HP UPD PS driver	• Recommended for printing with Adobe® software programs or with other highly graphics-intensive software programs • Provides support for printing from postscript emulation needs, or for postscript flash font support
HP UPD PCL 5	• Recommended for general office printing in Windows environments • Compatible with previous PCL versions and older HP LaserJet printers • The best choice for printing from third-party or custom software programs • The best choice when operating with mixed environments, which require the printer to be set to PCL 5 (UNIX, Linux, mainframe) • Designed for use in corporate Windows environments to provide a single driver for use with multiple printer models • Preferred when printing to multiple printer models from a mobile Windows computer
HP UPD PCL 6	• Recommended for printing in all Windows environments • Provides the overall best speed, print quality, and printer feature support for most users • Developed to align with Windows Graphic Device Interface (GDI) for best speed in Windows environments • Might not be fully compatible with third-party and custom software programs that are based on PCL 5

Print quality troubleshooting guide

Repetitive defects ruler

When troubleshooting the source of some print image defects, one solution is to identify if it is a repetitive defect (does the print quality defect appear multiple times on the printed page?). If this is the case, use a ruler to measure occurrences of repetitive image defects to help solve image-quality problems. For more information, see Use a ruler to measure between repetitive defects on page 156.

Use a ruler to measure occurrences of repetitive image defects to help solve image-quality problems. Place the ruler next to the first occurrence of the defect on the page. Find the distance between identical defects and use the table below to identify the component that is causing the defect.

NOTE: Do not use solvents or oils to clean rollers. Instead, rub the roller with a lint-free cloth. If dirt is difficult to remove, rub the roller with a lint-free cloth that has been dampened with water.

Table 2-29 Repetitive image defects

Distance between identical defects	Component	Notes
22.6 mm (0.89 in)	Developer roller	Appears in the form of dropouts.
23.6 mm (0.93 in)	Primary charging roller	Appears in the form of dropouts.
29.6 mm (1.17 in)	RS roller	
35.0 mm (1.38 in)	Intermediate transfer belt (ITB) assist roller	

Table 2-29 Repetitive image defects (continued)

Distance between identical defects	Component	Notes
50.0 mm (1.97 in)	Secondary transfer roller	Appears in the form of dropouts or dirt on the back of the page.
50.0 mm (1.97 in)	Large assist roller	
57.0 mm (2.24 in)	Fuser rollers (3)	Appears in the form of dirt (front or back of page) or loose toner.
63.0 mm (2.48 in)	Photosensitive drum	Appears in the form of dirt or dropouts.
63.0 mm (2.48 in)	Tension roller	
75.0 mm (2.95 in)	Scale	
78.0 mm (3.07 in)	Cartridge station	
78.0 mm (3.07 in)	Intermediate transfer belt (ITB) drive roller	
712.0 mm (28.03 in)	Intermediate transfer belt (ITB) length	

NOTE: The primary charging roller, photosensitive drum, and developer roller cannot be cleaned. If any of these rollers are indicated, replace the toner cartridge.

Use a ruler to measure between repetitive defects

The figures in this section shows color repetitive defect pages. However, the process for measuring repetitive defects is valid for mono pages.

1. Identify a repetitive defect on the page.

TIP: Print a cleaning page to see if that resolves the defect.

The example pages below show the following types of repetitive defects.

NOTE: These are examples only, other types of repetitive defects might appear on a page.

- Lines (callout 1)
- Smudges (callout 2)
- Dots or spots (callout 3)