



VECTOR™ CUBE PENDANT

Ambient Linear LED

Client: _____
Project Name: _____

Order #: _____
Type: _____ Qty: _____

Performance Data

CRI

95 min with R9 of 69 or better

CCT

2700K, 3000K, 3500K, 4000K,
5 Channel Color Tuning

Projected Lifetime

240,000 Hours (L80);
110,000 Hours (L90)

Dimming

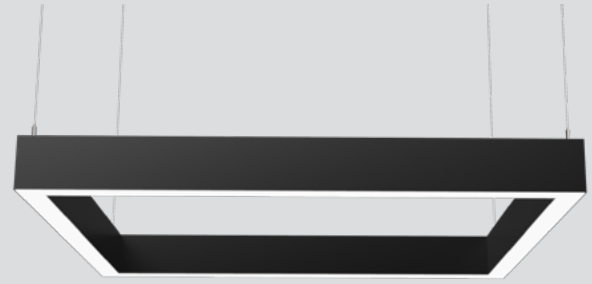
0-10V dimming standard

Operating Temperature

-30°C to +55°C (-22°F to +131°F)

ETL Listed

Approved for dry and damp
locations



Description

The redesigned Cube Pendant luminaire, part of the Vector series, is an indoor architectural LED fixture featuring a 2 7/16" wide by 5" tall overall profile. The Vector Cube merges a sleek, minimalist design with high performance functionality to deliver a unique luminaire that complements the aesthetics of any interior space all while providing high efficacy, glare-free illumination for the space's inhabitants. The Cube Pendant is available in standard lengths of 2', 3', and 4' with direct or direct/indirect light output.

Features

PERFORMANCE

- Selected by IES for the 2017 Progress Report
- Up to 1200 lm/ft direct, 1,400 lm/ft indirect at 4000K
- Independently-adjustable direct and indirect lumen outputs

PHYSICAL

- Profile Dimensions: 2.44" wide x 5" high
- Housing: Extruded Aluminum with powder coat finish
- Direct Lens: Extruded Satin Acrylic
- Indirect Lens: Extruded clear Acrylic
- Light Engine: Aluminum core LED board mounted to a white extruded chassis with integral driver & quick electrical disconnects for rapid tool-less servicing

CU2P

U C

Ordering Information

A FIXTURE SERIES

CU2P Vector Cube 2 Pendant

B DISTRIBUTION

I	Direct/Indirect
D	Direct

C LENGTH

2	2'
3	3'
4	4'

D WIDTH

2	2'
3	3'
4	4'

E OUTPUT DOWN

L	7.5W/ft
M	10W/ft
H	15W/ft

F OUTPUT UP*

L	7.5W/ft
M	10W/ft
H	15W/ft

G CCT DOWN

27	2700K
30	3000K
35	3500K
40	4000K
3W	3 Channel Tunable White ¹
5W	5 Channel Color Tuning ¹

H CCT UP*

27	2700K
30	3000K
35	3500K
40	4000K
3W	3 Channel Tunable White ¹
5W	5 Channel Color Tuning ¹

I VOLTAGE

U 120-277V

J MOUNTING STYLE

C Cable in Corner

K CABLE LENGTH

A	24" Cable
B	48" Cable
D	60" Cable
F	72" Cable
G	96" Cable

L FINISH⁴

W	Textured White
S	Textured Silver
B	Textured Black
##	Specialized Colors ^{2,3}
C	Textured Custom Color

M OPTIONS

DC	Dual Circuit for Up/Down*
E	Emergency Battery Backup
T	Daylight Sensor
U	Occupancy Sensor
V	Daylight/Occupancy Sensor
VW0	Lutron Vive System Enabled Fixture (External RF only) Standard 0-10V X% Driver (also available with FCJS-ECO module for ES1, ES5 options) ⁵
VWS0	Lutron Vive System Enabled Fixture (External RF w/Occ & Daylight Sensor) Standard 0-10V X% Driver (also available with FCJS-ECO module for ES1, ES5 options)
ES1	Lutron LDE1 Series EcoSystem 1% Dimming with Soft On Fade to Black
ES5	Lutron LDE5 Series EcoSystem 5% Dimming

*Only available when direct/indirect distribution is selected

¹ Tunable CCT options only available at High Output setting. Controlled using DLM or DMX system (see Pages 4-7 for more info)

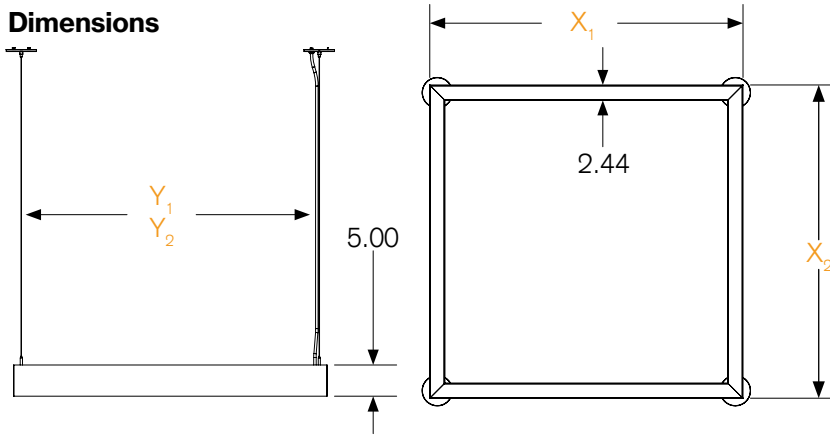
² See Page 4 for Ordering Codes on 24 Specialized Finishes. Example "07"

³ Please Note: All orders under 25 linear feet will require a one-time set up charge. Please consult factory for charge.

⁴ All finishes are textured unless specified otherwise by the customer

⁵ VWO option shipped separately from fixture

Dimensions



Mounting

	Y ₁	Y ₂		X ₁	X ₂
2x2	23.50"	23.50"	2x2	26.20"	26.20"
2x3	23.50"	35.50"	2x3	26.20"	38.20"
2x4	23.50"	47.50"	2x4	26.20"	50.20"
3x3	35.50"	35.50"	3x3	38.20"	38.20"
3x4	35.50"	47.50"	3x4	38.20"	50.20"
4x4	47.50"	47.50"	4x4	50.20"	50.20"

Lutron Options

VWO Lutron Vive System Enabled Fixture(External RF only) Standard 0-10V X% Driver

VWSO Lutron Vive Wireless Fixture (External RF w/Occ & Daylight Sensor) Standard DALI X% Driver

ES1 EcoSystem digital control, Hi-lume 1% EcoSystem LED driver with Soft-on, Fade-to- Black. Ideal for conference rooms, restaurants, lobbies, ballrooms, and lecture halls. Benefits include: All benefits of the ES5 series plus beautiful, smooth flicker-free dimming down to 1% and a Soft-on, Fade-to- Black™ feature, which provides an incandescent-like experience when transitioning from off to 1% and vice versa.

ES5 ES5 - EcoSystem digital control, 5-Series EcoSystem LED driver. Flicker-free dimming from 100% to 5%.

Lutron Vive Lighting Control System (applies to VWO and VWSO options)

Lutron Vive is a revolutionary wireless lighting control solution for new and existing commercial buildings, combining a variety of lighting control strategies with controls and sensors to maximize efficiency and system flexibility. A Lutron Vive lighting control solution can reduce energy consumption by 60% or more by employing the following strategies:

- Occupancy/vacancy sensing turns lights on when occupants are in a space and off when they vacate the space.
- Daylight harvesting dims electric lights when daylight is available to light the space.
- Scheduling provides pre-programmed changes in light levels based on time of day.
- Demand response automatically reduces lighting loads during peak electricity usage times.
- Plug load control automatically turns off loads after occupants leave a space.
- Personal dimming control gives occupants the ability to adjust the light level.
- HVAC integration controls heating, ventilation, and air conditioning systems through contact closure, or BACnet protocol.
- System Optimization Service from Lutron identifies important lighting control adjustments to save additional energy and create a more productive work environment on an ongoing basis.
- High-end trim sets the maximum light level based on customer requirements in each space.

Specialized Colors

A-Classic

	01	Natural Aluminum	RAL #7035
	02	Silver Bullet	RAL #7038
	03	Raven	RAL #9005
	04	Crystal White	RAL #9010
	05	Macademia	RAL #9003
	06	Hampden	RAL #9001
	07	London	RAL #7044

B-Urban

	08	Urban Native	RAL #8025
	09	Military Green	RAL #6011
	10	Carmin	RAL #8028
	11	Chocolate Spice	RAL #8017
	12	Asher Grey	RAL #7004
	13	Tech Grey	RAL #7016
	14	Slate	RAL #7031
	15	Mason	RAL #7039

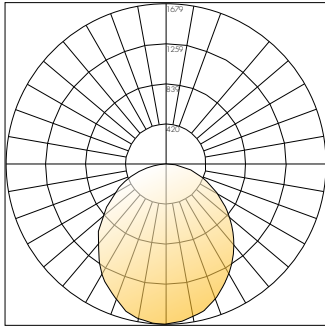
C-Fresh

	16	Violet Dreams	RAL #4006
	17	Sangria Sunset	RAL #2004
	18	Deep Pink	RAL #4010
	19	Ruby Red	RAL #3027
	20	Island Skye	RAL #6027
	21	Sophia	RAL #5015
	22	Antique Spring	RAL #6019
	23	Daisy	RAL #1018
	24	Gun Metal	RAL #7024

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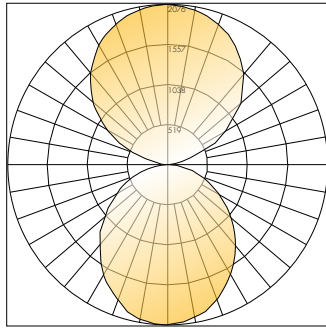
Photometrics

Polar Graph - 4' High Output 4000K



Delivered Lumens: 18560
CRI: 97

Polar Graph - 4' High Direct / High Indirect 4000K



Delivered Lumens: 41600 (18560 Direct / 23040 Indirect)
CRI: 97

Direct (Down) Lumen Chart:

OUTPUT SELECTION	LOW	MEDIUM	HIGH
NOMINAL WATTAGE	7.5W/ft	10W/ft	15W/ft
LUMENS PER FOOT	570	855	1160
2' CUBE			
System Wattage	48.00	72.00	96.00
Lumen Output	4560	6800	9280
3' CUBE			
System Wattage	72.00	108.00	144.00
Lumen Output	6840	10200	13920
4' CUBE			
System Wattage	96.00	144.00	196.00
Lumen Output	9120	13600	18560

Indirect (Up) Lumen Chart:

OUTPUT SELECTION	LOW	MEDIUM	HIGH
NOMINAL WATTAGE	7.5W/ft	10W/ft	15W/ft
LUMENS PER FOOT	720	1080	1440
2' CUBE			
System Wattage	48.00	72.00	96.00
Lumen Output	5760	8640	11520
3' CUBE			
System Wattage	72.00	108.00	144.00
Lumen Output	8640	12960	17280
4' CUBE			
System Wattage	96.00	144.00	196.00
Lumen Output	11520	17280	23040

Lumen values shown are for 4000K models. For other color temperatures, use the below multipliers:
2700K: 0.85, 3000K: 0.90, 3500K: 0.95

For total system wattage consumption and lumen output, add the direct and indirect lumen and wattage data based on output settings desired.

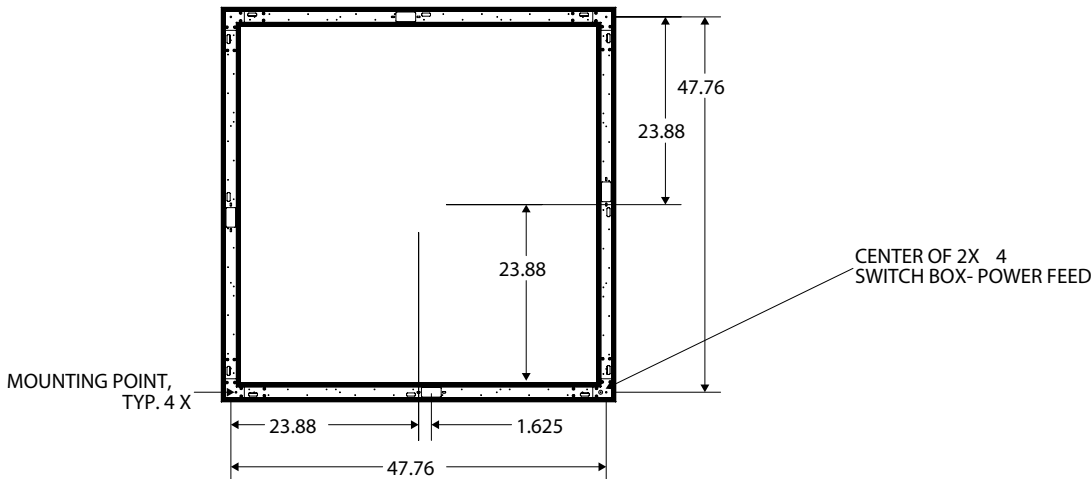
EX: CU2P-I-4-H-L-40-40-U-CB-W-E

	Direct	Indirect	Total
Wattage	49.00	24.00	73.00
Lumen	4640	2880	7520

Mounting Codes:

CA	24" Cable
CB	48" Cable
CD	60" Cable
CF	72" Cable
CG	96" Cable
CH	120" Cable
CJ	150" Cable
CK	180" Cable
CL	240" Cable

Mounting and Power Details



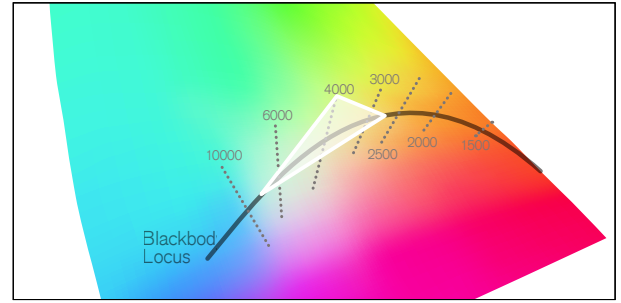
DECO SPECTRUM™ WHITE

3-Channel Tunable White Circadian Rhythm-based Illumination

Deco Spectrum™ White is a three-channel tunable white solution delivering a wide range of color temperatures precisely along the blackbody curve to replicate natural daylight. This new introduction to the Vector series combines precision dimming with human-centric tunable white illumination aimed to more accurately follow the body's circadian rhythm than static white luminaires. This system is an ideal solution for healthcare, education, and office applications seeking to better tailor lighting to the evolving needs of their clients and customers.

The benefits of Deco Spectrum™ White include:

- Both lumen and color maintenance ensure consistent light output throughout the life of the fixture
- The Architectural Dimming control system delivers precise dimming via DMX for both tunable white and color applications with fixed and mobile user interfaces
- 90+ CRI throughout entire tunable CCT range
- On-Planckian tuning from a warm 2700K to cool 6500K
- Delivers the highest possible quality of tunable white light currently available, replicating the visual comfort of natural daylight.



Three White LEDs Tunable range is within the white shaded gamut. (2700K – 6500K)



2700K



3500K



6500K

How to specify DECO Spectrum

1. Select Deco Spectrum White or Color system based on the design needs of your interior space.
2. Select desired control protocol (refer to product part numbers on following page)

Wattstopper DLM
(Available for Deco Spectrum White or Color modules)



Wattstopper Architectural Dimming (DMX)
(Available for Deco Spectrum Color only)



3. Enabled fixtures will work seamlessly with Wattstopper controls based on the interface selected



DLM Switches, DLM touchscreen, controls, and software



Equinox touchscreens, keypads, and software

Example Control Options



LMTS-101-CCT



LMSW-105-CCT



LMDM-101



LEMQ-41

DECO SPECTRUM™ COLOR

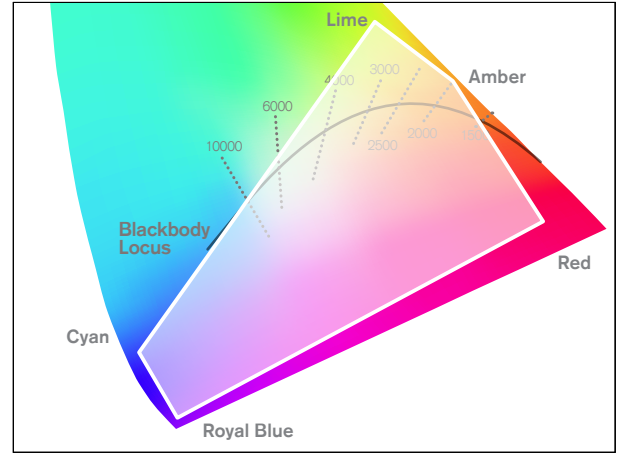
5 Channel Color Tuning

Deco Spectrum™ Color mixes five different colors of high brightness, broad spectrum LEDs – none of which are white – to deliver light that is 2 MacAdam ellipses about the Planckian curve at 90+ CRI across the tuning range. The result: light that accurately depicts – across the full tuning range – the object's color as compared to its color in true sunlight.

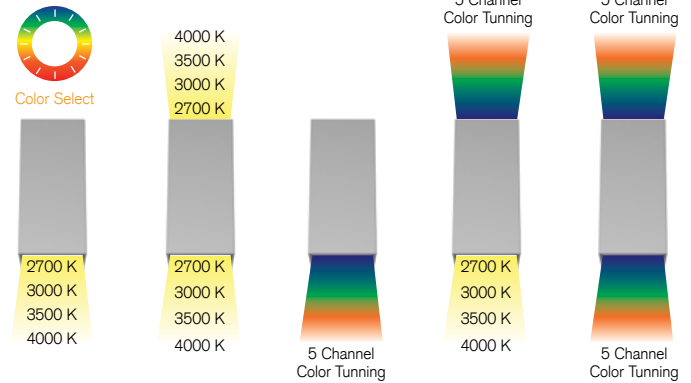
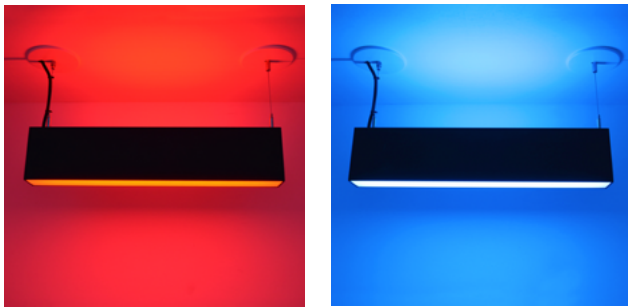
The number of control channels deployed in a color tuning system impacts the quality of the light and consistency of color. It also affects the color tuning range, the level of gamut control and the efficacy of the solution.

The benefits of Deco Spectrum™ Color include:

- Perfectly natural white light.
- On-Planckian tuning from 1650K to 8000K.
- Dimming from 100% to 1% while maintaining CCT, or variable CCT from 3050K down to 1800K to match traditional incandescent or MR-16 lamp dimming
- Industry-leading color rendering (Ra) greater than 90, throughout the tuning range.
- Gamut control for unlimited control and customization of lighting design using the Saturation and Hue controls.
- Consistent color of 2 SDCM about the Planckian Curve over the life of the module.



Five Color LEDs (1650K – 8000K) Tunable range is within the white shaded gamut. With Deco Spectrum™ you can go off the curve to change saturation and hue.



How to specify DECO Spectrum

1. Select Deco Spectrum White or Color system based on the design needs of your interior space.
2. Select desired control protocol (refer to product part numbers on following page)

Wattstopper DLM
(Available for Deco Spectrum White or Color modules)

Wattstopper Architectural Dimming (DMX)
(Available for Deco Spectrum Color only)



3. Enabled fixtures will work seamlessly with Wattstopper controls based on the interface selected



DLM Switches, DLM touchscreen, controls, and software



Equinox touchscreens, keypads, and software

Example Control Options



Equinox App



Equinox 73



LMTS-101-CCT



LMSW-105-CCT

Digital Lighting Management from Wattstopper

DLM Controls

(For fixtures with Deco Spectrum™ White or Deco Spectrum™ Color enabled for DLM)

Note: DLM control with Deco Spectrum™ Color enables tunable white control only, not saturation or hue for color control



Color Control Preset Switch

(LMSW-105-CCT) – Features a master raise/lower paddle to adjust color temperature levels between cool light (higher CCT range), and warm light (lower CCT range). It is also equipped with convenient scene buttons to set and recall up to four preset color temperature scenes.



Digital Dimming Wall Switch

(LMDM-101) – Low voltage device for dimming intensity level of one or more lighting loads connected to Tunable White or Color logic modules enabled for DLM control or loads connected to DLM dimming room controllers. Easy Plug n' Go™ automatic configuration and Push n' Learn™ personalization.



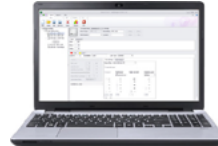
Color Control Schedule Switch

(LMTS-101-CCT) – Offers the convenience of automated color control based on the building's geographical location, enabling seasonally accurate daylight cycling (sunrise, mid-day, sunset). Just set it with your latitude and longitude and let it run, or easily program custom CCT event scheduling.



Network Segment Manager

(LMSM and Segment Manager) – Supports human-centric fixture-based controls inside a DLM network. Together with standard loads, HCL monitoring, adjustments, and scheduling are now enabled.



DLM Software Tools

LMCS Software (LMCS-100) – Provides expanded capabilities for advanced configuration, simplifying installation and providing easy system management.

Architectural Dimming Platform from Wattstopper

Architectural Dimming Controls (For fixtures with Deco Spectrum™ Color enabled for DMX or 0-10V control) Provides control of all logic modules using the DMX protocol. Deco Spectrum™ Color modules not only allow for control of intensity and CCT, but also hue and saturation. Through the new Architectural Dimming Equinox UI, CCT levels, personalized scenes, and human-centric schedules, like circadian rhythm can be created that allow users advanced and simple control of tunable white and tunable color fixtures.



Equinox 41 and Equinox 73
(EQ41-LCAP and EQ73-LCAP)

4.3" or 7" glass LCD touchscreens and mobile apps that provides CCT control of lighting functions.



Equinox 40
(EQ40TB-TI-II)

A small form factor glass LCD touchscreen that provides control of up to 15 discrete lighting loads, scenes, and shades in a single-gang keypad.



EasyTouch II
(KSxxxxxx)

Provides a simple programmable interface for selecting color temperature scenes as a fixed function or as a dimmable scene. With up to five buttons available, the engravable keypad provides a simple, yet effective, control interface.

Architectural Dimming Software Tools

Design Center Software provides the installer the ability to configure and program most types of lighting sources.



Design Center

With the latest version of Design Center 3.8.0, DMX control of tunable white and color fixtures has been added. Improved functionality of intensity, hue, saturation, and correlated color temperature (CCT) for Deco Spectrum™ Color logic modules as well as other compatible human-centric lighting fixtures is even simpler.

Tunable CCT Ordering Codes

Product Name	Control Protocol	Part Number
3-Channel Deco Spectrum™ White	DLM	3W
5-Channel Deco Spectrum™ Color	Choice of DLM, DMX, or 0-10V	5W

Control Option Ordering Codes for DECO Spectrum Color & White

Product Name	Control Protocol	Part Number
DLM Color Control Preset Switch	DLM	LMSW-105-CCT
DLM Color Control Schedule Switch	DLM	LMTS-101-CCT
DLM Digital Dimming Wall Switch	DLM	LMDM-101
Equinox 40 Touchscreen	DMX or 0-10V	EQ40TB-TI-II
Equinox 41 Touchscreen	DMX or 0-10V	EQ41-LCAP
Equinox 73 Touchscreen	DMX or 0-10V	EQ73-LCAP
EasyTouch II	DMX or 0-10V	KSxxxxxx

Smart Controls

The Vector is compatible with a variety of advanced sensor solutions from Phillips, Lutron, Enlighted, and Osram, to name just a few. Smart sensors are an ideal add-on for those seeking additional functional benefits and even deeper energy savings over traditional fluorescent systems. Smart sensors increase the versatility of the Vector, transforming the way in which the luminaire adapts to the needs and behaviors of inhabitants within a space to create a smart building solution that marries design with function.

DECO MESH

Utilizing Bluetooth Smart® technology, light fixtures interact directly with smartphones, without the need of a bridge or complex setup. Luminaires can be operated in public mode, giving access to everyone, or private mode, restricting access to select individuals.



nLight® is a networked digital lighting control solution that delivers energy savings and increased user configurability by combining time-based, daylight-based, sensor-based and manual lighting control schemes.

PHILIPS

Phillips sensor solutions are designed for applications that include retail and hospitality, office spaces, public areas, and education. Offering devices that combine motion detection, light level assessment, and dimming into single units, Phillips delivers a system for sophisticated yet simple lighting control.

enlighted

Patented, software-defined smart sensor solution that tracks realtime occupancy, light levels, ambient temperature and energy usage, along with other data points. Enlighted sensors can distinguish between people and objects, customize controls for specific tasks, leverage ambient light provide unmatched coverage for data collection.



Utilizing the proprietary EcoSystem® communications protocol, Lutron provides a two-way digital network that incorporates motion sensing, daylight harvesting, occupancy/vacancy sensing, and high performance dimming functionality.



A modular wireless lighting control system utilizing Lutron-patented and proven RF protocols designed for new and existing buildings. Vive System wireless solutions are well-suited for K-12 schools, commercial and government offices, and university campuses where the customer is looking to meet basic code requirements while enabling simple commissioning, operation & reporting via IoT capable smart devices.



Wattstopper offers a comprehensive line of simple, scalable and flexible energy efficient lighting controls and solutions for commercial and residential spaces with a mix of digital lighting management built on occupancy, plug load, and daylighting controls.

OSRAM

The OSRAM Connected Lighting Module (CLM) enables luminaires to be connected to any lighting management system utilizing the ZigBee® Home Automation communication protocol. The CLM allows each luminaire to adapt to the needs of a facility, featuring multi-zone daylight harvesting, precision dimming, and occupancy sensing.

Smart Sensors	Protocol	Compatible Networks*	Occupancy	Daylight	Temperature Reporting	Communication to Luminaire
DECO MESH	BLF Blue Tooth Low Energy	DECOMesh	Enabled	Enabled	No	Wired
nLIGHT	nLight	nLight	Enabled	Enabled	No	Wired
enlighted	Enlighted RF	Enlighted RF	Integrated	Integrated	Yes	Wireless
legrand WATTSTOPPER	DLM	DLM	Enabled	Enabled	No	Wired
LUTRON	EcoSystem	Quantum, Energi Savr Node, Energi TriPak	Enabled	Enabled	No	Wired
vive	Lutron Clear Connect®	Lutron Vive System Network	Enabled	Enabled	No	Wireless
OSRAM	ZigBee HA	Osram ENCELIIUM & Simplex, Daintree Networks	Enabled	Enabled	No	Wireless
PHILIPS	ZigBee HA	Philips	Enabled	Enabled	No	Wired

*Not all compatible networks may be listed.