



SECTOR

Intelligent Ballast and Lighting Control System

Energy Management Solution

Energy Savings.

Flexibility.

Reduced Maintenance.

WHAT IS SECTOR?

LEVITON SECTOR

THE ULTIMATE LIGHTING CONTROL SOLUTION

Ideal for new construction and retrofit applications, Leviton's Sector intelligent ballast and lighting control system combines occupancy sensing, daylight harvesting, and flexible lighting control functionality to save time, money and energy while complying with energy codes.

SAVE ENERGY. SAVE MONEY.

Lighting accounts for approximately 30% to 35% of energy use in buildings. Sector allows for integration of sensors and controls to generate the greatest level of energy saving. Daylight harvesting coupled with continuous automated dimming can generate 34% to 60% savings in lighting energy consumption, significantly reducing operating costs.

FLEXIBILITY

In addition to saving energy, Sector allows for greater flexibility in lighting system design. Sector's intelligent ballast technology allows individual programming and the ability for the entire system to work as a network. Initial design and commissioning time is reduced with the added benefit to easily reconfigure lighting control with a software-based program.

REDUCED MAINTENANCE TIME AND COSTS

By eliminating control devices, power packs and other devices in standard ballast systems, there are fewer parts to service and maintain. Programming is done with an easy-to-use graphical software interface; reconfiguration can be done quickly and without the need to rewire.

POWER LOSS PROTECTION

Sector also offers alternatives for emergency power. If the ballast experiences power loss, the ballast(s) will respond to their preset level or action on power restoration (i.e. upon a generator start). This can be programmed to the user's individual requirements. If a power outage (or electrical blackout) occurs and the bus controller loses power, the Ballasts will go to full (maximum illumination).

BENEFITS OF SECTOR

Leviton's Sector Intelligent Ballast and Lighting Control System provides you with a simple and easy solution to meet your every building requirement.

ENERGY SAVINGS. Combines occupancy sensing, daylight harvesting and dimmable lighting energy saving technologies in one integrated system.

CODE COMPLIANCE. Satisfy energy codes and meet performance requirements of energy standards.

EASY TO DESIGN. Expandable, flexible, topology-free, polarity-free – from one room to a campus of buildings.

EASY TO INSTALL. Components are on a single bus using the same wiring throughout the system with all accessories connected to the network, not the ballast.

EASY TO MAINTAIN. Easy system configuration and reconfiguration with central graphical point-and-click/drag-and-drop software control and individual personal desktop control for user convenience.

Whether the goal is cost- and time-saving installation, building energy efficiency, certification to national energy conservation regulations, retrofitting, flexibility of switch and sensor placement or building automation, Leviton's Sector Intelligent Ballast and Lighting Control System meets any application.

Building Professionals, Architects, System Integrators, Planners, and Installers. Flexibility, installation interoperability, simplicity, environmentally friendly.

Building Owners, Facility Managers, and Private Consumers. Energy savings, cost benefits, flexibility and comfort, simplicity.

LEVITON LEVERAGES ENERGY SAVING TECHNOLOGIES

Leviton leverages the benefits of occupancy sensing, daylight harvesting and dimmable lighting technologies into the Sector intelligent ballast and lighting control system for easy energy savings.

OCCUPANCY SENSING

Occupancy sensors provide automatic switching of lighting and building loads. Not only does this ensure that lights go off when not needed, hands-free switching is extremely convenient because it takes the burden away from the occupant using the space. A new breed of devices, manual-ON occupancy sensors, provides maximum savings by requiring user intervention and eliminating false-on triggers.

TYPICAL SAVINGS THRU OCCUPANCY SENSORS Source: E Source Survey

TYPE OF ROOM	ENERGY SAVINGS %
Private Office	13 to 15%
Open-Plan Office	20 to 28%
Classroom	40 to 46%
Conference Room	22 to 65%
Bathrooms	30 to 90%
Corridors	30 to 80%
Storage Area	45 to 80%

DAYLIGHT HARVESTING

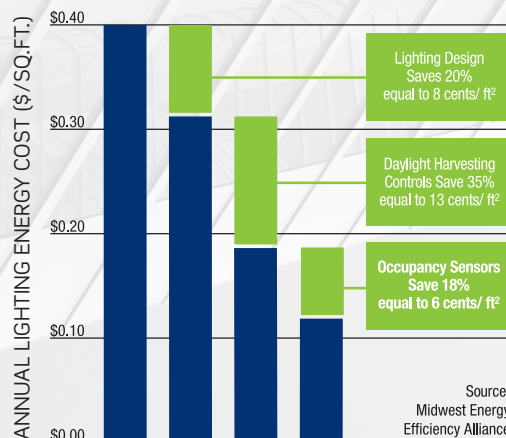
Daylight harvesting technology maintains a programmed level of light by precisely adjusting the output of a room's luminaires to compensate for ambient light levels, the most prevalent source being natural daylight. A typical system uses photocells to measure the ambient light and then automatically dim or brighten to achieve a user-programmed level of light. An alternative to dimming is bi-level or multilevel switching in which luminaires in different zones are switched on and off based on ambient light levels. By utilizing free light, daylight harvesting can reduce electricity bills as much as 60%.

DIMMABLE LIGHTING

One of the easiest ways to reduce electricity consumption is via a combination of dimmers and task lighting. Not only do dimmed lights draw less electricity, they produce less heat—and that can reduce cooling costs, which can really add up in warmer climates. As a general rule: the more you dim, the more you save. Dimming also enables lamps to last longer.

DIMMING INCANDESCENT LIGHTS BY:	REDUCES ENERGY CONSUMPTION BY:
10%	10%
25%	20%
50%	40%
75%	60%

According to a Midwest Energy Efficiency Alliance study, their cost-saving potential is considerable:



A LIGHTING INNOVATION

ADVANCED BALLAST INTELLIGENCE

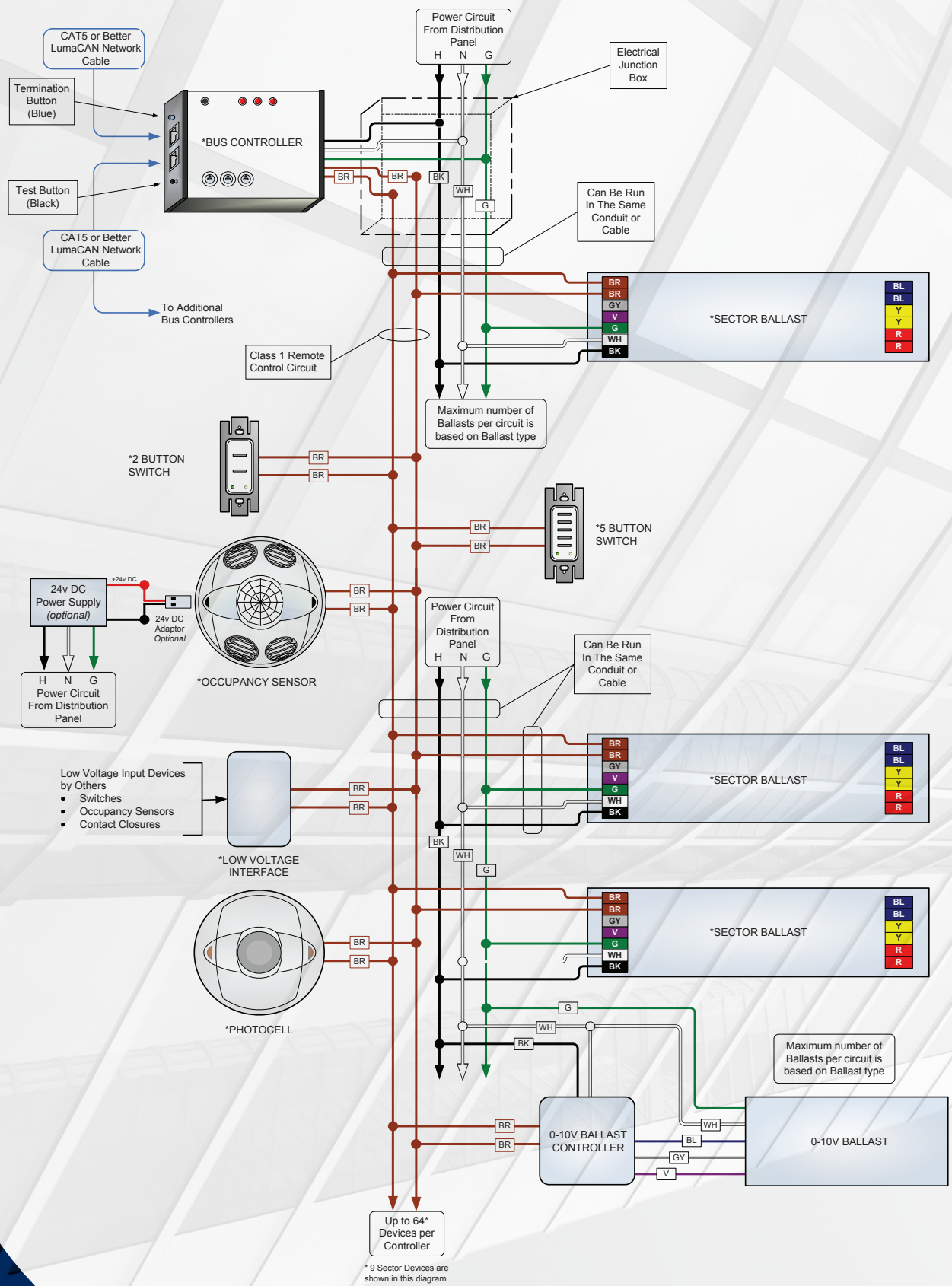
- 1% dimming ballasts
 - Installation tolerant
 - No adjustments needed to achieve minimum dimming
 - 1% dimming for no more cost than standard 10% dimming
- Patent-pending 3-part label allows simple transfer of ballast identification to lighting plan for rapid commissioning – just peel-and-stick
- Lamp failure alert features an end-of-life warning when a lamp is near end-of-life in the system; lights are turned off before they damage the ballasts; provides additional cost savings, eliminating the need to replace the ballast
- Quick flash feature allows you to find a specific light fixture in a configuration; useful in helping to visually locate a fixture that is having problems
- Software easily identifies ballasts by dimming all other ballasts
- Three levels of configurable load shed
- Run time and energy use reporting
- Patent-pending 4800 baud rate protocol
- Patent-pending anti-striation circuitry
- Control up to four lamps from a single ballast, uses only one ballast per section linear fixture section

SIGNIFICANT SAVINGS

- Energy savings
- Easy to design, install and maintain
- Lower cost than hardwire options – averaging 35% to 60% savings

GREATER FLEXIBILITY

- Easily expandable system
- Add personal control at any time
- Add daylight harvesting when desired
- Simple customization meets personalized needs
- No interfaces; Bus Controller takes the place of power packs or controllers



SECTOR APPLICATIONS



The low cost, easy installation and low maintenance of Leviton Sector solutions make it easier than ever for areas such as K-12 schools and open office spaces to take advantage of energy saving wireless lighting control. Use Sector in office buildings, medical offices, universities, labs, restaurants, government facilities and any other location that could benefit from the cost savings and energy efficiency of a controlled lighting environment.

- Schools
- Offices
- Airports
- Convention Centers
- Retail Stores







APPLICATIONS

USE IN A SINGLE ROOM OR AN ENTIRE CAMPUS OF BUILDINGS

With Leviton Sector, all devices work together, utilizing industry standard wiring to avoid any offsite confusion. And because each component is on a single bus, accessories are connected to the network, not the ballast—offering ultimate flexibility and ease of installation.

CONFERENCE ROOMS:
INCORPORATES 'SCENES' BASED "ON" FUNCTION.
USER DEFINED LIGHTING LEVELS DETERMINED BY OCCUPANCY,
EQUIPMENT IN USE (I.E. PROJECTORS, A/V DEVICES, ETC.),
AND AMBIENT LIGHT LEVELS.

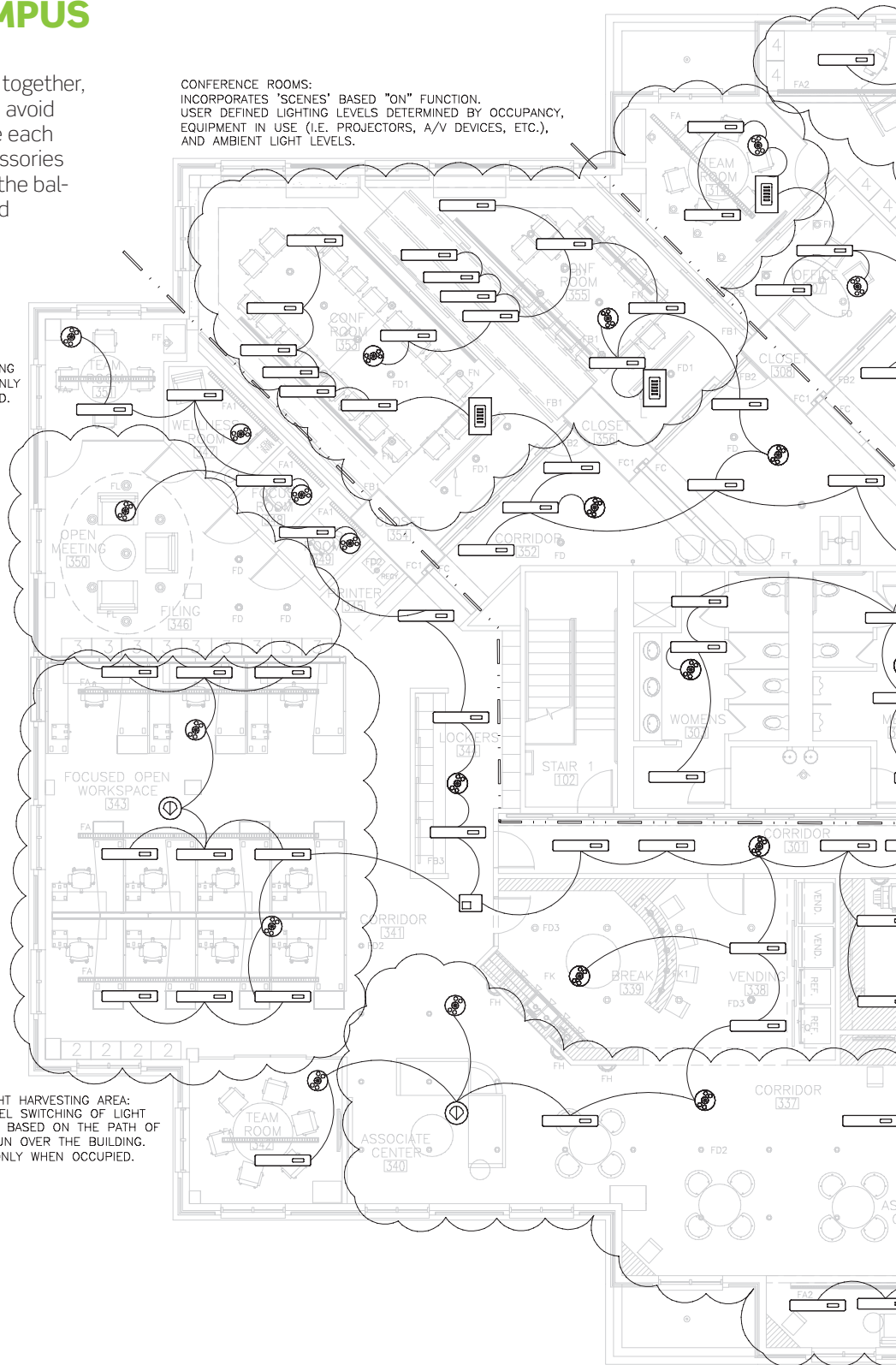
COMMON MEETING
SPACE: "ON" ONLY
WHEN OCCUPIED.

DEVICE	QTY.	DESCRIPTION
	46	SECTOR OCCUPANCY SENSOR
	8	SECTOR PHOTOCELL
	141	SECTOR BALLAST
	0	SECTOR 4-INPUT LOW VOLTAGE INTERFACE
	5	SECTOR SWITCH
	4	SPB000 SECTORNET BUS CONTROLLER

NOTES:

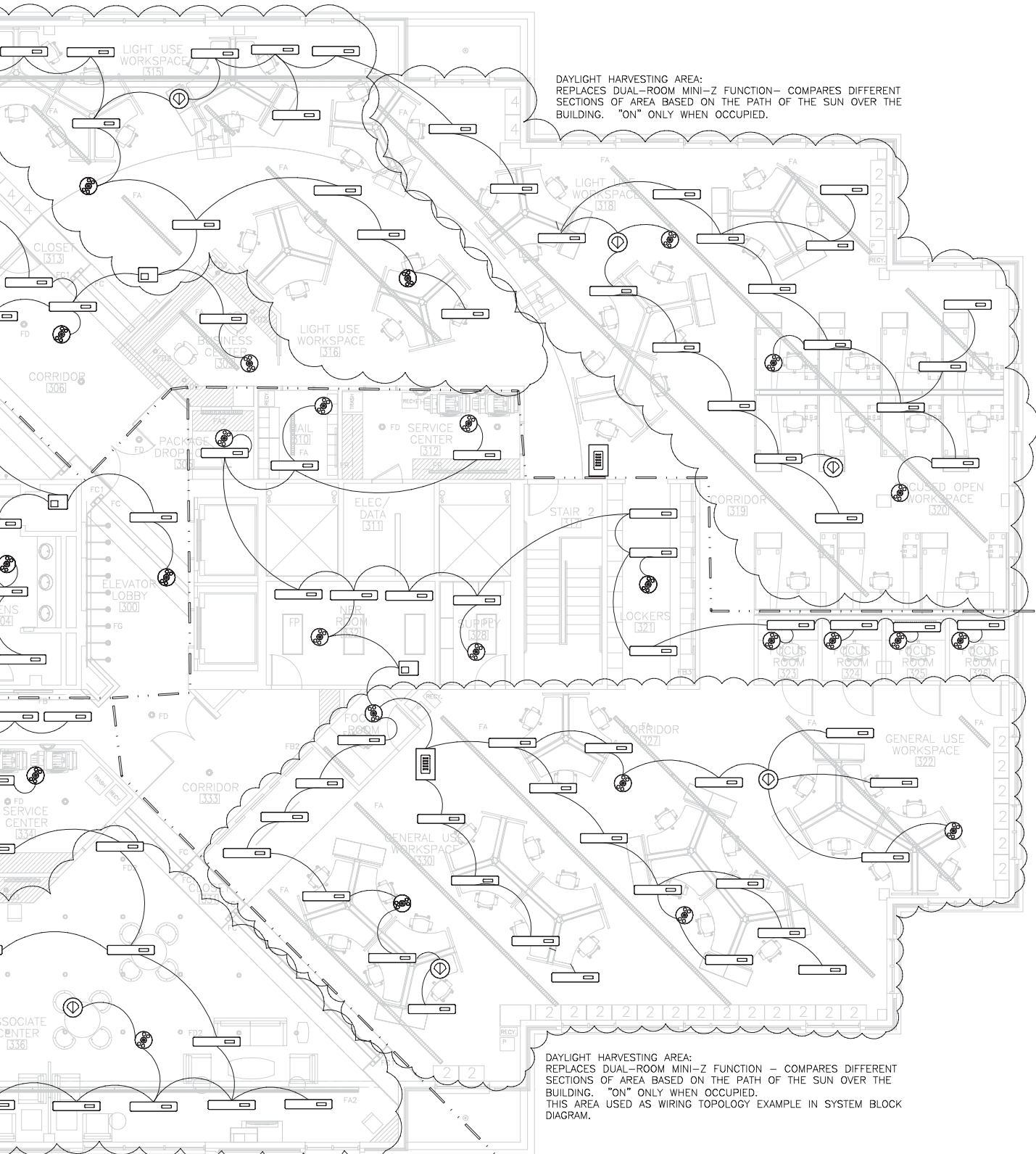
1. — separates areas according to bus power controller.
2. CONTROL WIRES MAY BE RUN WITH CLASS 1 WIRE.
3. WIRING IS TOPOLOGY FREE. DAISY-CHAIN AND MULTIPLE-"Y" BRANCHING IS ACCEPTABLE.
4. 64 DEVICES MAY BE CONNECTED TO A SINGLE BUSS CONTROLLER.
5. WIRE SIZE MAY BE #18 - #12 AWG STRANDED CU CONDUCTOR. #18 AWG PIGTAILS AND WIRE NUTS MAY BE REQUIRED AT DEVICE TERMINATIONS WHEN #12 AWG WIRE IS USED BETWEEN DEVICES.

DAYLIGHT HARVESTING AREA:
BI-LEVEL SWITCHING OF LIGHT
LEVELS BASED ON THE PATH OF
THE SUN OVER THE BUILDING.
"ON" ONLY WHEN OCCUPIED.



DAYLIGHT HARVESTING AREA: BI-LEVEL SWITCHING OF LIGHT LEVELS BASED ON THE PATH OF THE SUN OVER THE BUILDING. "ON" ONLY WHEN OCCUPIED.

DAYLIGHT HARVESTING AREA:
REPLACES DUAL-ROOM MINI-Z FUNCTION- COMPARES DIFFERENT SECTIONS OF AREA BASED ON THE PATH OF THE SUN OVER THE BUILDING. "ON" ONLY WHEN OCCUPIED.



DAYLIGHT HARVESTING AREA:
REPLACES DUAL-ROOM MINI-Z FUNCTION - COMPARES DIFFERENT SECTIONS OF AREA BASED ON THE PATH OF THE SUN OVER THE BUILDING. "ON" ONLY WHEN OCCUPIED.
THIS AREA USED AS WIRING TOPOLOGY EXAMPLE IN SYSTEM BLOCK DIAGRAM.

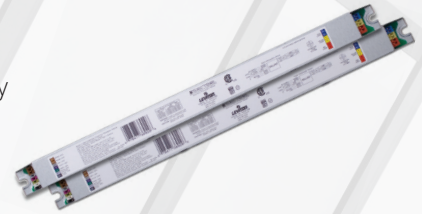
DAYLIGHT HARVESTING AREA: REPLACES DUAL-ROOM MINI-Z FUNCTION - COMPARES DIFFERENT SECTIONS OF AREA BASED ON THE PATH OF THE SUN OVER THE BUILDING.

COMPONENTS

Leviton's Sector Intelligent Ballast and Lighting Control System combines several energy saving technologies – occupancy sensing, daylight harvesting and dimming – into one conveniently integrated system. This topology free system uses the same wiring type for all Sector components and accessories making it one of the easiest lighting control systems to install. To further simplify installation, all components are on a single bus, with accessories connected to the network, not the ballast. The Sector family of products provides a scalable solution that offers maximum flexibility and maximum coverage in any application – from a single room to a campus of buildings.

SECTOR INTELLIGENT DIMMING FLUORESCENT BALLASTS

- Continuous dimming offers higher energy savings and increased flexibility than traditional switching
- Dimming fluorescent ballasts allow 100% to 1% dimming capabilities
- Ballasts have a patent pending addressable labeling system for easy programming and personal lighting control
- Fast, easy installation



SECTOR NETWORK BUS CONTROLLER

- Contains the brain and power supply for the Sector system in one component
- Controls a maximum of 64 devices on a system with the ability to expand a system to include a maximum of 253 systems
- Fast, easy installation



SECTOR NETWORK OCCUPANCY SENSORS

- Turns lights ON/OFF based on vacancy or occupancy
- Multi-technology and infrared models available
- Self-adjusting settings continuously analyze and adjust sensitivity, timer operation and long-term performance—reducing user complaints
- Fast, easy installation



SECTOR NETWORK PHOTOCELL

- Measures the amount of ambient light available in a space and lowers electric bills by reducing lighting usage when ambient light is sufficient
- Offers constant lighting at desired level for greater visual comfort
- Fast, easy installation

SECTOR NETWORK SWITCH

- Manually overrides programming at the push of a button to meet the user's needs
- Includes a 5-button (ON, MAX, BRIGHT, DIM, OFF) and a 2-button (ON, OFF) model
- Fast, easy installation



SECTOR HANDHELD REMOTE

- Manually overrides programming at the push of a button to meet the user's needs (ON, MAX, BRIGHT, DIM, OFF)



SECTOR BALLAST CONTROLLER

- Controls non-Sector 0-10V ballasts by other manufacturers to provide the same capabilities as Leviton Sector Ballasts
- Control a maximum of 70 ballasts within the same zone or individual ballast control

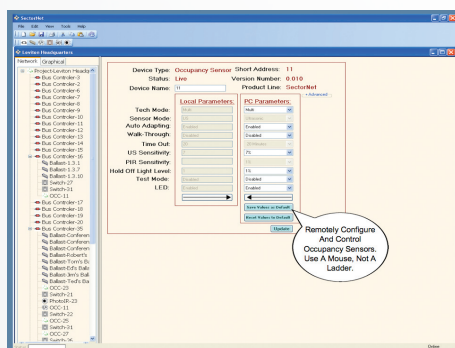
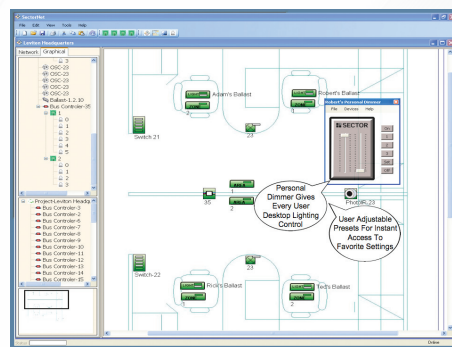
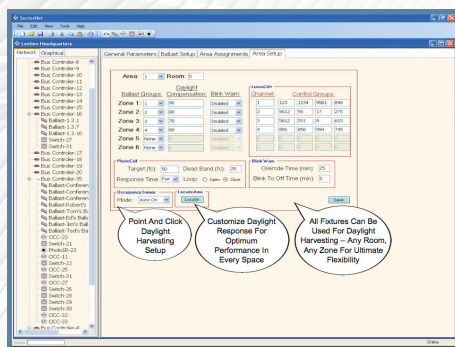
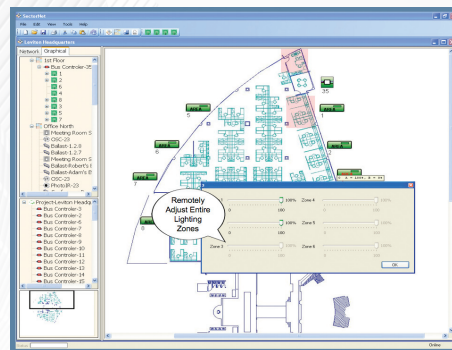
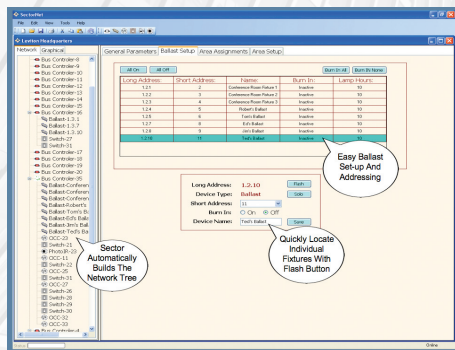


NETWORK

- Topology free - the Sector Bus Controller connects through daisy-chain network wiring techniques
- Polarity free - Class 1 and Class 2 Wiring/standard building wiring in same conduit as power wiring
- No special terminations or installation requirements
- Easy to commission - ultimate flexibility in design, installation and configuration using a drag-and-drop GUI interface with Illustrator layout tool

SECTORNET SOFTWARE

- Personal Dimming Option (PDO): Individual control for the lights above a user's workspace right from their desktop PC
- Central control: Facility personnel can re-configure control as needed with drag-and-drop GUI interface with Illustrator layout tool
 - Only need a computer to configure the system. Once the system is configured, Sector will run itself without a computer connected.
 - Remote configuration available
- Commissioning: Quickly associates fixtures to related controls



APPLICATIONS

ORDERING INFORMATION

CAT. NO.	DESCRIPTION
SD1F8-17M	Sector Dimming Ballast, T8, 9.5" A-Can (1 lamp, 17W Linear or U-bent)
SD1F8-25M	Sector Dimming Ballast, T8, 9.5" A-Can (1 lamp, 25W Linear or U-bent)
SD1F8-32M	Sector Dimming Ballast, T8, 9.5" A-Can (1 lamp, 32W Linear or U-bent)
SD1J8-17M	Sector Dimming Ballast, T8, 16.5" B-Can (1 lamp, 17W Linear or U-bent)
SD1J8-25M	Sector Dimming Ballast, T8, 16.5" B-Can (1 lamp, 25W Linear or U-bent)
SD1J8-32M	Sector Dimming Ballast, T8, 16.5" B-Can (1 lamp, 32W Linear or U-bent)
SD2F8-17M	Sector Dimming Ballast, T8, 9.5" A-Can (2 lamps, 17W Linear or U-bent)
SD2F8-25M	Sector Dimming Ballast, T8, 9.5" A-Can (2 lamps, 25W Linear or U-bent)
SD2F8-32M	Sector Dimming Ballast, T8, 9.5" A-Can (2 lamps, 32W Linear or U-bent)
SD2J8-17M	Sector Dimming Ballast, T8, 16.5" B-Can (2 lamps, 17W Linear or U-bent)
SD2J8-25M	Sector Dimming Ballast, T8, 16.5" B-Can (2 lamps, 25W Linear or U-bent)
SD2J8-32M	Sector Dimming Ballast, T8, 16.5" B-Can (2 lamps, 32W Linear or U-bent)
SBP00-00M	Sector Bus Controller/Power Supply
OSCo4-ISW	Sector Passive Infrared Occupancy Sensor, 450SF
OSC20-MSW	Sector Multi-Technology Occupancy Sensor, 2000SF
ODCoP-oSW	Sector Photocell
SDS00-15W	Sector 5-Button Digital Switch
SHH00-000	Sector Handheld Remote
SLM00-000	SectorNET USB-to-LumaCan Adapter
SIF00-000	SectorNET Administrative Software
SIFPD-000	SectorNET Client Software
SBCSo-000	Sector Ballast Controller
SBCSo-001	Sector Ballast Controller, Single Mount
SENo4-000	Sector 4-Module Enclosure (to hold a maximum of 4 Bus Controllers (SBP00-000))



Leviton Manufacturing, Co., Inc. Lighting Management Systems

20497 SW Teton Avenue, Tualatin, OR 97062

Telephone: 1-800-736-6682 • FAX: 503-404-5594 • Tech Line (6:00AM-4:00PM P.S.T. Monday-Friday): 1-800-959-6004

Leviton Manufacturing of Canada, Ltd.

165 Hymus Boulevard, Pointe Claire, Quebec H9R 1E9 • Telephone: 1-800-469-7890 • FAX: 1-800-563-1853

Leviton S. de R.L. de C.V.

Lago Tana 43, Mexico DF, Mexico CP 11290 • Tel. (+52) 55-5082-1040 • www.leviton.com.mx

Visit our Website at www.leviton.com/lms

© 2009 Leviton Manufacturing Co., Inc. All rights reserved. Subject to change without notice.

G-8118A/Jg-cds
REV OCT 2009