

ISO/IEC 24734 Printing Productivity Report: Office Category

Full Detailed Test Report - LETTER  
HP LaserJet Pro 4000 Series

Printing device and settings	
Test Start Date and Time	4/26/2023 14:24
Tester	RM
Machine name/model	HP LaserJet Pro 4000 Series
Colour or B&W	B&W
FW Version	1.2148H.00
Temperature and Humidity	21 degF / 22 degC, 23 %rH
Voltage	220V
Test End Date and Time	5/3/2023 11:35

  

Item	Value
Driver Version	54.3.5246
Media/Quality Setting	Default / Default
Simplex B&W Settings	Greyscale
Duplex B&W Settings	Greyscale
Setting N set count	Application
Collating function	Activated (application)
Paper Sending Direction	Default
Paper Size Setting	Default
Paper Feeding	Tray 2
Paper Exit	Standard Exit Tray
Output Orientation	Default (face down)
Duplexing Unit (Yes/No)	YES
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			
Office Category	Test for B&W Device	FSOT (seconds)	ESAT (ipm)
B&W	Simplex	11.11	42.48
	Duplex	14.51	37.08

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 <https://www.hp.com/us-en/printers/printing-speed-test-reports.html>.
- 4) Print monitor not configured to follow device if IP address changes.
- 5) Productivity has been determined in accordance to ISO/IEC 24734:2010.

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)	
Color Mode	Simplex - Adobe Reader		( 1 set )			
	Simplex - Word		( 1 set )			
	Simplex - Excel		( 1 set )			
	Simplex - Average		( 1 set )			
	Duplex - Adobe Reader	N/A	N/A	N/A		N/A
	Duplex - Word	N/A	N/A	N/A		N/A
	Duplex - Excel	N/A	N/A	N/A		N/A
	Duplex - Average	N/A	N/A	N/A		N/A
B&W mode (optional for color device)	Simplex - Adobe Reader	11.57	20.73 ( 1 set )	36.91 ( 7 sets )	41.28 ( 44 sets )	42.50
	Simplex - Word	11.00	21.82 ( 1 set )	37.18 ( 7 sets )		42.49
	Simplex - Excel	10.75	22.33 ( 1 set )	37.37 ( 7 sets )		42.46
	Simplex - Average	11.11	21.62 ( 1 set )	37.15 ( 7 sets )	41.3	42.48
	Duplex - Adobe Reader	14.67	16.36 ( 1 set )	30.30 ( 6 sets )		37.20
	Duplex - Word	14.46	16.58 ( 1 set )	30.40 ( 6 sets )		37.02
	Duplex - Excel	14.39	16.66 ( 1 set )	30.26 ( 6 sets )		37.04
	Duplex - Average	14.51	16.53 ( 1 set )	30.32 ( 6 sets )		37.08

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 <https://www.hp.com/us-en/printers/printing-speed-test-reports.html>.
- 4) Print monitor not configured to follow device if IP address changes.
- 5) Productivity has been determined in accordance to ISO/IEC 24734:2010.
- 6) For A5 functionality use HP UPD 7.0.1.

Test System Parameters	
Item	Value
Computer	HP Z240 SFF Workstation
Processor	Intel Core i7-6770, 3.4 GHz
System Chp. Set	Intel SKU/KBL Mobile/Desktop
System Board	system devices, default system BIOS
System Memory	8 GB
Hard Drive Subsystem	Turbo Drive G2 256GB PCIe SSD
Video Subsystem	Microsoft Basic Display Adaptor
Optical Drive	HP HLDS DVD/CDRW GUD1N
I/O Subsystem	Builtin
USB Subsystem	USB 2.0/3.0
TCP/IP	TCP/IP 10/100
Operating System	Win 10 Enterprise 64 Bit (2004)
Printing Applications	Microsoft Office Word 2019 Acrobat Reader DC Microsoft Office Excel 2019
Print Driver	Not Specified
Test files and location	Office category files, hard drive

ISO/IEC 24734 Printing Productivity Report: Office Category

Full Detailed Test Report - A4  
HP LaserJet Pro 4000 Series

Printing device and settings	
Test Start Date and Time	4/26/2023 14:24
Tester	RM
Machine name/model	HP LaserJet Pro 4000 Series
Colour or B&W	B&W
FW Version	1.2148H.00
Temperature and Humidity	71 degF / 22 degC, 23 %rH
Voltage	220V
Test End Date and Time	5/3/2023 11:35

  

Item	Value
Driver Version	54.3.5246
Media/Quality Setting	Default / Default
Simplex B&W Settings	Greyscale
Duplex B&W Settings	Greyscale
Setting N set count	Application
Collating function	Activated (application)
Paper Sending Direction	Default
Paper Size Setting	Default
Paper Feeding	Tray 2
Paper Exit	Standard Exit Tray
Output Orientation	Default (face down)
Duplexing Unit (Yes/No)	YES
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			
Office Category	Test for B&W Device	FSOT (seconds)	ESAT (ipm)
B&W	Simplex	11.49	40.33
	Duplex	14.85	35.71

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 <https://www.hp.com/us-en/printers/printing-speed-test-reports.html>.
- 4) Port monitor not configured to follow device if the IP address changes.
- 5) Productivity has been determined in accordance to ISO/IEC 24734:2010

Detailed Report: A4						
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
Colour Mode	Simplex - Adobe Reader		( 1 set )			
	Simplex - Word		( 1 set )			
	Simplex - Excel		( 1 set )			
	Simplex - Average		( 1 set )			
	Duplex - Adobe Reader	N/A	N/A	N/A		N/A
	Duplex - Word	N/A	N/A	N/A		N/A
	Duplex - Excel	N/A	N/A	N/A		N/A
	Duplex - Average	N/A	N/A	N/A		N/A
B&W mode (optional for color device)	Simplex - Adobe Reader	11.81	20.32 ( 1 set )	35.35 ( 7 sets )	39.38 ( 42 sets )	40.36
	Simplex - Word	11.67	20.57 ( 1 set )	35.29 ( 7 sets )		40.32
	Simplex - Excel	10.98	21.85 ( 1 set )	35.72 ( 7 sets )		40.31
	Simplex - Average	11.5	20.91 ( 1 set )	35.45 ( 7 sets )	39.4	40.33
	Duplex - Adobe Reader	14.92	16.08 ( 1 set )	29.18 ( 6 sets )		35.68
	Duplex - Word	15.08	15.90 ( 1 set )	29.06 ( 6 sets )		35.70
	Duplex - Excel	14.54	16.50 ( 1 set )	29.38 ( 6 sets )		35.76
	Duplex - Average	14.9	16.16 ( 1 set )	29.20 ( 6 sets )		35.71

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 <https://www.hp.com/us-en/printers/printing-speed-test-reports.html>.
- 4) Port monitor not configured to follow device if the IP address changes.
- 5) Productivity has been determined in accordance to ISO/IEC 24734:2010
- 6) For A5 functionality use HP LPPD 7.0.1.

Test System Parameters	
Item	Value
Computer	HP Z240 SFF Workstation
Processor	Intel Core i7-6770, 3.4 GHz
System Chp Set	Intel SKU/KBL/Mobile/Desktop
System Board	system devices, default system BIOS
System Memory	8 GB
Hard Drive Subsystem	Turbo Drive G2 256GB PCIe SSD
Video Subsystem	Microsoft Basic Display Adaptor
Optical Drive	HP HLDS DVD/DRW GUD1N
I/O Subsystem	Builtin
USB Subsystem	USB 2.0/3.0
TCP/IP	TCP/IP 10/100
Operating System	Win 10 Enterprise 64 Bit (2004)
Printing Applications	Microsoft Office Word 2019 Acrobat Reader DC Microsoft Office Excel 2019
Print Driver	Not Specified
Test files and location	Office category files, hard drive

ISO/IEC 24734 Printing Productivity Report: Office Category

Feature Performance Full Report - Office Feature Performance Test  
HP LaserJet Pro 4000 Series

Printing device and settings	
Test Start Date and Time	4/26/2023 14:24
Tester	RM
Machine name/model	HP LaserJet Pro 4000 Series
Colour or B&W	B&W
FW Version	1.2148H.00
Temperature and Humidity	17 degF / 22 degC, 23 %rH
Voltage	220V
Test End Date and Time	5/3/2023 11:35
Item	Value
Driver Version	54.3.5246
Media/Quality Setting	Default / Default
Simplex B&W Settings	Greyscale
Duplex B&W Settings	Greyscale
Setting N set count	Application
Collating function	Activated (application)
Paper Sending Direction	Default
Paper Size Setting	Default
Paper Feeding	Tray 2
Paper Exit	Standard Exit Tray
Output Orientation	Default (face down)
Duplexing Unit (Yes/No)	YES
Paper Manufacturer	HP/Xerox
Paper Weight	20lb / 75 g/m2
Paper Size	Letter / A4
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) FSOT (feature)	ESAT (feature) ESAT (base)
A5, Landscape Feed, Simplex, Colour	Simplex		
A5, Portrait Feed, Simplex, Colour	Simplex		
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	41%	163%
A5, Portrait Feed, Simplex, B/W	Simplex	27%	35%
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, 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) For the B/W results, the print driver was set to "print in B/W".  
 3) For more information see <https://www.hp.com/us-en/printers/printing-speed-test-reports.html>.  
 4) Print monitor not configured to follow device if the IP address changes.  
 5) Productivity has been determined in accordance to ISO/IEC 24734:2010  
 6) For A5 functionality use HPUPD 7.0.1

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 (ppm)	FSOT (base) FSOT (feature)	ESAT (feature) ESAT (base)
A5, Landscape Feed, Simplex, Colour						
A5, Portrait Feed, Simplex, Colour						
Legal, Simplex, Colour						
Legal, Duplex, Colour						
A4, 1200 dpi, Simplex, Colour						
Letter, 1200 dpi, Simplex, Colour						
A4, HP High Speed, Simplex, Colour						
Letter, HP High Speed, Simplex, Colour						
A4, General Office, Simplex, Colour						
Letter, General Office, Simplex, Colour						
A5, Landscape Feed, Simplex, B/W	18.09	40.34	45.03	66.1	41%	163%
A5, Portrait Feed, Simplex, B/W	18.09	40.34	68.53	14.1	27%	35%
Legal, Simplex, B/W						
Legal, Duplex, B/W						
A4, 1200 dpi, Simplex, B/W	18.09	40.34				
Letter, 1200 dpi, Simplex, B/W						
A4, General Office, Simplex, B/W	18.09	40.34				
Letter, General Office, Simplex, B/W						

- 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 <https://www.hp.com/us-en/printers/printing-speed-test-reports.html>.  
 4) Print monitor not configured to follow device if the IP address changes.  
 5) Productivity has been determined in accordance to ISO/IEC 24734:2010  
 6) For A5 functionality use HPUPD 7.0.1

Test System Parameters

Item	Value
Computer	HP Z240 SFF Workstation
Processor	Intel Core i7 -6770, 3.4 GHz
System Chip Set	Intel SKL/KBL Mobile/Desktop
System Board	system devices, default system BIOS
System Memory	8 GB
Hard Drive Subsystem	Turbo Drive G2 256GB PCIe SSD
Video Subsystem	Microsoft Basic Display Adaptor
Optical Drive	HP HLDS DVDWR GUD1N
I/O Subsystem	Builton
USB Subsystem	USB 2.0/3.0
CP/IP	TCP/IP 10/1000
Operating System	Win 10 Enterprise 64 Bit (2004)
Printing Applications	Microsoft Office Word 2019 Acrobat Reader DC
Print Driver	Microsoft Office Excel 2019
Test files and location	Not Specified Office category files, hard drive

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

Full Detailed Test Report - LETTER  
HP LaserJet Pro 4000 Series

Printing device and settings		
Test Start Date and Time	5/3/2023 17:45	
Tester	RM	
Machine name/model	HP LaserJet Pro 4000 Series	
Colour or B&W	B&W	
FW Version	2.2244B.00	
Configuration (options)	Default	
Controller	11100	
Printing device page count	Not Specified	
Printing supplies page count	Not Specified	
Temperature and Humidity	71 degF / 22 degC 23 %rH	
Voltage	220V	
Test End Date and Time	5/8/2023 16:50	

Item	Value
<b>Mode and Setting</b>	PDL and driver version: 54.3.5246
	Print Quality mode: default
	B&W settings: default
<b>Paper</b>	Paper feed orientation: Short Edge
	Paper type setting: default
	Paper feeding: Standard cassette
<b>Paper Path</b>	Paper exit: Standard exit tray
	Output orientation: default (face up or face down)

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

Summary Report: Letter		
		FPOT from Ready (seconds)
B&W	Simplex	6.08
	Duplex	

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 <https://www.hp.com/us-en/printers/printing-speed-test-reports.html>.  
 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.  
 7) Productivity has been determined in accordance to ISO/IEC 17629:2010  
 8) To achieve spec update FW to 2.2244B

**ISO First Page Out Time Report: Office Category**

Detailed Report: LETTER						
		Word (seconds)	Excel (seconds)	Adobe Reader (seconds)	Average (seconds)	Delay Time
Color Mode	FPOT from Ready - Simplex					
	FPOT from Ready - Duplex					
	FPOT from Sleep - Simplex			N/A		
	Recovery Time					
	FPOT from Off - Simplex					
	Warm-up Time					
B&W Mode	FPOT from Ready - Simplex	6.25	5.95	6.02	6.08	20 Seconds
	FPOT from Ready - Duplex					
	FPOT from Sleep - Simplex			7.70		61 Minutes
	Recovery Time			1.7		
	FPOT from Off - Simplex			55.52		
	Warm-up Time			49.50		

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 <https://www.hp.com/us-en/printers/printing-speed-test-reports.html>.  
 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.  
 7) Productivity has been determined in accordance to ISO/IEC 17629:2010  
 8) To achieve spec update FW to 2.2244B

**HP Data Table**

Detailed Report: LETTER							
		FPOT Avg (secs)	FPOT (secs) Iteration 1	FPOT (secs) Iteration 2	FPOT (secs) Iteration 3	Application	Delay Time
Color Mode	FPOT from Sleep	N/A	N/A	N/A	N/A	Adobe Reader	
	FPOT from Sleep (15 minutes) HP/Non ISO Test	N/A	N/A	N/A	N/A	Adobe Reader	
	FPOT from Ready, HP High Speed HP/Non ISO Test	N/A	N/A	N/A	N/A	Adobe Reader	
B&W Mode	FPOT from Sleep	7.70	7.68	7.76	7.66	Adobe Reader	61 Minutes
	FPOT from Sleep (15 minutes) HP/Non ISO Test	7.31	7.15	7.18	7.60	Adobe Reader	16 Minutes

**Test System Parameters**

Item	Value
<b>Test System</b>	Computer: HP Z240 SFF Workstation
	Processor: Intel Core i7 -6770, 3.4 Ghz
	System Chip Set: Intel SKL/KBL Mobile/Desktop
	System Board: system devices, default system BIOS
	System Memory: 8 GB
	Hard Drive Subsystem: Turbo Drive G2 256GB PCIe SSD
	Video Subsystem: Microsoft Basic Display Adaptor
	Optical Drive: HP HLDS DVDRW GUD1N
	I/O Subsystem: Built-in
	USB Subsystem: USB 2.0/3.0
<b>Printing Device Connection</b>	TCP/IP: 10/1000
<b>Software</b>	Operating System: Win 10 Enterprise 64 Bit (2004)
	Printing Applications: Microsoft Office 2019
	Print Driver: Adobe Reader DC
	Print Driver: 54.3.5246

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

Full Detailed Test Report - A4  
HP LaserJet Pro 4000 Series

Printing device and settings	
Test Start Date and Time	5/3/2023 17:45
Tester	RM
Machine name/model	HP LaserJet Pro 4000 Series
Colour or B&W	B&W
FW Version	2.2244B.00
Configuration (options)	Default
Controller	11100
Printing device page count	Not Specified
Printing supplies page count	Not Specified
Temperature and Humidity	71 degF / 22 degC 23 %rH
Voltage	220V
Test End Date and Time	5/8/2023 16:50

Item	Value
<b>Mode and Setting</b>	PDL and driver version 54.3.5246
	Print Quality mode default
	B&W settings default
<b>Paper</b>	Paper feed orientation Short Edge
	Paper type setting default
	Paper feeding Standard cassette
<b>Paper Path</b>	Paper exit Standard exit tray
	Output orientation default (face up or face down)

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

Summary Report: A4		FPOt from Ready (seconds)
B&W	Simplex	6.26
	Duplex	

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 <https://www.hp.com/us-en/printers/printing-speed-test-reports.html>.  
 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.  
 7) Productivity has been determined in accordance to ISO/IEC 17629:2010  
 8) To achieve spec update FW to 2.2244B

**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					
	FPOt from Ready - Duplex					
	FPOt from Sleep - Simplex			N/A		
	Recovery Time					
	FPOt from Off - Simplex					
	Warm-up Time					
B&W Mode	FPOt from Ready - Simplex	6.67	6.00	6.10	6.26	20 Seconds
	FPOt from Ready - Duplex					
	FPOt from Sleep - Simplex			7.66		61 Minutes
	Recovery Time			1.6		
	FPOt from Off - Simplex			55.69		
	Warm-up Time			49.59		

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 <https://www.hp.com/us-en/printers/printing-speed-test-reports.html>.  
 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.  
 7) Productivity has been determined in accordance to ISO/IEC 17629:2010  
 8) To achieve spec update FW to 2.2244B

**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	N/A	N/A	N/A	N/A	Adobe Reader	
	FPOt from Sleep (15 minutes) HP/Non ISO Test	N/A	N/A	N/A	N/A	Adobe Reader	
	FPOt from Ready, HP High Speed HP/Non ISO Test	N/A	N/A	N/A	N/A	Adobe Reader	
B&W Mode	FPOt from Sleep	7.66	7.66	7.65	N/A	Adobe Reader	61 Minutes
	FPOt from Sleep (15 minutes) HP/Non ISO Test	7.53	7.32	7.74	N/A	Adobe Reader	16 Minutes

**Test System Parameters**

Item	Value
<b>Test System</b>	Computer HP Z240 SFF Workstation
	Processor Intel Core i7 -6770, 3.4 Ghz
	System Chip Set Intel SKL/KBL Mobile/Desktop
	System Board system devices, default system BIOS
	System Memory 8 GB
	Hard Drive Subsystem Turbo Drive G2 256GB PCIe SSD
	Video Subsystem Microsoft Basic Display Adaptor
	Optical Drive HP HLDS DVDRW GUD1N
	I/O Subsystem Built-in
	USB Subsystem USB 2.0/3.0
<b>Printing Device Connection</b>	TCP/IP 10/1000
<b>Software</b>	Operating System Win 10 Enterprise 64 Bit (2004)
	Printing Applications Microsoft Office 2019
	Print Driver Adobe Reader DC
	54.3.5246