

# Create a learning environment for bright ideas

K-12 School Lighting

## Signify

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### A comprehensive portfolio

As the global leader in lighting for more than 125 years, Signify has the know-how and the most comprehensive portfolio of energy efficient technology to meet all your application needs.

Educational establishments fulfill a unique role in society as places of learning, belonging, and community cohesion. LED lighting can enhance the learning environment, contribute to comfort and wellbeing, and help sustainability efforts while reducing energy and associated costs compared to traditional lighting. Signify LED lighting creates inviting outdoor areas and indoor spaces that inspire concentration and focus to support your educational objectives for today, tomorrow, and the future.

Visit www.signify.com/education to learn more.

Signify



Capture Energy Savings & Reduce Costs

#### Convert to LED lighting to reduce energy usage and utility spend

Leverage Interact IoT technology to optimize energy usage and maximize savings. LED lighting can reduce energy usage and utility spend by up to 80%', extending the life of your equipment. Keep maintenance to a minimum with long-lasting LED technology and digital controls that allow you to apply light only as needed.



Support Wellbeing

#### Contribute to cognitive performance with adaptable lighting

Help support circadian rhythm regulation with spectrally-tuned LED systems and Interact bio-adaptive lighting.<sup>2</sup>

Contribute to productivity, supporting daytime vitality<sup>3</sup> and alertness<sup>4</sup> with well-designed and well-lit spaces. Take advantage of systems to control lighting requirements for a variety of visual tasks supporting different modes of learning.



Promote a sense of security

### Promote a sense of security and comfort by ensuring well-lit spaces throughout the interior and exterior of the building

Gain insights into problematic areas in your facility by monitoring the environment through systems.

Inactivate viruses and bacteria in the air and on surfaces using UV-C technology.

Leverage remote management to monitor the status of your connected lighting system at any time.



Sustain for the Future

#### Use light only where and when it is needed

Optimize energy consumption and carbon footprint using lighting controls and IoT systems.

Stay on trend while meeting sustainability goals with 3D printed, customizable luminaires.

Invest in quality products that require less material and less packaging.

1. When compared to traditional incandescent bulbs.

2. Czeisler, 1999; Dijk &Archer, 2009; Lucas 2012, 2019. 4. Viola 2008, Smolders 2012; Geerdink 2017.

School Lighting 1

#### School applications Library **Exterior Perimeter** Cafeteria Hallway Auditorium Field/Playground Restroom Gymnasium **Learning Areas:** Classroom Enhance focus and contribute to wellbeing with the right lighting. **Social Gathering:** Welcome students Atrium/Lobby into large spaces for socialization or assemblies. **Administration Office** General Illumination: Street & Parking Lot **Janitor Closet** A bright atmosphere to promote a sense of security and invigorate the community. **Locker Room Outdoor:** Ensure parking lots, Exit/Entrance recreational areas, as well as walkways feel Stairwell safe and well-illuminated. **Pathway**

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## **Learning Areas**

# The wellbeing of students and teachers is of utmost importance.

Lighting needs to bring maximum quality and installation flexibility to provide visual acuity, comfort, and performance support while meeting energy and budget constraints; it must be flexible enough to provide appropriate illumination for both print and digital media, focused individual work, or calm contemplation. Classrooms and Libraries are multitasking multi-media environments tasked with engaging, informing, and inspiring. Beyond the visual task requirements, the lighting in these spaces can be customized with the school's colors to cost effectively promote community identity.

# **Learning Areas**

#### Linear Suspended luminaires for classroom applications



Ledalite FloatPlane Suspended

Provides the affordability of fluorescent with the quality of high-end LED luminaires.



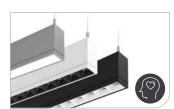
Ledalite Sync Suspended

The epitome of compact style with exceptional glare control, making it the perfect fit over your whiteboard.



#### Ledalite TruGroove Suspended

Drives performance and delivers exceptional uniformity.



#### Ledalite TruGroove Suspended Micro

Offers a 1-34" aperture that delivers exceptional uniformity and wide row spacing. Custom colors and angles are available.

#### Linear Wall Mount luminaires for classroom applications



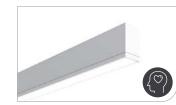
Ledalite FloatPlane Wall Mount

Provides the affordability of fluorescent with the quality of high-end LED luminaires.



#### Ledalite Sync Wall Mount

The epitome of compact style with exceptional glare control, making it the perfect fit over your whiteboard.



#### Ledalite TruGroove Wall Mount

Drives performance and delivers exceptional uniformity.



#### Ledalite TruGroove Wall Micro

Offers a 1-34" aperture that delivers exceptional uniformity and wide row spacing. Custom colors and angles are available.

#### Linear luminaires for library applications



Day-Brite FluxStream Strip

Available in a variety of lengths and color temperatures to meet the lighting needs in your lobby.



#### Day-Brite OWL Wraparound

The ideal surface mount general illumination luminaire for quality and affordability.



#### Ledalite TruGroove Recessed

Drives performance and delivers exceptional uniformity.



#### Ledalite TruGroove Recessed Micro

Offers a 1¾" aperture that delivers exceptional uniformity and wide row spacing. Custom colors and angles are available.

### **Learning Areas**

#### Recessed Troffers solutions for library and classrooms applications



Day-Brite FluxGrid Recessed

Offers a familiar style with high quality LED light at an affordable price for your general lighting needs.



**Day-Brite FormFlex Recessed** 

Antimicrobial finish and offers high performance and aesthetic flexibility to customize the effect while still saving energy.



Ledalite SilkSpace Definition

Fully luminous lens, providing excellent visual comfort at a costconscious price, ideal for tight budget library projects.

#### Downlighting luminaires for library and classrooms applications



Lightolier EasyLyte

Budget-friendly, adaptable and flexible for easy-installation needs.



Lightolier LyteProfile

Flexible and design-friendly, offering both square and round options, without compromising quality.



Lightolier Calculite with IntelliHue technology

Offers uniform illumination with millions of combinations of precise white and color to reduce glare and support concentration.

#### Track luminaires for library applications



Lightolier Track Head

Simple and budget-friendly.



3D Printed MS Series

Allows you to choose from a variety of finishes and textures, configured to your specifications.



Lightolier OmniSpot

Provides sleek and discrete aesthetics and high power.

### **Learning Areas**

#### Pendant luminaires for library applications



3D Printed Pendant

Maximize visual appeal, beam spreads options, color temperatures, lumen options, and ensure ease of longterm maintenance by selecting from a variety of Philips PAR Lamps.



Lightolier Calculite Cylinder

Features industry leading visual comfort and uniform illumination to accent display cases.

#### Low bay luminaires for library applications



3D Printed BA-L Series

Offers customizable color, texture, finish, and mounting options to build your school's brand.

#### **Retrofit solutions**

#### Luminaires



**Lightolier Commercial Retrofit Downlight** 

An easy and quick downlight solution that is perfect for varying ceiling heights.



Philips EvoKit retrofit kits

Easily upgrade existing fluorescent troffers to fast-track payback with energy-efficient LEDs in just 5 minutes.

#### **LED A-Shape lamps**



A-Shape lamps

Deliver energy savings, minimized maintenance cost and dependable performance, compared to traditional incandescent bulbs, to meet your basic lighting needs.



Philips CorePro LED Philips MasterClass LED A-Shape lamps

Feature smooth dimming down to 10% or less in a variety of color temperatures to create an inviting atmosphere any time of day.

#### **LED PAR lamps**



Philips CorePro LED PAR and MR lamps

Offer efficiency and quality to meet your basic lighting needs.



Philips MasterClass LED **ExpertColor PAR lamps** 

Provide warm, rich light to create an inviting atmosphere.

#### **TLED lamps**



#### Philips CorePro LED InstantFit Linear lamps

Integrate into traditional fluorescent form factors to upgrade your general lighting and conserve energy.



Philips MasterClass LED InstantFit Linear lamps

Provides consistent light output for quality illumination and are available in plastic for shatter resistance.

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### **Social Gathering**

Invite students into large spaces for socialization or assemblies with peace of mind.

Welcome the community into the auditorium, to share in special moments. This is a great place to add color or simply utilize LED lighting to save energy and spare the budget. Flexibility is essential for cafeterias, which so often serve multiple functions and are the heart of the school community. Glare-free, high-color-quality lighting can provide comfort and enhanced appreciation of the space, while supporting facial modeling critical to communication and social interactions.

Add wireless controls to create activity zones, save energy by using light only where and when it is needed and simplify future reconfiguration of the space. Gymnasiums and locker rooms are challenging environments. Requirements to address high humidity, good color quality, and vertical illumination to find socks at the bottom of a locker compete with energy and budget constraints. Lighting solutions need to be tailored to provide just the right features to promote wellbeing at the right cost.

### **Social Gathering**

#### Linear Wall Mount solutions for cafeteria applications



Ledalite Jump Suspended

Offers aesthetic design elements and playful patterns with multiple distributions in a seamless continuum of luminance.



Ledalite FloatPlane Suspended

Provides the affordability of fluorescent with the quality of high-end LED luminaires



Ledalite TruGroove Suspended

Drives performance and delivers exceptional uniformity.

#### Recessed Troffer solutions for the locker room applications



Philips EvoKit retrofit kits

Easily upgrade existing fluorescent troffers to fast-track payback with energy-efficient LEDs in just 5 minutes.



#### Day-Brite FluxPanel Selectable

A versatile luminaire available in a variety of sizes with selectable color temperatures and lumen packages and recessed or surface mounting options.



#### **Day-Brite T-Grid Recessed**

A low profile with excellent general illumination performance for dark areas such as locker rooms.



Day-Brite FluxGrid Recessed

Offers a familiar style with high quality LED light at an affordable price for your general lighting needs.

#### Recessed Troffers solutions for cafeteria applications



#### Day-Brite FluxGrid Recessed

Offers a familiar style with high quality LED light at an affordable price for your general lighting needs.



Day-Brite FormFlex Recessed

Antimicrobial finish and offers high performance and aesthetic flexibility to customize the effect while still saving energy.

### **Social Gathering**

#### **Downlighting solutions** for cafeteria and auditorium applications



Lightolier EasyLyte

Budget-friendly, adaptable and flexible for easy-installation needs.



Lightolier LyteProfile

Flexible and design-friendly, offering both square and round options, without compromising quality.



Lightolier Calculite with IntelliHue technology

Offers uniform illumination with millions of combinations of precise white and color to reduce glare and support concentration.

# Social Gathering

#### High Bay (rectangular) solutions for gymnasium applications



Day-Brite FCY LED High Bay

Merges performance with quality for a cost-efficient, high-ceiling solution.



Day-Brite FBZ LED High Bay

Combines targeted optics with energy efficiency to provide the right light in your space.



Day-Brite FBY LED High Bay

Versatile in form and function with a variety of lumen packages and accessories for your needs.



Day-Brite HBY High Bay

Provides durability in an appealing compact form and is suitable for use in wet locations such as your natatorium

#### Downlighting solutions for locker room applications



**Lightolier Calculite** 

Offers quality uniform illumination, patented installation flexibility, and industry leading visual comfort to support concentration.



Lightolier EasyLyte

Budget-friendly, adaptable and flexible for easy-installation needs.



Lightolier LyteProfile

Flexible and design-friendly, offering both square and round options, without compromising quality.



Lightolier LyteProfile Shower Light

Provides an adaptable, flexible design for use in wet locations, making it perfect to brighten the dark corners of your locker room.

#### Low bay solutions for auditorium applications



Day-Brite FluxStream Strip

High performing, energy-efficient luminaire delivering smooth diffused light ideal for hallways.



3D Printed BA-L Series

Offers customizable color, texture, finish, and mounting options to build your school's brand

#### Architectural lighting solutions



#### **Color Kinetics**

Delivers indoor and outdoor LED lighting systems in a wide range of types, form factors, and output levels — empowering you to achieve your unique vision.



#### Strand

A robust control and distribution system from Strand ensures theatres have the infrastructure to accommodate a touring rig while offering local events the creative options they need.

#### High Bay (round) solutions for gymnasium, cafeteria and auditorium applications



Day-Brite HCY LED High Bay

Presents functional lighting with an aesthetic appeal and round form factor perfect for a gymnasium, auditorium, or other area of a school with high ceilings.



3D Printed PM Series

Consists of customizable, durable and high output polycarbonate pendants. Try adding lighting with your school colors to the gym!



Day-Brite RBX LED High Bay

Fulfills your general lighting needs with a variety of lumen packages and color temperatures.

#### Pendant solutions for cafeteria and auditorium applications



3D Printed Pendant

Maximize visual appeal, beam spreads options, color temperatures, lumen options, and ensure ease of longterm maintenance by selecting from a variety of Philips PAR Lamps.



Lightolier Calculite Cylinder

Features industry leading visual comfort and uniform illumination to accent display cases.

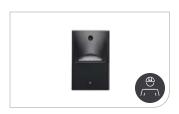
### **Social Gathering**

#### Step Light solutions for auditorium applications



Chloride SoftGlo Night Light

Provides low-level illumination for small areas in a variety of color temperatures and finishes.



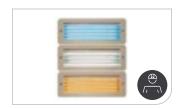
Chloride PathMaster Mini Step Light

An architectural, customizable, and energy-efficient option.



Chloride MSL Series Mini Step Light

A mini low-level lighting option offered in a variety of finishes, ideal for an auditorium.



Chloride SD Series Step Light

A small, weather-proof option available in a variety of color temperatures and finishes with different faceplate options.

### **Retrofit solutions**

#### Luminaires



Philips EvoKit retrofit kits

Easily upgrade existing fluorescent troffers to fast-track payback with energy-efficient LEDs in just 5 minutes.



Lightolier Commercial Retrofit Downlight

An easy and quick downlight solution that is perfect for varying ceiling heights.

#### Tape Light for auditorium applications



Vaya Free Form

Sets the mood of interior and exterior spaces with this compact, bendable LED luminaire.

#### Canopy for cafeteria applications



#### Gardco SoftView

Features edge-lit technology for visual comfort with minimal glare, making it great for a cafeteria. Increase your students' sense of security with an added uplight feature.

#### A-Shape lamps



### Philips CorePro LED A-Shape lamps

Deliver energy savings, minimized maintenance cost and dependable performance, compared to traditional incandescent bulbs, to meet your basic lighting needs.



### Philips MasterClass LED A-Shape lamps

Feature smooth dimming down to 10% or less in a variety of color temperatures to create an inviting atmosphere any time of day.

#### PAR lamps



Philips CorePro LED PAR and MR lamps

Offer efficiency and quality to meet your basic lighting needs.



Philips MasterClass LED ExpertColor PAR lamps

Provide warm, rich light to create an inviting atmosphere.

#### Lighting inspired by nature for library, classroom, hallway and general gathering space applications



Ledalite NatureConnect

Lighting inspired by nature.
Bringing the colors and dynamics
from nature indoors for a fully
immersive experience.

#### **TLED lamps**



#### Philips CorePro LED InstantFit Linear lamps

Integrate into traditional fluorescent form factors to upgrade your general lighting and conserve energy.



Philips MasterClass LED InstantFit Linear lamps

Provides consistent light output for quality illumination and are available in plastic for shatter resistance.

#### **High Bay LED lamps**



Philips CorePro LED High Bay lamps

Help reduce energy usage in your existing HID high bay application.



Philips MasterClass LED TrueForce High Bay lamps

Couple light distribution and high color rendering with energy efficiency to create a comfortable and high productivity environment.



### **General Illumination**

Provide a welcoming environment with bright, energy-efficient LED lighting to invigorate students and staff throughout the building.

Choose from luminaires with customizable color options to promote your school's identity in the main lobby for all to enjoy. Consider UV-C solutions to inactivate viruses and bacteria in the air and treat surfaces in high-traffic areas. Provide a sense of security in dark areas, such as stairwells or janitor closets, with exit and emergency lighting, and consider control solutions to maximize energy savings.

### **General Illumination**

#### Linear Wall Mount luminaires for hallway, stairwell, restroom, administration office and closet applications



Day-Brite FluxStream EZ Wraparound

Simple, 4', energy-efficient option ideal for brightening your stairwells.



Day-Brite FluxStream Strip

High performing, energy-efficient luminaire delivering smooth diffused light ideal for hallways.



Day-Brite OWL Wraparound

The ideal surface mount general illumination luminaire for quality and affordability.



Ledalite TruGroove Recessed

Drives performance and delivers exceptional uniformity.



Day-Brite Stairwell

Offers bi-level lighting and an integrated motion sensor to balance energy efficiency with a feeling of security.



#### Day-Brite LPL Vandal Resistant

Heavy-duty and designed to meet demands of extreme environments, ideal for a school restroom.



#### Day-Brite DW Vaporlume Industrial

Sealed and durable for use in wet locations.

#### Recessed Troffer luminaires for hallway, stairwell, restroom, administration office, and closet applications



Day-Brite T-Grid

Low profile with excellent general illumination performance for areas such as utility closets.



Day-Brite FluxGrid

Offers a familiar style with high quality LED light at an affordable price for your general lighting needs.



Day-Brite EvoGrid

Balances affordability and dependable design with architectural appeal.



Day-Brite FormFlex

Has an antimicrobial finish and offers high performance and aesthetic flexibility to customize the effect while still saving energy.

### **General Illumination**

#### Downlighting luminaires for hallway, stairwell, restroom, administration office, and closet applications



Lightolier Flat Downlight

An easy and quick downlight solution that is perfect for shallow ceilings.



Lightolier SlimSurface

A slim, surface-mounted option that is great for utility closets.



Lightolier LyteCaster

Offers ideal, quality and comfortable light while conserving plenum space.



Lightolier EasyLyte

Budget-friendly, adaptable and flexible for easy-installation needs.



Lightolier LyteProfile

Flexible and design-friendly, offering both square and round options, without compromising quality.



Lightolier Calculite with IntelliHue technology

Offers uniform illumination with millions of combinations of precise white and color to reduce glare and support concentration.

#### Low bay luminaires

for lobby/atrium, and administration office applications



Day-Brite FluxStream Strip

A linear option, available in a variety of lengths and color temperatures to meet the lighting needs in your lobby.



3D Printed BA-L Series

Offers customizable color, texture, finish, and mounting options to build your school's brand while contributing to a sustainable future.

#### **Architectural luminaires**



Ledalite

Explore the entire offering of award-winning, inspiring, and innovative indoor lighting solutions that allow specifiers to create a

### **General Illumination**

#### Pendant luminaires for lobby or atrium applications



3D Printed Pendant

Maximize visual appeal, beam spreads options, color temperatures, lumen options, and ensure ease of longterm maintenance by selecting from a variety of Philips PAR Lamps.



Lightolier Calculite Cylinder

Features industry leading visual comfort and uniform illumination to accent display cases.



Ledalite TruGroove Suspended

Drives performance and delivers exceptional uniformity.

#### **Retrofit solutions**

#### **Recessed luminaires**



Philips EvoKit retrofit kit

Easily upgrade existing fluorescent troffers to fast-track payback with energy-efficient LEDs in just 5 minutes.



**Lightolier Commercial Retrofit Downlight** 

An easy and quick downlight solution that is perfect for varying ceiling heights.

**LED PAR lamps** 

#### For pendant and low bay fixtures



Philips CorePro LED PAR and MR lamps

Offer efficiency and quality to meet your basic lighting needs.

**TLED lamps** 



Philips MasterClass LED **ExpertColor PAR lamps** 

Provide warm, rich light to create an inviting atmosphere.

#### **LED A-Shape lamps**



Philips CorePro LED A-Shape lamps

Deliver energy savings, minimized maintenance cost and dependable performance, compared to traditional incandescent bulbs, to meet your basic lighting needs.



Philips MasterClass LED A-Shape lamps

Features smooth dimming down to 10% or less in a variety of color temperatures to create an inviting atmosphere any time of day.





Philips CorePro LED InstantFit Linear lamps

Integrate into traditional fluorescent form factors to upgrade your general lighting and conserve energy.



Philips MasterClass LED InstantFit Linear lamps

Provides consistent light output for quality illumination and are available in plastic for shatter resistance.

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### **Security & Emergency**

Promote a sense of security and comfort by ensuring well-lit spaces throughout the interior and exterior of the building.

Now more than ever, the health and safety of students and teachers is top priority. Consider upper air UV-C solutions to inactivate viruses and bacteria in busy areas, such as cafeterias.

Meet code requirements with exit and emergency solutions that provide a sense of security for your students and staff in hectic moments.

### **Security & Emergency**

#### UV-C solutions for upper air and surface treatment applications

UV-C lighting can play an important role in neutralizing harmful viruses and bacteria, especially in mask-off environments such as cafeterias. This additional layer of protection may provide a greater sense of comfort for teachers and coaches, as they lead students while in classrooms and gymnasiums. UV-C upper-air and closed chambers can also run continually, helping to reduce the need for manual disinfection, especially in high-traffic areas such as restrooms or locker rooms.



#### Alkco UV-C Upper Air U2C 2x2 Grid Ceiling Mount

Treats air in occupied spaces to offer a layer of protection against bacteria, viruses, and fungal spores to help your students and staff feel secure.



#### Alkco UV-C Upper Air UWL Louvered Wall Mount

Treats air in occupied spaces to offer a layer of protection against bacteria, viruses, and fungal spores to help your students and staff feel secure.



### Alkco UV-C Surface UST Strip

Can immobilize bacteria on preparation surfaces and equipment with surface and suspended mounting options.



#### Alkco UV-C Surface UHB High Bay

Can immobilize bacteria on preparation surfaces and equipment for ceiling heights of 10' to 25'.

#### Control Systems for UV-C applications



#### Philips Dynalite UV-C Controls

Control system allows the UV-C lighting system to be used and operated with greater safety than a system without an equivalent control solution in place.



#### Interact

The Interact Space Management application can be used to further identify which areas have been occupied and need to be sanitized, as well as help manage social distancing.

UV-C Chambers for object treatment applications

#### Once BioShift Chambers

Uses UV-C light to inactivate viruses and other pathogens on objects placed in the chamber, neutralizing most viruses in 5 minutes.

#### **Exit / Emergency luminaires**



#### Chloride Value+ VLTC Exit Combo

Suitable for any general-purpose application with its low-profile design and affordability.



#### Chloride Compac CLC Exit Combo

Prepares you for any emergency with its sleek design that enables general wayfinding and immediate egress in an emergency.



#### Chloride Edge-Lit 44R Exit Sign

Features a contemporary universal and compact design that can be surface-mounted or recessed.



### Outdoor

Provide a sense of security outside of your school building and upgrade to LED lighting. Ensure parking lots, recreational areas, and walkways are well-illuminated as students, teachers, and visitors travel to their cars or to the field to cheer on the home team.

### Outdoor

#### **Pedestrian lighting solutions**



Gardco PureForm Area

Features a sleek, low profile design and comfort optics to reduce glare and provide peace of mind in parking lots.



Gardco PureForm Post Top comfort

Features a sleek, low profile design with comfort optics to reduce glare. Type 1, 2, 3, and 5 optical distributions are available.

#### Parking lot lighting solutions



Stonco Area Light

Pole-mounted fixture delivering value with high energy efficiency.



#### Gardco EcoForm

Combines economy with performance and makes it simple to switch to LED and brighten your parking area.



#### Gardco PureForm Area Medium P26

Features a sleek, low profile design and optimal performance. Designed to achieve maximum pole spacing, with lumen output up to 28,900lm. Multiple distribution and shielding options are available to achieve maximum control along with a full range of control options for additional energy savings.

#### **Canopy lighting solutions**



**Stonco Garage and Canopy** 

The go-to durable, cost-effective lighting solution for your parking garages, covered walkways and outdoor canopies.



#### Gardco SoftView

Features edge-lit technology, providing visual comfort with minimal glare to enhance visibility in your parking garage. An added uplight feature reduces cave effect for an increased sense of security.



#### Day-Brite FluxStream Sealed Strip

Linear option, suitable for wet locations and available in a variety of lengths and color temperature.

### Outdoor

#### Wall Mounted lighting solutions for perimeter applications



Stonco WallPack DualSelect

Combines classic design with LED for energy-efficient wall lighting.



Stonco LytePro 7 Wall Sconce

Features outstanding value in a small and compact, architectural design, combining energy efficiency with performance.



Stonco LytePro 16 Wall Sconce

Features outstanding value in a medium but compact, architectural design, combining energy efficiency with performance.



Stonco LytePro 32 Wall Sconce

Features outstanding value in a large but compact, architectural design, combining energy efficiency with performance.



#### Gardco 111 Mini Sconce

Compact and perfect for low mounting height wall applications, this luminaire integrates naturally to wall surfaces. Available with three different distribution patterns.



Gardco 101 Wall Sconce

Combines full cutoff performance, usable illumination patterns and powerful wattages into a compact and architecturally pleasing design.



Gardco 121 Wall Sconce G4

Offers a stylish, powerful optical design, while delivering high light levels and functional distributions for excellent visibility.



Gardco PureForm PWS Comfort Wall Sconce

Provides clear line of sight to your

building with its sleek, low profile design and comfort optics.

Lumec F
Security

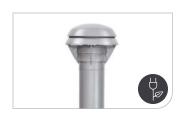
### Outdoor

#### **Bollard solutions**



Stonco Commercial Bollard

Combines classic low-glare pathway illumination and energysaving LED technology with a tough architectural bronze finish.



Gardco Full Cutoff Bollard BR840

Feature LEDs concealed below cast louvers to provide down lighting for landscape and pathway applications with 4" diameter extruded aluminum shafts.



#### Gardco PureForm PBL

Integrates a sleek, low profile design, extraordinary light output, and energy savings into an innovative pedestrian scale luminaire with a high performance optical system designed to achieve wide spacings and full cutoff performance.

#### Roadway/Parking Lot solutions



Lumec Roadway Security Luminaire

The definition of security made simple and affordable with easy installation and maximized operations and



#### Lumec RoadFocus Cobra Head

Features a sleek design and provides seamless replacement of HID luminaires in three sizes.



#### Lumec RoadStar Architectural Roadway

Combines a decorative look with powerful performance in two sizes.

#### Architectural



Color Kinetics

Delivers indoor and outdoor LED lighting systems in a wide range of types, form factors, and output levels — empowering you to achieve your unique vision.

#### Floodlight solutions for field perimeter and playground applications



Stonco Slim Flood

Your best value for general floodlighting with a discreet and modern design



Gardco DuraForm

Provides seamless replacement of HID luminaires in three sizes.



Gardco ClearScape

Features an architecturally stylish design that will complement your field's visual landscape.

### **Retrofit solutions**

#### **Corn Cob lamps**



Philips CorePro LED Corn Cob Lamps

Maximize energy savings with this LED solution at an affordable price.



Philips MasterClass LED
TrueForce Corn Cob Lamps

Provides the "perfect fit" with uncompromising efficacy and color quality to keep parking areas brightly lit.

#### Wall Pack lamps



Philips CorePro LED Wall Pack Lamps

An ideal HID replacement providing high intensity illumination for added visibility outside of your building.

### The benefits of **lighting controls**

Because it helps you become the school you want to be.

Lighting controls save energy, are often required by code, and allow adjustable lighting to enhance a learning environment. Take advantage of Signify's expansive controls portfolio to reap the benefits.



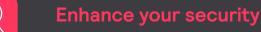


Use adjustable lighting to improve classroom comfort and help stimulate and engage pupils.

Use sensors to detect activity and daylight levels and automate your lighting to match school schedules. timetables or between classes foot traffic.



Via a convenient dashboard you or your installer can access a wealth of information to further optimize your school's lighting and make savings.



Use sensors to detect movement, instantly activating lights after hours. Interact Pro complies with DLC cybersecurity requirements to ensure the safety of your system.



### Smart lighting can boost efficiency in three ways.

By switching to LED you'll achieve the same light output using far less energy.





Save on replacements with longlasting LED technology reducing cost, hassle and distruption

Add lighting controls to save year on year by aligning your lighitng usage with your work day.



- A. Occupancy-based dimming
- B. Daylight sensing and dimming
- C. Occupant personalization
- D. Task-based tuning (dimmners/switches)
- E. Combined strategies

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- Use sensors to detect light levels and adjust lighting outputs to provide only the light that's needed.
- Turn lights on/off or dim light levels using motions sensors - no more forgotten rooms.
- Use data fron your Interact Pro dashboard to help you optimize energy usage.

### DLC



Many Signify and Philips LED products\*, including Interact Pro, are DesignLights Consortium qualified in standard and premium categories. According to research, DLC has documented that controls can save up 32% energy savings in an education facility.

#### **Code Compliance**

Code Requirements	ASHRAE 90.1	Unique Manufactures	IECC 2018
Lighting Power Density	х	X	x
Dimming	х	Х	х
Automatic Shut-off	х	X	х
Daylight Regulation	Х	Х	х
Time Schedules	х	Х	х
Plug Load Controls	х	Х	х
Manual Controls	Х	Х	х
Load Shedding/Demand Response	х	х	х
UL 924	х	Х	х

Different code requirements mandate certain control strategies. Whether you're doing a school retrofit project or building a new facility, make sure you are meeting code.

#### Summary of estimated control factors by building type

			Control Factor¹ (savings percentge)			
Building Type	Total Buildings	Unique Manufactures	Average	24th - 75th Percentile <sup>2</sup>	High-End Trim Contribution	Other Control Strageties <sup>3</sup>
Assembly	6	2	0.28	0.11 - 0.45	0.07	0.23
Education	14	5	0.41	0.19 - 0.58	0.19	0.32
Healthcare	2	1	0.52	0.48 - 0.56	0.33	0.24
Manufacturing	73	4	0.40	0.20 - 0.55	0.16	0.29
Office	57	8	0.64	0.53 - 0.81	0.46	0.36
Restaurant	3	2	0.59	0.47 - 0.68	0.27	0.30
Retail	29	1	0.44	0.39 - 0.48	0.22	0.27
Warehouse	10	2	0.68	0.53 - 0.79	0.38	0.48
Overall	194	12	0.49	0.35 - 0.69	0.27	0.32

- 1. A control factor is a number between 0 and 1, representing the fraction of the energy saved through controls. O represents no savings, and 1 means all energy is saved. Control factor is equivalent to percent savings (% savings) when presented in percentage. For example, a control factor of 0.49 is equivalent to 49 percent savings (49% savings).
- $2. The \ range \ for \ the \ middle \ 50\% \ is \ displayed \ instead \ of \ the \ full \ range \ between \ the \ minimum \ and$ the maximum to provide a more representative range of savings one can generalize and expect.
- 3. In this report, the control factors for control strategies other than high-end trim, unless otherwise noted, are in comparison to an inferred baseline with savings from high-end trim removed. Therefore, the control factors for highend trim and other control strategies will not add up to the overall control factor. See Page 33 for a more detailed discussion.

Did you know that many utility companies offer rebates as an incentive to commercial customers for upgrading to more energy efficient lighting?

Find utility rebates on Signify products at www.usa.lighting.philips.com/support/ support/legislation/utility-rebates

\* Please see the DLC QPL list for exact catalog numbers, www.designlights.org/QPL

Visit www.signify.com/education to learn more. School Lighting 25

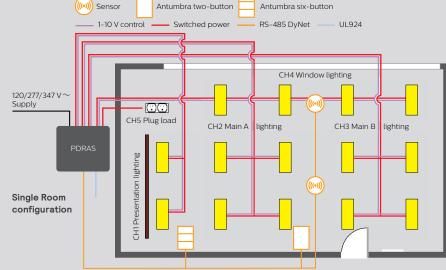
### Philips Dynalite Wired Options

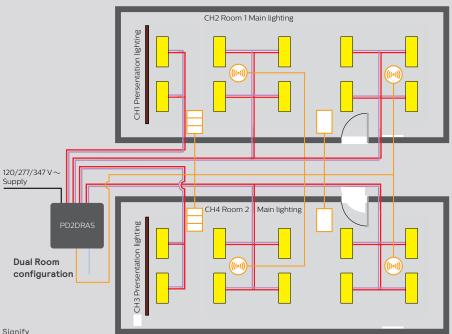
Both standalone and networked control solutions that meet code requirements, maximize energy savings potential and support flexible functional behaviors, which are ideal for classrooms. With backend software, the system offers the ability to visualize and monitor energy consumption as well as manage lighting assets throughout your school.

Consider a factory pre-configured Room Automation System (PDRAS) with out-of-box scenes and sensor behaviors that are designed to support your learning environments. Save on labor costs with plug and play CAT5 installation between all the control devices and balance your budget with the flexibility to install the PDRAS in a single room application with up to five zones or in a dual room application with up to two zones per room. Moreover, the system is scalable and allows all the spaces to be networked together for central monitoring and management capabilities.

### Philips Dynalite Room Automation System

Multizone Control System and flexible all-in-one lighting control solution (PDRAS)



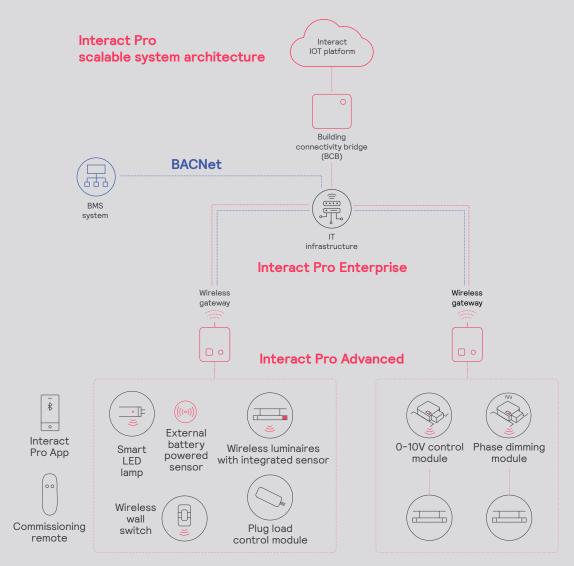


The Philips Dynalite PDRAS brings energy management, occupancy detection, daylight harvesting, and code-compliance for multizone spaces, with simple, intuitive controls and optional ethernet connectivity for plug-and-play installation. The PDRAS uses the latest generation of Dynalite hardware, preprogrammed and configured in our factory to work seamlessly together. Simple plenum installation with pluggable user interfaces and sensors ensures industry-leading performance right out of the box.

### interact Wireless Options

Signify Interact Pro helps to boost energy savings, reach sustainability targets, and enhance occupancy comfort levels immediately from day one.

Interact IoT platform is a secure, scalable, and sustainable cloud-based Internet of Things (IoT) platform designed to help run your operations sustainably, efficiently and reliably. The Interact Pro scalable system is a cost-efficient and wireless solution for every step of your smart lighting journey. The system is fully scalable, so it can grow as building requirements grow – from smart to super-smart. This system is fully compliant with all standard regulations to claim utility rebates (ASHRAE, Title 24, IECC, UL924, DLC).



**Interact Pro Foundation** 

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# Index

#### **General Illumination**

Area	Product Type	Level	Suggested Product	
_	Recessed	Retrofit	Philips TLED	
A Hallway Hallway Lucyter Lucy	Troffer	Entry	Philips EvoKit	
	Performance	Day-Brite FluxGrid Recessed		
	Spec	Day-Brite FormFlex Recessed		
Exit & Emergency	Exit &	Entry	Chloride Value+ LED - VLTC Exit/Unit Combo	
	Emergency	Performance	Chloride 44R Series Edge-Lit Exit	
û		Spec	Chloride Compac LED Exit/Unit Combo	
_	Linear Wall Mount	Retrofit	Philips TLED	
Stairwell		Entry	Day-Brite FluxStream EZ Wraparound	
		Performance	Day-Brite Stairwell LED	
Ω		Spec	Day-Brite FluxStream Wraparound	
	Downlight	Retrofit	Lightolier Commercial Retrofit Downlight	
		Entry	Lightolier EasyLyte LED	
		Performance	Lightolier LyteProfile LED	
		Spec	Lightolier Calculite	
	General	Retrofit	Philips TLED	
ay	Purpose	Entry	Day-Brite FluxStream EZ Wraparound	
Hallway	Linear	Performance	Day-Brite FluxStream LED Strip	
± ∣		Spec	Day-Brite FluxStream Wraparound	
	Pendants	Retrofit	Philips LED Bulbs	
		Entry	Philips LED PAR and MR Lamps	
		Performance	3D Printed Decorative Pendants	
Ε	Ε	Spec	Lightolier Calculite LED Cylinder	
Ē		Retrofit	Philips LED PAR Lamps	
₹	Low Bay	Entry	Day-Brite FluxStream LED Strip	
Lobby/Atrium	·	Performance	3D Printing Low Bay - BA L Series	
2 ا		Spec	Day-Brite RBX LED High Bay	
	Recessed	Retrofit	Philips TLED	
00	Troffer	Entry	Philips EvoKit	
Restroom		Performance	Day-Brite FluxGrid Recessed	
Se		Spec	Day-Brite EvoGrid Recessed	
	Downlight	Retrofit	Philips LED PAR Lamps	
		Entry	Lightolier EasyLyte LED	
		Performance	Lightolier LyteProfile LED	
		Spec	Lightolier Calculite	
_	Linear	Retrofit	Philips TLED	
Restroom		Entry	Day-Brite FluxStream LED Strip	
str		Performance	Day-Brite FluxStream LED Wraparound	
æ		Spec	Day-Brite LPL Series Vandal Resistant LED	
	Recessed	Retrofit	Philips TLED	
	Troffer	Entry	Philips EvoKit	
		Performance	Day-Brite T-Grid Recessed	
		Spec	Day-Brite FluxGrid Recessed	
	Downlight	Retrofit	Lightolier Commercial Retrofit Downlight	
		Entry	Lightolier Flat Downlight Select	
		Performance	Lightolier SlimSurface	
		Spec	Lightolier LyteCaster	
SO	Linear	Retrofit	Philips LED InstantFit Lamps	
5	Industrial	Entry	T-Grid Recessed	
Janitor Closet		Performance	Day-Brite FluxStream LED Strip	
Jar		Spec	Day-Brite DW Vaporlume Industrial	
		ohec	Day Drite Dw vaporiume maustrial	

### **Learning Areas**

Area			Suggested Product	
	Classroom / Library Administration Office/ Breakroom Downlight	Retrofit	Philips TLED	
<b>a</b>		Entry	Philips EvoKit	
ĘiĘ		Performance	Day-Brite FluxGrid Recessed	
ig o		Spec	Day-Brite FormFlex Recessed	
Classroom / Library Administration Offic Breakroom	Downlight	Retrofit	Lightolier Commercial Retrofit Downlight	
nist kro		Entry	Lightolier EasyLyte LED	
lass dmi rea		Performance	Lightolier LyteProfile LED	
OĄĒ		Spec	Lightolier Calculite	
	Linear Wall	Retrofit	Philips TLED	
		Entry	Ledalite FloatPlane Wall	
		Performance	Ledalite Sync Wall	
		Spec	Ledalite TruGroove Wall	
E	Linear	Retrofit	Philips TLED	
o io	Suspended	Entry	Ledalite FloatPlane Suspended	
Classroom		Performance	Ledalite Sync Suspended	
O		Spec	Ledalite TruGroove Suspended	
	Low Bay	Retrofit	Philips LED PAR Lamps	
<b>\</b>		Entry	Day-Brite FluxStream Wraparound	
Ę		Performance	3D Printing Low Bay - BA L Series	
ion	Library Administration Office/ Breakroom  application of the state of	Spec	Day-Brite 5F LED Specification Industrial	
rat	Linear	Retrofit	Philips TLED	
nist kro		Entry	Day-Brite FluxStream LED Strip	
ibra dmi rea		Performance	Day-Brite OWL Wraparound	
i è ē		Spec	Ledalite TruGroove Recessed	
	Pendants	Retrofit	Philips LED Bulbs	
		Entry	Philips LED PAR and MR Lamps	
		Performance	3D Printed Decorative Pendants	
		Spec	Lightolier Calculite LED Cylinder	
	Track	Retrofit	LED Spots	
2		Entry	Lightolier Track Head	
Library		Performance	3D Printing Track - MS Series	
		Spec	Lightolier OmniSpot Track Heads	

### **Social Gathering**

Area	Product Type	Level	Suggested Product	
	Recessed Troffer	Retrofit	Philips TLED	
		Entry	Philips EvoKit	
		Performance	Day-Brite FluxGrid Recessed	
		Spec	Day-Brite FormFlex Recessed	
	Suspended	Retrofit	Philips TLED	
eria	Linear	Entry	Ledalite Jump Suspended	
Cafeteria		Performance	Ledalite FloatPlane Suspended	
Ö		Spec	Ledalite TruGroove Suspended	
	Downlight	Retrofit	Lightolier Flat Downlight Select	
Ē		Entry	Lightolier EasyLyte LED	
oriu		Performance	Lightolier LyteProfile LED	
udit		Spec	Lightolier Calculite IntelliHue	
<b>4</b>	Pendants	Retrofit	Philips LED Bulbs	
eria		Entry	Philips LED PAR and MR Lamps	
afet		Performance	3D Printed Decorative Pendants	
Ö		Spec	Lightolier Calculite LED Cylinder	
E E	High Bay	Retrofit	Philips LED High Bay Lamps	
asiu oriu	(Round)	Entry	Day-Brite HCY LED High Bay	
dit di	Gymnasium / Cafeteria / Auditorium Auditorium (Bound) High Bay (Round)	Performance	3D Printed PM Series	
છ. ≼		Spec	Day-Brite RBX LED High Bay	
	High Bay	Retrofit	Philips LED High Bay Lamps	
Ε	(Rectangular)	Entry	Day-Brite FCY High Bay	
Gymnasium		Performance	Day-Brite FBX High Bay	
		Spec	Day-Brite FBY High Bay	
<u>ق</u>		Natatorium	Day-Brite HBY High Bay	
	Low Bay	Retrofit	Philips LED PAR Lamps	
		Entry	Day-Brite FluxStream LED Strip	
		Performance	3D Printing Low Bay - BA L Series	
		Spec	Day-Brite RBX LED High Bay	
	Step Lights	Retrofit	Chloride SoftGlo Night Light	
Ε		Entry	Chloride PathMaster Mini Step Light	
oric		Performance	Chloride SD Series Step Light	
Auditorium		Spec	Chloride MSL Series Mini Step Light	
₹	Tape Light	Performance	Vaya Free Form	
	Recessed	Retrofit	Philips TLED	
	Troffer		Philips EvoKit	
		Entry	Day-Brite FluxPanel Selectable	
		Performance	Day-Brite T-Grid Recessed	
		Spec	Day-Brite FluxGrid Recessed	
	Downlight	Retrofit	Lightolier Commercial Retrofit Downlight	
E OC		Entry	Lightolier EasyLyte LED	
Locker Room		Performance	Lightolier LyteProfile LED	
cke		Spec	Lightolier Calculite	
۲		Shower	Lightolier LyteProfile Shower Light	

#### Outdoor

Area	Product Type	Level	Suggested Product
	Wall Mount	Retrofit	Philips CorePro LED Wall Pack
		Entry	Stonco WallPack DualSelect
		Performance	Stonco LytePro 7 Wall Sconce
		Performance	Stonco LytePro 16 Wall Sconce
		Entry	Stonco LytePro 32 Wall Sconce
		Performance	Gardco 111 LED Mini Sconce
<u>_</u>		Performance	Gardco 101 LED Sconce
nete		Performance	Gardco 121 Sconce
Perimeter		Spec	Gardco PureForm PWS Comfort Wall Sconce
ys	Bollard	Entry	Stonco Commercial Bollard
W		Performance	Gardco Full Cutoff Bollard LED BR84
Walkways		Spec	Gardco PureForm LED bollard PBL
Roadway	Roadway	Entry	Lumec Roadway Security
		Performance	Lumec RoadFocus LED Cobra Head
		Spec	Lumec RoadStar Architectural Roadway
ţ	Site and Area	Entry	Stonco Area Light Select
<u>g</u>		Performance	Gardco EcoForm
Parking Lot		Spec	Gardco PureForm LED Area Medium P26
an	Site and Area	Retrofit	Philips LED Corn Cob
stri		Spec	Gardco PureForm Area
Pedestrian		Spec	Gardco PureForm LED post top comfort PPT
_	Canopy	Retrofit	Philips TLED
ture	.,	Entry	Stonco Garage & Canopy DualSelect
Parking Structure		Performance	Day-Brite FluxStream Sealed Strip
S to		Spec	Gardco SoftView Parking Garage
Parking Structure/ Façade	Architectural	Spec	Color Kinetics
, E	Floodlight	Entry	Stonco SlimFlood
roui		Performance	Gardco DuraForm
Perimeter/ Field/ Playground		Spec	Gardco ClearScape