

# Smart Lighting Makes Sense for Retail & Cinema Complexes



*FUTRONIX*

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Smart lighting control systems make easy work of controlling the complex lighting requirements of the retail and cinema industries. Though both industries appeal to similar target markets - consumers of entertainment and goods - their lighting needs are significantly specialized, with specific requirements for different sectors within each industry.

**Retail** - The retail industry includes stand-alone retail developments such as huge shopping malls and complexes, hypermarkets and large showrooms for auto, furniture and other goods. These require complex lighting systems including exterior lighting, parking, security and emergency lighting, and exterior signage. Interior lighting will typically include lighting for main concourse, atrium, corridors and balconies, and specialized lighting for food courts, exhibition spaces, and interior signage. Sound and A/V systems are also standard in such projects, and it is frequently desirable to link the commands controlling light and A/V systems.



A quality lighting control system - correctly specified, installed and programmed - can provide easy, intuitive control of all interior lighting, creating an atmosphere which attracts repeat consumers by providing effortless variations of ambiance, auto-sequencing display lighting to highlight special areas or products, as well as building security and emergency lighting.

Supermarkets, boutique arcades and single or chain store outlets are normally located within malls or in high-street locations. Their lighting requirements are less comprehensive, although the desired result is the same - lighting which attracts customers, and enhances profitability. Typically, these venues will require multi-zone general lighting, security and emergency lighting for one or more areas, with possible display lighting in special areas. Again, audio systems are standard, and may be linked with lighting controls.

**Cinema** - The cinema industry is less diversified, comprising multiplex cinemas, specialty format big-screen cinemas such as IMAX, as well as old style stand-alone cinemas in high street locations. Multiplex cinemas are normally - though not always - built as part of large-scale retail malls and developments. Some multiplex and most big screen cinemas are stand alone buildings, with parking attached or provided nearby.

Lighting requirements for cinemas typically include lobby lighting, including corridors, snack outlets and/or food court, and frequently display/exhibition lighting for stands catering to movie-linked promotions. Inside the auditorium, of course, lighting controls are essential for dimming main lights and curtain spots, low-level lighting from sconces and concealed floor strip lighting, as well as emergency lights. For special events, some cinemas also incorporate spot and stage lighting.



Built-in automation is standard practice within the cinema industry for reducing labour in multiplex cinemas, by running up to a dozen films on separate screens with staggered starting times so that just one projectionist can prepare and run all the films sequentially. This is facilitated by inclusion of a signal stripe on the film stock, which triggers relays in the projector employed, which then trigger lighting sequences automatically.

All cinemas require sound systems and motorized elements such as curtains, which can be linked to lighting control systems in various configurations to provide seamless control.

**Applicable systems from Futronix** - Many retail properties and cinemas choose to install complete-building lighting and building automation control systems. Futronix manufactures two compatible systems and a range of accessories for whole-building light-dimming control.

The **Futronix PFX System** offers sophisticated lighting control for high-end retail and cinema projects, while the **Futronix Enviroscene** multi-zone system is both compact and affordable. Both systems can link to a modular system of dimmers and switch panels throughout the complex, with an in-built 7-day timer giving more control over building security and style.

'**Scene dimming**' allows effortless transformation of area lighting for any requirement, including ambient or mood lighting, architectural illumination, exhibition or display lightshow, and security lighting. Futronix dimmers feature true 'scene dimming', as compared with pressing simple ON/OFF controls, or simple manual faders. Futronix software performs thousands of fade rate/timer calculations for multiple circuits, and ensures smooth transitions between scenes.



With the Futronix range of lighting control systems & dimmer units, scene setting is simplicity itself. Pre-programmed scenes are stored in permanent memory, available for instant recall at any time. All system operations can be performed from a PC, a remote control handset, wall-mounted switch panels, or the Home-Icon HI-C Color TouchScreen controller.

For retail or cinema projects with comprehensive dimming requirements, Futronix' all-digital design and commercial build-quality assure extremely reliable, trouble-free operation. PFX and Enviroscene dimmers are easy to install, and able to cope with lamp wattage changes, short-circuits, overloads and wiring alterations. Designed and fabricated for rugged commercial use, these products feature robust construction, generously rated heatsinks, and a very high level of short circuit protection.

Both the PFX and Envirosceine units are typically installed out of sight which means that equipment, wiring and accessory components can be arranged for easy cabling, installation and programming, at the same time simplifying inspection and maintenance.

PFX and Envirosceine systems, like all Futronix products, are designed to be fully compatible both backwards & forward, which means that a substantial investment in a dimming system will retain its value over the years, with maintenance, service and spare parts always available.

**PFX System** - The PFX System is an unlimited channel lighting control & whole-building automation system, already installed in leading retail complexes and cinemas worldwide to create aesthetically pleasing, energy-efficient spaces. Fully-digital PFX Systems of unlimited size and complexity are easy to specify, install and commission, and simple to maintain in operation. Accurate, quiet in operation and highly reliable, PFX dimmers can interface with security and alarm systems, and can be programmed to operate with other building automation systems.



System programming and operation is simple from a PC in the control room, a remote control handset or the Futronix Home-Icon Color Touch Screen Controller. The PFX System also can be controlled by 3rd party remote control devices, including touch screens, via the industry standard IR interface.

The PFX's X-BUS protocol allows all power and data to be sent down a single multi-stranded cable, daisy-chained to each control switch plate in turn - an especially useful feature for lighting control for large pillarless areas such as a mall concourse or cinema auditorium. This requires significantly less cabling and installation, and provides greater reliability due to fewer components and connections, easier terminations and more robust cable.

Programming and operating software for the PFX System runs under Microsoft Windows®, using an RS485 interface.

**System accessories** - The Futronix Reception/Floor Controller typically operates a number of floors or areas controlled by different PFX systems, and links into BMS systems using standard protocols. The Neon Controller unit combines a neon transformer and a digital dimmer, and is used for driving individual pixels in large full-colour signs. 1-10v industry standard fluorescent dimming control is available via an optional card, and for controlling modern halide lamps such as LED, SON, and Metal Halide, Futronix manufactures the innovative DSD® sinewave range of dimmers. Futronix also manufacture a Photo Cellswitch, PED Entrance Detector, and PIR Movement Detector. Most available makes of touch screens are compatible with Futronix controllers.

Ideal for cinemas, the PFR Relay Switching Panel is designed for use with low- power contact closure-control level loads, such as screen curtains, intruder/fire alarms and AV equipment. The RM-40 Relay Switching Module is used for switching loads like fluorescent ballasts, non-dim loads and curtain/drape motors. This module mimics a switch-press, for controlling AV & air conditioning equipment that requires a pulse contact closure of variable duration.



**Envirosceine** - Powerful yet compact, the Envirosceine system is an affordable, intelligent multi-channel dimming controller suitable for light commercial applications, and can also control other programmable

automation features - including curtains and shades - and interface with security and alarm systems.

The versatile Envirosce is an ideal dimmer for smaller cinemas and retail installations. Built around a range of standard modules, the Envirosce system can be further expanded with add-on Slave Units. The system is easily programmed and operated using a PC or laptop, remote control, or the Futronix Home-Icon TFT Colour Touch Screen Controller.

The Envirosce dimmer can set up multiple lighting zones, with up to 16 individual zones wired to the system and configured at installation time using the remote control. Each lighting circuit can be set to be in any zone, with each room working with full 20-scene setting independently of any other. Following installation with a single 4-core cable 'daisy-chained' from one switch panel to the next, each switch panel can then be configured at installation to operate a single zone or any number of zones, or to act as a master to them all.

For larger systems with even more flexibility, Envirosce Masters can be connected together to form systems with 32, 48 or more channels of lighting.

**PFX & Envirosce set the scene for display** - Lighting displays draw attention to an area or pick out certain items in a display. With the PFX System and Envirosce, dramatic or subtle lighting displays can be created quickly and easily by linking a series of scenes with pre-programmed scene duration and fade rates.



Applications for retail and cinema projects include product display and exhibitions, architectural interior and exterior highlighting, landscape and security lighting, and auditorium light shows for pre- and post-screening effects. A display or security lighting sequence can be programmed to last a few minutes or many hours - automatically sequencing through pre-set scenes and displaying each one for any variable length of time.



**Home-Icon HI-C** - The Home-Icon HI-C Color Touch Screen controller offers a further option for retail and cinema projects, allowing sophisticated remote control of PFX and Envirosce systems. The HI-C TouchScreen links dimmers together, and adds multiple functions with one-touch macros programmed to run pre-set 'environments' for lighting and for whole-building ambient control. Home Icon HI-C can also provide master automation control for an entire retail or cinema complex. An in-built 365-day astronomical timer programs lighting for special events and holidays.

For large projects HI-C can control over 20,000 circuits, including wireless, with more than 10,000 timed events and macros, and features PC compatible graphics to represent building layout, system components and performance.

**Single-store retail option** - For single-store retail outlets, the Futronix **P800** high performance scene dimmer is an 8 circuit, 4 zone dimmer with 20 scene capability. The P800 delivers multi-room control, and is suitable for use in a variety of light commercial settings.

P800 wall-mounted switch panels can program and operate the lighting within one or more zones. This is ideal for single-store retail outlets, with a panel by the main entrance that can switch the lighting OFF or alternatively to a display scene, and a remote control to select scenes and change levels from within each zone.

For bigger systems with more flexibility, multiple P800's can be connected together giving up to 80 channels. The P800 can also be programmed to control AV equipment, to create a real impression in a showroom or exhibition area. An in-built timer allows programming of up to 70 scene changes per week, including security settings at night.



**Smart lighting makes sense** - With the appropriate intelligent lighting control systems installed, retail and cinema projects of all sizes can enjoy the considerable benefits of more appealing lighting and ambiance, combined with simplicity and reliability - now and for the future.

