

ISO/IEC 24734 Printing Productivity Report: Office Category

Full Detailed Test Report - LETTER
HP LaserJet Managed E60165DN

Printing device and settings	
Test Start Date and Time	3/12/2019 10:41
Tester	RM
Machine name/model	HP LaserJet Managed E60165DN
Colour or B&W	B&W
FW Version	2407081_000596
Temperature and Humidity	77 degF / 25 degC 29.7 %rH
Voltage	110V
Test End Date and Time	5/1/2019 13:22

Item	Value	
Mode and Setting	Driver Version	6.6.5.23510
	Media/Quality Setting	Default / Default
	Simplex B&W Settings	default
	Duplex B&W Settings	default
	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
	Output Orientation	Default (face down)
	Duplexing Unit (Yes/No)	Yes
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: Letter			
Office Category Test for B&W Device		FSOT (seconds)	ESAT (ipm)
B&W	Simplex	7.59	65.72
	Duplex	9.25	58.48

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 + 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					
	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	7.44	32.27 (1 set)	59.64 (10 sets)	63.74 (69 sets)	65.75
	Simplex - Word	7.59	31.63 (1 set)	59.42 (10 sets)		65.71
	Simplex - Excel	7.74	31.00 (1 set)	59.11 (10 sets)		65.72
	Simplex - Average	7.59	31.63 (1 set)	59.39 (10 sets)	63.7	65.72
	Duplex - Adobe Reader	9.12	26.32 (1 set)	50.26 (9 sets)		58.46
	Duplex - Word	9.22	26.02 (1 set)	50.16 (9 sets)		58.50
	Duplex - Excel	9.40	25.54 (1 set)	50.06 (9 sets)		58.48
	Duplex - Average	9.25	25.96 (1 set)	50.16 (9 sets)		58.48

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 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 DVD+RW GUD1N
I/O Subsystem	Builtin
USB Subsystem	USB 2.0/3.0
TCP/IP	10.10.10.0
Operating System	Win 10 Enterprise 64 Bit (10240)
Printing Applications	Microsoft Office Word 2016
	Acrobat Reader DC
	Microsoft Office Excel 2016
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 Managed E60165DN

Printing device and settings	
Test Start Date and Time	3/12/2019 10:41
Tester	RM
Machine name/model	HP LaserJet Managed E60165DN
Colour or B&W	B&W
FW Version	2407081_000596
Temperature and Humidity	77 degF / 25 degC 29.7 %rH
Voltage	110V
Test End Date and Time	5/1/2019 13:22

Item	Value	
Mode and Setting	Driver Version	6.6.5.23510
	Media/Quality Setting	Default / Default
	Simplex B&W Settings	default
	Duplex B&W Settings	default
	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
	Output Orientation	Default (face down)
	Duplexing Unit (Yes/No)	Yes
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			
Office Category Test for B&W Device		FSOT (seconds)	ESAT (ipm)
B&W	Simplex	7.78	62.03
	Duplex	9.85	55.86

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)	EFTP (ipm)			ESAT (ipm)	
		1 set only (1 set)	1 set + 30sec (# of sets)	1 set + 4min (# of sets)		
Colour Mode	Simplex - Adobe Reader		(1 set)			
	Simplex - Word		(1 set)			
	Simplex - Excel		(1 set)			
	Simplex - Average					
	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 <small>(optional for color device)</small>	Simplex - Adobe Reader	7.50	32.02 (1 set)	56.15 (9 sets)	60.02 (64 sets)	62.07
	Simplex - Word	7.81	30.74 (1 set)	55.49 (9 sets)		61.96
	Simplex - Excel	8.02	29.94 (1 set)	55.53 (9 sets)		62.06
	Simplex - Average	7.8	30.90 (1 set)	55.72 (9 sets)	60.0	62.03
	Duplex - Adobe Reader	9.42	25.48 (1 set)	47.00 (8 sets)		55.88
	Duplex - Word	10.07	23.84 (1 set)	46.92 (8 sets)		55.86
	Duplex - Excel	10.04	23.90 (1 set)	47.02 (8 sets)		55.84
	Duplex - Average	9.9	24.40 (1 set)	46.98 (8 sets)		55.86

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 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 DVD+RW GUD1N
I/O Subsystem	Builtin
USB Subsystem	USB 2.0/3.0
TCP/IP	10.10.10.0
Operating System	Win 10 Enterprise 64 Bit (10240)
Printing Applications	Microsoft Office Word 2016
	Acrobat Reader DC
	Microsoft Office Excel 2016
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 Managed E60165DN

Printing device and settings	
Test Start Date and Time	3/12/2019 10:41
Tester	RM
Machine name/model	HP LaserJet Managed E60165DN
Colour or B&W	B&W
FW Version	2407081_000596
Temperature and Humidity	77 degF / 25 degC 29.7 %rH
Voltage	110V
Test End Date and Time	5/1/2019 13:22

Item	Value	
Mode and Setting	Driver Version	6.6.5.23510
	Media/Quality Setting	Default / Default
	Simplex B&W Settings	default
	Duplex B&W Settings	default
	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
	Output Orientation	Default (face down)
	Duplexing Unit (Yes/No)	Yes
Paper	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, General Office, Simplex, Colour	Simplex		
Letter, General Office, Simplex, Colour	Simplex		
A5, Landscape Feed, Simplex, B/W	Simplex	129%	163%
A5, Portrait Feed, Simplex, B/W	Simplex	63%	46%
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) Test conducted with 8-paper Office Feature Performance file.
 - 3) For more information see <http://w.w.w.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						
A5, Portrait Feed, Simplex, Colour						
Legal, Simplex, Colour						
Legal, Duplex, Colour						
A4, 1200 dpi, Simplex, Colour						
Letter, 1200 dpi, Simplex, Colour						
A4, General Office, Simplex, Colour						
Letter, General Office, Simplex, Colour						
A5, Landscape Feed, Simplex, B/W	11.37	61.83	8.82	101.0	129%	163%
A5, Portrait Feed, Simplex, B/W	11.37	61.83	18.3	28.9	63%	46%
Legal, Simplex, B/W						
Legal, Duplex, B/W						
A4, 1200 dpi, Simplex, B/W	11.37	61.83				
Letter, 1200 dpi, Simplex, B/W						
A4, General Office, Simplex, B/W	11.37	61.83				
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://w.w.w.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 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
	IO Subsystem	Builtin
	USB Subsystem	USB 2.0/3.0
I/O	TCP/IP	
Software	Operating System	Win 10 Enterprise 64 Bit (10240)
	Printing Applications	Microsoft Office Word 2016
		Acrobat Reader DC
	Print Driver	Microsoft Office Excel 2016
	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 Managed E60165DN

Printing device and settings		
Test Start Date and Time	3/12/2019 10:26	
Tester	RM	
Machine name/model	HP LaserJet Managed E60165DN	
Colour or B&W	B&W	
FW Version	2407081_000596	
Configuration (options)	Default	
Controller	9.1	
Printing device page count	Not Specified	
Printing supplies page count	Not Specified	
Temperature and Humidity	77 degF / 25 degC 29.7 %rH	
Voltage	110V	
Test End Date and Time	3/12/2019 12:00	

Item	Value	
Mode and Setting	PDL and driver version	6.6.5.23510
	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: Letter

B&W		FPOT from Ready (seconds)
Simplex	4.81	
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 <http://w.w.w.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.

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	4.90	4.96	4.57	4.81	20 Seconds
	FPOT from Ready - Duplex					
	FPOT from Sleep - Simplex			11.28		95 Minutes
	Recovery Time			6.7		
	FPOT from Off - Simplex			128.46		
	Warm-up Time			123.89		

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://w.w.w.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: 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	
B&W Mode	FPOT from Sleep	11.28	11.11	11.44	N/A	Adobe Reader	95 Minutes
	FPOT from Sleep (15 minutes) HP/Non ISO Test	6.71	6.71	6.70	N/A	Adobe Reader	15 Minutes

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) DLP includes detailed iterations as data measurements may vary run to run.

Test System Parameters		
Item	Value	
Test System	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	Builtin
	USB Subsystem	USB 2.0/3.0
Printing Device Connection	TCP/IP	
Software	Operating System	Win 10 Enterprise 64 Bit (10240)
	Printing Applications	Microsoft Word 2016
		Microsoft Excel 2016
		Adobe Reader DC

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

Full Detailed Test Report - A4

HP LaserJet Managed E60165DN

Printing device and settings		
Test Start Date and Time	3/12/2019 10:26	
Tester	RM	
Machine name/model	HP LaserJet Managed E60165DN	
Colour or B&W	B&W	
FW Version	2407081_000596	
Configuration (options)	Default	
Controller	9.1	
Printing device page count	Not Specified	
Printing supplies page count	Not Specified	
Temperature and Humidity	77 degF / 25 degC 29.7 %rH	
Voltage	110V	
Test End Date and Time	3/12/2019 12:00	

Item	Value	
Mode and Setting	PDL and driver version	6.6.5.23510
	Print Quality mode	default
	B&W settings	default
	Paper feed orientation	Short Edge
Paper	Paper type setting	default
	Paper feeding	Standard cassette
Paper Path	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	4.86
	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 <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.

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	4.93	5.04	4.61	4.86	20 Seconds
	FPOT from Ready - Duplex					
	FPOT from Sleep - Simplex			11.14		95 Minutes
	Recovery Time			6.5		
	FPOT from Off - Simplex			153.59		
	Warm-up Time			148.98		

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: 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 Sleep	11.14	11.16	11.11	N/A	Adobe Reader	95 Minutes
B&W Mode	FPOT from Sleep (15 minutes) HP/Non ISO Test	6.73	6.75	6.71	N/A	Adobe Reader	15 Minutes

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) DLP includes detailed iterations as data measurements may vary run to run.

Test System Parameters		
Item	Value	
Test System	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	Builtin
	USB Subsystem	USB 2.0/3.0
Printing Device Connection	TCP/IP	10/1000
Software	Operating System	Win 10 Enterprise 64 Bit (10240)
	Printing Applications	Microsoft Word 2016
		Microsoft Excel 2016
		Adobe Reader DC