

NEC Colour Expert Displays

# SPECTRAVIEW® SERIES

SV2490 | SV Reference 2690 | SV Reference 3090



Awaken Your Creativity

SpectraView®

## SPECTRAVIEW ADVANTAGE

### Colour you can Trust

Displays that set your imagination free

Whether you use a Mac or PC, SpectraView® is the only name you need to know. A range of displays combining the very highest standards of Japanese colour technology and panel expertise, tailored for the demanding creative professional.

SpectraView® displays offer calibrated colour accuracy with long term colour and uniformity consistency. A choice of displays with screen sizes from 22 to 30 inches and resolutions up to 2560 x 1600 pixels all backed by the extendable, NEC 3 year on-site warranty.

#### CREATE WITH CONFIDENCE

A display is the most vital component in the creative or pre-production process. Don't compromise your output with a lower standard product. SpectraView® displays guarantee the highest standards of colour replication whilst being surprisingly affordable.



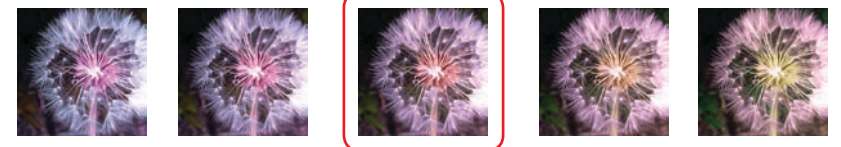
**IDEAL FOR :** GRAPHICS DESIGN | DIGITAL IMAGE CREATION  
AND EDITING | DTP | DIGITAL COLOUR WORKFLOW | PRE-PRESS  
AND SOFT-PROOFING | PHOTOGRAPHERS AND VIDEO EDITORS

## Performance and Precision.

### Setting New Standards for Your Creativity

The demands on the creative industry have changed considerably in recent years. Increasingly tight schedules and deadlines, coupled with sustained or even enhanced creative performance, demand optimum process efficiency in all fields, from graphic design to DTP and pre-press applications.

Professional digital photographers need to check their images in real time and must be able to rely on absolute colour fidelity during image processing. From the initial creative idea to production, creative projects progress through numerous individual steps of processing and calibration. The most important interface is always the ideal monitor. NEC Display Solutions meet the challenge with the SpectraView® range of monitors. With an impressively wide colour space and uncompromising contour sharpness, colour reproduction and luminance. The SpectraView® models SV2490, SV Ref 2690 and SV Ref 3090 guarantee optimum professional colour management, superb ergonomics and are ideal regardless of your creative field.



With SpectraView®, the colour you see is the colour you get throughout the product's life cycle\*. Take advantage of initial and on-going calibration to make pre-production and printing a pleasure.



## SPECTRAVIEW ADVANTAGE

### Total Colour Confidence.

delivering the widest, most accurate colour range.

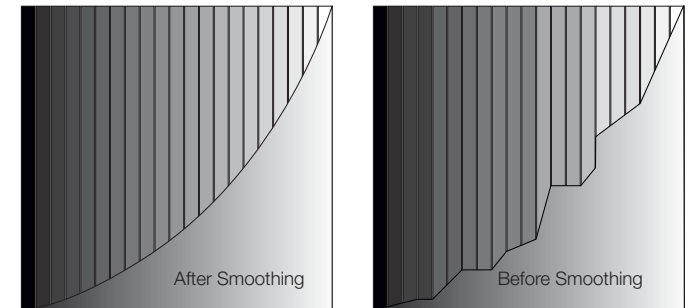
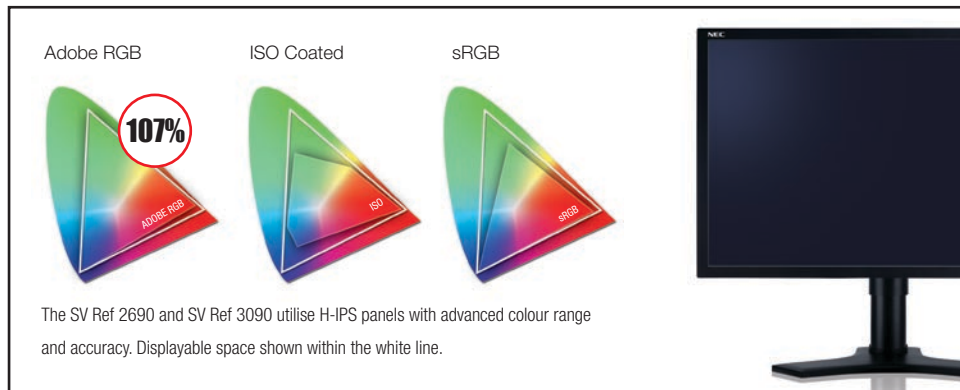
Working with the best possible palette is vital within the design process. SpectraView® achieves a higher level of colour accuracy by utilising proprietary 12 bit internal look up tables with 16 bit processing, combined with NEC's Profiler Calibration Software that to minimise colour errors and maximise detail in darker areas.

Most SpectraView® models can display more than 100% of the Adobe RGB colour space. For the first time you can soft proof on screen with

confidence, knowing that all the recognised print and digital/web colour spaces are achievable. Each SpectraView® is calibrated and screened in the factory, balancing brightness and colour, to ensure extended colour accuracy.

#### IMPROVE YOUR CREATIVITY

Consistency and cross-department calibration helps to ensure that your work can be distributed with total confidence. Consistent reproduction can shorten production times whilst minimising costs.



SpectraView® software and hardware calibration utilises a 16 bit process combined with 12 bit internal look up tables to ensure smooth gamma output

**SPECTRAVIEW ADVANTAGE**

## Affordable SpectraView® Solutions

For the enthusiast or the most critical

Mitglied der | Member of



REFERENCE STANDARD, FOGRACERT APPROVED

SpectraView® Award Winning Models have recently added FOGRACERT Class A approval to their many accolades. SV2490, SV Ref 2690 and SV Ref 3090 met head on the challenging requirements of the FOGRACERT sub-proofing system.

ENTRY LEVEL SPECTRAVIEW

SpectraView® on a budget really is possible with our P221W / SpectraView® Hardware Kit calibration bundle for enthusiasts and professionals working on a budget.







**A BROADER PERSPECTIVE**

## **Extending Viewing Limits.**

### PERFECT IMAGING IN CHALLENGING CONDITIONS

SpectraView® displays are designed to deliver excellent imaging within even the most challenging environments. The Ambient Light Sensor can automatically adjust brightness according to ambient light level, while a viewing hood safeguards the screen from stray light within your own protected workspace.

### DESIGN, VIEW AND CALIBRATE WITH EASE

The use of advanced H-IPS panel technologies means that regardless of viewing angles you will see virtually the same levels of colour and brightness. Consistent collaborative viewing is now a reality.

**MADE TO MEASURE**

## **Total Colour Confidence.**

delivering the widest, most accurate colour range.

Beside high resolution, the true to life reproduction of gamuts and uncompromised colour depth plays, above all, a fundamental role in professional colour management and the digital colour workflow.

The models of the NEC SpectraView® range offer unparalleled colour fidelity. The colour space capability of the SV Ref 2690 and SV Ref 3090 guarantees 107% reproduction of the Adobe® RGB colour space and the SV2490 75%. This is the most important criteria for professional image processing and retouching, as well as a vital prerequisite for on-screen checking and approval of CMYK data in soft-proof quality.

A detachable, anti-glare hood prevents image impairment due to extraneous ambient light. Additionally the horizontal and vertical viewing angle of up to 178° ensures ideal contrast and stable colour tonality even at unfavourable viewing angles and complements the reliability of the monitor.

Colour reproduction variations across devices and platforms are now a thing of the past! Fewer unpredictable results and false interpretations in the calibration phase, as well as fewer proofs and exposures, make it possible for agencies, publishers and the (printing) industry to enormously increase their effective productivity.

### RELAXED CREATIVITY

Every user is as different as his or her needs. That's the reason why all SpectraView® models have a stand that not only allows height adjustment of up to 150-190 mm, but is also tiltable and rotates almost through a full 360°. With TORO™ Design, the display can be rotated by 90° to portrait format. Intelligent, L-shaped menu buttons are ideally matched to both portrait and landscape modes, are intuitive to use and, thanks to the OSM Key Guide, remain easily legible and operable even in a darkened working environment.



SpectraView® models feature advanced ergonomics including tilt, swivel, rotate and portrait mode.

Anti-glare hood with a "hinged hatch" for easy access and sensor handling during calibration without removing the hood.





### 12 Bit Look Up Tables

#### Consistent Image : Consistent Output

Nobody wants any nasty surprises when it comes to printed results. With the SpectraView® Profiler software for hardware calibration, it's simple to perform a 12-bit gamma correction – conveniently and individually, for the red, green and blue channels.

With 4096 tonal values per colour, GammaComp enables an almost step-less and, in turn, considerably more precise gradation adjustment than is the case with conventional 8-bit graphic card colour palettes (software calibration). The finest gradations and greyscales can be displayed with extraordinary precision and clarity. This ensures that the colours seen on the screen match the printer.

For colour-critical applications, a homogeneous distribution of brightness and colour across the entire image area is essential. A fine matrix and high-precision sensing electronics measure at factory individual irregularities in brightness, colour

and gamma values for each individual display. Digital Uniformity Compensation determines variations and optimises millions of pixels – exact to the pixel – to ensure a uniform image with regard to brightness distribution and colour re-production. At the same time, various parameters such as temperature, operating time and even the alignment of the monitor are taken into account.

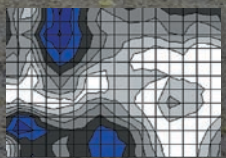
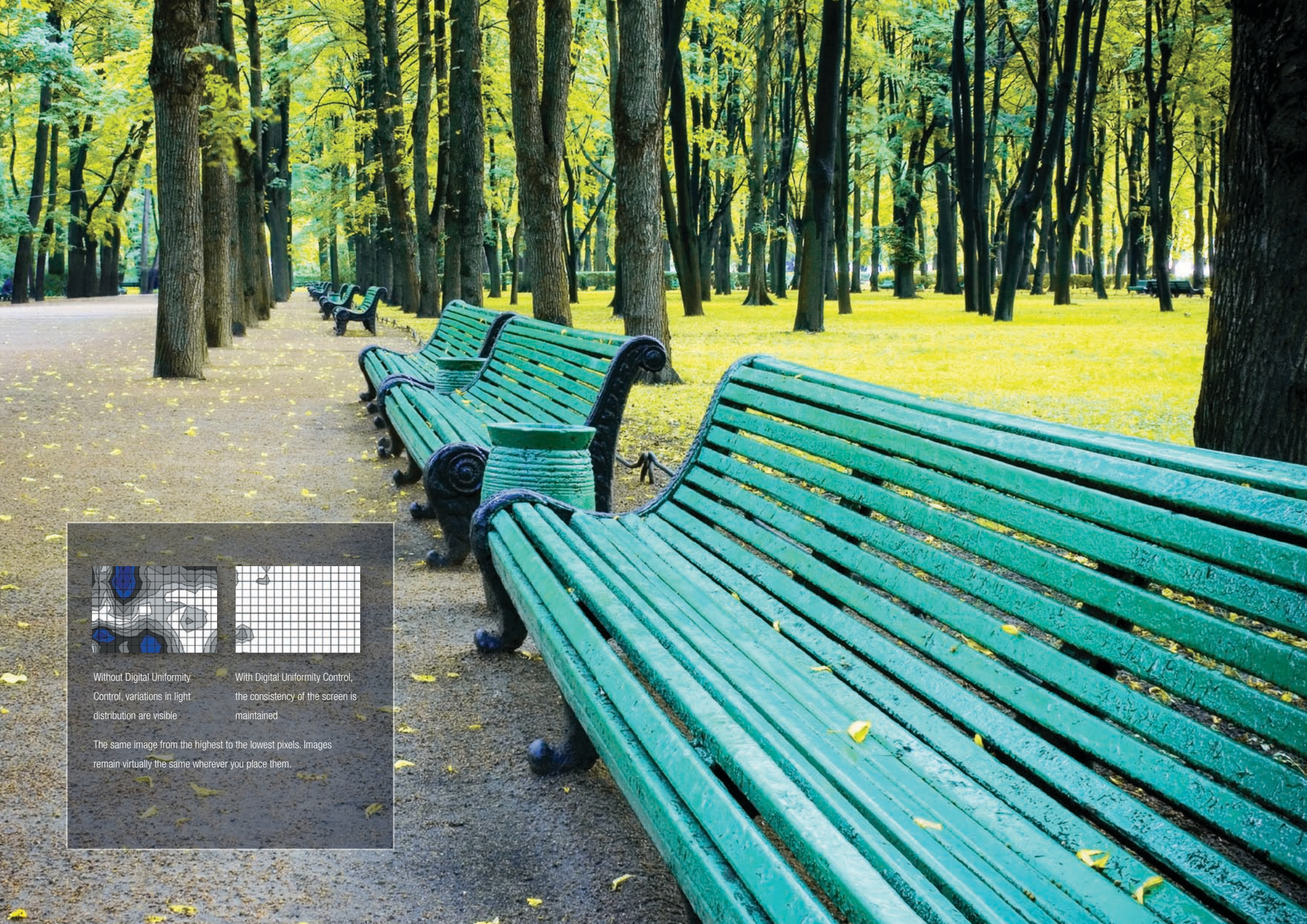
A default is already considered in the OSD of SpectraView® models. However, the intensity of the compensation applied may be individually adjusted and stored at any time.

In addition, the ergonomic AmbiBright function evaluates current lighting conditions and automatically adjusts the display accordingly to match the ambient lighting for various applications. Ideal conditions for stress-free working are guaranteed – even when the days and evenings sometimes last a bit longer.

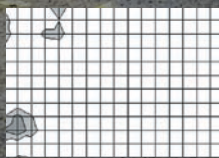


- **Highest quality colour fidelity**
- **Perfect grayscale balance**
- **Homogeneous colour and brightness distribution**
- **Personalised preference profile for optimum image display**
- **Stress-free working**





Without Digital Uniformity Control, variations in light distribution are visible



With Digital Uniformity Control, the consistency of the screen is maintained

The same image from the highest to the lowest pixels. Images remain virtually the same wherever you place them.



## Colour Imaging on a Budget

22" W P221W Entry Level Solution



## SpectraView® Colour Critical Displays

24" W to 30" W Reference Models



Although not a Certified SpectraView® Solution, adding the SpectraView® Hardware Kit to this high performance NEC MultiSync® P221W, is the ideal way to achieve colour-critical viewing on a budget. Featuring 10 bit hardware programmable LUT and 96% Adobe RGB, Display, Hood, Calibration Sensor and Software, it is an un-rivalled value for money, complete colour solution.



A head on challenge is the best way to appreciate SpectraView® Reference performance, where the combination of Reference standard Image Quality and features against value is outstanding and with NEC's unique X-Light Pro technology, that excellence is maintained with automatic adjustment of colour balance and white point level during the Display's life.

\*Selected models and terms of reasonable usage apply.



## BROADER HORIZONS



**16:10 Wide Format Workspace**, more productivity, space for tools, Full HD pixel to pixel replication and EcoMode



Particularly in the creative segment, the ability to view and edit as much information and simultaneously perform as many applications as possible is becoming increasingly important. In order to ensure efficient working, the decisive factor is the ability to maintain an overview over the multitude of layers, toolbars and control elements on the screen.

The NEC SV2490, SV Ref 2690 and SV Ref 3090, with their 16:10 Wide Format, are ideally aligned with such demands. They offer more than one-third of additional screen space against a resolution of 1600 x 1200 while maintaining an ergonomic pixel size. For instance, this means room enough for a DIN A4 double page spread at 100% plus visible toolbars, programming tools or email windows.

Independent surveys have proved that Wide Format Displays contribute to increased productivity. As

a format compatible with natural viewing and perception proportions, the 16:10 format supports viewing comfort and, in some cases, allows users to complete their tasks three times faster.

The X-Light® Pro function, an additional highlight assures stable colour reproduction and luminance during the warm-up phase. A sensor measures the luminance and colour temperature of the backlight and corrects and stabilises both automatically and for a long time.

- **Optimum overview**
- **More room for parallel applications**
- **Increased productivity**
- **X-Light® Pro function**
  
- **EcoMode and Ambient Light Sensor for Green Performance**

## SCREEN UNIFORMITY



**Consistency at Your Control** Displays that set optimum uniformity whilst allowing user personalisation



Every NEC SpectraView® monitor is tested at the factory and an individual 3D Colour and Brightness Compensation Matrix is created, which sets the optimum level of colour uniformity across the entire panel (backed by a NEC certificate of conformity).

NEC's unique Digital Uniformity Control, operated through the On Screen Menu, allows the user to adjust the factory set levels.

### TAKE CONTROL OF YOUR ENVIRONMENT

A comprehensive user menu system allows the user to maintain the balance that best suits their requirements and preferences throughout the life of the product. By selecting only the best panels and making an individual assessment of each display, we maximise the life and performance of the screen.



Overview of the most important functions  
(SpectraView® Profiler Software, Version  
4.0 and above):

- L\*-calibration (CIE-LAB L\* colour space), alternative calibration with gamma 1.8 or 2.2 or user-specified gamma values, sRGB or CIECAM02 calibration
- Creation of LUT-based 16-bit ICC and matrix profiles
- Iterative calibration process
- Manual white point and calibration curve editing
- White and black luminance adjustment (or contrast range)
- Supports prominent brands of colorimeters and spectral photometer sensors
- Profile validation for fast checking of calibration profiles
- Evaluation of workplace ambient light and viewing conditions in accordance with ISO 3664 and 12646
- Automatic hardware adjustment of JUST Normlicht lightbox by software
- Chromatic adaptation



Empowered by Innovation



## SpectraView® Profiler

### Cutting-Edge Hardware Calibration

Colour critical applications can only be a complete success when the process runs hand in hand with comprehensive hardware calibration. The bundled calibration and profiling software package, SpectraView® Profiler, allows precise and straightforward calibration of brightness, white point and luminance and the creation of 16 bit ICC profiles for Apple and Windows systems. The result: a colour reproduction that precisely represents subsequent processing and print output quality. Thanks to its clearly structured user interface, SpectraView® Profiler Software is simple and fast to use. Default settings enable express calibration with just one click of the mouse – without restricting any of the user options for setting personalised profiles. SpectraView® Profiler supports all current systems.\*



\* Due to constantly changing systems, compatibility can not always be guaranteed. However, free updates assure the best possible support.

## SPECTRAVIEW ADVANTAGE

### Quality Counts.

Getting the Job Done.



By insisting on a SpectraView® you ensure consistent, accurate colour that can reduce production times and costs. Rapid self-calibration ensures you have the perfect image within seconds of powering up and maintains an accurate and consistent image during the ordinary life of the product.

Sophisticated control and flexible ergonomics allow precise display set-up, while the NEC 3 year, extendable, warranty ensures peace of mind.

With award-winning widescreen displays from 24" through to 30" there is no better creative workspace than an NEC SpectraView®.





# SPECTRAVIEW® SPECIFICATIONS

Product Name	SpectraView® 2490	SpectraView® Reference 2690	SpectraView® Reference 3090
<b>Panel Technology</b>	IPS TFT	H-IPS (Horizontal IPS)	H-IPS (Horizontal IPS)
<b>Screen Size [inch/cm]</b>	24.1 / 61.1	25.5 / 64.9	29.8 / 75.6
<b>Colour Gamuts (Size comparison, typ.)</b>	75% AdobeRGB, 72% NTSC	107% AdobeRGB, 102% NTSC	107% AdobeRGB, 102% NTSC
<b>Pixel Pitch [mm]</b>	0.270	0.287	0.251
<b>Viewing Angle [°]</b>	178 horizontal / 178 vertical (typ. at contrast ratio 10:1)	178 horizontal / 178 vertical (typ. at contrast ratio 10:1)	178 horizontal / 178 vertical (typ. at contrast ratio 10:1)
<b>Contrast Ratio (typ.)</b>	1000:1	1000:1	1000:1
<b>Brightness (typ.) [cd/m<sup>2</sup>]</b>	320	320	320
<b>Response Time (typ.) [ms]</b>	8 (grey-to-grey), 16 (8 white / black; 8 black / white)	5 (grey-to-grey), 12 (6 white / black; 6 black / white)	6 (grey-to-grey), 12 (6 white / black; 6 black / white)
<b>Colours [Mio.]</b>	16.77	16.77	16.77
<b>Horizontal Frequency [kHz]</b>	31.5 - 93.8 and 119.2 (analog) / 31.5 - 91.1 and 118.4 (digital)	31.5 - 93.8 and 119.2 (analog) / 31.5 - 91.1 and 119.2 (digital)	31.5 - 98.7 (digital) / 24.0 - 93.8 (analog)
<b>Vertical Frequency [Hz]</b>	50.0 - 85.0	50.0 - 85.0	50 - 85
<b>Optimum Resolution</b>	1920 x 1200 at 60 Hz	1920 x 1200 at 60 Hz	2560 x 1600 at 60 Hz
<b>Supported Resolutions</b>	1920 x 1080p; 1600 x 1200; 1280 x 1024; 1280 x 960; 1280 x 720p; 1200 x 1920; 1152 x 870; 1152 x 864; 1024 x 768; 832 x 624; 800 x 600; 720 x 576p; 720 x 480p; 720 x 400; 640 x 480p; 640 x 480	1920 x 1080p; 1600 x 1200; 1280 x 1024; 1280 x 960; 1280 x 720p; 1200 x 1920; 1152 x 870; 1152 x 864; 1024 x 768; 832 x 624; 800 x 600; 720 x 576p; 720 x 480p; 720 x 400; 640 x 480p; 640 x 480	2560 x 1600; 1920 x 1080p; 1600 x 1200; 1280 x 1024; 1280 x 960; 1280 x 720p; 1200 x 1920; 1152 x 870; 1152 x 864; 1024 x 768; 832 x 624; 800 x 600; 720 x 576p; 720 x 480p; 720 x 400; 640 x 480p; 640 x 480
<b>Connectors Digital:</b>	1 x DVI-D; Digital/ Analog: 1 x DVI-I; Analog: 1 x D-sub 15 pin	1 x DVI-D; Digital/ Analog: 1 x DVI-I; Analog: 1 x D-sub 15 pin	1 x DVI-D; 1 x DVI-I
<b>Plug &amp; Play</b>	VESA DDC/CI; DDC2B/2Bi; EDID Standard		
<b>Adjust Functions</b>	Advanced NTAA (Advanced Non-Touch-Auto-Adjustment); Advanced User Menu; Auto Adjust; Black Level; Brightness; Colour Temperature Control; Contrast; Expansion Mode; Fine Adjust (analog); Hotkeys; Intelligent Power Management; Language Select; Monitor Information; OmniColor™: sRGB and 6-axis-colour-control; On-Screen-Display (OSD) lock-out; Sharpness; sRGB; User Menu		
<b>Safety and Ergonomics</b>	CE; TCO 03; TÜV Ergonomics; TÜV GS; C-tick; GEEA/Energy Label; Energy Star; FCC Class B; PCT/ Gost; UL/C-UL or CSA; CCC; ISO 13406-2 (pixel failure class II); MPR II/ MPR III; PCBC/B-mark; PSB; RoHS		
<b>Power Consumption on Mode [W]</b>	38 (Eco Mode); 75 (max.)	66 (Eco Mode); 111 (max.)	143 (typ); 117 (Eco Mode 1); 94 (Eco Mode 2)
<b>Power Consumption Power-Saving Mode [W]</b>	1	1	1
<b>Power Supply</b>	100-240 V; 1.1 A/0.55 A; integrated power supply	100-240 V; 1.1 A/0.75 A; integrated power supply	100-240 V; 1.1 A/0.75 A; integrated power supply
<b>Ambient Temperature (operating) [°C]</b>	+5 to +35	+5 to +35	+5 to +35
<b>Ambient Humidity (operating) [%]</b>	30 to 80	30 to 80	30 to 80
<b>VESA Mounting [mm]</b>	100 x 100 (4 points); 200 x 100 (5 points)	200 x 100 (5 points); 100 x 100 (4 points)	200 x 100 (5 points); 100 x 100 (4 points)
<b>ErgoDesign®:</b>	150 (Landscape mode)	150 (Landscape mode)	190 (Landscape mode)
<b>Screen Tilt / Swivel [°]</b>	5 to 30 / 170 to 170	5 to 30 / 170 to 170	5 to 30 / 170 to 170
<b>Dimensions (W x H x D) [mm]</b>	554.2 x 432.4 - 582.4 x 306.0 (Landscape mode)	589.8 x 444.2 - 594.2 x 306.0 (Landscape mode)	687.3 x 478.6 - 668.6 x 342.8 (Landscape mode)
<b>Bezel Width [mm]</b>	16.9	18.8	22
<b>Weight [kg]</b>	11.8	12.8	19.1
<b>Cable Management</b>	yes	yes	yes
<b>Kensington Lock</b>	yes	yes	yes
<b>Benefits</b>	Adjustable power LED (colour and brightness); Advanced NTAA (Advanced Non-Touch- Auto-Adjustment); AmbiBright; ambix <sup>3</sup> ™; Auto Black Level; Auto Brightness; Auto Contrast; AutoBright; CableComp with Sync Continuity Detection; ColorComp; DDC/CI compatible; Direct Brightness and Contrast; EcoModes; GammaComp (12 bit Look Up Table) and 12 bit Gamma Correction; NaViSet® and NaViSet® Administrator compatible; OmniColor™: sRGB and 6-Axis-Colour-Control; Overdrive; Quick release Stand and Handle; Rapid Response Technology; RapidMotion; Real Time Clock with Scheduler (Power-On and Power-Off Timer); Self Diagnostics; SpectraView® Profiler Software; TileComp; TileMatrix; TORO™ Design; Windows XP; X-Light® Pro (AutoLuminance, AutoColour)		
<b>Audio Functions Option:</b>	Option MultiSync® Soundbar 90	Option MultiSync® Soundbar 90	Option MultiSync® Soundbar 90
<b>Colour Versions</b>	Black Front Bezel, Black Back Cabinet	Black Front Bezel, Black Back Cabinet	Black Front Bezel, Black Back Cabinet
<b>Shipping Content</b>	Shipping Content Monitor; Power Cable; Signal Cable DVI-A - VGA; Signal Cable DVI-D - DVI-D; CD-ROM; Sales Office List; User Manual; CD-ROM with SpectraView® Profiler Software and manual; Detachable black light protection hood including accessories; SpectraView® Certifier document		
<b>Warranty</b>	3 years warranty incl. backlight	3 years warranty incl. backlight	3 years warranty incl. backlight

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NEC Colour Expert Displays

# SPECTRAVIEW® SERIES

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