

Soundlight Comfort Ceiling



Where sound meets light, comfort is built

Soundlight Comfort

PHILIPS

Ecophon
SAINT-GOBAIN



Inspired
by nature

Bringing the outdoor environment inside

Our human senses developed for an outdoor life. Outside light is evenly distributed over the landscape, and sound is allowed to disperse naturally. So when we now spend 90% of our time indoors, often in working environments that surround us with conditions opposite to what we are programmed to expect, it's perhaps not strange that we sometimes feel tired and stressed.

Inspired by nature, Soundlight Comfort Ceiling is a new and unique ceiling solution that integrates sound absorption and lighting. It provides an indoor ambience with comfortable outdoor characteristics, helping people to feel good and to work productively. Soundlight Comfort is lighting that gives visual comfort paired with the acoustics which create a good sound environment.

Soundlight Comfort Ceiling – a synergy

With this newly developed and innovative technology, it is possible to combine the positive effects of sound comfort and light comfort so they work in synergy, instead of at the cost of one another.

“Soundlight Comfort Ceiling is a new and unique system solution that integrates sound absorption and lighting.

Sound and light in perfect harmony

With Soundlight Comfort Ceiling, 100% of the ceiling is sound absorbing. This is a no compromise solution where light and acoustic properties are optimised to create a natural working environment, suitable for open plan office spaces and much more.

The system fulfils all the acoustic requirements of a ceiling solution, such as a reduced sound level, improved speech clarity and reduced sound propagation. In this environment, people are less likely to be tired, stressed or disturbed by their colleagues, and they will benefit from improved concentration, problem solving and overall work satisfaction.

At the same time, Soundlight Comfort Ceiling illuminates the office with high quality natural white light, for excellent visibility. By illuminating broad areas of the ceiling, the light is a true part of the overall architecture of the room. The result has a much more tranquil and comfortable look and feel, that supports people in their job performance, and helps them to stay active and alert all day long.

Easy installation and maintenance

Soundlight Comfort Ceiling system supports easy installation and maintenance. It also provides the flexibility to tailor the lighting design to the activities taking place. If in the future your needs change, it's not a problem, since the ceiling tiles are easy to re-arrange as necessary. if needed.





Creating comfort

Sound comfort

More natural sound: Soundlight Comfort ceiling reduces unwanted noise, by reducing unnatural sound reflections and increasing comfort.

Limit sound propagation: disturbance from the voices from colleagues sitting further away is reduced, as sound is not allowed to propagate throughout the office.

Lower sound level: the absorption of Soundlight Comfort ceiling prevents the noise level that often builds up in an untreated office.

Good speech clarity: communication within teams is improved as the speech clarity of the voices of colleagues sitting close-by is enhanced.

Light comfort

More natural light: the surface properties of the ceiling help daylight to reach further into the building.

Balanced light distribution: the diffused light, emitted from a larger surface area than in traditional lighting solutions, improves visual comfort without harsh shadow contrasts.

Prevent and reduce glare: the light is soft yet crisp, and glare is close to absent.

Highly diffused vertical light levels: the perception of the room is enhanced; the high vertical light levels lead to better lit walls and ceiling, which makes the room appear bigger, less chaotic and more pleasant to work in.

Inspiring sound and light solutions





Karolinska University Hospital in Huddinge, Sweden

“I’ve had very positive experiences. I feel sharper and quite simply more alert. This feels like the office of the future.”

Emma Loven, Operations Manager at the Innovation Centre, Karolinska University Hospital

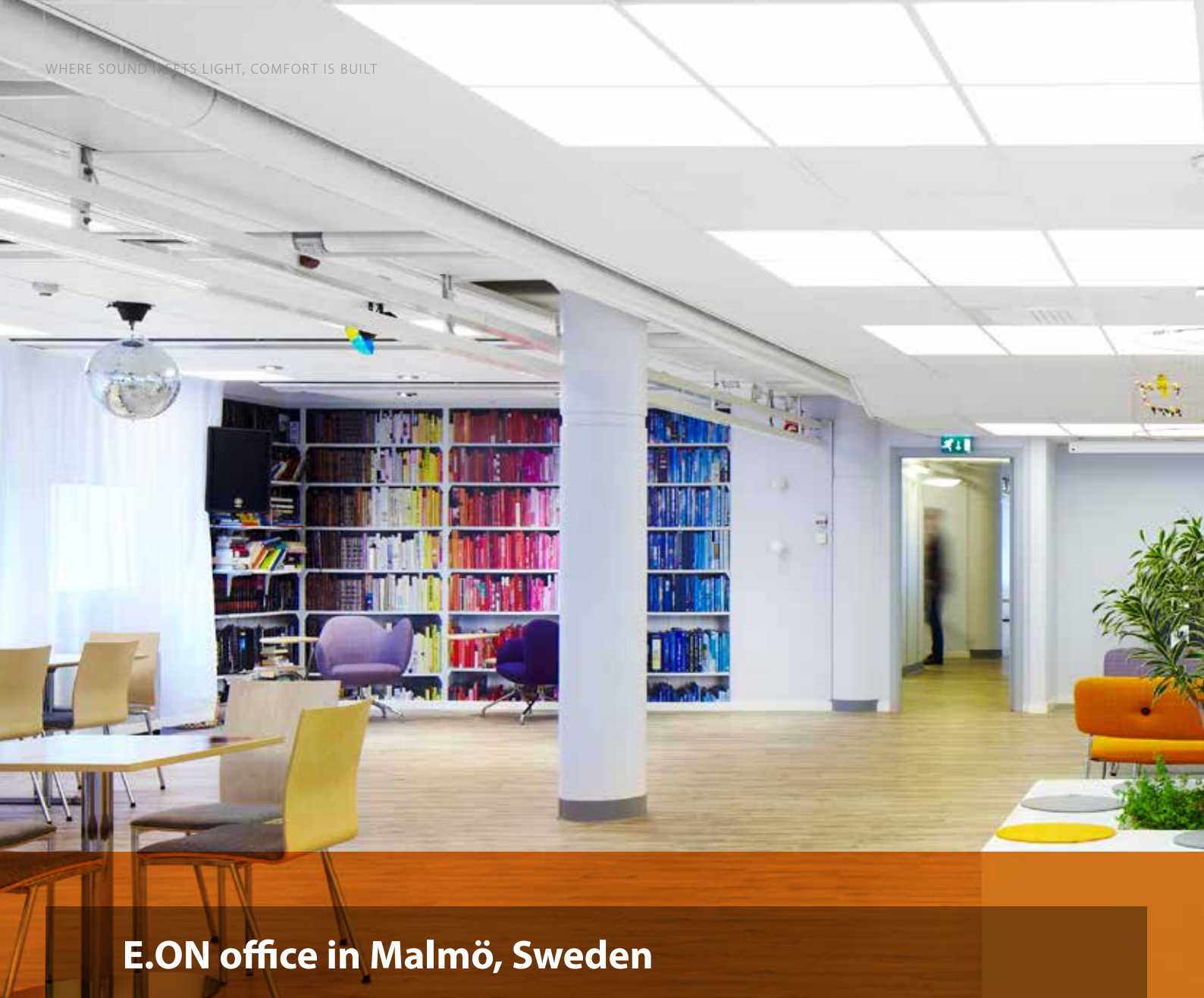
In 2014 a longitudinal field study was conducted at the Innovation Centre of the Karolinska University Hospital. The study assessed the worker’s perception of lighting appraisal, visual and acoustical ergonomics, performance, sleepiness and alertness during the day as well as quality of sleep. Measurements were taken both before and after changing from a TL5 installation to Soundlight Comfort Ceiling, and were compared to a reference group working in an office with a suspended TL5 lighting solution.

Preliminary results indicate that the psychological comfort as measured through atmosphere perception and lighting appraisal increased up to 25 %. Furthermore, people experienced an improved readability and screen work, and enhanced visual and acoustic comfort in the office.

The study also confirms that Soundlight Comfort Ceiling positively influences the performance and wellbeing of the office employees. Performance data of the so-called “Colour Word Stroop test” indicates a performance increase of 3%, while daytime alertness and sleep improved compared to the original situation.



Watch the case study



E.ON office in Malmö, Sweden

“When the lighting is turned off, you can't see the luminaires, just the ceiling, and when the lighting is on, you get more of a daylight feeling. It almost feels like being outdoors.

Hans Björk, Technical Director, E.ON Fastigheter Sverige AB

Challenge

When power company E.ON renovated their Malmö office they wanted to improve the lighting environment, have a sustainable lighting solution with lower energy costs and set a good example for its customers.

Solution

E.ON installed Soundlight Comfort Ceiling with daylight regulation and motion detection. If anyone enters the room when has been empty, the lighting is turned on to 80%, giving 300 lux. Then, the sensors measure the extent of daylight in the room and adjust the lighting to the appropriate level.

Benefits

An integrated sound and lighting solution has transformed a dull sales office into a bright, pleasant and appreciated meeting place. This sustainable lighting solution will have a lifetime of at least 15 years and consumes 28% less energy.



“ We find this product very innovative by combining acoustics and lighting, we like the design of it and the product give us a soft and comfortable light.

Mr Henry, General Director, Le Mans Habitat



Le Mans Habitat in Le Mans, France

Le Mans Habitat was in need of refurbishing one of their meeting rooms. After evaluating several options they chose Soundlight Comfort Ceiling. The system was considered very innovative, and with a pleasing design. The meeting room now has excellent acoustic properties, and lighting that is soft and comfortable to provide a good working environment.





Municipality Nuenen, Holland

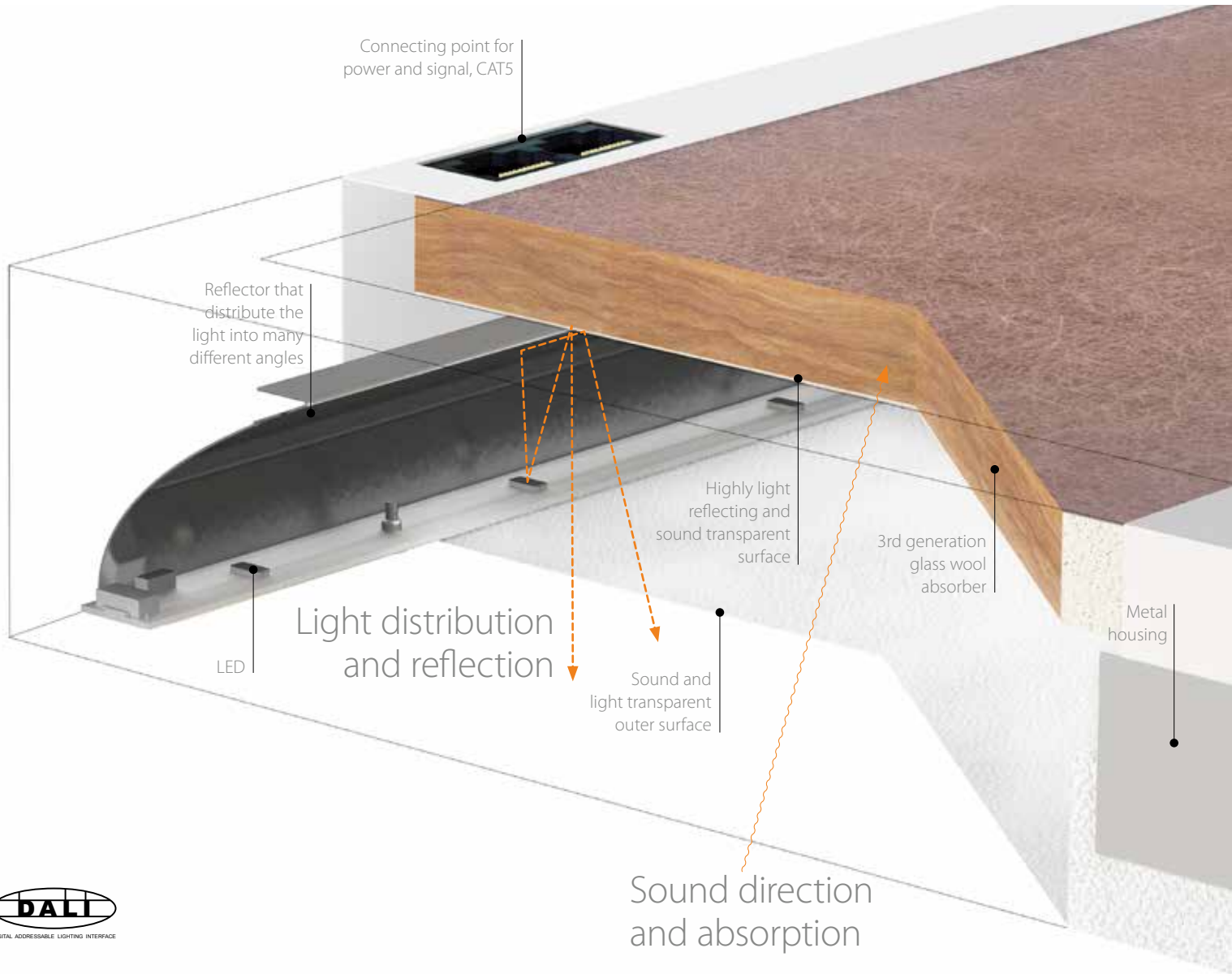
“We were looking for a ceiling with a special appearance. We found that Soundlight Comfort Ceiling System was the perfect solution to make our visitors feel comfortable and welcome.

Peter de Graaf, Project Manager Municipality Nuenen

The municipality of Nuenen wanted an appealing new public entrance to the town hall. They had very specific requirements for the acoustics, even more so when it came to the public offices and meeting rooms. In addition, the desired ceiling lighting should be attractive and appropriate to the function of the room. When the Soundlight Comfort Ceiling was presented to the municipality, they agreed that this solution, with its integrated sound and light properties, was exactly what they were looking for.



Integrated lighting and acoustic ceiling system



Soundlight Comfort Ceiling LED Tile

Soundlight Comfort Ceiling consists of a combination of LED Tiles and Ceiling Tiles

The 60 mm LED Tile is an encapsulated unit consisting of a metal frame along the perimeter, and featuring a glass wool absorber that is paired with a highly reflective, sound transparent surface. The LED Tile contains a 45 mm cavity and has an outer surface with the unique property of being both sound and light transparent while simultaneously being opaque. The Soundlight Comfort Ceiling LED Tile has absorption class A.



Soundlight Comfort Ceiling Tile

The Tile consists of 40 mm sound absorbing glass wool. It can be cut to fit the room, and to integrate ventilation and sprinklers. The Soundlight Comfort Ceiling Tile has absorption class A.



Soundlight Comfort Ceiling A

Soundlight Comfort Ceiling A is an embedded lighting and acoustic ceiling system. The application area is mainly open office spaces. Soundlight Comfort Ceiling A has an exposed grid system and each tile is easily demountable.

The system consists of sound absorbing lighting emitting LED Tiles, sound absorbing Tiles, Control box, OccuSwitch DALI, and the Connect grid system. The system has a weight of 6 kg/m². All tiles have a core manufactured from high density glass wool utilizing the 3RD Technology. The LED Tile has a thickness of 60mm and the Tile has a thickness of 40mm.

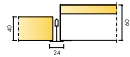
Soundlight Comfort Ceiling A is unique with respect to the light design with wide distribution, large surface illuminated and that the highest possible sound absorption is integrated in every tile. The LED Tile is available in colour temperature 3000K and 4000K. For a lux level according to office norms approximately 40% of the ceiling should be covered with LED Tiles.

The LED Tile is patent pending (12189737.5).

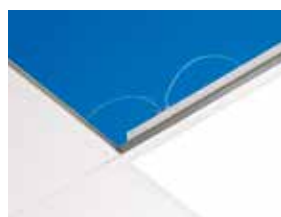


SYSTEM RANGE

Size, mm	600	1200
	x	x
	600	600
T24	-	-
Thickness (THK)	60	60
Inst. Diagr.	M324	M324



Section of Soundlight Comfort Ceiling A system with Ceiling cable



Soundlight Comfort Ceiling A system with Ceiling cable



Soundlight Comfort Ceiling



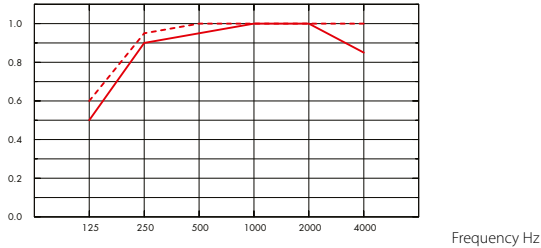
An unlit Soundlight Comfort Ceiling

TECHNICAL PROPERTIES

ACOUSTIC

Sound Absorption: Test results according to EN ISO 354. Classification according to EN ISO 11654.

α_p , Practical sound absorption coefficient



— SLCOMF Ceiling A LED tile 60 mm, 200 mm o.d.s.
 - - SLCOMF Ceiling A tile 40 mm, 200 mm o.d.s.
 o.d.s = overall depth of system

Product	LED Tile	Tile
o.d.s mm	200	200
absorption class	A	A
aw	0,95	1,00

Sound Insulation: Not applicable

Sound Privacy: LED Tile AC(1.5)=200 and Tile AC(1.5)=200 according to ASTM E 1111 and E 1110.

ACCESSIBILITY The tiles are demountable.

CLEANABILITY Weekly dusting and vacuum cleaning.

VISUAL APPEARANCE Tile, nearest NCS colour sample S 0500-N, 81% light reflectance. LED Tile (unlit), nearest NCS colour sample NCS S 1000-N, 66% light reflectance.

INFLUENCE OF CLIMATE The tiles withstand a permanent ambient RH up to 75% at 30°C without sagging, warping or delaminating (ISO 4611).

INDOOR CLIMATE Certified by the Indoor Climate Labelling, emission class M1 for building materials and recommended by the Swedish Asthma and Allergy Association.

ENVIRONMENTAL INFLUENCE The Tile have a glass wool core utilizing 3RD Technology. Granted the Nordic Swan eco-label. Fully recyclable. The LED Tile is partly recyclable.

FIRE SAFETY The glass wool core of the tiles is tested and classified as non-combustible according to EN ISO 1182.

Reaction-to-fire classification

Country	Standard	Class
Europe	EN 13501-1	A2-s1,d0

MECHANICAL PROPERTIES The Tile can take small loads of maximum 500g with largest aperture diameter of 100 mm. The LED Tile should only take the load of the Control box, no other additional live load allowed.

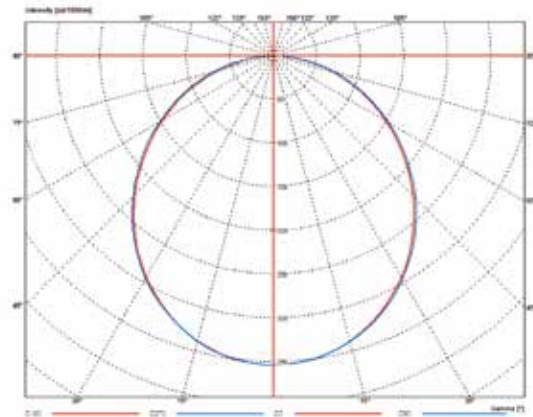
INSTALLATION Installed according to installation diagrams, installation guides and drawing aid. For information regarding minimum overall depth of system see quantity specification. Ambient temperature span for installation of LED Tile, +10° C < T < 35° C. Number of LED Tiles connected to control box: 600x600, 2-5. 1200x600, 1-2. Emergency light is optional (to be ordered separately).

ELECTRICAL DATA :
 Mains voltage: 230-240V / 50Hz
 Power consumption control box: 50W max
 Output control box: Low voltage (< 60V)
 Light source: LED (included)
 Power consumption LED Tile: 600x600 10W, 1200x600 20W
 System efficacy: 65-70 lm/W
 Dimming: Compatible with DALI controllers

CONNECTION :
 Ceiling cable: CAT 5 cable (RJ45 connection)
 Control box: Wieland (GST18i3) and DALI (BST14i2)
 Power cable: Wieland (GST18i3)
 Power extension: Wieland (GST18i3)
 DALI extension: DALI (BST14i2)
 OccuSwitch cable: Wieland (GST18i3) and DALI (BST14i2)

LIGHTING PERFORMANCE

Beam angle: 108°
 Luminous flux: 600x600 700lm, 1200x600 1400lm
 Colour temperature: 3000K or 4000K
 Colour rendering index (Ra): > 80
 Unified glare rating: < 16
 Maintenance of lumen output: L90 > 30000 h at 25° C
 Maintenance of lumen output: L70 > 50000 h at 25° C



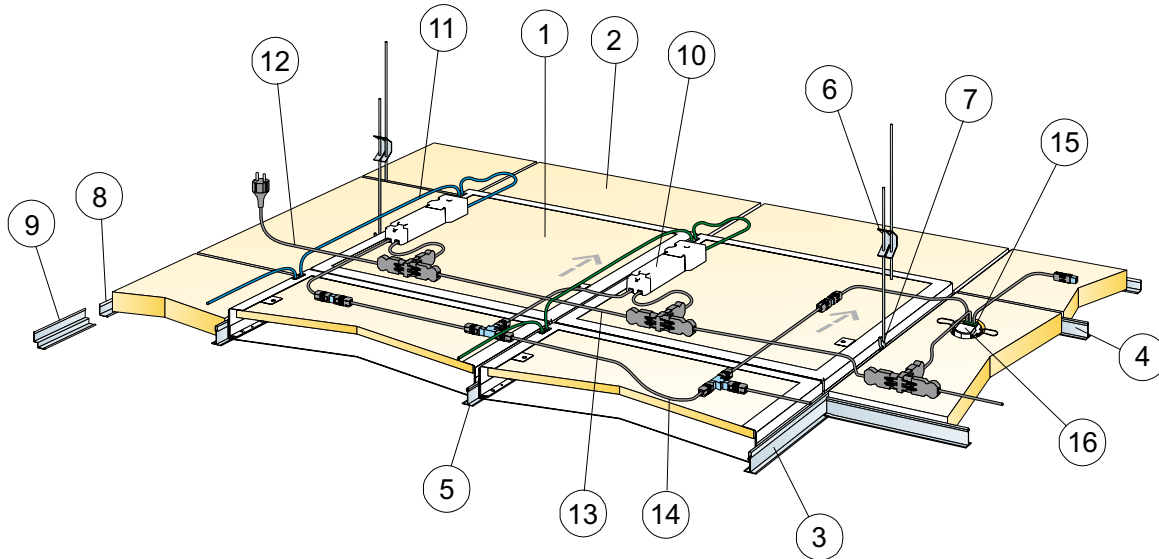
ELECTRICAL APPROVALS :

Control box: IP20, Class I
 LED Tile: IP20, Class III



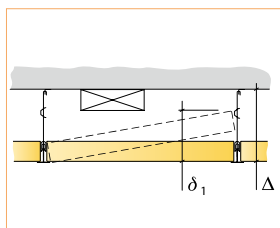
CE The CE marking confirms important product performance such as sound absorption, emissions, fire safety and load bearing capacity. All Ecophon ceiling products are CE marked according to European standard EN13964, and individual product performance is declared in Declaration of Performance (DoP) documents.

INSTALLATION DIAGRAM (M324) FOR SOUNDLIGHT COMFORT CEILING A

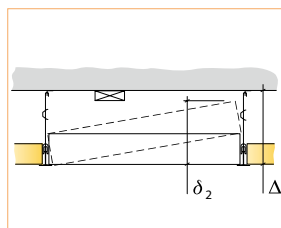


QUANTITY SPECIFICATION (EXCL. WASTAGE)

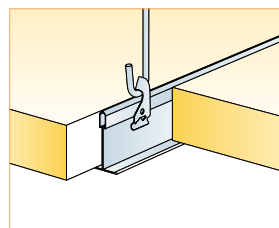
	Size, mm	
	600x600	1200x600
1 SLCOMF Ceiling A LED Tile (Colour temperature: 3000K (830) or 4000K (840))	as required	as required
2 SLCOMF Ceiling A Tile	as required	as required
3 Connect T24 Main runner, installed at 1200 mm centres (max distance from wall 600 mm)	0,9m/m ²	0,9m/m ²
4 Connect T24 Cross tee, L=1200 mm, installed at 600 mm centres	1,7m/m ²	1,7m/m ²
5 Connect T24 Cross tee, L=600 mm	0,9m/m ²	-
6 Connect Adjustable hanger, installed at 1200 mm centres (max. distance from wall 600 mm)	0,7m/m ²	0,7m/m ²
7 Connect Hanger clip (not to be used in swimming hall environments)	0,7m/m ²	0,7m/m ²
8 Connect Angle trim, fixed at 300 mm centres	as required	as required
9 Connect Shadow-line trim, fixed at 300 mm centres	as required	as required
10 SLCOMF Ceiling Control box (includes power and DALI splitter)	as required	as required
11 SLCOMF Ceiling Cable, L = 1000 / 2000 / 5000 mm	as required	as required
12 SLCOMF Ceiling Power Cable, L = 3000 mm	as required	as required
13 SLCOMF Ceiling Power extension, L = 1000 / 3000 mm	as required	as required
14 SLCOMF Ceiling DALI extension, L = 1000 / 3000 mm	as required	as required
15 SLCOMF OccuSwitch cable, L = 500 mm	as required	as required
16 SLCOMF OccuSwitch	as required	as required
Δ Min. overall depth of system: 140 mm		
δ1 Min. demounting depth: 170 mm		
δ2 Min. demounting depth: 230 mm, LED Tile with SLCOMF Ceiling Control box is not directly demountable		



See Quantity specification



See Quantity specification

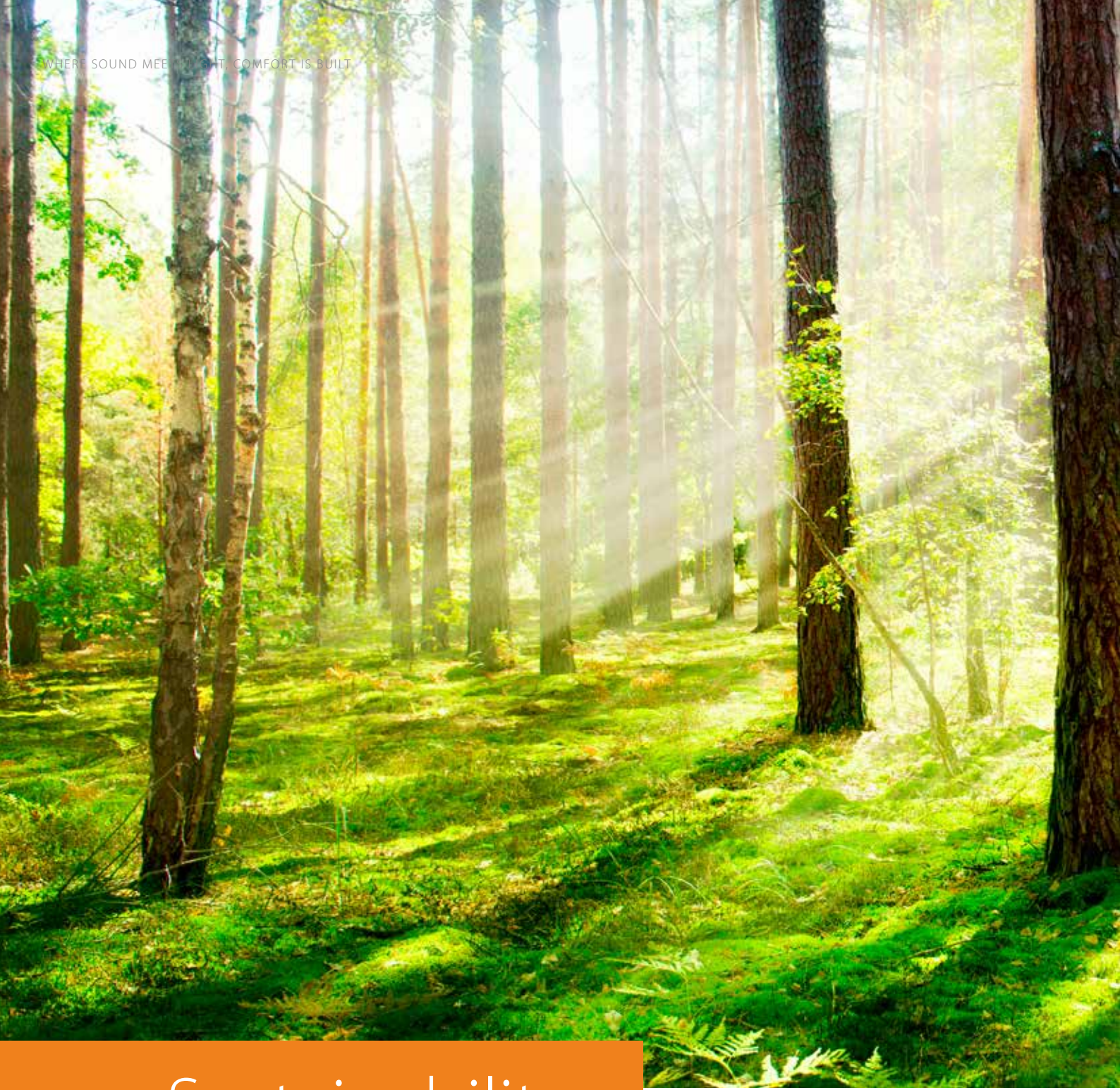


Suspension with adjustable hanger and clip

Size, mm	Max live load (N)	Min load bearing capacity (N)
600x600	30	160
1200x600	30	160

Live load/load bearing capacity





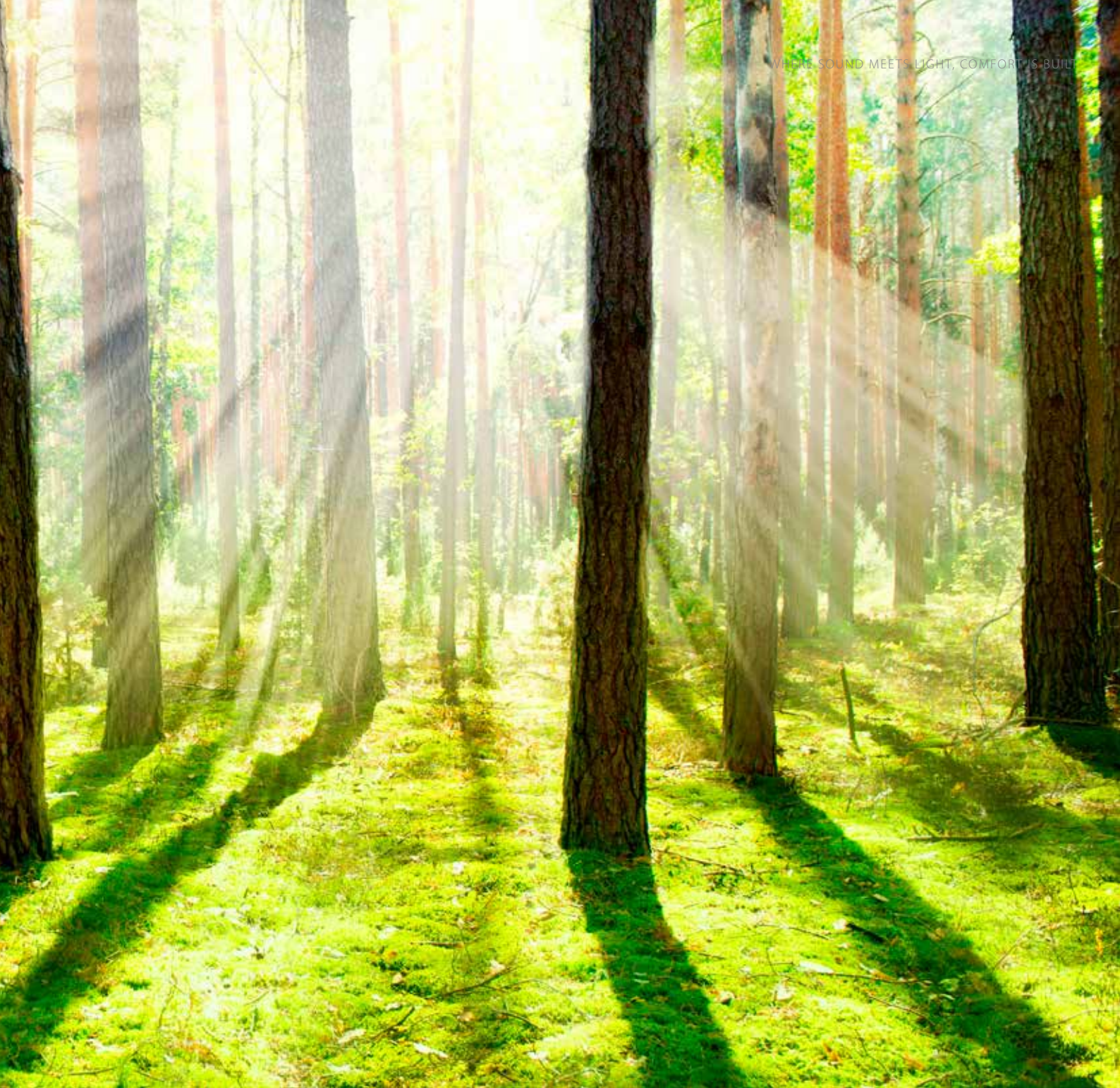
Sustainability

Environment

You can't improve anything until you understand it. That's why we do in-depth lifecycle analyses to uncover every aspect of our products' environmental impact. Armed with that knowledge, we are pushing ourselves to do better, from sourcing raw materials to finding responsible ways to handle and use waste. Soundlight Comfort Ceiling is manufactured from 3rd generation glass wool, which is a combination of more than 70% recycled glass with a renewable plant based binder.

Energy efficiency

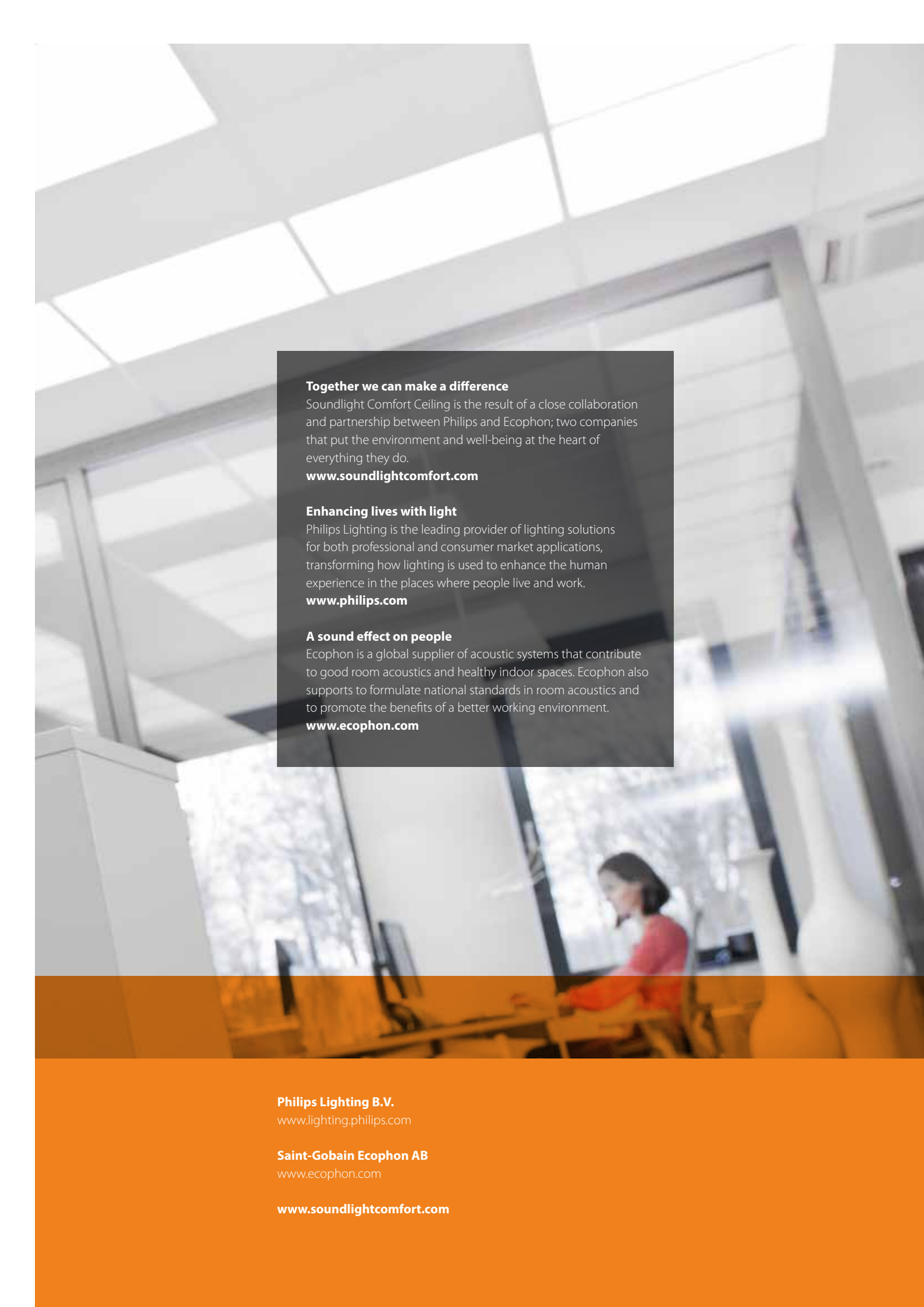
With low energy consumption, high efficiency and a long lifetime, Soundlight Comfort Ceiling is a solution for green buildings that saves on energy bills without compromising on lighting performance. As the LEDs are DALI-driven Soundlight Comfort Ceiling also works beautifully with intelligent controls for tailored light settings, daylight regulation and presence detection. A great way to save even more energy and show the credentials of green buildings in the best possible light. The total surface of the system contributes to make optimal use of daylight entering via the façade windows, as it will spread it further to the dark core of the building. The LED Tile has a high system efficiency of 65-70 lm/W.



Indoor Climate

The indoor environment impacts strongly on people's health and satisfaction. The Soundlight Comfort Ceiling products meet the strictest requirements since the glass wool core has no added formaldehyde. The products are 3rd party verified.





Together we can make a difference

Soundlight Comfort Ceiling is the result of a close collaboration and partnership between Philips and Ecophon; two companies that put the environment and well-being at the heart of everything they do.

www.soundlightcomfort.com

Enhancing lives with light

Philips Lighting is the leading provider of lighting solutions for both professional and consumer market applications, transforming how lighting is used to enhance the human experience in the places where people live and work.

www.philips.com

A sound effect on people

Ecophon is a global supplier of acoustic systems that contribute to good room acoustics and healthy indoor spaces. Ecophon also supports to formulate national standards in room acoustics and to promote the benefits of a better working environment.

www.ecophon.com

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