

\Orchestrating a brighter world

NEC

Professional projectors of high performance and brighter LCD models that are lightweight and compact
Professional Installation Projector

PA803U / PA723U / PA653U
PA853W / PA703W / PA903X



UDBT™
ASE

HDMI®
HIGH-DEFINITION MULTIMEDIA INTERFACE

D™

A compact projector solution for large venue applications and vertical markets boasts Ultra HD support, wider colour space, scaling, resolution and reduced maintenance

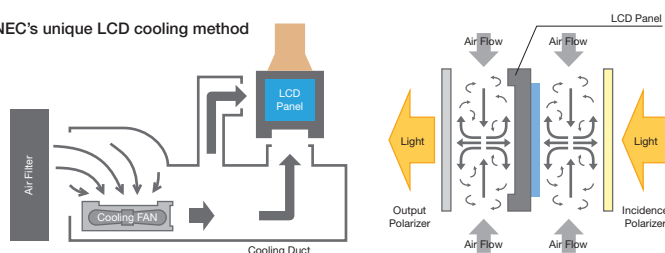
A High-efficiency Design with High-brightness Projection and Reduced Maintenance

The Lightest and Most Compact WUXGA Projector Over 8000 lumens (NP-PA803U)*

A lightweight and compact WUXGA projector (NP-PA803U) of 10.2 kg, 33.23 liters** and 8000 lumens brightness with NEC's unique cooling system for the LCD panel (patented) and the lamp.

* Not including lens, according to our research as of January 2017
** Not including protruding parts

NEC's unique LCD cooling method



An Energy-saving Design with Standby Power Consumption

When the on-screen menu's standby mode is set to "NORMAL", power consumption in standby mode with power management on is 0.15 W (100 – 130 V) / 0.21 W (200 – 240 V) and 0.11 W (100 – 130 V) / 0.16 W (200 – 240 V) when the LAN is off.

Reduce Maintenance and Expenses

When Eco mode is used, lamp replacement time is extended to a maximum of 5,000 hours*. At the same time, the maximum usage time for the filter is 10,000 hours**. This virtually maintenance-free filter reduces the frequency at which cleaning is required, thereby decreasing total cost of ownership.

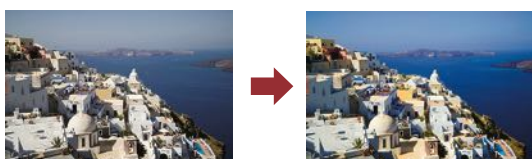
* This time is not guaranteed.
** Varies by projector installation conditions.



A High-definition Design to Meet the Era of High-resolution Content and Devices

NEC's Unique High-definition Functionality with the 4th Generation of "SweetVision" for 4K Content

"SweetVision" newly supports 4K 60 Hz input signals and has been upgraded to support HDR10 and Rec.2020 signal inputs. It offers a high definition image by raising the contrast in the boundary parts of an image by using the "Craik-O'Brien-Cornsweet effect".



Supports High-definition Processing of Both Digital and Analogue Inputs

10-bit high-definition signal processing is possible with all digital and analogue inputs. An image can be projected with an excellent contrast of 1024 gradations and over 1 billion colours in 4K images.

4K Ready

The New PA series supports HDR10 and BT.2020 signals for various 4K content (including next generation "Ultra HD Blu-ray" and "4K TV broadcasting").

Multiple Input Terminals for HDMI and DisplayPort and Input and Output Terminals for HDBaseT

The First Projector Available Worldwide with Built-in HDBaseT (IN/OUT) Support (NP-PA803U)*

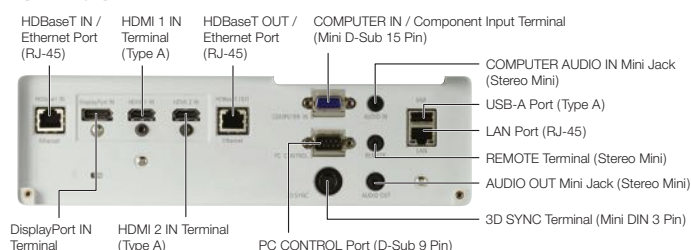
Simplify your installations with HDBaseT. The projector is optimized for video applications and supports uncompressed full HD digital video, audio, Ethernet, power and control signals. With only a single cable (up to 100 m) to run, infrastructure and labour costs are reduced, installations are significantly easier, and there is no cable clutter to manage. With uncompressed HD video support, images have never been more stunning. What's more, control signals are contained in the same cable.

* Passed the examination of the testing agencies approved by the HDBaseT Alliance as of December 15th, 2016.
Website of HDBaseT Alliance: <http://hdbaset.org/advanced-search>

A Wide Selection of Digital Inputs such as HDMI and DisplayPort

Among the PA Series' wide selection of inputs are dual HDMI with HDCP and DisplayPort with HDCP for connecting to high-definition sources such as Blu-ray players, cable boxes, satellite receivers and personal computers.

Terminals



Excellent Ease of Installation and Functionality in Various Uses and Applications

Multi-screen Function

Multi-display capabilities and tiling technologies are integrated. The projector is also equipped with multiple digital input and HDBaseT output terminals that can connect multiple projectors in a digital daisy chain. These cutting-edge functions produce a beautiful high-resolution image, including a 4K high-resolution display using 4 projectors and various picture-in-picture and picture-by-picture configurations.

Screen Splitter

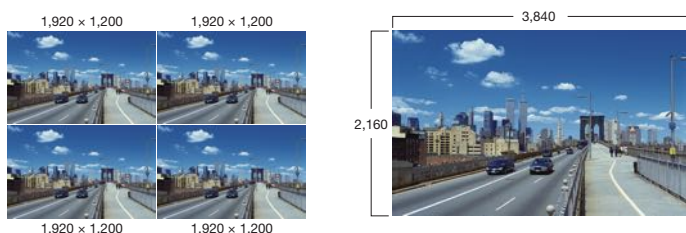
NEC is committed to bringing the latest and greatest Innovations to projectors. Multi-display capabilities and TileMatrix technologies are integrated into these projectors by using the HDBaseT repeater function (IN/OUT). This processing is all done internally and therefore eliminates the additional hardware typically required to produce a beautiful 4K resolution image.

Screen Splitter (Multi-display) by Daisy Chain

Using four WUXGA projectors to project videos with a resolution of 4K (3,840 × 2,160 pixels) [TILING]

On-screen menu operations

- 1 Use four projectors to display four similar videos.
- 2 Operate the on-screen menu using the four respective projectors to divide the image into four portions.
- 3 Adjust the lens shift of each projector to fine-tune the boundaries of the screen.



Optional Lens specifications

Model	NP11FL	NP30ZL	NP12ZL	NP13ZL	NP14ZL	NP40ZL	NP41ZL	NP43ZL
Lens Type	Fixed Short Throw Lens	Zoom Lens (Short Throw)	Zoom Lens	Zoom Lens	Zoom Lens	Zoom Lens	Zoom Lens	Zoom Lens
Zoom / Focus	Manual	Manual	Manual	Manual	Manual	Motorised	Motorised	Motorised
F# (Wide - Tele)	2.3	1.9 - 2.1	2.2 - 2.7	1.7 - 2.4	2.2 - 2.6	2.0 - 2.5	1.7 - 2.0	2.2 - 2.6
f (mm)	13.2	13.2 - 17.2	19.4 - 25.3	24.4 - 48.6	48.5 - 77.6	13.3 - 18.6	21.8 - 49.7	49.7 - 99.8
Throw ratio (WUXGA @ 100 inch)	0.79:1	0.79 - 1.04:1	1.16 - 1.52:1	1.46 - 2.95:1	2.90 - 4.68:1	0.79 - 1.11:1	1.30 - 3.02:1	2.99 - 5.93:1
Zoom Ratio	-	1.3	1.3	2.0	1.6	1.4	2.3	2.0
Screen Size (Performance guarantee range)	40 - 160 inch* (60 - 150 inch)	50 - 500 inch (60 - 180 inch)	30 - 500 inch (40 - 200 inch)	30 - 500 inch (40 - 200 inch)	60 - 500 inch (60 - 200 inch)	50 - 500 inch (80 - 200 inch)	50 - 500 inch (80 - 200 inch)	50 - 500 inch (80 - 200 inch)
Light Output	NP-PA803U	5,400 lumens	7,600 lumens	5,800 lumens	8,000 lumens	6,100 lumens	8,000 lumens	5,700 lumens
	NP-PA723U	4,800 lumens	6,800 lumens	5,300 lumens	7,200 lumens	5,500 lumens	7,200 lumens	5,400 lumens
	NP-PA653U	4,400 lumens	6,200 lumens	4,800 lumens	6,500 lumens	5,500 lumens	6,500 lumens	5,100 lumens
	NP-PA853W	6,000 lumens	8,100 lumens	6,400 lumens	8,500 lumens	6,500 lumens	8,500 lumens	5,700 lumens
	NP-PA703W	5,000 lumens	6,700 lumens	5,300 lumens	7,000 lumens	5,400 lumens	7,000 lumens	5,400 lumens
	NP-PA903X	6,800 lumens	8,600 lumens	7,100 lumens	9,000 lumens	7,400 lumens	9,000 lumens	5,400 lumens
Weight	1.2 kg	1.14 kg	1.2 kg	0.84 kg	1.0 kg	1.6 kg	1.8 kg	1.8 kg

* WUXGA and WXGA models: 40 - 150 inch

Edge Blending

This function seamlessly blends multiple projected images to display a single high-resolution image.



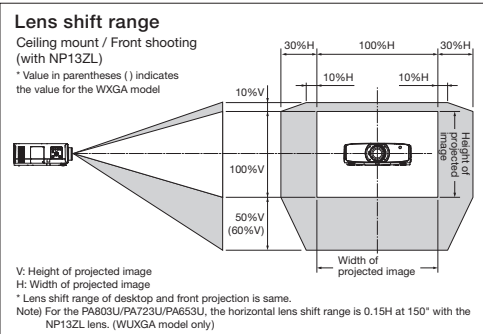
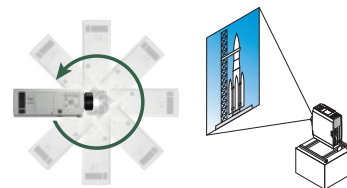
New Optional Lenses with Peripheral Motorised Focus Features and Advanced Dust-proof Construction

Eight types of optional lenses are available along with the new NP40ZL, NP41ZL and NP43ZL as dust proof lenses with motorised zoom/focus and with a memory function. They correspond to screen sizes from 30 to 500 inches. A selection of wide zoom lenses with wide vertical and horizontal lens shift and control code emulation are available, guaranteeing hassle-free installation and replacement of existing installation projectors.

The NP40ZL and NP41ZL projectors are also equipped with peripheral motorised focus, and focus adjustment is possible in 2 stages by the centre and the periphery, which offers excellent image quality. Lenses can be mounted and removed with one touch.

Tilt-free and Portrait Installation Support

The projector can be rotated freely (360°) to point up or down depending on the installation requirements and can be rotated and installed on its side to create a portrait image.



Other Useful Functions and Features

- Cornerstone
- Geometric correction to project an image on more non-standard surfaces
- Stacking correction to boost image brightness
- Centre lens design for easy setup
- Lens memory
- Carbon meter to check the amount of reduction of CO₂ in eco mode
- Seamless switch function for smoother screen changes when switching the signal
- Network control
 - NaViSet Administrator 2
 - PC control
 - Alert mail
 - CRESTRON ROOMVIEW
 - AMX BEACON
 - PJLink
 - HTTP server (projector adjustment)
- Wall colour correction
- PIN security / control panel lock / security bar / security slot
- DICOM simulation



PA803U

8,000 lumens WUXGA 10.2kg

PA723U

7,200 lumens WUXGA 10.2kg

PA653U

6,500 lumens WUXGA 10.2kg

PA853W

8,500 lumens WXGA 10.2kg

PA703W

7,000 lumens WXGA 10.2kg

PA903X

9,000 lumens XGA 10.2kg

Brightness of each model using with NP13ZL or NP41ZL. Weight of each model does not include lens.

Specifications

Model	NP-PA803U		NP-PA723U		NP-PA653U		NP-PA853W		NP-PA703W		NP-PA903X	
Method			Three primary colour liquid crystal shutter projection									
Specifications of main parts												
Liquid crystal panel	Size	0.76" (with DMLA) × 3 (aspect ratio: 16:10)					0.76" (with MLA) × 3 (aspect ratio: 16:10)			0.76" (with MLA) × 3 (aspect ratio: 4:3)		
	Pixels*1	2,304,000 (1,920 dots × 1,200 lines)					1,024,000 (1,280 dots × 800 lines)			786,432 (1,024 dots × 768 lines)		
Projection lenses*2	Zoom	Motorised*3 / Manual*4 (zoom range depends on lens)										
	Focus	Motorised*3 / Manual*4										
	Lens shifting	Refer to Lens Specifications										
Lamp wattage*5		420 W AC	400 W AC	370 W AC	420 W AC	370 W AC	420 W AC	370 W AC	420 W AC			
Light source (Lamp) life*6	ECO mode OFF	3,000 H	3,500 H	4,000 H	3,000 H	4,000 H	3,000 H	4,000 H	3,000 H			
	ECO mode	5,000 H	5,000 H	5,000 H	5,000 H	5,000 H	5,000 H	5,000 H	5,000 H			
Light output*7 *8 *9	ECO mode OFF	8,000 lumens	7,200 lumens	6,500 lumens	8,500 lumens	7,000 lumens	9,000 lumens	8,000 lumens	7,200 lumens	6,500 lumens	8,500 lumens	
	ECO mode	4,800 lumens	4,800 lumens	4,800 lumens	5,100 lumens	5,100 lumens	5,400 lumens	4,800 lumens	4,800 lumens	4,800 lumens	5,100 lumens	
Contrast ratio*8 (all white / all black)	10k: 1 with Iris Lamp Adj	8k: 1 with Iris Lamp Adj			10k: 1 with Iris Lamp Adj			8k: 1 with Iris Lamp Adj			10k: 1 with Iris Lamp Adj	
Screen size (throw distance)			30" to 500" (throw distance depends on lens)									
Colour reproducibility			10-bit colour processing (approx. 1.07 billion colours)									
Scan rate	Horizontal	Analogue: 15 kHz, 24 to 100 kHz (24 kHz or greater for RGB inputs), conforms to VESA standards / Digital: 15 kHz, 24 to 153 kHz, conforms to VESA standards										
	Vertical	Analogue: 48 Hz, 50 to 85 Hz, 100, 120 Hz conforms to VESA standards / Digital: 24, 25, 30, 48 Hz, 50 to 85 Hz, 100, 120 Hz conforms to VESA standards										
Maximum resolution (horizontal × vertical)			Analogue: 1,920 × 1,200 (with Advanced AccuBlend) / Digital: 4,096 × 2,160 (with Advanced AccuBlend)									
Keystone Correction	Horizontal	Manual, Approx. ± 40 Max degrees										
	Vertical	Manual, Approx. ± 40 Max degrees										
Input / output connectors												
Computer / Component	Video input	Mini D-Sub 15-pin × 1										
	Audio input	Stereo mini jack × 1										
	Audio output	Stereo mini jack × 1 (common for all signals)										
HDMI	Video input	Type A HDMI connector × 2, Deep Colour (colour depth): Support 8bits, 10bits, 12bits, Colourimetry Support: RGB, YCbCr444, YCbCr422, YCbCr420, Rec.2020, Rec.709, Rec.601, Support 4K, 3D, HDCP*10, LipSync, HDR										
	Audio input	Yes										
HDBaseT / Ethernet Port	Video input	RJ45 × 1, Support 100BASE-TX, Deep Colour (colour depth): Support 8bits, 10bits, 12bits, Colourimetry Support: RGB, YCbCr444, YCbCr422, YCbCr420, Rec.2020, Rec.709, Rec.601, Support 4K, 3D, HDCP*10, LipSync, HDR										
	Audio input	Yes										
	Video output	RJ45 × 1, Support 100BASE-TX, Deep Colour (colour depth): Support 8bits, 10bits, 12bits, Colourimetry Support: RGB, YCbCr444, YCbCr422, Rec.709, Rec.601, Support 4K, 3D, HDCP*10, LipSync										
	Audio output	Yes										
DisplayPort	Video input	DisplayPort 20 pin connector × 1, Deep Colour (colour depth): Support 8bits, 10bits, 12bits, Colourimetry Support: RGB, YCbCr444, YCbCr422, Rec.709, Rec.601, Support 4K, 3D, HDCP*10										
	Audio input	Yes										
PC control connector			D-Sub 9-pin × 1									
USB port			USB type A × 1, (USB 2.0 High speed / Full speed / Low speed) for Mouse									
Ethernet / LAN / HDBaseT port			RJ-45 × 1, Supports 10BASE-T / 100BASE-TX, HDBaseT									
Remote connector			Stereo mini jack × 1									
3D SYNC output terminal			5 V / 10 mA, synchronized signal output for 3D use									
Usage environment			Operating temperature: 5 to 40°C*11, Operating humidity: 20 to 80 % (with no condensation)									
			Storage temperature: -10 to 50°C, Storage humidity: 20 to 80 % (with no condensation)									
			Operating altitude: 0 to 3,650 m (1,700 to 3,650 m: Set [FAN MODE] to [HIGH ALUTITUDE])									
Power supply			100 – 240 V AC, 50/60 Hz									
Power consumption	ECO mode OFF	566 W (100 – 130 V)	542 W (100 – 130 V)	506 W (100 – 130 V)	566 W (100 – 130 V)	506 W (100 – 130 V)	566 W (100 – 130 V)	506 W (100 – 130 V)	566 W (100 – 130 V)	506 W (100 – 130 V)	566 W (100 – 130 V)	
		542 W (200 – 240 V)	518 W (200 – 240 V)	482 W (200 – 240 V)	542 W (200 – 240 V)	482 W (200 – 240 V)	542 W (200 – 240 V)	482 W (200 – 240 V)	542 W (200 – 240 V)	482 W (200 – 240 V)	542 W (200 – 240 V)	
	ECO mode	390 W (100 – 130 V) / 376 W (200 – 240 V)										
	STANDBY (Link-up)	0.15 W (100 – 130 V) / 0.21 W (200 – 240 V)										
	STANDBY (Link-down)*12	0.11 W (100 – 130 V) / 0.16 W (200 – 240 V)										
Rated input current			6.2 A – 2.6 A	6.0 A – 2.5 A	5.6 A – 2.3 A	6.2 A – 2.6 A	5.6 A – 2.3 A	6.2 A – 2.6 A	5.6 A – 2.3 A	6.2 A – 2.6 A	6.2 A – 2.6 A	
Dimensions (W × H × D)			499 × 164 × 406 mm (Net dimensions, not including protruding parts), 591 × 259 × 491 mm (Gross dimensions)									
Weight			10.2 kg (not including lens), 12.5 kg (Gross weight)									

*1: Effective pixels are more than 99.99 %. *2: Refer to Lens Specifications *3: When attached with NP40ZL, NP41ZL, NP43ZL *4: When attached with NP30ZL, NP11FL, NP12ZL, NP13ZL, NP14ZL *5: Wattage when ECO mode is OFF. *6: Time at which the light source is at half brightness; not a guarantee time. *7: This is the light output value (lumens) when the [PRESET] mode is set to [HIGH-BRIGHT]. If any other mode is selected as the [PRESET] mode, the light output value may drop slightly. *8: Compliance with ISO21118-2012 *9: When attached with NP13ZL or NP41ZL and Eco mode OFF *10: If you are unable to view material via the HDMI DisplayPort and HDBaseT input, this does not necessarily mean the projector is not functioning properly. With the implementation of HDCP, there may be cases in which certain content is protected with HDCP and might not be displayed due to the decision/intention of the HDCP community. (Digital Content Protection, LLC). HDMI: Supports HDCP2.1/4, DisplayPort: Supports HDCP1.4, HDBaseT: Supports HDCP2.1/4 *11: 35 to 40°C – "Forced ECO mode" *12: Internal measured value. All wired network ports are connected and active.

• These specifications and the product's design are subject to change without notice.

Throwing distance and Screen size

NP-PA803U / NP-PA723U / NP-PA653U (WUXGA)

Unit: m

Screen Size (W × H)	Lens unit model name						
	NP11FL	NP30ZL	NP12ZL	NP13ZL	NP14ZL	NP40ZL	NP41ZL
30" (0.65 × 0.40)	—	—	0.7–0.9	0.9–1.9	—	—	—
40" (0.86 × 0.54)	0.7	—	1.0–1.3	1.2–2.5	—	—	—
60" (1.29 × 0.80)	1.0	1.0–1.3	1.5–1.9	1.9–3.8	3.7–6.0	1.0–1.4	1.7–3.9
80" (1.72 × 1.08)	1.4	1.4–1.8	2.0–2.6	2.5–5.1	5.0–8.0	1.4–1.9	2.2–5.2
100" (2.59 × 1.52)	1.7	1.7–2.2	2.5–3.3	3.2–6.3	6.3–10.1	1.7–2.4	2.8–6.5
120" (2.59 × 1.62)	2.1	2.0–2.7	3.0–3.9	3.8–7.6	7.5–12.1	2.0–2.9	3.4–7.8
150" (3.23 × 2.02)	2.6	2.6–3.4	3.8–4.9	4.8–9.5	9.4–15.2	2.6–3.6	4.2–9.8
200" (4.31 × 2.69)	—	3.4–4.5	5.1–6.6	6.4–12.7	12.6–20.3	3.4–4.8	5.7–13.0
240" (5.17 × 3.23)	—	4.1–5.4	6.1–7.9	7.6–15.3	15.2–24.4	4.1–5.8	6.8–15.6
300" (6.46 × 4.04)	—	5.2–6.8	7.6–9.9	9.6–19.1	19.0–30.5	5.2–7.3	8.5–19.6
400" (8.62 × 5.39)	—	6.9–9.0	10.2–13.2	12.8–25.5	25.4–40.7	6.9–9.7	11.4–26.1
500" (10.77 × 6.73)	—	8.7–11.3	12.7–16.5	16.0–31.9	31.8–50.9	8.6–12.1	14.2–32.6

NP-PA853W / NP-PA703W (WXGA)

Unit: m

Screen Size (W × H)	Lens unit model name						
	NP11FL	NP30ZL	NP12ZL	NP13ZL	NP14ZL	NP40ZL	NP41ZL
30" (0.65 × 0.40)	—	—	0.7–1.0	0.9–1.9	—	—	—
40" (0.86 × 0.54)	0.7	—	1.0–1.3	1.2–2.5	—	—	—
60" (1.29 × 0.80)	1.0	1.0–1.3	1.5–2.0	1.9–3.8	3.7–6.0	1.0–1.4	1.7–3.9
80" (1.72 × 1.08)	1.4	1.4–1.8	2.0–2.6	2.5–5.1	5.0–8.1	1.4–1.9	2.2–5.2
100" (2.59 × 1.52)	1.7	1.7–2.2	2.5–3.3	3.2–6.4	6.3–10.1	1.7–2.4	2.8–6.5
120" (2.59 × 1.62)	2.1	2.0–2.7	3.0–4.0	3.8–7.7	7.6–12.2	2.1–2.9	3.4–7.8
150" (3.23 × 2.02)	2.6	2.6–3.4	3.8–5.0	4.8–9.6	9.5–15.3	2.6–3.6	4.2–9.8
200" (4.31 × 2.69)	—	3.4–4.5	5.1–6.6	6.4–12.8	12.7–20.4	3.4–4.9	5.7–13.1
240" (5.17 × 3.23)	—	4.1–5.4	6.1–8.0	7.7–15.4	15.3–24.5	4.1–5.8	6.8–15.7
300" (6.46 × 4.04)	—	5.2–6.8	7.7–10.0	9.6–19.2	19.1–30.7	5.2–7.3	8.6–19.6
400" (8.62 × 5.39)	—	6.9–9.0	10.2–13.3	12.8–25.7	25.5–40.9	6.9–9.7	11.4–26.2
500" (10.77 × 6.73)	—	8.7–11.3	12.8–16.7	16.1–32.1	31.9–51.2	8.7–12.2	14.3–32.8

NP-PA903X (XGA)

Unit: m

Screen Size (W × H)	Lens unit model name						
	NP11FL	NP30ZL	NP12ZL	NP13ZL	NP14ZL	NP40ZL	NP41ZL
30" (0.61 × 0.46)	—	—	0.7–0.9	0.9–1.8	—	—	—
40" (0.81 × 0.61)	0.6	—	0.9–1.2	1.2–2.4	—	—	—
60" (1.22 × 0.91)	1.0	1.0–1.3	1.4–1.9	1.8–3.7	3.6–5.8	1.0–1.4	1.6–3.7
80" (1.63 × 1.22)	1.3	1.3–1.7	1.9–2.5	2.4–4.9	4.8–7.8	1.3–1.8	2.2–5.0
100" (2.03 × 1.52)	1.6	1.6–2.1	2.4–3.2	3.0–6.1	6.0–9.7	1.6–2.3	2.7–6.3
120" (2.44 × 1.83)	2	2.0–2.6	2.9–3.8	3.7–7.4	7.3–11.7	2.0–2.8	3.3–7.5
150" (3.05 × 2.29)	2.5	2.5–3.2	3.7–4.8	4.6–9.2	9.1–14.7	2.5–3.5	4.1–9.4
200" (4.06 × 3.05)	—	3.3–4.3	4.9–6.4	6.1–12.3	12.2–19.6	3.3–4.7	5.5–12.5
240" (4.88 × 3.66)	—	4.0–5.2	5.9–7.7	7.4–14.8	14.7–23.6	4.0–5.6	6.6–15.1
300" (6.10 × 4.57)	—	5.0–6.5	7.4–9.6	9.2–18.5	18.4–29.5	5.0–7.0	8.2–18.8
400" (8.13 × 6.10)	—	6.7–8.7	9.8–12.8	12.3–24.7	24.5–39.3	6.7–9.7	11.0–25.1
500" (10.16 × 7.62)	—	8.4–10.9	12.0–16.0	15.4–30.9	30.7–49.2	8.3–11.4	13.0–30.5