

**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

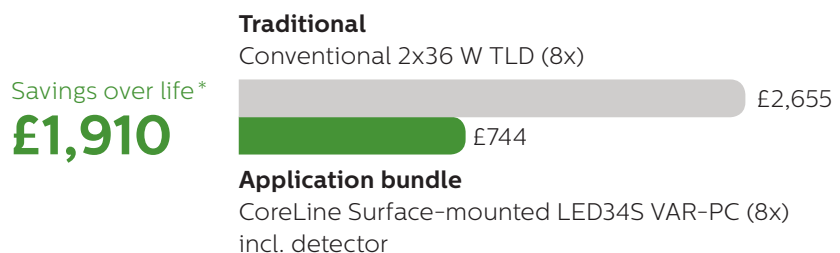
## Classroom lighting insights

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.co.uk/coreline](http://www.philips.co.uk/coreline)



\*Based on UK average of 10p/kWh hours including maintenance and lamp replacement cost.

## Bundle benefits

### CoreLine Surface-mounted LED34S VAR-PC



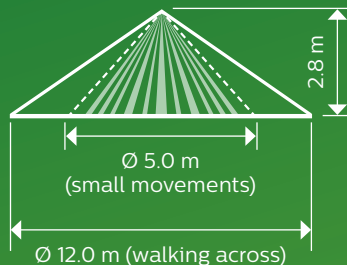
- Replacing conventional TL-D & TL-5
- Energy saving
- UGR < 19
- 3-year warranty

### Presence detector LRM1000



- Automatically 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
Colour temperature	3000 K, 4000 K
Colour 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
	Also available in emergency

### 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

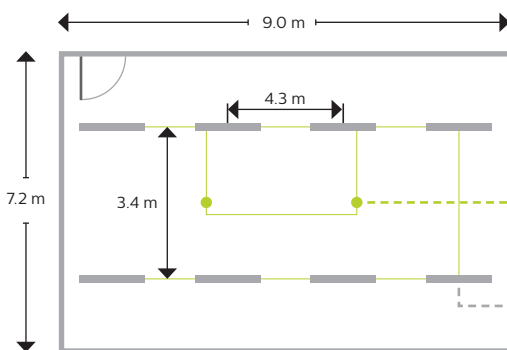
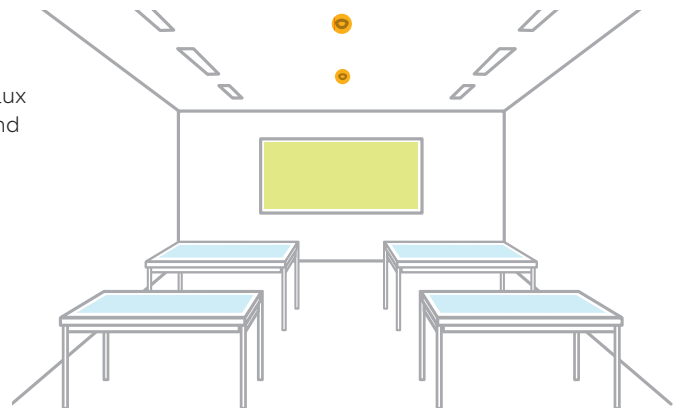
Add dedicated luminaires and adjust their arrangement to light the blackboard for readability.

### 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 optimise presence detection.



Height of classroom: 3.0 m

## Lighting design classroom



### Luminaire types

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
<b>CoreLine Surface-mounted LED34S VAR-PC</b>	<b>8</b>	<b>352</b>	<b>248 W</b>	<b>31 W</b>	<b>3.8</b>	<b>1.1</b>