

**PHILIPS**

Office lighting

PowerBalance



Product guide

Sustainable  
performance

**for comfortable,  
office-compliant lighting**

“  
I love it how the  
lights dim when  
there’s no-one in  
a room.”



**Introduction**

Next-generation lighting  
for today’s offices



**Benefits**

Experience PowerBalance

**Case study**

The Edge, Netherlands



**Sustainable performance**

Meet PowerBalance  
RC461 and RC360

**Green buildings**

BREAAM certification  
for green buildings



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Different solutions  
for different ceilings

**Designs**

Lighting designs for  
Cell Office, Open Plan Office  
and Meeting rooms



**Accessories**

Available accessories  
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**Choice sheet**

Product specifications

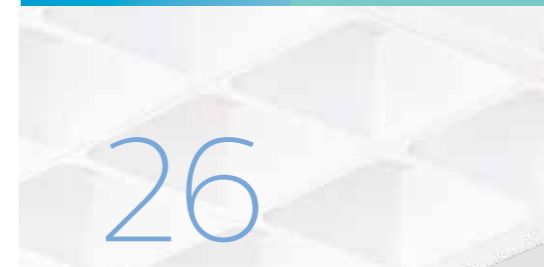


**Services**

Services and specifications

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Product information



# Next-generation lighting for today's offices

Technology has always been a driver for productivity. Innovations in lighting, for example, have brought on-demand illumination to the places where we work. And now, thanks to the benefits of LED lighting, the next revolution is here.

## PowerBalance: LED for you

Office lighting always used to be uniform and impersonal, creating a harsh white light in all spaces. And it has become a major cost factor for many companies. All of this is now changing fast, with the widespread adoption of LED technology.

The Philips PowerBalance family of luminaires offer a longer lifespan, more consistent lighting performance, fewer replacements and greater energy efficiency - all of which adds up to make a real difference for companies that want to bring their lighting into the 21st century. You can also design lighting applications that are tailor-made for an individual company or office space.

## Flexible and sustainable

PowerBalance offers a modular approach to office lighting, with easy-to-install luminaires in different standardized sizes, all of which work perfectly together. And the optional use of lighting controls lets you further enhance the lighting comfort for users as well as achieve additional energy savings. This makes the PowerBalance range an environmentally friendly lighting solution that also offer a significant long-term reduction in lights costs.

Read on to discover Philips PowerBalance and all the things that LED can do for you.



**Advanced technology,  
award-winning design**

The PowerBalance range has won two industry design awards thanks to its innovative approach to office lighting. Features include:

- The optical module is sealed for life, so no internal cleaning is required
- CRI (Color Rendering Index) of more than 80
- Extremely dependable driver performance
- Beam angle of 90°, suitable for use in diverse applications
- Excellent correlated color temperature



Top 3 reasons to choose PowerBalance

- Broad selection of extremely efficient and office-norm-compliant LED luminaires
- Good-quality lighting solution for direct replacement of T5 luminaires in most indoor applications
- Significant reduction in operational costs, resulting in a very attractive payback time

# Experience the benefits of PowerBalance

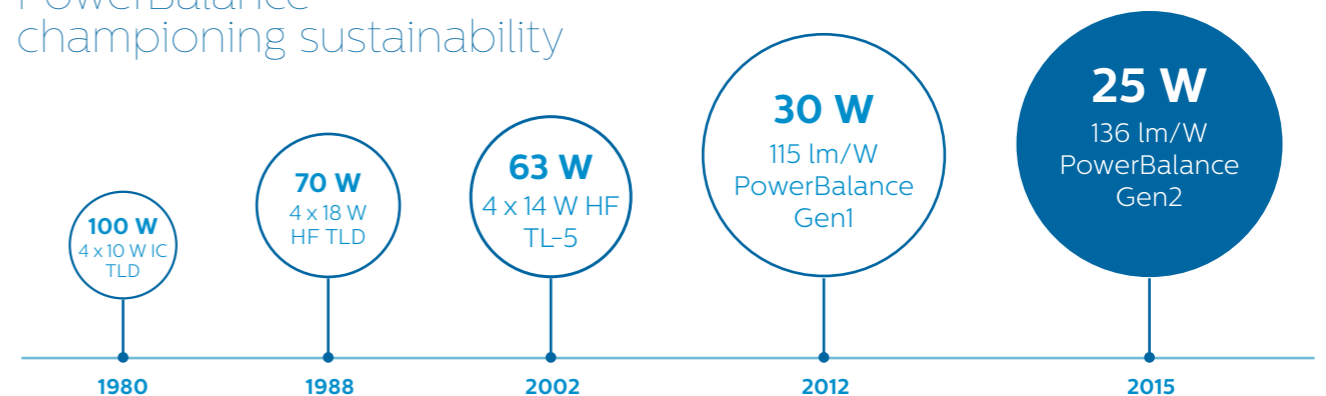
Whether you are looking to reduce energy costs or improve your building's lighting flexibility, PowerBalance is all you need to create a top-notch LED lighting installation.

Over time, office luminaires have consistently become more energy efficient. TL-D lamps were surpassed by the performance of T5 technology - and LED is the next step in this progress, with better light sources and even more efficient optics.

**The right product for the job, every time**

The luminaires in the PowerBalance family have been designed for optimum applicability, offering a range of different shapes and sizes. They can be easily mounted in ceilings with exposed as well as concealed T-bars, and also in plaster and bandraster ceilings. Does your project require a surface-mounted luminaire? There's a PowerBalance product for that, too.

PowerBalance championing sustainability





# Lighting on the cutting “Edge”

In the Zuidas business district of Amsterdam, the world’s most sustainable office building leads the way in green-building innovation - with a bold futuristic design, a wealth of eco-friendly technologies, and a lighting infrastructure that is ahead of its time. The name says it all: this truly is The Edge.

## More than just illumination

The Edge features a spacious and open design that incorporates a lot of glass, to optimize the use of natural light. This is complemented by an LED-powered lighting system that is both intelligent and connected. Each PowerBalance Connected Lighting luminaire in the building has sensors that measure a variety of aspects, like indoor movement and ambient light. In addition to this, every luminaire has a transmitter that connects it in real time to the office’s overall lighting grid. This allows for continuous monitoring and updating of the activities in the building, so that the lighting levels and colors are adapted whenever necessary. But it also provides essential information for other aspects of office management, as it helps to keep track of which parts of the building are actively being used.

## Beyond energy savings

This digitally connected lighting system is just one of the many innovations and technologies used to make The Edge a supremely sustainable building. Real-estate investor OVG, which developed the complex, is proud that its construction has achieved the top-level BREEAM certification, with a rating of “Outstanding”. The many green features help to reduce energy costs and minimize the environmental impact, but there is more at stake than that.

“

**Being sustainable** is about more than getting a great sustainability rating.”

Coen van Oostrom, CEO of OVG: “Being sustainable is about more than getting a great sustainability rating. It is also about a building’s overall comfort and efficiency for its occupants, so that they can operate with ease in a productive and healthy environment.”

## Moving ahead

One of the benefits of having a digital lighting system is that improvements can be deployed through software updates, without requiring any new equipment. The system at The Edge, which uses PowerBalance Connected Lighting luminaires, also allows for connected lighting management at the highest resolution: by individual users. The people who work at The Edge can use a building-specific smartphone app to control the lights in different rooms and even at single workstations. And in future, who knows what new innovations will be added? The possibilities are literally endless.



## Philips PowerBalance RC461

People want to have a working environment where they can excel at what they do. To enable this, offices need to have lighting that provides a pleasant atmosphere. And many companies also want their lighting infrastructure to minimize energy usage, to reflect the increasing importance of sustainability and CSR.

# The sustainable way to optimize lighting comfort



Office lighting  
.....  
PowerBalance  
.....  
**RC461 range**  
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The Philips PowerBalance RC461 range offers the perfect combination. It accommodates the needs of today's office workers as well as the requirements of responsible entrepreneurship. With the long lifespan and minimal maintenance of LED technology, these products - which are available in the RC461, RC463, RC468 and RC415 varieties - all but eliminate the disruptions that come from having equipment repaired or replaced.

### Different spaces have different lighting needs

In a cell office the workspaces are not distributed in the same way as in an open office plan. Meeting rooms have yet other lighting requirements. PowerBalance RC461 is the versatile and easy-to-install solution that can be easily adapted for any space while complying with all industry norms and standards.

And the range also makes it possible to link smart sensors to the lighting grid. This enables a wealth of lighting plans that further reduce energy costs while optimizing the light quality in every room and hallway. The RC461 range offers best-in-class office compliancy with an UGR <16 and L65 <1500 cd/m<sup>2</sup>. It produces very comfortable light and is the most energy efficient luminaire in the world. All of which allows the people at the office to focus on what really matters: doing what they do best.

### Getting your luminaires just right

You can customize your PowerBalance luminaires using the special configurator. Adapt the dimensions and other options to get the lighting that perfectly suits your needs!



Philips PowerBalance RC360

In an office building, the lighting infrastructure is a long-term commitment. Ideally, you'd like to have the best of both worlds: good-quality lighting for your office spaces that also gives you a quick return on your investment.

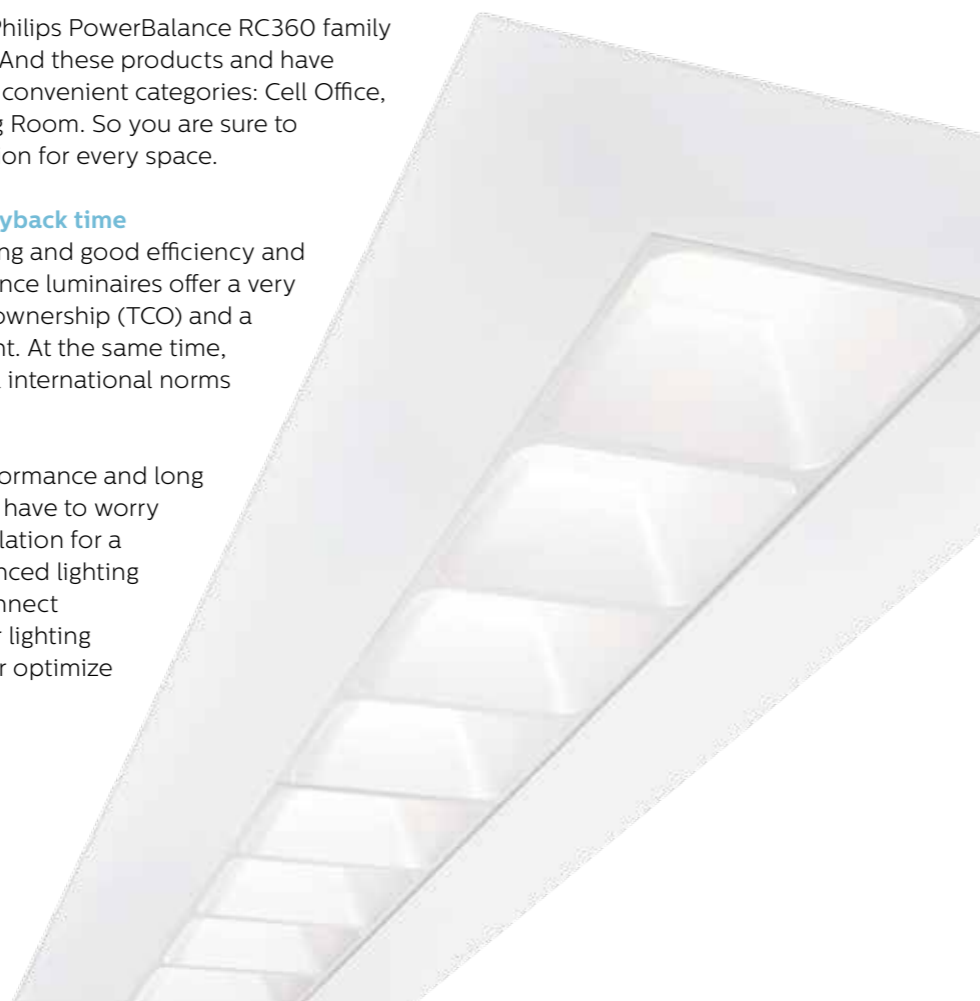
## It all adds up: sustainable performance and return on investment

This is exactly what the Philips PowerBalance RC360 family of LED luminaires offers. And these products have been grouped into three convenient categories: Cell Office, Open Office and Meeting Room. So you are sure to easily find the right solution for every space.

### Affordable price, fast payback time

With their attractive pricing and good efficiency and reliability, the PowerBalance luminaires offer a very compelling total cost of ownership (TCO) and a swift return on investment. At the same time, they fully comply with all international norms for office lighting.

And their consistent performance and long lifespan mean you won't have to worry about your lighting installation for a very long time. For enhanced lighting quality, you can even connect motion detectors to your lighting system, which will further optimize your energy savings.



# The standard for green buildings

The world is changing, and it's changing fast. As we move from an economy powered by fossil fuels into a new, sustainable future, it is becoming ever more important to manage our energy usage responsibly. In architecture and office design, the idea of what a "green building" can be is quickly evolving. Meet BREEAM, the benchmark for assessing, rating, and certifying the sustainability of buildings.

In defining what a future-proof building is, the focus used to be almost exclusively on environmental concerns. But new insights point towards a "triple bottom line", in which equal weight is given to the benefits for planet, people and profit. First published in 1990, BREEAM has been leading the way in the development towards sustainable office architecture. The Building Research Establishment Environmental Assessment Methodology has already been used to certify more than 250,000 buildings worldwide - with more and a million others already registered for certification. Equally important for the certification of green buildings is the Leadership in Energy and Environmental Design (LEED) Green Building Rating System, a third-party program developed by the US Green Building Council (USGBC).

### Being green makes a difference

Whether it is from the building's inception and construction or through later renovation, "going green" is much more than a symbolic gesture. The benefits are very real and have long-term impact:

- Energy consumption can be reduced by 30-50%.
- Asset value can go up by as much as 16%.
- Carbon emissions can decrease by up to 35%.

It helps attract high-quality business partners and solidifies the organization's standing in the community.

### LED lighting: more than just green

Next-generation lighting is an integral plan of any green building. It can create an long-lasting, energy-efficient and low-maintenance lighting infrastructure. Furthermore, LED lighting is highly flexible, with many



options for customization - for the building as a whole, but also on the level of individual users. Also, LED is a digital technology at heart, which means that each and every one of the office's lights can be included in a lighting-management software system. This allows the use of sensors that can fine-tune the lighting based on the time of day, room occupancy or available daylight. Users can even control the individual luminaires that light their desk or workspace, using a dedicated smartphone app.

All of this helps to create truly green buildings worthy of BREEAM certification. Buildings in which people are happier and more productive, the organization performs better, and the environment is respected.

Ceilings are, perhaps, the most underappreciated part of any architectural design. We take them for granted, but we shouldn't. From wide-open reception areas to humble office meeting rooms, ceilings are one of the spatial aspects that define a room's character and light.

# Make any ceiling come alive



Office lighting  
 .....  
 PowerBalance  
 .....  
**Ceilings**  
 .....

With the right lighting system, any ceiling can come alive and infuse the space beneath it with vitality and a sense of comfort. The Philips PowerBalance family includes LED lighting products for a range different ceiling systems, from special fittings for plaster ceilings to recessed and concealed luminaires. So whatever your building's architectural design calls for, we have the right lamps to make the ceilings shine bright.



**VPC**  
 (Visible profile ceiling version)

PowerBalance RC360B and RC461B, square and rectangular version



**CPC**  
 (Concealed profile ceiling version)

PowerBalance RC360B square version and RC461B, square and rectangular version



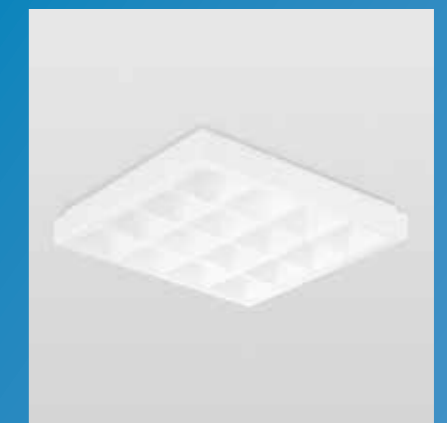
**PCV**  
 (Plaster ceiling version)

PowerBalance RC360B square version and RC461B, square and rectangular version



**BCV**  
 (Bandraester ceiling version)

PowerBalance RC415B module size 150 x 17,220 mm and RC315B module size 200 x 17,220 mm

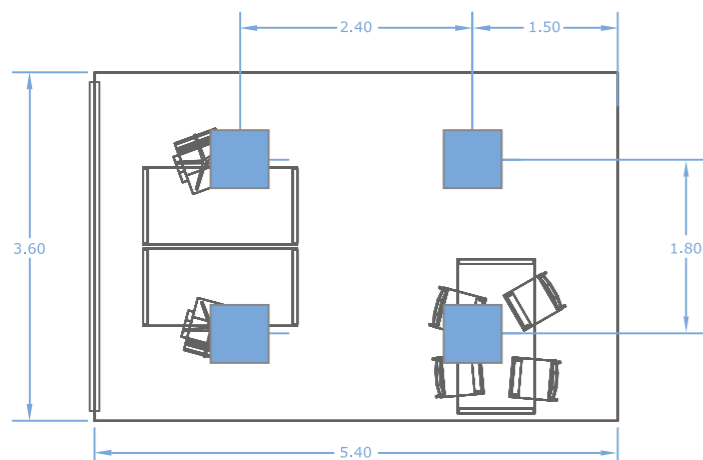
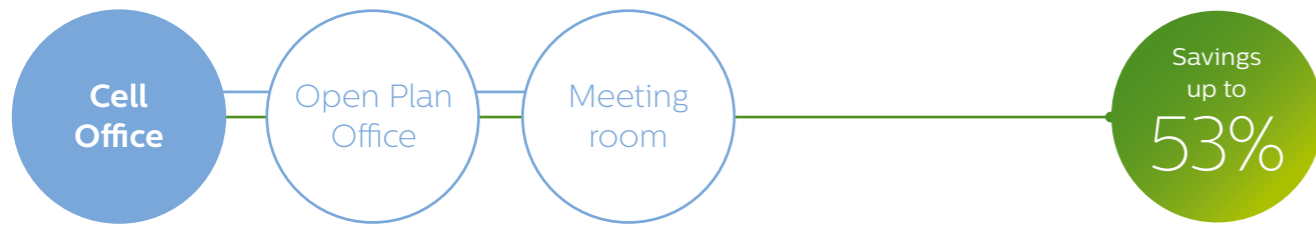


**Surface-mounted**

PowerBalance Surface-mounted SM461V, square and rectangular version



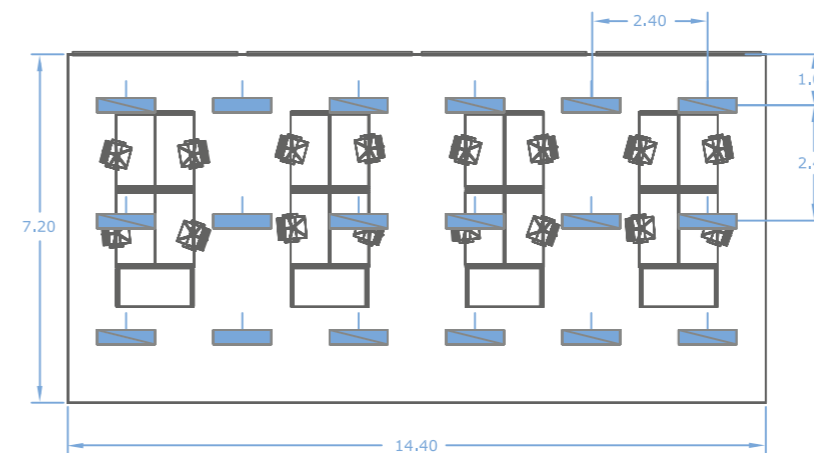
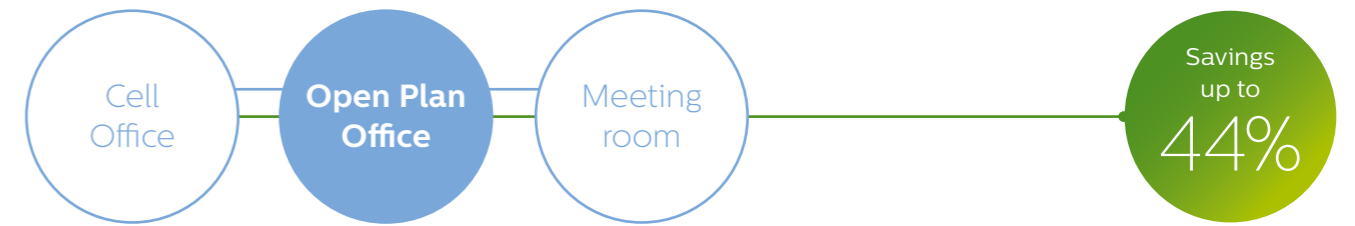
# Lighting design categories



### Lighting a Cell Office

The PowerBalance installation provides a comfortable working environment, with light where it is needed. Use 4 luminaires, spaced 2.4 x 1.8 m apart, to create a uniform distribution so that walls are properly lit and task areas have sufficient light - while safeguarding a high level of sustainability.

	Product description	#lums	Sys power	Em	Uo	W/m <sup>2</sup>	W/m <sup>2</sup> /100lx
<b>RC360 345 square</b>	RC360B LED345/840 W60L60	4	29.5	523	0.66	6.07	1.16
<b>SmartForm 4 x 14 W (TL5 reference)</b>	TBS460 4 x 14 W 840 D8	4	63	620	0.69	12.96	2.09

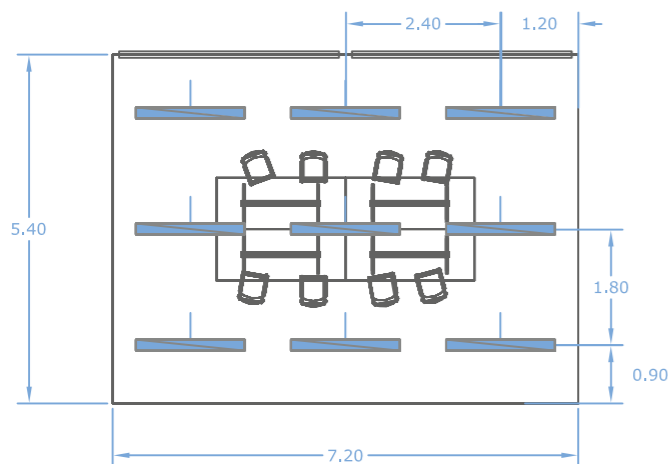
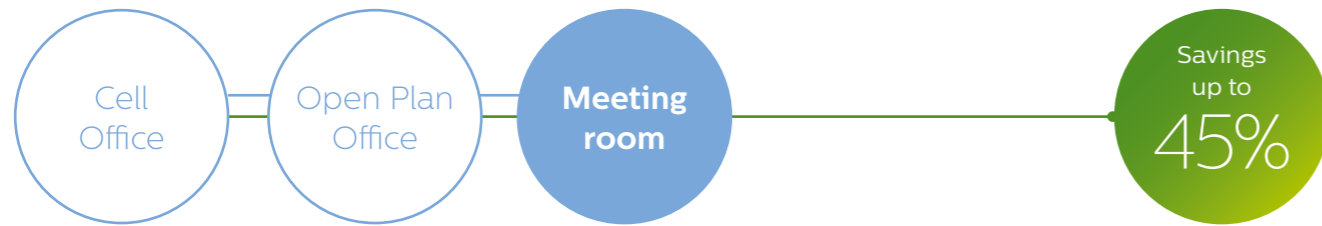


### Lighting an Open Plan Office

The lighting installation is an integral part of the ceiling, with a regular grid of rectangular luminaires. To ensure good light levels at the highest level of energy efficiency, apply the RC461B 40S with a spacing of 2.4 x 2.4 m. This luminaires grid pattern allows for a flexible interior design of the workplace.

	Product description	#lums	Sys power	Em	Uo	W/m <sup>2</sup>	W/m <sup>2</sup> /100lx
<b>RC461 40S rectangular</b>	RC461B LED40S/840 W30L120	18	32.5	577	0.64	6.08	1.05
<b>SmartForm 2 x 28 W (TL5 reference)</b>	TBS460 2 x 28 W TL5 840 D8	18	62	605	0.65	10.76	1.78

# Lighting design categories



**Lighting a meeting room**  
 If you need a high degree of freedom in luminaire placement on any ceiling surface, as in a meeting room, choose the Surface-mounted version of the PowerBalance. The luminaire's slim, sleek design lets you create visual lines of light - a good solution for smaller rooms where you want to enhance the atmosphere.

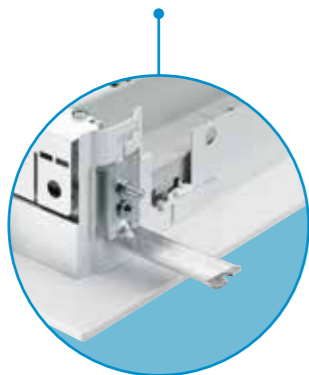
	Product description	#lums	Sys power	Em	Uo	W/m <sup>2</sup>	W/m <sup>2</sup> /100lx
<b>SM461 345 'Extended'</b>	SM461V LED 345/840 W17L169	9	28.5	610	0.71	6.94	1.14
<b>SmartForm 1 x 49 W (TL5 reference)</b>	TCS460 1 x 49 W TL5 840 D8	9	55	596	0.66	12.73	2.14



Office lighting  
 PowerBalance  
 Lighting designs

# Accessories & options

**Plaster ceiling version (PCV)**  
 Plaster ceiling version (PCV): using separate mounting rim and brackets (included) (only RC360B / RC461B)



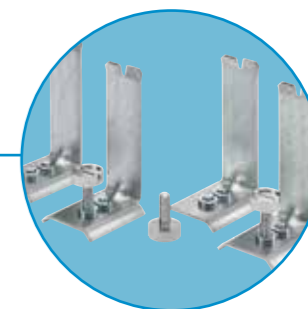
**CAT cable connector**  
 Available for PowerBalance PoE



**Safety cable**

**Different drivers**  
 • PSU/PSD/PoE

**Concealed profile ceiling version (CPC)**  
 Concealed profile ceiling version (CPC): using separate mounting rim and brackets (included) (not in RC467B / RC468B)

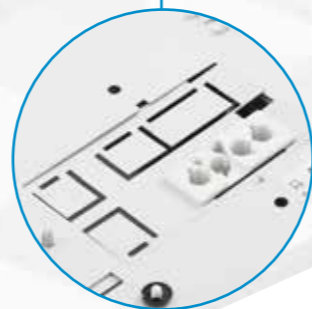


**Different colors possible:**  
 • Silver Grey  
 • White RAL 9016  
 • Standard RAL colors

**Air-handling**  
 Available for VPC and bandraaster ceilings



**Different connections**  
 • PIP/Wieland



**Emergency lighting**  
 • EL1, emergency lighting 1 hour duration  
 • EL3, emergency lighting 3 hours duration










**Actilume (ACL)**  
 ActiLume is a plug & play control system which offers energy saving by daylight harvesting and automatic switching



# Choice sheet

The PowerBalance range lets you customize your luminaires with different options and dimensions. Please contact Philips for more information.

	Type	Geometry	Lumen (lm)	Driver	Max lm/W	Color temperature (K)	Housing	Connector	Emergency lighting	Controls	Airhandeling		
<b>PowerBalance</b> RC461 	<b>RC461</b>	W60L60	2800	PSU	136	3000	Visible profile ceiling	PIP	None	None	None		
		W30L120	3400	PSD		4000	Plaster ceiling	W	EL1-LED	Actilume	Yes (VPC only)		
			4000	PSD-T PoE			Concealed ceiling		EL3-LED				
	<b>RC463</b>	W62L62	2800	PSU	136	3000	Visible profile ceiling	PIP	None	None	None		
W31L125		3400	PSD	4000		Concealed ceiling	W	EL1-LED	Actilume	Yes (VPC only)			
		4000	PSD-T PoE					EL3-LED					
<b>RC468</b>	W67L67	2800	PSU	136	3000	Visible profile ceiling	PIP	None	None	None			
		3400	PSD		4000								
		4000	PSD-T PoE										
<b>RC415/416</b>	W15L120	2000 (RC415 only)	PSU	126	3000	Visible profile ceiling	PIP	None	None	None			
	W15I125	3400	PSD		4000						EL1-LED (RC416 only)	Actilume	Yes
	W16LEXT		PSD-T PoE								EL3-LED (RC416 only)		
<b>PowerBalance</b> SM461 	<b>SM461</b>	W17L169	2800	PSD	119	3000	Surface Mounted	PIP	None	None	None		
		W57L57	3400	PSD-T		4000						EL1-LED	Actilume
			4000	PoE								EL3-LED	
<b>PowerBalance</b> RC360 	<b>RC360</b>	W60L60	2800	PSU	117	3000	Visible profile ceiling	PIP	None	None	None		
			3400	PSD		4000	Plaster ceiling	W	EL1-LED	Actilume	Yes (VPC only)		
				PSD-T PoE			Concealed ceiling		EL3-LED				
	<b>RC362</b>	W62L62	2800	PSU	117	3000	Visible profile ceiling	PIP	None	None	None		
			3400	PSD		4000	Plaster ceiling	W	EL1-LED	Actilume	Yes (VPC only)		
				PSD-T PoE			Concealed ceiling		EL3-LED				
	<b>RC360</b>	W30L120	2800	PSU	117	3000	Visible profile ceiling	PIP	None	None	None		
			3400	PSD		4000							
				PSD-T PoE									
	<b>RC362</b>	W31L125	2800	PSU	117	3000	Visible profile ceiling	PIP	None	None	None		
			3400	PSD		4000							
				PSD-T PoE									
	<b>RC315</b>	W20LEXT	2800	PSU	117	3000	Bandraster profile ceiling	PIP	None	None	None		
			3400	PSD		4000							
				PSD-T PoE									

# A winning combination

## Technological expertise and a complete range of services

### Advisory service

Our PowerBalance range comes with a unique set of services. Philips experts can analyze your existing lighting system and make informed recommendations to increase energy efficiency, improve your installation and optimize maintenance. This Advisory Service includes energy audits of lighting systems as well as the design of new solutions.

### Project services

When you install a new lighting system, you will want to do it quickly, cost-effectively, and with minimal disruption to your business. Philips Lighting Projects Services can help you by providing complete project management. This way, you won't need to deal with a many different suppliers, contractors, and transport companies. And if you already have a team in place, we'll be happy to work with them to make sure that everything runs smoothly.

### Lifecycle service

To secure your investments in PowerBalance, you can choose one of our lifecycle services. With our new service agreements, you can opt for guaranteed lighting performance throughout the duration of your maintenance contract. You can even include coverage for the effects of new technological developments. That way, you can anticipate any component replacements needed to continue to achieve your energy performance objectives.

### Financing solutions

For more flexible funding of your lighting system update, you can now choose to spread the cost with our financing solutions and tailor-made purchasing schemes.



You can find the Philips Warranty Policy and Terms and Conditions on [www.lighting.philips.com/main/support/support/warranty](http://www.lighting.philips.com/main/support/support/warranty)

## Service



### Extensive lifetime

$L_{80}B_{50} = 50,000$  hours lumen maintenance at 25°C



### 5-year warranty

For products applied in the standard conditions listed in the product's datasheets.

## Specifications

Office lighting  
PowerBalance  
Service

	PowerBalance RC461	PowerBalance RC360	PowerBalance SM461
Lumen package	28S, 34S, 40S	28S, 34S	28S, 34S, 40S
Consumption (W)	28S: 21.5 W 34S: 25 W 40S: 30 W	28S: 23.5 W 34S: 29 W	28S: 24 W 34S: 29 W 40S: 34 W
Efficacy (lm/W)	> 137	> 115	> 119
CCT (K)	3000 K - 4000 K	3000 K - 4000 K	3000 K - 4000 K
CRI	> 80	> 80	> 80
Lifetime (hours)	50,000	50,000	50,000
Dimming	Dali	Dali	Dali
UGR	< 16	< 19	< 16
L65	< 1500 cd/m <sup>2</sup>	< 3000 cd/m <sup>2</sup>	< 1500 cd/m <sup>2</sup>
IP / IK	IP20 / IK02	IP20 / IK02	IP20 / IK02
Electrical class	Class 1	Class 1	Class 1

### Polar intensity diagram

