



In response to many requests from members, TEC has prepared the following report about projectors. From mounted to portable, wireless to interactive, there are hundreds of projector models with varying capabilities and features.

The good news is that each projector model is intended to address a unique need, with hopes of making classroom usage as efficient as possible. The bad news is there appears to be more than 1,000 different projector models ranging from \$200 to \$55,000 in price.

With so many projectors, no model is the clear favorite or best offering. So we identified 4 projector capabilities that are key considerations for classroom usage: lumens, native resolution, ultra short throw (UTS) and interactivity.



KEY COMPONENTS OF CLASSROOM PROJECTORS

Native resolution:

Projectors come in different fixed resolutions including SVGA (800 x 600), XGA (1024 x 768), WXGA (1280 x 800), HD (1920 x 1080). Resolution matters because higher-resolution projectors are able to show more details in pictures. Most non-interactive classroom projectors are XGA and most interactive classroom projectors are WXGA. If you intend on showing video and hope the video will look like it does on your computer screen, XGA is the minimum resolution you will need.

Interactivity:

Interactive projectors provide a way for multiple devices to simultaneously connect over a network or via an mobile app. Some interactive projectors also include electronic whiteboard capabilities.

Lumens:

Refers to the total brightness. The more lumens a projector has, the brighter and sharper the image on the screen will be. Lumens matter in a classroom because projectors with lower lumens require a darker room. Lower lumens also means the picture will be fuzzy if the projector is too close or too far away from the screen.

Ultra Short Throw (UST):

UST projectors do not need distance to project a large sharp image. Most interactive projectors, and some non-interactive projectors are UST. UST projectors can be placed just a few feet from the screen or anywhere else in the classroom.





→ 14 Districts 612 Projector Models:

TEC's first-round findings focused on projectors purchased by 14 school districts. From this initial small set, we have found 26 different makers and 612 different projector models. In addition to the myriad models available, the large number of resellers add to the complexity.

→ Epson Projectors offers the largest number of projector models.

Out of the 26 different makers we have found, Epson offers the highest variety, with 103 different models, only 8 of which are repeated models across the 14 districts. Panasonic, Optoma and NEC follow Epson in terms of number of models with 50 to 80 models each.

 \rightarrow In the rare instance that districts share the same projector model, they don't share price:

Maker	Model	UST	Lumens	Native Resolution	Price (Low-High)
Epson	PowerLite 97H		2700	XGA	\$474-\$489
Epson	PowerLite 98H		3000	XGA	\$523-\$539
Espon	PowerLite 98		3000	XGA	\$529-\$563
Epson	PowerLite 1751		2600	XGA	\$558.15-\$585
Epson	PowerLite 1761W		2600	WXGA	\$619-\$670
Hitachi	CP-AW3003	~	3300	WXGA	\$1164-\$1175
Hitachi	CP-X5022WN		5,000	XGA	\$1086.56-1400

Price of Non-Interactive Projector Models (Low to High Price)

Price of Interactive Projector Models

Maker	Model	UST	Lumens		Price (Low-High)
Epson	PowerLite X27		2700	XGA	\$403-\$416
Epson	PowerLite 570	~	2700	XGA	\$969-\$1035.77
Epson	PowerLite 575W	~	2700	WXGA	\$1049-\$2166
Hitachi	CP-TW3005	~	3300	WXGA	\$1494-\$1514
Epson	BrightLink 595Wi	~	3300	WXGA	\$1745-\$1890



→ There is a significant difference between Epson Education List price and reseller list price.

In some instances the reseller price was lower than Epson's list educational price.For districts looking to purchase Epson products, we recommend checking the <u>Epson Education Price List</u> before making a selection through your reseller.

Model	Reseller Price	Epson Education Price	Difference between Epson Education and Reseller Price
Epson PowerLite 965H	\$899	\$645	\$254
Epson PowerLite 680	\$1,151	\$910	\$241
Epson PowerLite X27	\$449	\$429	\$20
Epson PowerLite 97H	\$549	\$489	\$60

Epson Education Price List vs. Reseller Epson Price List

\rightarrow Total cost of ownership is very important when selecting projectors.

We found that the mounting kit for ceiling projectors, installation, warranties and replacement bulbs are all separate costs that almost always add up to more than a device's initial price. Here's data from 2 districts showing what a bundle cost may look like vs. a stand-alone projector:

Model	Stand-Alone Projector Price	Bundle Price	Bundle	Includes
InFocus IN114	\$489	\$1729	1. 2. 3. 4. 5. 6.	Mobile Cart with Floor Lock Projector Speakers Amplifier DVD Player All Required Installation

The best way to approach the selection process for projectors appears to be to find the lowest price for the projector with relatively high lumens and native resolution and then negotiate for most comprehensive bundle of services. Realizing the difficulty in navigating the cacophony of projectors, TEC is available to help districts identifying the key components needed for their classroom and find the best available price.