

Featured Display



Name: Compact Fluorescent Lamp (CFL) Display

Description: A display showing the newest generation of Compact Fluorescent Lamps (CFLs), as well as one incandescent lamp for comparison. Visitors can view the quality of each light while power meters at the bottom show the energy consumption of each bulb. Shown in this display are: 60W incandescent lamp; 14W globe CFL, a nice replacement for vanity lights; 9W mini CFL, equivalent to a 40W incandescent lamp; 15W R30 flood CFL, equivalent to a 65W incandescent flood; 8W cold cathode CFL, usable with dimmers and rated for 50,000 hours of life.

Systems Addressed: Lighting

Illustrates: Compact fluorescent lamps are energy efficient options for replacing inefficient incandescent lamps. CFLs use approximately 25% of the energy of incandescent lamps and can last five times as long. Various high quality CFLs are currently available, so consumers are not restricted to just purchasing bulky, first generation spiral CFLs.

Featured Instrument



Name: HOBOTest U9-002 Light On/Off Logger

Description: Records when lights change between on and off, storing the time, date and state for each change.

Required Equipment: HOBOTest U9-002 Light On/Off Logger, USB Interface Cable, HOBOTest Software.

Benefits: Easy to monitor and log when lighting systems are in use.

Examples of Use: To determine the savings potential of installing occupancy sensors in office areas to turn off lights when unoccupied. Use to determine exact lighting hours.

Availability: Loaned free of charge for up to 10 business days.

Remember: Safety first!

Featured Book



In *Rethinking Water Management: Innovative Approaches to Contemporary Issues*, edited by Caroline M. Figueres, Cecilia Tortajada, John Rockstrom and published by Earthscan Publication Ltd., a new generation of water experts from around the world examine the critical challenges confronting the water profession, including rainwater and groundwater management, recycling and reuse, water rights, transboundary access to water and financing of water.

Featured Periodical

Energy & Power Management, a monthly publication by BNP Media, serves the commercial, industrial and institutional markets and highlights feature articles, professional columns, calendar of events and innovative products.

Featured DVD



Name: An Inconvenient Truth

Description: Former Vice President Al Gore presents an eye-opening and compelling view of the future of our planet in the Academy Award winning, must-see documentary of the year. Also includes special features.

Length: 96 minutes.

NOTE: Books, periodicals and DVDs can also be checked out free of charge. Please call toll-free: 1-866-SDENERGY for more information.

Featured Display



Name: Scroll Compressor Cut-Away

Description: Two compressors that have been cut away to illustrate the inner working of scroll compressors.

Systems Addressed: HVAC

Illustrates: Scroll compressors are widely used in small air conditioners and refrigerators. They contain two interlocking metal spirals called scrolls. One scroll remains stationary while the other scroll orbits in place. Refrigerant will enter the two scrolls and get pushed along the spiral by the motion of the orbiting scroll. As the refrigerant travels along the spiral path of the scroll, the space in which the refrigerant is trapped gets smaller and smaller due to the shape of the scrolls. This action compresses the refrigerant and powers the refrigeration cycle. Scroll compressors are known for being quiet, efficient, and reliable as compared to reciprocating compressors.

Featured Instrument



Name: Fluke 41B, Power Harmonics Analyzer

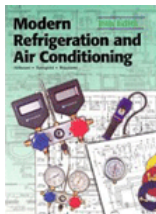
Description: Measures instantaneous volts, amps, power factor, power, waveforms and harmonics.

Benefits: The Fluke 41B is ideal for taking instantaneous power readings and trouble-shooting power quality issues in commercial and industrial settings.

Examples of Use: Did you install a variable frequency drive? Use the Fluke 41B to verify electrical savings and analyze the harmonic feedback from the unit to ensure high quality power for your facility.

Availability: Loaned free of charge for up to 10 business days.

Featured Book



Modern Refrigeration and Air Conditioning, written by Andrew Alhouse, Carl Turnquist, and Alfred Bracciano and published by the Goodheart-Willcox Company, Inc., provides a thorough and authoritative course on the basic and advanced principles of refrigeration and air conditioning. This book contains all the most recent information and advances necessary to prepare the technician for today's world. It incorporates the latest technical changes and EPA rulings, covers the newer refrigerants, and provides current information on the recovery, reclaiming, and recycling of refrigerants. It also includes basic information on numerous certification exams.

Featured Periodical



EnergyBiz Magazine has been published bi-monthly by Energy Central since 2004 and brings together a team of award-winning editors and journalists to launch a magazine with fresh reporting, analysis and a new perspective on the 100-year-old industry. Energy Biz Magazine provides readers with the inside information, trends and insights that can be used to improve businesses and careers.

Featured DVD

Name: The Energy Factor

Description: Funded by the California Public Utilities Commission, "The Energy Factor" (in both VHS and DVD format) is about energy efficiency featuring in-home interviews and energy audits, and provides energy and money saving tips. Hosted by "Jack the Energy Guy," the purpose of this video is to help Californians reduce energy consumption and learn how to take advantage of financial incentives and assistance provided by the state's investor owned utilities and other programs throughout the state.

Length: 13 minutes

Featured Display



Name: Hotel Bathroom Smart Fixture

Description: A 4', 2-lamp T8 fluorescent fixture designed for use in hotel and dormitory bathrooms. The fixture contains a motion sensor and an LED night light for unoccupied operation.

Systems Addressed: Lighting

Illustrates: Hotel guests typically use bathroom lights as nightlights or neglect to shut off lights when they leave their rooms. Hotels generally do not install occupancy sensors in these spaces to avoid having lights shut off when no one is present and having lights turn on when not desired. The Hotel Bathroom Smart Fixture integrates a motion sensor and low-wattage LED night-light to save energy. When no one is present, the fixture shuts off the fluorescent lamps and turns on the LED night-light. Additionally, the fixture uses "auto-off, manual-on" logic to avoid turning on the fluorescent lamps when guests do not desire light. This fixture can save up to 193 kWh per year or approximately \$22 a year in electrical costs. For a large hotel this could result in considerable energy savings.

Featured Instrument



Name: HOBO U9-001 State Data Logger

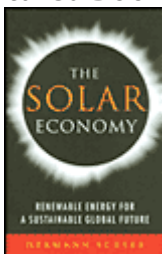
Description: Records when devices change between open and closed, storing the time, date, and state of each change. Monitors when doors/windows are open/closed using an internal magnetic reed switch and external magnet. External input cable included to monitor contact closures of remote devices or presence of positive DC voltages up to 15V.

Benefits: The logger can be used as a door monitor. It will record the times when the door is either open or closed (their "state" condition).

Examples of Use: For determining whether a door or other closure item is *open* (e.g. in cooler door) or *closed* (e.g. HVAC outside air economizer damper) excessively.

Availability: Loaned free of charge for up to 10 business days.

Featured Book



The Solar Economy, written by Hermann Scheer and published by Earthscan, lays out the blueprints for solar as an alternative to fossil fuels, showing how the political, economic and technological challenges can be met using indigenous, renewable and universally available resources, and the enormous opportunities and benefits that will flow from doing so. Scheer writes that substituting renewable resources for fossil resources will take a new industrial revolution to avert the worst of the damage and establish a new international order.

Featured Periodical

Government Technology is published monthly by Government Technology and targets state and local government. It has a host of resources about government technology and practices and features articles and stories on homeland security, internet trends, and emerging technologies.

Featured DVD



Name: Chicago: Edens Lost & Found

Description: Part of a multi-part PBS series, this DVD focuses on Chicago and highlights practical solutions to improve the environment and quality of life in cities, for ourselves and future generations. The centerpiece of a multimedia program and outreach initiative, this special broadcast will showcase extraordinary community activists as well as forward-thinking professionals who offer up best practice solutions to transform their urban environments.

Length: Approximately 1 hour.

NOTE: Books, periodicals and DVDs can also be checked out free of charge. Please call toll-free: 1-866-SDENERGY for more information.

Featured Display



Name: Induction Low Bay Fixture

Description: This fixture is a Powerlux Induction fixture containing one 85W Phillips QL induction lamp. The Phillips QL85W/840 induction lamp consumes 85W and generates 6000 lumens, for an efficacy of 70.6 lumens/watt. The lamp is rated for 100,000 hours, has a CCT of 4000K, and has a CRI of 80. The fixture features a white powder-coated spun aluminum reflector and a drop acrylic lens. Induction lamps are fluorescent lamps without cathodes or electrodes, so there is nothing to wear out inside the lamps. Instead, induction lamps are driven by electromagnetic generators that cause the gas inside to excite and give off light. In addition to a long life, induction lamps do not generate the buzzing noise of conventional High Intensity Discharge (HID) lamps, and will come on immediately, as compared to the minutes required for HID lamps to come to full brightness.

Systems Addressed: Lighting.

Illustrates: Induction low bay lighting. The display fixture type is specifically designed for use in areas with high lighting maintenance costs, in areas that are hard to reach, and in areas with very cold or hot ambient temperatures.

Featured Instrument



Name: Vaisala Duct-Mount Humidity/Temperature Transmitter

Description: The Vaisala duct-mount humidity and temperature transmitter works in conjunction with the FlexSmart Analog Module and the HOBO FlexSmart Data Logger.

Required Equipment: VAI-HMD-40Y Duct-Mount RH/Temp Sensor, S-EXT-M025 25 meter Smart Sensor Output Extension Cable, FlexSmart Analog Module and the HOBO FlexSmart Data Logger.

Examples of Use: Simultaneous RH/temperature measurement of ductwork airstream conditions as measure air handler power consumption and/or economizer state detection.

Benefits: RH/temperature measurement through a stable mounting system and reliable operation on air ducts.

Availability: Loaned free of charge for up to 10 business days.

Remember: Safety first!

Featured Book



The Ecological Engineer, written by David R. Macaulay and Jason F. McLennan and published by ECOTone, L.L.C., is a book series that focuses on the most innovative engineers in North America and the practices and principles they use to produce functionally outstanding structures, systems and technologies in a way that embraces the emerging philosophy of sustainable design. The book is organized into three sections: practice, principles and projects.

Featured Periodical



Pollution Engineering is published monthly by BNP Media II, L.L.C., and addresses the environmental concerns of air, water, and waste. Features articles on current events, emissions monitoring, and process control, products, as well as having a classified marketplace.

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Featured Display



Name: Electronic Dimmable High Intensity Discharge (EHID) Hibay Fixture
Description: A 250W electronic, dimmable HID hibay fixture with high performance dome. The lamp is a Sylvania 250W Powerball ceramic metal halide amp. It has a Delta Power Supply Superballast dimmable electronic ballast.
Systems Addressed: Electrical
Illustrates: An energy efficient and high CRI hibay lighting solution. The high frequency ballast and ceramic metal halide lamp consume up to 25 percent less energy for the same light output. In addition, this ballast starts lamps differently than magnetic ballasts and most other electronic ballasts, which can increase lamp life significantly and reduce lumen depreciation over the life of the lamp. When started, the lamp can come to 80 percent of full light within 75 seconds and 100 percent full light in 150 seconds, as opposed more than five minutes with standard metal halide lamps and ballasts. The dimming feature allows the lamp to be dimmed to 35 percent output. At full output, the EHID hibay fixture provides 24,000 lumens at 94 CRI and only consumes 287-Watts. This equates to an 84 lumen per watt efficacy.

Featured Instrument



Name: CABLE-USB232 Keyspan USB Serial Adapter
Description: The USB Serial Adapter easily connects HOBO and StowAway data loggers and shuttles to available USB ports on PCs. This adapter's male DB9 RS-232 connector connects directly to the PC interface cable supplied in BoxCar Pro starter kits.
Required equipment: CABLE-USB232 Keyspan USB Serial Adapter, HOBO loggers with part numbers that begin with H01 through H22, TBI, and WTA.
Examples of Use: For connecting HOBOS or other devices between devices/sensors/loggers with PC serial interface output connections and a USB port on a computer.
Benefits: Allows the user to connect (older HOBOS) directly into PCs with USB ports, since some newer PCs do not include (DB9 RS-232) serial interfaces.
Warnings: Please ensure proper connections before plugging connectors, and do not force connections - as they should fit easily and smoothly together.
Availability: Loaned free of charge for up to 10 business days.
Remember: Safety first!

Featured Book



Dictionary of Architecture and Construction, edited by Cyril M. Harris and published by McGraw-Hill, is a huge compendium by a renowned architectural editor and 50 expert contributors. It features more than 2300 line drawings and clear, concise definitions of more than 26,000 important architecture and construction terms. Special care was given to include the latest terms in legal areas, technologies, techniques, materials, organizational and historic architectural styles and trends.

Featured Periodical

Fuel Cell is published bi-monthly by Webcom Communications Corp. and serves managers and technical professionals involved in developing and applying fuel cell technologies worldwide. The magazine features company profiles, industry news, new products, and a calendar of events.

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Featured Display



Name: Sealection 500 Spray Foam Insulation

Description: Display with three different types of insulation; rolls or batts, loose fill, and rigid foam. Showcases rigid foam insulation as being the most efficient with air resistance and temperature comparisons.

Systems Addressed: Envelope

Illustrates: How properly insulating your home will decrease the heat lost in the winter and heat gained in the summer, decrease air leakage at penetrations and around windows and doors, prevents indoor condensation (better indoor air quality), and keeps noise levels down (insulation acts as a sound absorber).

Featured Instrument



Name: HOBO Carbon Monoxide Data Logger

Description: The HOBO Carbon Monoxide Data Logger monitors carbon monoxide (CO) levels in areas such as garages, terminals, loading docks, construction sites, furnace rooms, office buildings and living areas.

Required Equipment: H11-001 HOBO Carbon Monoxide Logger, PC interface cable, BoxCar Pro software.

Benefits: Collected data helps identify problems with combustion appliances and equipment, so they operate efficiently and safely.

Examples of Use: Monitor carbon monoxide (CO) levels in areas such as garages, terminals, loading docks, construction sites, furnace rooms, office buildings and living areas.

Availability: Loaned free of charge for up to 10 business days.

Warnings: The HOBO® Carbon Monoxide Logger is a data recording device only. The data logger does not replace the need for safety/warning alarm devices that alert personnel when carbon monoxide exposure reaches dangerous levels.

Remember: Safety first!

Featured Book



Future Forms and Design for Sustainable Cities, written by Mike Jenks and Nicola Dempsey and published by Architectural Press, presents new research about urban design and forms and how they can be made more sustainable in the future. This book provides an accessible presentation of the latest research in sustainable urban planning and design, illustrates recent sustainable plans and schemes to show how they stand up against the latest research and offers architects, urban planners and planners a view of how urban forms can become more sustainable in the future.

Featured Periodical



Building Operating Management, is a leading magazine published monthly by Trade Press Publishing Corporation that targets building owners and facility executives in commercial and industrial buildings. Each issue comprehensively covers construction alternatives from renovation/retrofit and expansion to new construction.

In addition, *Building Operating Management* regularly features stories that address other building owner concerns such as asset management, energy management, safety/security, HVAC, lighting, ADA construction planning and much more. This reliable source of information circulates to at least 70,000 top executives who own or manage high-rise office buildings, college campuses, school districts, hospitals, medical clinics, retail chains, hotels and government buildings.

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