

**PHILIPS**

Application bundles



# Classroom

Combine an LED luminaire with an intelligent control for maximum performance and savings

Up to  
**70%**  
energy savings



**Your Classroom application bundle:**  
CoreLine Surface-mounted LED34S VAR-PC & Presence detector LRM1000

## Classroom lighting insights

The bond between teachers and students is a very special one. It's all about passing on knowledge and discovering the world together.

Going to school should be fun, safe and educational. The classroom is a place where students can learn to excel. Philips LED lighting makes it easy to concentrate, in a healthy, warm and welcoming environment that encourages collaboration and group work. And with the use of intelligent sensors, energy costs can be reduced by up to 70%.



More info:  
[www.philips.com/applicationbundles](http://www.philips.com/applicationbundles)

### Traditional

Conventional 2x36 W TLD (8x)

Savings over life\*

**€2675,-**

€3717,-

€1042,-

### Application bundle

CoreLine Surface-mounted LED34S VAR-PC (8x) incl. detector

\* Based on European average of 12 cent/kW hours including maintenance and lamp replacement cost.

## Bundle benefits

### CoreLine Surface-mounted LED34S VAR-PC



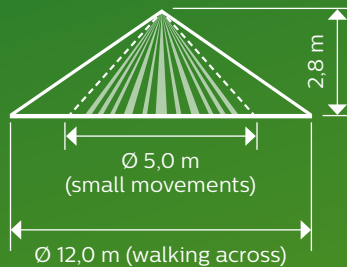
- Replacing conventional TL-D & TL-5
- Energy saving
- UGR < 19

### Presence detector LRM1000



- Automatic switches off light when not required
- Ceiling surface mountable

### Detection coverage diagram



## Bundle specifications

### CoreLine Surface-mounted LED34S VAR-PC

Type	SM120V LED34S/830 W20L120 VAR-PC
	SM120V LED34S/840 W20L120 VAR-PC
Power	31 W
Luminous Flux	3400 lm
Color temperature	3000 K, 4000 K
Color Render Index	≥ 80
Lifetime	50,000 hours
Number of luminaires on MCB 16A type B	≤ 24
Ordering (EOC) code	26662400 3000 K
	26654900 4000 K

### Presence detector LRM1000

Detecting range at 2,8 m height	∅ 5 - 12 m
Recommended mounting height	2 m - 4 m
Switch off delay	10 sec. - 5 min.
Number of luminaires on one control	≤ 15
Ordering (EOC) code	22557700

## Lighting design insights

### Glare

Use low-glare luminaires for comfort, to improve the experience of students and teachers.

### Blackboard

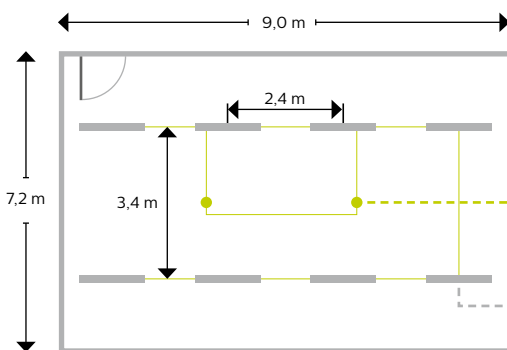
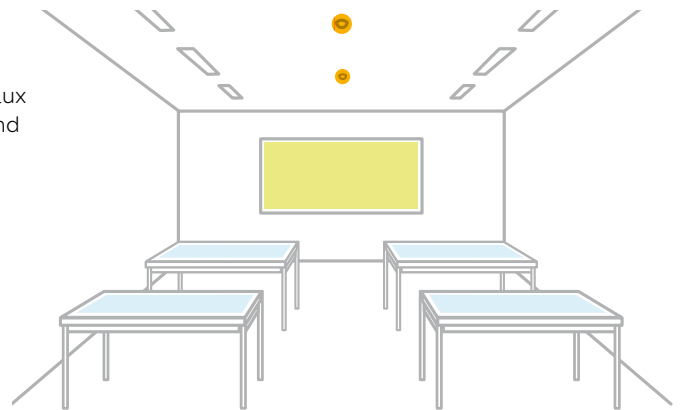
Add dedicated luminaires and adjust their arrangement to light the blackboard for readability.

### Illuminance

At desks, EN12464-1 requires 300 lux for classrooms and 500 lux for evening classes and adult education.

### Controls

Locate the controls directly above the desks to optimize presence detection.



Height of classroom: 3,0 m

## Lighting design classroom



Luminaire types	# Lum.	Em [lux]	Sys. Power	Installed Power	W/m2	W/m2/100lux
Conventional 2xTL-D 36 W	8	410	576 W	72 W	8,9	2,2
CoreLine Surface-mounted LED34S VAR-PC	8	352	248 W	31 W	3,8	1,1