurement

#### Summary Report: A4

	Scanning Mode			Measurement result
	File format version	Resolution	Scanning side	scESAT 30secA (ipm)
Colour	PDF 1.4	200	single sided	88.61
			double sided	176.74
B&W	PDF 1.4	200	single sided	88.35
			double sided	176.35

#### Notes

- 1) For more information see <http://www.hp.com/go/printerclaims>.  
 2) For the B/W results, the device scan setting is set to "Scan in B/W".

### ISO/IEC 17991 - Scan Summary Report: Network Folder Productivity Measurement

#### Summary Report: A4

	Scanning Mode			Measurement result		
	File format version	Resolution	Scanning side	scEFTP 30secF (ipm)	File size 30secF (Mbyte)	Number of Sets (30secF)
Colour	PDF 1.4	200	single sided	64.33	4.38	13.00
			double sided	73.84	8.69	24.00
B&W	PDF 1.4	200	single sided	68.57	2.33	13.00
			double sided	73.84	4.31	24.00

#### Notes

- 1) For more information see <http://www.hp.com/go/printerclaims>.  
 2) For the B/W results, the device scan setting is set to "Scan in B/W".

### ISO/IEC 17991 - Scan Full Report: ADF Productivity Measurement

#### Summary Report: A4

	Scanning Mode			Measurement result		
	File format version	Resolution	Scanning side	scEFTP 1setA (ipm)	scEFTP 30secA (ipm)	scESAT 30secA (ipm)
Colour	PDF 1.4	200	single sided	41.31	80.61	88.61
			double sided	48.78	158.1	176.74
B&W	PDF 1.4	200	single sided	36.09	80.9	88.35
			double sided	46.83	159.5	176.35

#### Notes

- 1) For more information see <http://www.hp.com/go/printerclaims>.  
 2) For the B/W results, the device scan setting is set to "Scan in B/W".

### ISO/IEC 17991 - Scan Full Report: Network Folder Productivity Measurement

#### Summary Report: A4

	Scanning Mode			Measurement result			
	File format version	Resolution	Scanning side	scEFTP 1setF (ipm)	scEFTP 30secF (ipm)	File size 30secF (Mbyte)	Number of Sets (30secF)
Colour	PDF 1.4	200	single sided	26.66	64.33	4.38	13
			double sided	25.33	73.84	8.69	24
B&W	PDF 1.4	200	single sided	26.66	68.57	2.33	13
			double sided	26.66	73.84	4.31	24

#### Notes

- 1) For more information see <http://www.hp.com/go/printerclaims>.  
 2) For the B/W results, the device scan setting is set to "Scan in B/W".

Test System Parameters		
	Item	Value
System	Computer name	HP Compaq Elite 8300 Small Form Factor
	Processor	Intel Core i7 -3770, 3.4 GHz
	System Chip Set	Intel C216 Chipset Family SMBus Host Controller
	System Board	System devices, default system BIOS
	System Memory	4 GB
	Hard Drive Subsystem	Standard disk drive (Seagate)
	Video Subsystem	AMD Radeon HD 6350
	Optical Drive	HP DVD A DH16aCSHR ATA
	I/O Subsystem	Built-in
	USB Subsystem	USB 2.0/3.0
Scanning Device Connection	Operating System	Windows 7 Business/Ultimate, 64 bit, Build 7601, SP 1
	Location of network folder	PC
	Internet Protocol	IPv4
	Transfer Protocol	SMB
	Hub	Trendnet Router and Gbit Switch
	Network Speed	TCP 10/1000 Mbit Ethernet
	Connection Cable	Cat6 Straight cable
	Wireless router	No use
	Others	No use