ISO/IEC 24734 Printing Productivity Report: Office Category

Full Detailed Test Report - LETTER

HP Color LaserJet Flow MFP M681F

Test Start Date and Time: 10/5/2017 15:08
Tester: AH

Machine name/model: HP Color LaserJet Flow MFP M681F
FW Version: 2403298_006039

Temperature and Humidity: 74 degF / 23 degC  16.6 %rH

Voltage: 110V

Test End Date and Time: 10/17/2017 16:24

Item

Value

Driver Version: 6.4.0.22070

Media/Quality Setting: Default / Default

Simplex B&W Settings: Print in Greyscale

Duplex B&W Settings: Print in Greyscale

Collating function: Activated (application)

Paper Sending Direction: Default

Paper Size Setting: Default

Paper Feeding Tray: Paper Tray 2

Paper Exit: Standard Exit Tray

Output Orientation: Default (face down)

Duplexing Unit: 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

Note:
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 Text for Color Device

<table>
<thead>
<tr>
<th>Color</th>
<th>FSOT (sec)</th>
<th>ESAT (ipm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simplex</td>
<td>10.69</td>
<td>50.24</td>
</tr>
<tr>
<td>Duplex</td>
<td>10.69</td>
<td>50.2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B&amp;W</th>
<th>Simplex</th>
<th>Duplex</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.82</td>
<td>10.9</td>
<td></td>
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</tbody>
</table>

Details:

Office Category

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<thead>
<tr>
<th>Color Mode</th>
<th>FSOT (sec)</th>
<th>EFTP (ipm)</th>
<th>ESAT (ipm)</th>
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</thead>
<tbody>
<tr>
<td>Simplex - Adobe Reader</td>
<td>10.69</td>
<td>50.24</td>
<td></td>
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<tr>
<td>Simplex - Word</td>
<td>10.69</td>
<td>50.2</td>
<td></td>
</tr>
<tr>
<td>Simplex - Excel</td>
<td>9.82</td>
<td>50.2</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B&amp;W</th>
<th>Simplex</th>
<th>Duplex</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.82</td>
<td>9.82</td>
<td></td>
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</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Item</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer</td>
<td>HP Compaq Elite 8300 Small Form Factor</td>
</tr>
<tr>
<td>Processor</td>
<td>Intel Core i7 -3770, 3.4 GHz</td>
</tr>
<tr>
<td>System Chip Set</td>
<td>Intel C216 Chipset Family SMBus Host Controller</td>
</tr>
<tr>
<td>System Memory</td>
<td>4 GB</td>
</tr>
<tr>
<td>Hard Drive Subsystem</td>
<td>Standard disk drive (Seagate)</td>
</tr>
<tr>
<td>Video Subsystem</td>
<td>AMD Radeon HD 6350</td>
</tr>
<tr>
<td>Optical Drive</td>
<td>HP DVD ADH16aCSHR ATA</td>
</tr>
<tr>
<td>I/O Subsystem</td>
<td>Builtin</td>
</tr>
<tr>
<td>TCP/IP</td>
<td>10/100</td>
</tr>
<tr>
<td>Operating System</td>
<td>Windows 7 64 Bit</td>
</tr>
<tr>
<td>Printing Applications</td>
<td>Microsoft Office 2010</td>
</tr>
<tr>
<td>Office Software</td>
<td>Office 2010</td>
</tr>
<tr>
<td>Adobe Reader</td>
<td>10</td>
</tr>
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</table>

Test files and location: Office category files, hard drive.
ISO/IEC 24734 Printing Productivity Report: Office Category

Full Detailed Test Report - A4
HP Color LaserJet Flow MFP M681F

Test Start Date and Time: 10/5/2017 15:08
Tester: AH
Machine name/model: HP Color LaserJet Flow MFP M681F
Colour or B&W: Colour
FW Version: 2403298_006039
Temperature and Humidity: 74 degF / 23 degC, 16.6 %rH
Voltage: 110V

Test End Date and Time: 10/17/2017 16:24

<table>
<thead>
<tr>
<th>Item</th>
<th>Value</th>
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<tbody>
<tr>
<td>Driver Version</td>
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</tr>
<tr>
<td>Media/Quality Setting</td>
<td>Default / Default</td>
</tr>
<tr>
<td>Simplex B&amp;W Settings</td>
<td>Print in Greyscale</td>
</tr>
<tr>
<td>Setting N set count</td>
<td>Application</td>
</tr>
<tr>
<td>Paper Sending Direction</td>
<td>Default</td>
</tr>
<tr>
<td>Paper Size Setting</td>
<td>Default</td>
</tr>
<tr>
<td>Paper Feeding Tray</td>
<td>Tray 2</td>
</tr>
<tr>
<td>Duplexing Unit Tray</td>
<td>Yes</td>
</tr>
<tr>
<td>Paper Orientation</td>
<td>Default (face down)</td>
</tr>
<tr>
<td>Duplexing Unit Tray</td>
<td>Yes</td>
</tr>
<tr>
<td>Paper Manufacturer</td>
<td>HP / Xerox</td>
</tr>
<tr>
<td>Paper Weight</td>
<td>20lb / 75 g/m²</td>
</tr>
<tr>
<td>Paper Size</td>
<td>Letter / A4</td>
</tr>
<tr>
<td>Paper type/name</td>
<td>HP Multipurpose Ultra White / HP Office</td>
</tr>
</tbody>
</table>

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</tr>
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<td>System devices, default system BIOS</td>
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<td>4 GB</td>
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<td>Video Subsystem</td>
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<td>USB Subsystem</td>
<td>USB 2.0/3.0</td>
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<tr>
<td>TCP/IP</td>
<td>TCP/IP 10/1000</td>
</tr>
<tr>
<td>Operating System</td>
<td>Windows 7 64 Bit</td>
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<tr>
<td>Printing Applications</td>
<td>Microsoft Office 2010</td>
</tr>
<tr>
<td>Adobe Reader</td>
<td></td>
</tr>
<tr>
<td>Test files and location</td>
<td>Office category files, hard drive</td>
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Summary Report: A4

<table>
<thead>
<tr>
<th>Office Category</th>
<th>Test</th>
<th>FSOT (seconds)</th>
<th>ESAT (ipm)</th>
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<tbody>
<tr>
<td>Colour</td>
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</tr>
<tr>
<td>Simplex</td>
<td>10.6</td>
<td>47.3</td>
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<tr>
<td>B&amp;W</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Simplex</td>
<td>10.2</td>
<td>47.3</td>
<td></td>
</tr>
<tr>
<td>B&amp;W</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Office Category</th>
<th>FSOT (sec)</th>
<th>EFTP (ipm)</th>
<th>ESAT (ipm)</th>
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<tbody>
<tr>
<td>Simplex - Adobe Reader</td>
<td>11.00</td>
<td>21.52</td>
<td>40.80</td>
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<td>Simplex - Word</td>
<td>10.45</td>
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<td>41.33</td>
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<td>Simplex - Excel</td>
<td>10.21</td>
<td>23.50</td>
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<td>Simplex - Average</td>
<td>10.6</td>
<td>22.7</td>
<td>41.2</td>
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<tr>
<td>Duplex - Adobe Reader</td>
<td>13.88</td>
<td>17.30</td>
<td>38.78</td>
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<tr>
<td>Duplex - Word</td>
<td>12.95</td>
<td>18.54</td>
<td>39.75</td>
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<td>Duplex - Excel</td>
<td>13.76</td>
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<td>Duplex - Average</td>
<td>13.2</td>
<td>18.4</td>
<td>40.1</td>
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</table>

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".
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4) Port monitor not configured to follow device if the IP address changes.
ISO/IEC 24734 Printing Productivity Report: Office Feature Performance Test
HP Color LaserJet Flow MFP M681F

Test Start Date and Time: 10/5/2017 15:08
Tester: AH
Machine name/model: HP Color LaserJet Flow MFP M681F
Colour or B&W: Colour
FW Version: 2403298_006039
Temperature and Humidity: 74 degF / 23 degC, 16.6 %rH
Voltage: 110V
Test End Date and Time: 10/17/2017 16:24

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<thead>
<tr>
<th>Item</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Driver Version</td>
<td>6.4.0.22070</td>
</tr>
<tr>
<td>Media/Quality Setting</td>
<td>Default / Default</td>
</tr>
<tr>
<td>Simplex B&amp;W Settings</td>
<td>Print in Grayscale</td>
</tr>
<tr>
<td>Duplex B&amp;W Settings</td>
<td>Print in Grayscale</td>
</tr>
<tr>
<td>N set count Application</td>
<td>1 set + 30 sec</td>
</tr>
<tr>
<td>Collating function</td>
<td>Activated (application)</td>
</tr>
<tr>
<td>Paper Sending Direction</td>
<td>Default</td>
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<tr>
<td>Paper Size Setting</td>
<td>Default</td>
</tr>
<tr>
<td>Paper Feeding Tray</td>
<td>2</td>
</tr>
<tr>
<td>Paper Exit</td>
<td>Standard Exit Tray</td>
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<tr>
<td>Output Orientation</td>
<td>Default (face up)</td>
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<tr>
<td>Duplexing Unit Tray Type</td>
<td>Yes</td>
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<tr>
<td>Paper Mankufacturer</td>
<td>HP / Xerox</td>
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Printing device and settings:

<table>
<thead>
<tr>
<th>Mode and Setting</th>
<th>Value</th>
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<tbody>
<tr>
<td>Paper Path</td>
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<tr>
<td>Paper Orientation</td>
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ISO Print Productivity Report: Feature Performance Test Summary

<table>
<thead>
<tr>
<th>Printing Modes</th>
<th>Feature Performance Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feature Adobe Reader - Office test file (8-page)</td>
<td>A5 and Legal</td>
</tr>
<tr>
<td>FSOT (base)</td>
<td>FSOT (feature)</td>
</tr>
<tr>
<td>ESAT (base)</td>
<td>ESAT (feature)</td>
</tr>
<tr>
<td>A5 Landscape Feed - Colour</td>
<td>Simplex</td>
</tr>
<tr>
<td>A5 Portrait Feed - Colour</td>
<td>Simplex</td>
</tr>
<tr>
<td>Legal - Colour</td>
<td>Simplex</td>
</tr>
<tr>
<td>Legal - B/W</td>
<td>Duplex</td>
</tr>
<tr>
<td>A5 Portrait Feed - B/W</td>
<td>Simplex</td>
</tr>
<tr>
<td>Legal - B/W</td>
<td>Simplex</td>
</tr>
</tbody>
</table>

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<tr>
<td>Video Subsystem</td>
<td>AMD Radeon HD6350</td>
</tr>
<tr>
<td>Display</td>
<td>19&quot;</td>
</tr>
<tr>
<td>LSI Subsystem</td>
<td>10/100</td>
</tr>
<tr>
<td>OS</td>
<td>Windows 7, 64 Bit</td>
</tr>
<tr>
<td>Printing Applications</td>
<td>Microsoft Office 2010</td>
</tr>
<tr>
<td>Imaging Software</td>
<td>Office 2010</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Printing Modes</th>
<th>Feature Performance Mode</th>
<th>Base Printing Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feature Adobe Reader - Office test file (8-page)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FSOT Base</td>
<td>ESAT Base</td>
<td>1 set FSOT (sec)</td>
</tr>
<tr>
<td>Simplex A5 Landscape Feed - Colour</td>
<td>Simplex</td>
<td>16.53</td>
</tr>
<tr>
<td>Simplex A5 Portrait Feed - Colour</td>
<td>Simplex</td>
<td>16.53</td>
</tr>
<tr>
<td>Legal - Colour</td>
<td>Simplex</td>
<td>16.53</td>
</tr>
<tr>
<td>Legal - B/W</td>
<td>Duplex</td>
<td>15.78</td>
</tr>
</tbody>
</table>

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.
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<td>Seagate</td>
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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.
ISO/IEC 17629 First Print Out Time Report: Office Category

Full Detailed Test Report - LETTER

HP Color LaserJet Flow MFP M681F

Test Start Date and Time 10/5/2017 15:08
Tester AH
Machine name/model HP Color LaserJet Flow MFP M681F
Colour or B&W Colour
FW Version 2403298_006039
Configuration (options) Default
Controller 7.143
Printing device page count Not Specified
Temperature and Humidity 74 degF / 23 degC  16.6 %rH
Voltage 110V
Test End Date and Time 10/17/2017 16:24

<table>
<thead>
<tr>
<th>Item</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>PDL and driver version</td>
<td>6.4.0.22070</td>
</tr>
<tr>
<td>Print Quality mode</td>
<td>default</td>
</tr>
<tr>
<td>B&amp;W settings</td>
<td>default</td>
</tr>
<tr>
<td>Paper feeding</td>
<td>Standard cassette</td>
</tr>
<tr>
<td>Paper exit</td>
<td>Standard exit tray</td>
</tr>
<tr>
<td>Output orientation</td>
<td>default (face up or face down)</td>
</tr>
</tbody>
</table>

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

#### Summary Report: Letter

<table>
<thead>
<tr>
<th>Item</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Simplex: 6.23  B&amp;W: 5.48</td>
</tr>
</tbody>
</table>

#### 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.

**HP Data Table**

#### Detailed Report: LETTER

<table>
<thead>
<tr>
<th>Item</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Printer</td>
<td>HP Color LaserJet MFP M681F</td>
</tr>
<tr>
<td>Model</td>
<td>Office Category</td>
</tr>
<tr>
<td>Configuration (options)</td>
<td>Default</td>
</tr>
<tr>
<td>Controller</td>
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</tr>
<tr>
<td>Printing device page count</td>
<td>Not Specified</td>
</tr>
<tr>
<td>Temperature and Humidity</td>
<td>74 degF / 23 degC  16.6 %rH</td>
</tr>
<tr>
<td>Voltage</td>
<td>110V</td>
</tr>
<tr>
<td>Test Start Date and Time</td>
<td>10/5/2017 15:08</td>
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<tr>
<td>Test End Date and Time</td>
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<td>I/O Subsystem</td>
<td>Builtin</td>
</tr>
<tr>
<td>USB Subsystem</td>
<td>USB 2.0/3.0</td>
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<td>Operation System</td>
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<tr>
<td>Printing Applications</td>
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<tr>
<td>Print Driver</td>
<td>6.4.0.22070</td>
</tr>
<tr>
<td>Port</td>
<td>TCP/IP</td>
</tr>
<tr>
<td>TCP/IP</td>
<td>10/1000</td>
</tr>
</tbody>
</table>

**Test System**

<table>
<thead>
<tr>
<th>Item</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interface</td>
<td>TCP/IP</td>
</tr>
<tr>
<td>Operating System</td>
<td>Windows 7 Business Ultimate 64 bit, Build 7601, SP1</td>
</tr>
<tr>
<td>Printing Applications</td>
<td>Microsoft Office 2010 SP2</td>
</tr>
<tr>
<td>Print Driver</td>
<td>6.4.0.22070</td>
</tr>
</tbody>
</table>

**HP Data Table**

#### Detailed Report: LETTER

<table>
<thead>
<tr>
<th>Item</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>FPOT Avg (sec)</td>
<td>6.23</td>
</tr>
<tr>
<td>FPOT from Ready (seconds)</td>
<td>5.88</td>
</tr>
<tr>
<td>FPOT from Sleep (seconds)</td>
<td>13.73</td>
</tr>
<tr>
<td>FPOT from Off (seconds)</td>
<td>179.59</td>
</tr>
<tr>
<td>Warm-up-time (seconds)</td>
<td>172.84</td>
</tr>
</tbody>
</table>

#### 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) Details for FPOT from Sleep are shown below.

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

**Detailed Report: LETTER**

<table>
<thead>
<tr>
<th>Item</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>FPOT from Ready (seconds)</td>
<td>5.88</td>
</tr>
<tr>
<td>FPOT from Sleep (seconds)</td>
<td>13.73</td>
</tr>
<tr>
<td>FPOT from Off (seconds)</td>
<td>179.59</td>
</tr>
<tr>
<td>Warm-up-time (seconds)</td>
<td>172.84</td>
</tr>
</tbody>
</table>

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

Full Detailed Test Report - A4

HP Color LaserJet Flow MFP M681F

Test Start Date and Time 10/5/2017 15:08

Tester AH

Machine name/model HP Color LaserJet Flow MFP M681F

Colour or B&W Colour

FW Version 2403298_006039

Configuration (options) Default

Controller 7.143

Printing device page count Not Specified

Temperature and Humidity 74 degF / 23 degC 16.6 %rH

Voltage 110V

Test End Date and Time 10/17/2017 16:24

Item

Value

PDL and driver version 6.4.0.22070

Print Quality mode default

B&W settings default

Paper feed orientation Short Edge

Paper type setting default

Paper feeding Standard cassette

Output orientation default (face up or face down)


ISO First Page Out Time Summary Report: Office Category

Summary Report: A4

Colour

B&W

FPOT from Ready (seconds) 6.41

FPOT from Ready (seconds) 6.61

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

FPOT from Ready (seconds)

Color Mode

FPOT from Ready - Simplex 6.05 6.20 6.98 6.41 20 Seconds

FPOT from Ready - Duplex

FPOT from Sleep - Simplex 13.75 105 Minutes

FPOT from Sleep - Duplex Recovery Time 6.8

FPOT from Off - Simplex 176.15

Warm-up Time 168.13

FPOT from Ready - Simplex 5.37 5.44 6.00 5.61 20 Seconds

FPOT from Ready - Duplex

FPOT from Sleep - Simplex 13.20 105 Minutes

FPOT from Sleep - Duplex Recovery Time 7.2

FPOT from Off - Simplex 173.73

Warm-up Time 167.73

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 13.75 13.82 13.74 N/A Adobe Reader 15 Minutes

FPOT from Sleep 8.86 8.84 8.88 N/A Adobe Reader 15 Minutes

FPOT from Sleep 13.20 13.05 13.35 N/A Adobe Reader 15 Minutes

B&W Mode

FPOT from Sleep 13.20 13.15 13.25 N/A Adobe Reader 15 Minutes

FPOT from Sleep 8.21 8.21 8.20 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) All measurement data include detailed iterations as data measurements may vary run to run.

4) For more information see http://www.hp.com/go/printerclaims.

5) Port monitor not configured to follow device if the IP address changes.

6) Page counts were collected after completion of the tests.

Test System Information

Value

Computer HP Compaq Elite 8300 Small Form Factor

Microprocessor Intel Core i7-3770, 3.4 GHz

System RAM 8 GB (4 GB high)+ 4 GB low

System Memory 12 GB

System Memory 16 GB (8 GB high)+ 8 GB low

Display Subsystem Standard (8 MB for graphics)

Graphics Card HP T9300 PMI

Software HP OS A.6.02.82.0.2 A

TCP/IP 15/1000

Printing Device Connection

Operating System Windows 7 Business Ultimate, 64 bit, Build 7601 SP 1

Printing Applications Microsoft Office 2010 SP2

Adobe Reader 10.1.4

Test menu 6.4.0.22070
## ISO/IEC 29183 Copy Productivity Report

**Full Detailed Test Report - LETTER**

**HP Color LaserJet Flow MFP M681F**

### Machine Setup Information

- **Test Start Date and Time**: 10/6/2017 16:08
- **Tester**: AH
- **Machine name/model**: HP Color LaserJet Flow MFP M681F
- **FW Version**: 2403298_006039
- **Configuration (options)**: Not Specified
- **Temperature and Humidity**: 74 degF / 23 degC 16.6 %rH
- **Test End Date and Time**: 10/9/2017 11:27

### Pre-set Item Pre-set Value

<table>
<thead>
<tr>
<th>Mode</th>
<th>Pre-set Item</th>
<th>Pre-set Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output Resolution</td>
<td>Default</td>
<td></td>
</tr>
<tr>
<td>Output Quality</td>
<td>Default</td>
<td></td>
</tr>
<tr>
<td>Copying Mode</td>
<td>Colour for Colour and B&amp;W for B&amp;W</td>
<td></td>
</tr>
<tr>
<td>Auto Density Adjustment</td>
<td>Default</td>
<td></td>
</tr>
<tr>
<td>Collating function</td>
<td>Set in Control Panel</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Paper</th>
<th>Paper Sending Direction</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper Type Setting</td>
<td>Default</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Paper Path</th>
<th>Tray</th>
<th>Paper Feeding</th>
<th>Face Up Exit</th>
<th>Default (face down)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temporary Stop</td>
<td>Fixing Capability</td>
<td>Default</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capacity of Paper</td>
<td>Default</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Others</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Paper</th>
<th>Paper Manufacturer</th>
<th>HP / Xerox</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper Weight</td>
<td>20lb / 75 g/m²</td>
<td></td>
</tr>
<tr>
<td>Paper Size</td>
<td>Letter / A4</td>
<td></td>
</tr>
<tr>
<td>Paper type/name</td>
<td>HP Multipurpose Ultra White / HP Office</td>
<td></td>
</tr>
</tbody>
</table>

### Summary Report: Letter

<table>
<thead>
<tr>
<th>Color</th>
<th>sFCOT (secs)</th>
<th>sESAT (ipm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>7.0</td>
<td>51.1</td>
</tr>
<tr>
<td>B&amp;W</td>
<td>5.7</td>
<td>50.2</td>
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</tbody>
</table>

### Detailed Report: LETTER

<table>
<thead>
<tr>
<th>Target</th>
<th>sFCOT (secs)</th>
<th>sEFTP (ipm)</th>
<th>sESAT (ipm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>7.02</td>
<td>8.55</td>
<td>41.43</td>
</tr>
<tr>
<td>B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>7.0</td>
<td>8.6</td>
<td>41.4</td>
</tr>
</tbody>
</table>

### Notes

First Copy Out and Copy Speed measured using ISO/IEC 29183, excludes first set of test documents. For more information see [http://w w w .hp.com/go/printerclaims](http://ww.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
## Summary Report: A4

<table>
<thead>
<tr>
<th>Mode</th>
<th>Pre-set Item</th>
<th>Pre-set Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output Resolution</td>
<td>Default</td>
<td></td>
</tr>
<tr>
<td>Output Quality</td>
<td>Default</td>
<td></td>
</tr>
<tr>
<td>Copying Mode</td>
<td>Colour for Colour and B&amp;W for B&amp;W</td>
<td></td>
</tr>
<tr>
<td>Auto Density Adjustment</td>
<td>Default</td>
<td></td>
</tr>
<tr>
<td>Collating function</td>
<td>Set in Control Panel</td>
<td></td>
</tr>
<tr>
<td>Paper Sending Direction</td>
<td>Default</td>
<td></td>
</tr>
<tr>
<td>Paper Type Setting</td>
<td>Default</td>
<td></td>
</tr>
<tr>
<td>Paper Feeding</td>
<td>Tray 2</td>
<td></td>
</tr>
<tr>
<td>Paper Exit</td>
<td>Default (face down)</td>
<td></td>
</tr>
<tr>
<td>Fixing Capability</td>
<td>Default</td>
<td></td>
</tr>
<tr>
<td>Image Quality Stability</td>
<td>Default</td>
<td></td>
</tr>
<tr>
<td>Capacity of Paper</td>
<td>Default</td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Paper Manufacture</td>
<td>HP / Xerox</td>
<td></td>
</tr>
<tr>
<td>Paper Weight</td>
<td>20lb / 75 g/m2</td>
<td></td>
</tr>
<tr>
<td>Paper Size</td>
<td>Letter / A4</td>
<td></td>
</tr>
<tr>
<td>Paper Type/name</td>
<td>HP Multipurpose Ultra White / HP Office</td>
<td></td>
</tr>
</tbody>
</table>

### Notes

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

<table>
<thead>
<tr>
<th>Target</th>
<th>sFCOT (secs)</th>
<th>sEFTP (ipm)</th>
<th>sESAT (ipm)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1copy</td>
<td>1copy+30sec</td>
<td>1copy+4minutes</td>
</tr>
<tr>
<td>Colour</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>7.00</td>
<td>8.57</td>
<td>37.65</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>26 sets</td>
</tr>
<tr>
<td>B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>7.00</td>
<td>8.60</td>
<td>37.70</td>
</tr>
</tbody>
</table>

### Notes

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
### Machine Setup Information

<table>
<thead>
<tr>
<th>Test Start Date and Time</th>
<th>10/9/2017 13:10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tester</td>
<td>AH</td>
</tr>
<tr>
<td>Machine name/model</td>
<td>HP Color LaserJet Flow MFP M681F</td>
</tr>
<tr>
<td>Colour or B&amp;W</td>
<td>Colour</td>
</tr>
<tr>
<td>FW Version</td>
<td>2403298_006039</td>
</tr>
<tr>
<td>Configuration (options)</td>
<td>Not Specified</td>
</tr>
<tr>
<td>Temperature and Humidity</td>
<td>74 degF / 23 degC 16.6 %rH</td>
</tr>
<tr>
<td>Test End Date and Time</td>
<td>10/12/2017 11:47</td>
</tr>
</tbody>
</table>

### Pre-set Item Pre-set Value

<table>
<thead>
<tr>
<th>Output Resolution</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output Quality</td>
<td>Default</td>
</tr>
<tr>
<td>Copying Mode</td>
<td>Default</td>
</tr>
<tr>
<td>Auto Density Adjustment</td>
<td>Default</td>
</tr>
<tr>
<td>Collating function</td>
<td>Activated (if not activated in default mode)</td>
</tr>
<tr>
<td>Paper Sending Direction</td>
<td>Default</td>
</tr>
<tr>
<td>Paper Type Setting</td>
<td>Default</td>
</tr>
<tr>
<td>Paper Feeding</td>
<td>Standard cassette</td>
</tr>
<tr>
<td>Paper Exit</td>
<td>Standard exit tray</td>
</tr>
<tr>
<td>Face Up Exit</td>
<td>Default</td>
</tr>
<tr>
<td>Fixing Capability</td>
<td>Default</td>
</tr>
<tr>
<td>Image Quality Stability</td>
<td>Default</td>
</tr>
<tr>
<td>Capacity of Paper</td>
<td>Default</td>
</tr>
<tr>
<td>Others</td>
<td>Default</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Paper Manufacturer</th>
<th>HP / Xerox</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper Weight</td>
<td>20lb / 75 g/m2</td>
</tr>
<tr>
<td>Paper Size</td>
<td>Letter / A4</td>
</tr>
</tbody>
</table>

### Machine Setup Information Table

<table>
<thead>
<tr>
<th>Copying Mode</th>
<th>FSOT (secs)</th>
<th>EFTP (ipm)</th>
<th>ESAT (ipm)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 set only</td>
<td>1 set only</td>
<td>1 set + 30sec</td>
</tr>
<tr>
<td>1:1</td>
<td>10.79</td>
<td>22.24</td>
<td>42.57</td>
</tr>
<tr>
<td>1:2</td>
<td>14.10</td>
<td>17.00</td>
<td>39.54</td>
</tr>
<tr>
<td>2:2</td>
<td>15.39</td>
<td>15.58</td>
<td>37.04</td>
</tr>
<tr>
<td>1:1</td>
<td>10.73</td>
<td>22.39</td>
<td>42.43</td>
</tr>
<tr>
<td>1:2</td>
<td>13.78</td>
<td>17.42</td>
<td>39.48</td>
</tr>
<tr>
<td>2:2</td>
<td>15.32</td>
<td>15.68</td>
<td>38.26</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Color Mode</th>
<th>EFTP (ipm)</th>
<th>ESAT (ipm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:1</td>
<td>22.24</td>
<td>47.95</td>
</tr>
<tr>
<td>1:2</td>
<td>17.00</td>
<td>39.54</td>
</tr>
<tr>
<td>2:2</td>
<td>15.58</td>
<td>37.04</td>
</tr>
<tr>
<td>1:1</td>
<td>22.39</td>
<td>47.05</td>
</tr>
<tr>
<td>1:2</td>
<td>17.42</td>
<td>39.48</td>
</tr>
<tr>
<td>2:2</td>
<td>15.68</td>
<td>38.26</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B&amp;W mode</th>
<th>EFTP (ipm)</th>
<th>ESAT (ipm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:1</td>
<td>22.24</td>
<td>47.95</td>
</tr>
<tr>
<td>1:2</td>
<td>17.00</td>
<td>39.54</td>
</tr>
<tr>
<td>2:2</td>
<td>15.58</td>
<td>37.04</td>
</tr>
<tr>
<td>1:1</td>
<td>22.39</td>
<td>47.05</td>
</tr>
<tr>
<td>1:2</td>
<td>17.42</td>
<td>39.48</td>
</tr>
<tr>
<td>2:2</td>
<td>15.68</td>
<td>38.26</td>
</tr>
</tbody>
</table>

Notes

# ISO/IEC 24735 Copy Productivity Report

**Full Detailed Test Report - A4**

## Machine Setup Information
- **Test Start Date and Time:** 10/9/2017 13:10
- **Tester:** AH
- **Machine name/model:** HP Color LaserJet Flow MFP M681F
- **Colour or B&W:** Colour
- **FW Version:** 2403298_006039
- **Configuration (options):** Not Specified
- **Temperature and Humidity:** 74 degF / 23 degC  16.6 %rH
- **Test End Date and Time:** 10/12/2017 11:47

## Pre-set Item
- **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

## Paper Setup Information
- **Paper Manufacturer:** HP / Xerox
- **Paper Weight:** 20lb / 75 g/m2
- **Paper Size:** Letter / A4

## Machine Setup Information Table

<table>
<thead>
<tr>
<th>Copying Mode</th>
<th>FSOT (secs)</th>
<th>EFTP (ipm)</th>
<th>ESAT (ipm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:1</td>
<td>12.18</td>
<td>19.70</td>
<td>45.38</td>
</tr>
<tr>
<td>1:2</td>
<td>15.32</td>
<td>15.66</td>
<td>37.52</td>
</tr>
<tr>
<td>2:2</td>
<td>15.93</td>
<td>15.06</td>
<td>35.68</td>
</tr>
</tbody>
</table>

## B&W mode

<table>
<thead>
<tr>
<th>Copying Mode</th>
<th>FSOT (secs)</th>
<th>EFTP (ipm)</th>
<th>ESAT (ipm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:1</td>
<td>11.45</td>
<td>20.96</td>
<td>44.44</td>
</tr>
<tr>
<td>1:2</td>
<td>14.05</td>
<td>17.08</td>
<td>37.54</td>
</tr>
<tr>
<td>2:2</td>
<td>15.67</td>
<td>15.30</td>
<td>37.32</td>
</tr>
</tbody>
</table>

## Notes
- Reports located: http://www.hp.com/go/printerclaims
### ISO/IEC 17991 Scanning Productivity Report

**Test Start Date and Time:** 10/17/2017 11:25  
**Tester:** AH  
**Machine name/model:** HP Color LaserJet Flow MFP M681F  
**Colour or B&W:** Colour  
**Configuration (options):** Default  
**Temperature and Humidity:** 74 degF / 23 degC, 16.6 %rH  
**Voltage:** 110V

**Test End Date and Time:** 10/17/2017 16:03

## Machine Setup Information

<table>
<thead>
<tr>
<th>Item</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer name</td>
<td>HP Compaq Elite 8300 Small Form Factor</td>
</tr>
<tr>
<td>Processor</td>
<td>Intel Core i7-3770, 3.4 GHz</td>
</tr>
<tr>
<td>System Chip Set</td>
<td>Intel C216 Chipset Family SMBus Host Controller</td>
</tr>
<tr>
<td>System Board</td>
<td>System devices, default system BIOS</td>
</tr>
<tr>
<td>System Memory</td>
<td>4 GB</td>
</tr>
<tr>
<td>Hard Drive Subsystem</td>
<td>Standard disk drive (Seagate)</td>
</tr>
<tr>
<td>Video Subsystem</td>
<td>AMD Radeon HD 6350</td>
</tr>
<tr>
<td>Optical Drive</td>
<td>HP DVD A DH16aC9HR ATA</td>
</tr>
<tr>
<td>I/O Subsystem</td>
<td>Buslink</td>
</tr>
<tr>
<td>USB Subsystem</td>
<td>USB 2.0/3.0</td>
</tr>
<tr>
<td>Operating System</td>
<td>Windows 7 Business/Ultimate, 64 bit, Build 7601, SP 1</td>
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</table>

### Test System Parameters

#### Network

<table>
<thead>
<tr>
<th>Item</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location of network server</td>
<td>IP: 192.168.1.100</td>
</tr>
<tr>
<td>Internet Protocol</td>
<td>IPv4</td>
</tr>
<tr>
<td>Transfer Protocol</td>
<td>SMB</td>
</tr>
<tr>
<td>Hub</td>
<td>Trendnet Router and Gbit Switch</td>
</tr>
<tr>
<td>Web Speed</td>
<td>TCP/10/100 Mbps Ethernet</td>
</tr>
<tr>
<td>Connection Cable</td>
<td>Cat6i Straight cable</td>
</tr>
<tr>
<td>Wireless router</td>
<td>No use</td>
</tr>
<tr>
<td>Others</td>
<td>No use</td>
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</table>

## Mode and Setting

### ADF

<table>
<thead>
<tr>
<th>Mode</th>
<th>Value</th>
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<tbody>
<tr>
<td>Paper-path</td>
<td>ADF</td>
</tr>
<tr>
<td>Orientation</td>
<td>Default (long edge)</td>
</tr>
<tr>
<td>Output orientation</td>
<td>Default (long edge)</td>
</tr>
<tr>
<td>Scanning unit</td>
<td>ADF (duplex ADF)</td>
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</tbody>
</table>

### Scanning Mode

<table>
<thead>
<tr>
<th>File format version</th>
<th>Resolution</th>
<th>Scanning side</th>
<th>scESAT 30secA (ipm)</th>
<th>File size 30secF (Mbyte)</th>
<th>Number of Sets (30secF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
<td>PDF 1.4</td>
<td>200</td>
<td>single sided</td>
<td>94.11</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>double sided</td>
<td>189.16</td>
<td></td>
</tr>
<tr>
<td></td>
<td>B&amp;W</td>
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<td>single sided</td>
<td>94.30</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>double sided</td>
<td>188.47</td>
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</tr>
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### Notes

2) For the B/W results, the device scan setting is set to "Scan in B/W".
ISO/IEC 17991 Scanning Productivity Report

Full Detailed Test Report - A4

Test Start Date and Time 10/17/2017 11:25
Tester AH
Machine name/model HP Color LaserJet Flow MFP M681F
Colour or B&W Colour
Configuration (options) Default
Temperature and Humidity 74 degF / 23 degC 16.6 %rH
Voltage 110V

Test End Date and Time 10/17/2017 16:03

Preset Item
Preset Value

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

Summary Report: A4

<table>
<thead>
<tr>
<th>Scanning Mode</th>
<th>Scanning side</th>
<th>Measurement result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PDF 1.4</td>
<td>single sided</td>
<td>89.71</td>
</tr>
<tr>
<td>B&amp;W</td>
<td>single sided</td>
<td>89.46</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Scanning Mode</th>
<th>Measurement result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
<td></td>
</tr>
<tr>
<td>PDF 1.4</td>
<td>11.68</td>
</tr>
<tr>
<td>B&amp;W</td>
<td>11.68</td>
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</table>

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

Summary Report: A4

<table>
<thead>
<tr>
<th>Scanning Mode</th>
<th>Measurement result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
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<tr>
<td>PDF 1.4</td>
<td>64.63</td>
</tr>
<tr>
<td>B&amp;W</td>
<td>64.63</td>
</tr>
</tbody>
</table>

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

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<tr>
<td>System Chip Set</td>
<td>Intel C216 Chipset Family SMBus Heat Controller</td>
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<tr>
<td>System Board</td>
<td>System devices, default system BIOS</td>
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<td>Standard disk drive (Seagate)</td>
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<td>Video Subsystem</td>
<td>AMD Radeon HD 6350</td>
</tr>
<tr>
<td>Optical Drive</td>
<td>HP DVD &amp; DH16aCHS ATA</td>
</tr>
<tr>
<td>I/O Subsystem</td>
<td>Built-in</td>
</tr>
<tr>
<td>USB Subsystem</td>
<td>USB 2.0/3.0</td>
</tr>
<tr>
<td>Operating System</td>
<td>Windows 7 Business/Ultimate, 64 bit, Build 7601, SP 1</td>
</tr>
</tbody>
</table>

Scanning Device Connection

<table>
<thead>
<tr>
<th>Item</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location of network scanner</td>
<td>PC</td>
</tr>
<tr>
<td>Internet Protocol</td>
<td>IPv4</td>
</tr>
<tr>
<td>Transfer Protocol</td>
<td>SMB</td>
</tr>
<tr>
<td>Hub</td>
<td>Trendnet Router and Glit Switch</td>
</tr>
<tr>
<td>Network Speed</td>
<td>TCP 101000 Mb/s Ethernet</td>
</tr>
<tr>
<td>Connection Cable</td>
<td>Cat5 Straight cable</td>
</tr>
<tr>
<td>Wireless router</td>
<td>No use</td>
</tr>
<tr>
<td>Others</td>
<td>No use</td>
</tr>
</tbody>
</table>