THE OFFICE IN A NEW LIGHT

Sustainable LED solutions for the working life of the future

FAGERHULT

Write. Pause. Sell. Create. Think. Video conference. Take a coffee break. Read... Someone's calling!

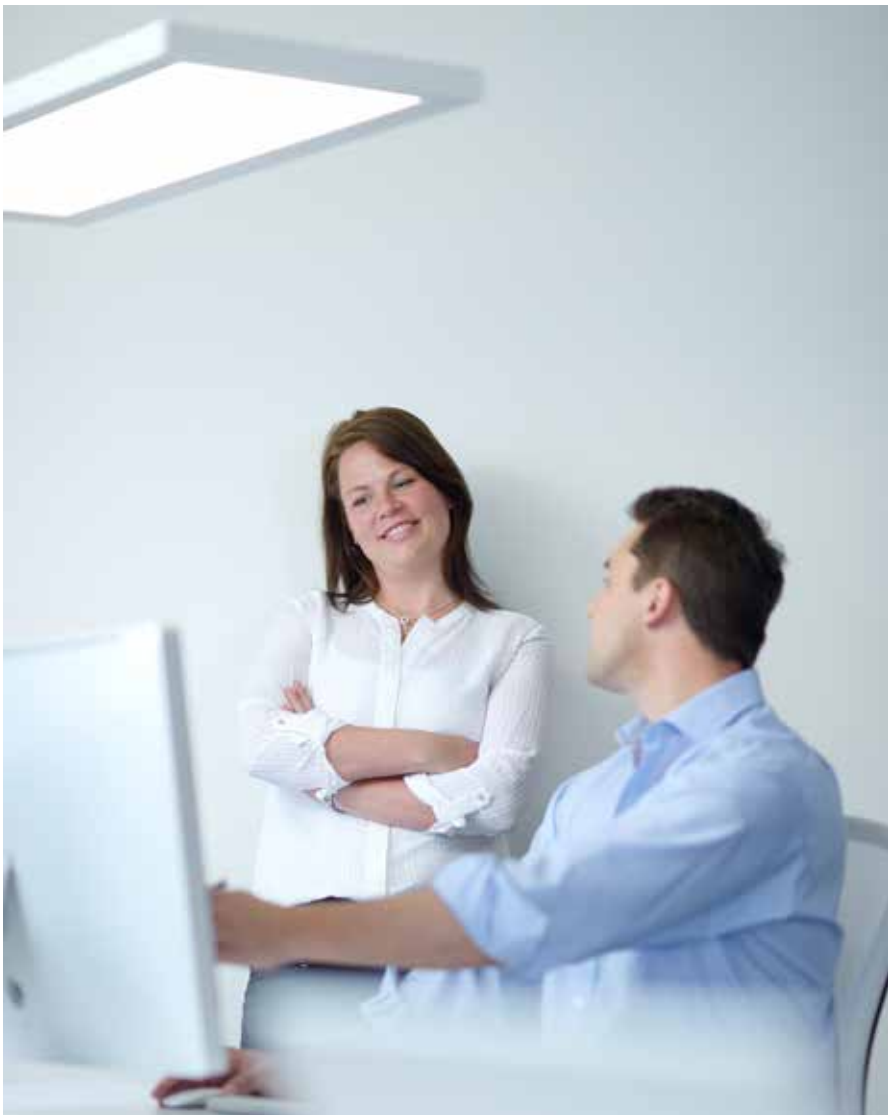
Welcome to the flexible, activity-based office. There is a place here for every assignment with a flexible lighting scheme which can adapt accordingly.

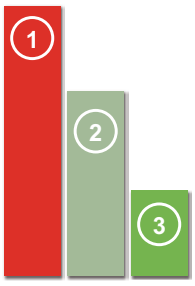
Work isn't what it used to be. Constantly connected, we no longer need to spend all of our working day at the office. From home, a customers office or completely on-the-go we can work virtually anywhere.

Despite this the office is more important than ever. It provides a physical hub where we can meet our colleagues, share thoughts and ideas and socialise.

Careful planning is required in order for these new flexible workplaces to be efficient and good lighting is important element for ensuring that employees thrive and perform.

That's why we have developed cost-effective LED lumi-





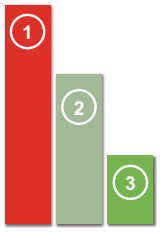
Planning with LEDs and light control

naires for the office. With a firm focus on visual comfort and environmentally and economic sustainability, we have created future-proof lighting that can evolve with the changing characteristics of our working life.

With a wide range of luminaires it is easy to plan the lighting for every function in the office – from the boardroom to the garage, from exclusive to good basic solutions. We invite you to see the office in a new light!

In order to achieve a truly excellent LED solution, we must incorporate light control. Throughout this document we have used bars to show what the room consumes using conventional light sources as a reference (100 %) then comparing this with conventional light sources using control and LEDs with control. The numbers shown are the savings in terms of percentage.

What we have not taken into account in the comparison are the maintenance costs of replacing the light sources so there's another advantage of LEDs!

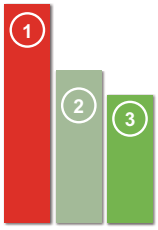


Potential for saving energy in entrances

1. T5/compact fluorescent lamp luminaires without control.
2. T5/compact fluorescent lamp luminaires with daylight and constant light control – saving 30 %.
3. LED luminaire with daylight and constant light control – saving 68 %.

A welcoming room for work and informal meetings

The first impression! A generous space with flexible furniture to adapt to various usages. Here visitors can take a seat and wait, or employees can make in-formal handovers to colleagues, customers and suppliers, check e-mails or make phone calls. Or maybe a catch up after work? The suspended Tibi accentuate the architecture and the generous ceiling height. The luminaires are design statement in themselves which fulfil their function even when they are switched off.

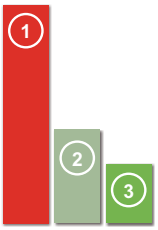


Potential for saving energy in large offices

1. *T5/compact fluorescent lamp luminaires without control.*
2. *T5/compact fluorescent lamp luminaires with daylight, presence and constant light control – saving 31 %.*
3. *LED luminaire with daylight, presence and constant light control – saving 42 %.*

Open office environment

At the end of the premises is an open office. Suspending Combilume with direct/indirect light above each work-place not only provides a good working light but also ambient lighting on the ceilings and walls, which is further enhanced with Pleiad Wallwasher G3. Ambient light contributes towards stimulating our alertness and wellbeing. The size of the pendants are adapted for the new, smaller desks.

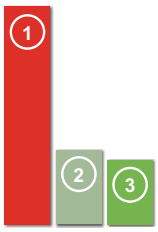


Potential for saving energy in communication areas

1. *T5/compact fluorescent lamp luminaires without control.*
2. *T5/compact fluorescent lamp luminaires with daylight, presence and constant light control – saving 57 %.*
3. *LED luminaire with daylight, presence and constant light control – saving 74 %.*

All spaces can be used effectively

Lighting can help to clarify various functions of the room and contribute towards the structure of an open office. A more efficient use of communication areas – for example paper management or storage spaces – places increased demands on the lighting. Recessed Multilume Dropped provides an effective and comfortable light; some of the light reaches the ceiling which contributes to the sense of space. Downlights positioned along the ceiling edge creates variation within the lit environment.

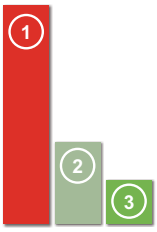


Potential for saving energy in individual offices

1. T5/compact fluorescent lamp luminaires without control.
2. T5/compact fluorescent lamp luminaires with daylight, presence and constant light control – saving 66 %.
3. LED luminaire with daylight, presence and constant light control – saving 71 %.

Place for focus and concentration

The cell office is well lit for high visual comfort. Combilume direct/indirect generates a good working light on the desk and a comfortable ambient lighting that is reflected from the ceiling and back wall. Pleiad Wallwasher G3 lights the opposite wall and creates a visual variation which stimulates alertness and efficiency.



Potential for saving energy in small conference rooms

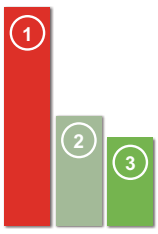
1. T5 luminaires without control.
2. T5 luminaires with daylight, presence and constant light control – saving 62 %.
3. LED luminaire with daylight, presence and constant light control – saving 79 %.

The small room for smart meetings

This smaller conference room has been lit specifically with video conferences and slideshows in mind. Recessed Indigo LED, with its secondary reflector, provides a good general light, which reduces the risk of shadows and emphasises the faces of the meeting participants.

A creative bubble

At the end of the premises is a room for creativity. The lighting can be easily switched from atmospheric to full working conditions. A Tibi hangs in a central position, providing a comfortable light on the walls and ceiling. The design of the luminaire makes it possible to play with the suspension without a risk of glare. The walls have been equipped with Pleiad Wallwasher G3 for added dynamism.

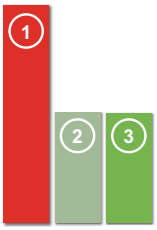


Potential for saving energy in the creative room

1. Compact fluorescent lamp luminaires without control.
2. Compact fluorescent lamp luminaires with presence control – saving 50 %.
3. LED luminaire with presence control – saving 60 %.

The gravity of the situation!

A large representative conference room for more official client and board meetings. The large conference table's central location is accentuated by two Freedom lines which twist around each other and follow the entire length of the table. Recessed Pleiad Evo along the walls contribute to increased spaciousness and visual comfort. The variation in the lighting helps the participants to remain alert even during long meetings.



Potential for saving energy in large conference rooms

1. *T5/compact fluorescent lamp luminaires without control.*
2. *T5/compact fluorescent lamp luminaires with absence control – saving 50 %.*
3. *LED luminaire with absence control – saving 50 %.*

Potential for saving energy in multi-activity spaces

1. *T5/compact fluorescent lamp luminaires without control.*
2. *T5/compact fluorescent lamp luminaires with presence control – saving 25 %.*
3. *LED luminaire with presence control – saving 60 %.*

Large open spaces for work and meetings

A large, open office space that combines social functions with the scope for working individually or in a group.

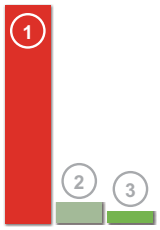
Two seating areas with high backs form small conference rooms that are accentuated by suspended luminaires in a cluster installation; creating a sense of “rooms within a room”. The luminaire cluster can be dimmed from the seating groups according to the work being undertaken.

The tables are offered in various heights for standing or sitting tasks and for work, meetings or coffee breaks. Suspended Tibi provide an excellent, glare-free working light while also lighting the ceiling.

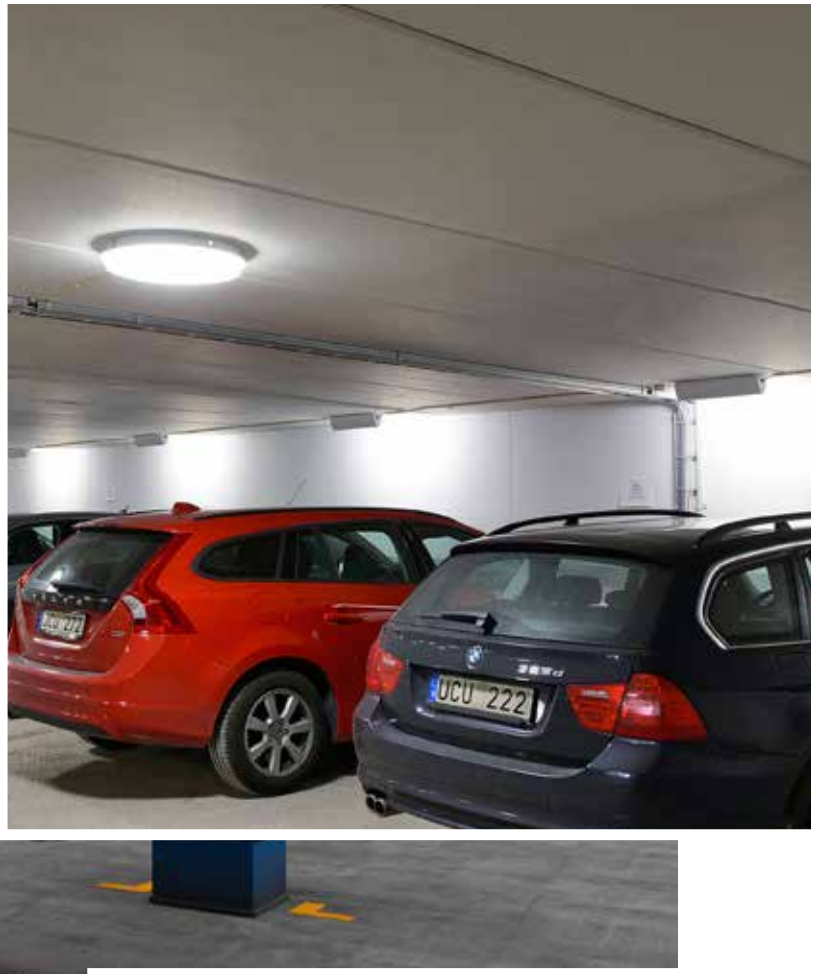
The lack of natural light deep inside the building is compensated by wall mounted Combilume luminaires, adding the feeling of daylight and keeping concentration levels high.

Further in the room several flexible workplaces are lit with a rectangle configuration of suspended Notor LEDs.

Along the edge of the mezzanine are downlights in order to amplify the direction in the room.



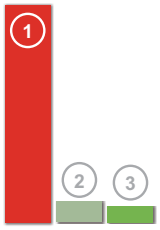
Potential for saving energy in garages
1. T5 luminaires without control.
2. T5 luminaires with presence control – saving 90 %.
3. LED luminaire with presence control – saving 94 %.



Quick and safe parking

The garage is also part of the design of the office. The lighting should create a sense of space and contributes to an increased feeling of safety. Using LED lighting optimised with controls makes it possible to achieve a good light level while at the same time conserving energy. For example, the garage can be divided into different zones where the light is dimmed or turned off completely when nobody is there.

Here we show two examples – one which is more traditional with AllFive LEDs or an innovative alternative where Parcare in two different models provide light on the floor and wall.

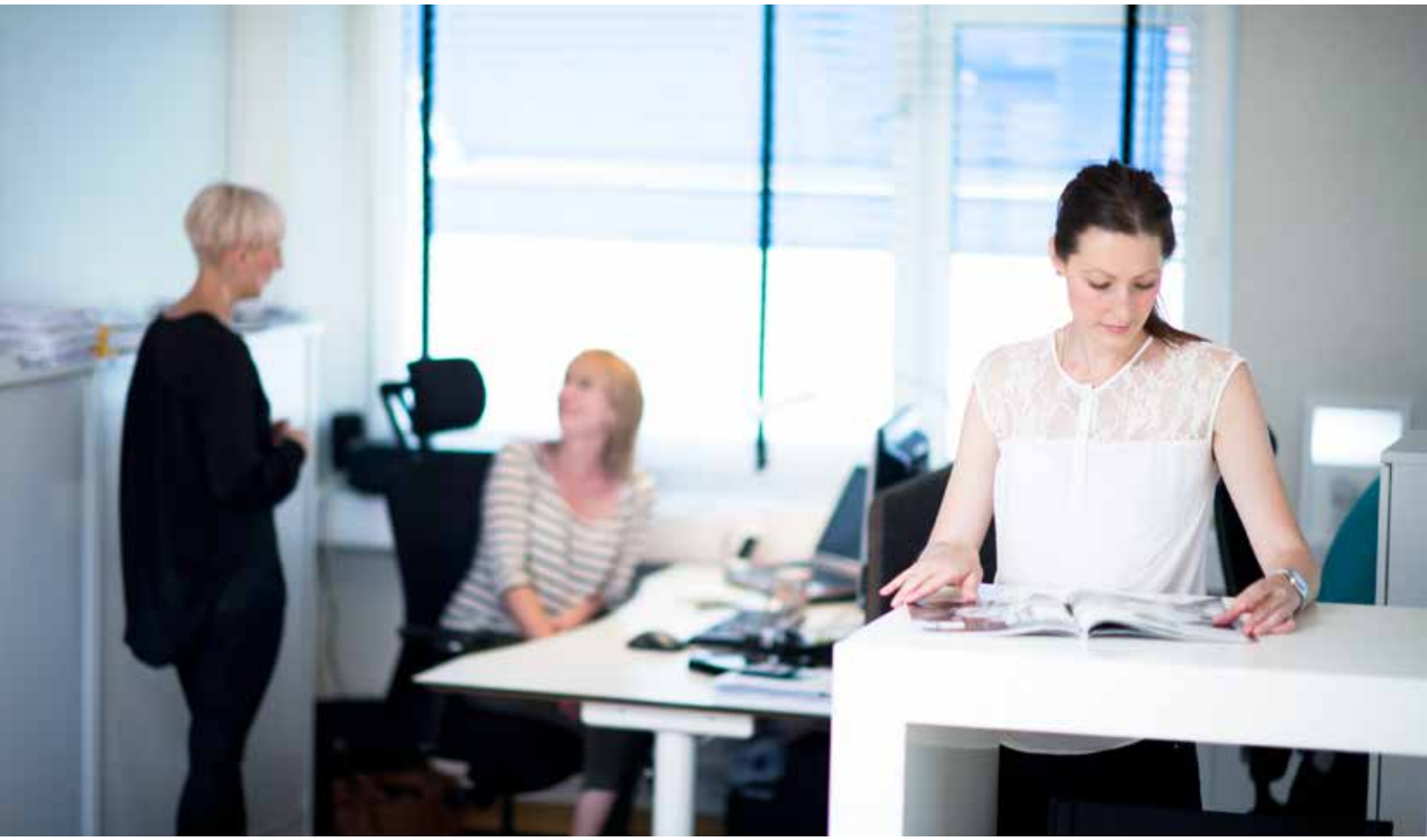


Potential for saving energy in toilets

1. T5/compact fluorescent lamp luminaires without control.
2. T5/compact fluorescent lamp luminaries with presence control – saving 90 %.
3. LED luminaire with presence control – saving 92 %.

Light and fresh

Well lit hygienic areas contribute to a fresh space that is easy to maintain and pleasant to visit. Round beam Tibi ceiling also provides light on ceilings and walls to define the room. Adding Shine above the wash basins ensures we can see ourselves in a clear and comfortable light without glare.



The lighting in the activity-based office

The communication and information society has affected the design of the office. Companies are reducing office space and are offering their employees more flexible working arrangements. There are no fixed workplaces in the activity-based office. Everyone chooses the place that is suitable for the activity. Offices are planned on the basis of open spaces that are supplemented by partitioned rooms.

In order for the employees to thrive and be effective, complex planning is required with the option for communication and a social interaction as well as concentration and more formal meetings. The different locations are designed so that they can quickly and easily be adapted to the needs in question.

This places new requirements on light planning. Since the use of the space is made more efficient, the need for good, glare-free lighting in all spaces also increases. Using LED luminaires, it is possible to create good visual comfort and excellent light levels while retaining the energy efficiency.

Remember this:

- The user should have the option to control the lighting. The lighting requirement is individual and changes with age.
- Use the lighting to clarify the different functions of the spaces and give the room structure. The functions can be supported by the programmed scenarios for different luminaire groups.
- Suspended luminaires in connection with workplaces provide excellent light on the work surfaces. It is also more energy efficient than pure general lighting because the light is directly related to the task.
- The technology is an important part and a condition for activity-based offices. The lighting must not be reflected in screens and the lighting in meeting rooms must be planned especially with video conferences in mind.

Why are LEDs so good in the office?

Since the LED technology has undergone such rapid developments in the last few years, we wanted to find out what people think of LEDs compared to traditional light sources. Together with the Faculty of Engineering (LTH), Lund University, we built two identical office rooms which were both planned to have direct light above the workstation and supplementary ambient light on the walls. In one of the rooms we used LEDs and in the other T5 light sources.

The result was clear: the LED light was perceived as being brighter and more positive with ambient lighting of 100 cd/m², a feeling which persisted right up to 300 cd/m². When you decide to use LED lighting, you achieve a brighter and better working environment, at the same time as reducing your energy consumption. You could say that you get creativity for free!

Visual comfort

Visual comfort is incredibly important in an environment where the employees are constantly changing location and focus. Visual comfort is a subjective impression and deals with creating a positive experience. It must be easy to see various objects without becoming tired and the environment must feel comfortable with realistic colours. Visual comfort is created with the right amount of good quality light and a sophisticated light distribution. An excellent visual environment creates comfort and supports productivity. Too little light or incorrect planning may have the opposite effect. As always our LED luminaires have been developed with visual comfort in mind. By planning with ambient lighting we can create a light environment that makes people more alert and able to perform better.

Combilume

Combilume is a product family with many varieties for exciting light settings. The LED technology provides an energy-efficient solution and the large, even bright spaces provide a lighting experience with people and wellbeing at the centre. The clear design with the slightly square impression results in a luminaire suitable for modern offices.

In Combilume, LED technology is really in its element. The modern light technology and side-emitting light diodes result in pleasant, even surfaces both for individual office work stations and for large rooms.

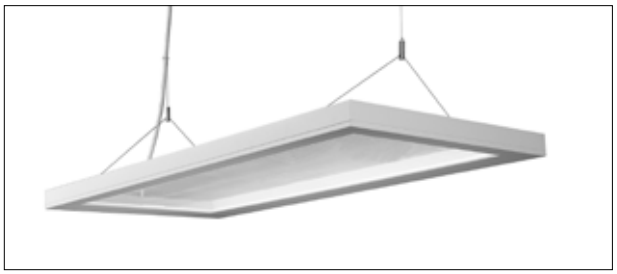
COMBILUME DIRECT/INDIRECT is an exciting, innovative variant that departs from tradition. It has long been the case that the length of the fluorescent lamp has determined the size of the luminaires but taking into account the fact that the offices of tomorrow will be more compact and desks will be smaller, we have made the luminaire in a slightly different format.

COMBILUME DIRECT is a suspended variant with only direct light and is available in the size options 600×600 or 300×1200. As an accessory there is a coupling for installing the 600×600 luminaires in an exciting cluster solution.

COMBILUME CEILING is available just as Combilume Direct in the size options 600×600 or 300×1200. The low height of just 36 mm makes it a suitable choice where it might not be possible to recess the luminaire because of the surface or nature of the ceiling.

COMBILUME WALL is available in the size options 600×600 or 300×600. In Combilume Wall we have turned down the luminous flux to create a glare-free luminaire solution. Combine different sizes and create exciting formations.

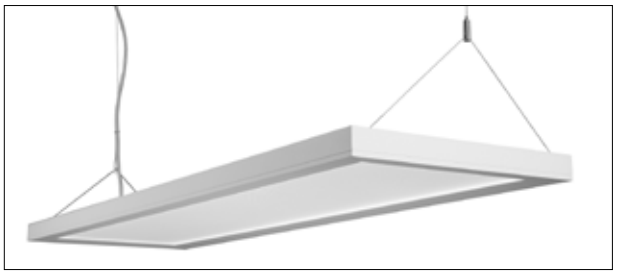
Combilume direct/indirect



Combilume direct/indirect with Delta louvre, 300×800, colour temp. 4000 K			
System output, W	Luminous flux, lm	lm/W	**White**
Luminaire without control			
50	4700	94	**11914**
Luminaire with DALI/Phase-pulse control			
50	4700	94	**11914-402**
Luminaire with DALI/Phase-pulse control and pull dim-switch			
50	4700	94	**11914-449**
Luminaire with e-Sense ActiLume and pull dim-switch			
50	4700	94	**11914-448**

The luminaires above are all Fagerhult Plus, delivered with mains cable and wire suspension. For current information, more variants and colours, please refer to our website.

Combilume direct



Combilume direct with Delta louvre, 300×1200				
System output, W	Colour temp., K	Luminous flux, lm	lm/W	**White**
Luminaire with DALI/Phase-pulse control				
55	3000	4700	86	**11937-402**
55	4000	4700	86	**11907-402**
e-Sense ActiLume master luminaire				
55	3000	4700	86	**11937-459**
55	4000	4700	86	**11907-459**

For current information, more sizes, variants and colours, please refer to our website.

Combilume ceiling

Combilume ceiling with opal louvre					
System output, W		Colour temp., K	Luminous flux, lm	lm/W	**White**
53	300×1200	3000	4400	83	**11932**
53	300×1200	4000	4400	83	**11902**
53	600×600	3000	4500	83	**11933**
53	600×600	4000	4500	83	**11903**

For current information, more variants and colours, please refer to our website.

Combilume wall

Combilume wall with opal louvre, colour temp. 4000 K					
System output, W		Luminous flux, lm	lm/W	**White**	**Alu-grey**
Luminaire with DALI/Phase-pulse control					
13	300×600	1125	84	**11909-402**	**11929-402**
20	600×600	1700	85	**11910-402**	**11930-402**

For current information, please refer to our website.

Multilume

Multilume is a product family with many aspects and personalities, developed. Developed with a focus on lighting comfort and economy. The different models and aspects offer the scope to light modern office premises in a new, exciting way.

Multilume's balanced work and general lighting delivers excellent light ergonomics, constantly updated with the latest in LED technology. Choose from different lumen packages and tailor the light level to your project. Combine with light control and you have a really sustainable office light.

MULTILUME FLAT is the classic variant with a level smooth surface with follows the surface of the ceiling, resulting in a stylish and discreet appearance. Opal or microprismatic Delta louvre gives you the choice when planning the lighting.

MULTILUME FLOW, on the other hand, is an optical illusion. Seen from close up and below, the luminaire is completely level and square, but at a distance it changes shape and the light appears to flow out of it.

MULTILUME EDGE is a variation on the theme of Multilume Flow but instead of round, soft shapes, it is characterised by sharp, well-defined surfaces.

MULTILUME DROPPED is defined by a level surface which descends from the ceiling, resulting in exciting effects and a pleasant ambient light.

Multilume Dropped

Multilume Dropped, for visible T-bars, with opal louvre, 600×600				
System output, W	Colour temp., K	Luminous flux, lm	lm/W	
Luminaire with DALI/Phase-pulse control				
46	3000	5196	113	**23844-402**
46	4000	5435	118	**23846-402**
Luminaire without control, with 2.5 m mains cable and plug				
46	3000	5196	113	**23844-03**
46	4000	5435	118	**23846-03**

For current information, please refer to our website.

Multilume Edge

Multilume Edge, for visible T-bars, with opal louvre, 600×600				
System output, W	Colour temp., K	Luminous flux, lm	lm/W	
Luminaire with DALI/Phase-pulse control				
46	3000	5145	112	**23862-402**
46	4000	5382	117	**23864-402**
Luminaire without control, with 2.5 m mains cable and plug				
46	3000	5145	112	**23862-03**
46	4000	5382	117	**23864-03**

For current information, please refer to our website.

Multilume Flow

Multilume Flow, for visible T-bars, with opal louvre, 600×600				
System output, W	Colour temp., K	Luminous flux, lm	lm/W	
Luminaire with DALI/Phase-pulse control				
46	3000	5145	112	**23853-402**
46	4000	5382	117	**23855-402**
Luminaire without control, with 2.5 m mains cable and plug				
46	3000	5145	112	**23853-03**
46	4000	5382	117	**23855-03**

For current information, please refer to our website.

Multilume Flat

Multilume Flat, for visible T-bars, with Delta louvre, 600×600				
System output, W	Colour temp., K	Luminous flux, lm	lm/W	
Luminaire with DALI/Phase-pulse control				
46	3000	4400	96	**23806-402**
46	4000	4650	102	**23810-402**
Luminaire without control, with 2.5 m mains cable and plug				
46	3000	4400	96	**23806-03**
46	4000	4650	102	**23810-03**

For current information, please refer to our website.

Clarico

The thin, soft and expressive shape gives a new angle on conventional recessed lighting. The technical LED solution is an exciting combination of an opal surface and a microprismatic louvre which plays on horizontal and vertical lines. It means that the luminaire can distribute its pleasant light from different angles, as well as produce that coveted ambient light.

Clarico Up

Clarico Up, 600 × 600				
System output, W	Colour temp., K	Luminous flux, lm	lm/W	
Visible T-bars (VTB)				
29	3000	2861	97	**23793**
29	4000	3016	102	**23795**
39	3000	3755	96	**23875**
39	4000	3928	101	**23877**
46	3000	4395	96	**23813**
46	4000	4603	100	**23815**
Concealed T-bars (HB)/D-edge, symmetrical attachment of ceiling boards				
29	3000	2861	97	**23794**
29	4000	3016	102	**23796**
39	3000	3755	96	**23876**
39	4000	3928	101	**23878**
46	3000	4395	96	**23814**
46	4000	4603	100	**23816**

For current information, please refer to our website.

Clarico Down

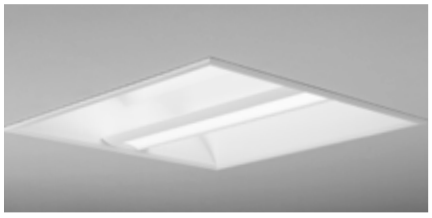
Clarico Down, 600 × 600				
System output, W	Colour temp., K	Luminous flux, lm	lm/W	
Visible T-bars (VTB)				
29	3000	2922	99	**23797**
29	4000	3080	104	**23799**
39	3000	3835	98	**23879**
39	4000	4012	103	**23881**
46	3000	4489	98	**23817**
46	4000	4701	102	**23819**
Concealed T-bars (HB)/D-edge, symmetrical attachment of ceiling boards				
29	3000	2922	99	**23798**
29	4000	3080	104	**23800**
39	3000	3835	98	**23880**
39	4000	4012	103	**23882**
46	3000	4489	98	**23818**
46	4000	4701	102	**23820**

For current information, please refer to our website.

Indigo LED

Indigo LED unites LED energy efficiency with good lighting comfort within a pure and simple design. The combination of direct and indirect light creates comfortable, glare-free working environments with a high proportion of ambient light on the walls. The bevelled transition between the secondary reflector and the ceiling gives Indigo LED a soft visual impression and the entire luminaire expresses uniformity, completely without disturbing luminance.

The indirect light is distributed via the secondary reflector and the direct light passes through opal diffusors, providing a lighting solution that is balanced and comfortable.



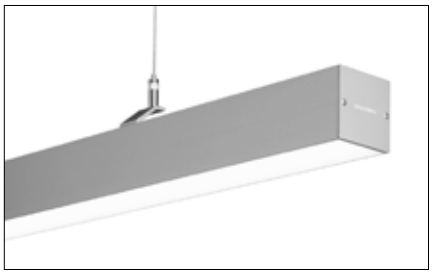
Indigo LED, 600 × 600				
System output, W	Colour temp., K	Luminous flux, lm	lm/W	
Visible T-bars (VTB)				
34	3000	2701	79	**24654**
34	4000	2701	80	**24655**
54	3000	3993	74	**24650**
54	4000	4076	75	**24651**
Concealed T-bars (HB)/D-edge, symmetrical attachment of ceiling boards				
34	3000	2701	79	**24656**
34	4000	2701	80	**24657**
54	3000	3993	74	**24652**
54	4000	4076	75	**24653**

For current information, please refer to our website.

Notor LED

Fagerhult's classic interior luminaire Notor is now also available in an LED version. The luminaires high luminous efficacy is complimented with a remarkable level of uniformity across the diffuser, now including illuminated corners! Suspended, ceiling mounted or recessed, the Notor family solves any lighting project challenge.

Notor ceiling/pendant



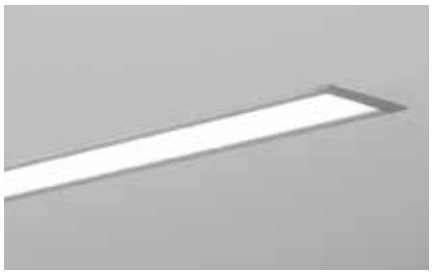
Notor ceiling/pendant						
Module length	Colour temp., K	System output, W	Luminous flux, lm	lm/W	**Start/Single**	**Cont.**
Straight luminaire						
600	4000	11	880	80	**26370**	**26373**
1200	4000	22	1880	85	**26371**	**26374**
2400	4000	44	3740	85	**26372**	**26375**
Illuminated corners						
Right						
600×600	4000	22	1760	80	**26392***	**26390**
Left						
600×600	4000	22	1760	80	**26393***	**26391**

** Only for pendant installation and in closed systems. For current information, please refer to our website.*

Accessories Notor ceiling/pendant	
End cap, connection side/each	**92470**
End cap with cable entry, connection side/each	**92471**
Complete wire suspension, small + large white ceiling cup/pair, mains cable 3×1,0 mm². L=1,0 m	**94760**
Complete wire suspension, small + large white ceiling cup/pair, mains cable 5×1,0 mm². L=1,0 m	**94766**

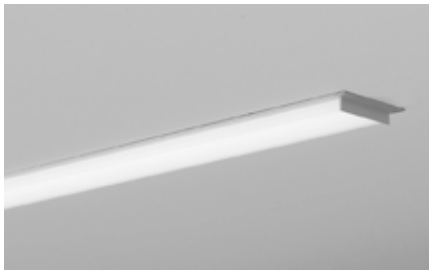
For other accessories, please refer to our website.

Notor recessed



Notor recessed, Opal flush							
Module length	Colour temp., K	System output, W	Luminous flux, lm	lm/W	**Single**	**Start**	**Cont.**
600	3000	12	874	73	**22609***	**22615**	**22621**
600	4000	12	874	73	**22612***	**22618**	**22624**
1200	3000	22	1798	82	**22610**	**22616**	**22622**
1200	4000	22	1798	82	**22613**	**22619**	**22625**
2400	3000	44	3596	82	**22611**	**22617**	**22623**
2400	4000	44	3596	82	**22614**	**22620**	**22626**
Illuminated corners							
Module length	Colour temp., K	System output, W	Luminous flux, lm	lm/W			
600×600	3000	22	1798	82			**22632**
600×600	4000	22	1798	82			**22633**

** Cannot be installed single in visible T-bar (VTB).*
For current information, please refer to our website.



Notor recessed, Opal dropped						
Module length	Colour temp., K	System output, W	Luminous flux, lm	lm/W	**Start**	**Single/Cont./End**
600	3000	12	906	75	**22963**	**22969***
600	4000	12	906	75	**22966**	**22972***
1200	3000	22	1856	84	**22964**	**22970**
1200	4000	22	1856	84	**22967**	**22973**
2400	3000	44	3712	84	**22965**	**22971**
2400	4000	44	3712	84	**22968**	**22974**
Illuminated corners						
Module length	Colour temp., K	System output, W	Luminous flux, lm	lm/W		
600×600	3000	22	1856	84		**22630**
600×600	4000	22	1856	84		**22631**

** Cannot be installed single in visible T-bar (VTB).*
For current information, please refer to our website.

Classic LED

Classic LED united an active Beta louvre with LED in a lighting solution that fulfils the highest specified lighting requirements in offices.

The 50/50 light distribution is characterised by a wide beam uplight, providing a comfortable ceiling luminance and ambient light, and a well-shielded direct light for excellent lighting of the work surface.

The design is in extruded aluminium with aluminium end plates providing a stable luminaire while at the same time providing the option for variable suspension spacing with the sliding connections, which runs in tracks along the luminaire body.

Classic LED				
System output, W	Colour temp. K	Luminous flux, lm	lm/W	**White**
60	3000	6400	107	**16006**
60	4000	6400	107	**16007**

For current information, please refer to our website.

Tibi

Tibi combines the classic super ellipse shape with LED technology. Suspended, ceiling or wall mounted, the impression is the same and the result is a spectacular bubble of light for general lighting in every room of the project, even in entrances and stairwells. The extensive range of models has been prepared for the most functional control systems on the market.

The option to combine sizes, models and installation methods with the same style gives the creative planner the conditions to create crisp, light lighting solutions with a unique style and character.

Tibi pendant

Tibi pendant 4000 K, black ring				
System output, W	∅	Luminous flux, lm	lm/W	
24	400	1850	77	**54785-402**
63	600	5750	91	**54786-402**
71	800	6800	96	**54787-402**

Tibi pendant 4000 K, brushed aluminium ring				
System output, W	∅	Luminous flux, lm	lm/W	
24	400	1850	77	**54780-402**
63	600	5750	91	**54781-402**
71	800	6800	96	**54782-402**

For current information, please refer to our website.

Tibi ceiling

Tibi ceiling/wall 4000 K, black ring				
System output, W	∅	Luminous flux, lm	lm/W	
27	400	1800	67	**56777-402**
44	600	3800	86	**56778-402**

Tibi ceiling/call 4000 K, brushed aluminium ring				
System output, W	∅	Luminous flux, lm	lm/W	
27	400	1800	67	**56772-402**
44	600	3800	86	**56773-402**

For current information, please refer to our website.

Freedom

This is the luminaire unlike any other! Freedom works like a construction kit that allows you to draw your own lines of light. With the help of two modules, one straight and one curved, the luminaire can be built up to follow the shape of the room or a creative concept. But Freedom is not just decorative. The LED modules, in combination with advanced reflector technology, provide superb general lighting.

Freedom is available in two different black anodised models. Suspended with a direct/indirect distribution and ceiling or wall mounted with just direct light.

Freedom, 4000 K				
System output, W		Luminous flux, lm	lm/W*	
24	Straight, direct/indirect light	1310	54	**16921**
24	Curved, direct/indirect	1310	54	**16923**
20	Straight, direct light	810	45	**16922**
20	Curved, direct light	810	45	**16924**

** Valid for a system consisting of 6 luminaires connected to driver 98198. For current information, please refer to our website.*

Accessories	
LED ballast 150 W/24 V	**98198**
LED PWM 120 W/24 V, dimmable via 1–10 V	**99110**
LED PWM 120 W/24 V, dimmable via DALI	**99111**
2× wire and wire bracket for pendant installation	**94021**
2×caps	**94022**
Continuous coupler bracket, light trap, cable for continuous installation	**94033**
4 m connection cable, 2 conductors	**94034**
4 m connection cable, 4 conductors	**94035**

NOTE! For dimming of the luminaire: 98198+99110 or 98198+99111.

Pleiad Comfort G3

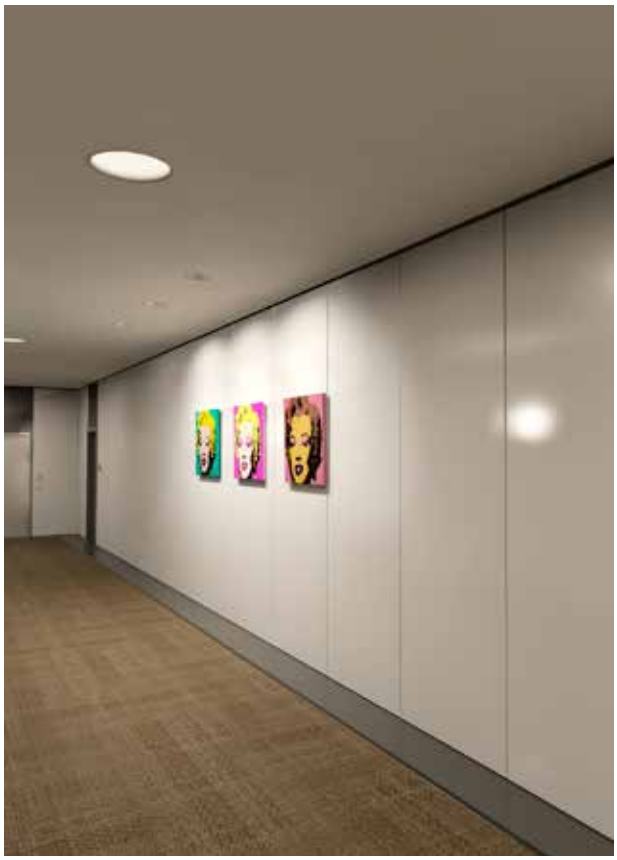
The third generation of Fagerhult's Pleiad is a complete range with seven luminaires. They are developed entirely for LEDs and adapted so they can always be equipped with the latest LED technology. Pleiad is a modern classic that can be found in buildings all over the world and provides a comfortable lit experience in various applications.

Pleiad Comfort G3

System output, W	Colour temp., K	Luminous flux, lm	lm/W	Reflector	
Wide beam					
10	3000	758	73	Specular	**77950**
10	3000	783	75	Matt	**77951**
10	4000	808	77	Specular	**77952**
10	4000	833	79	Matt	**77953**
21	4000	1796	85	Specular	**77957**
21	4000	1846	88	Matt	**77958**
23	3000	1729	75	Specular	**77955**
23	3000	1796	78	Matt	**77956**
30	2700–6500			Specular	**77975**
30	2700–6500			Matt	**77976**
32	4000	2427	76	Specular	**77962**
32	4000	2486	78	Matt	**77963**
34	3000	2377	70	Specular	**77960**
34	3000	2436	72	Matt	**77961**
Medium beam					
10	3000	740	70	Matt	**77493**
10	4000	790	75	Matt	**77494**
21	4000	1750	83	Matt	**77496**
23	3000	1698	74	Matt	**77495**
32	4000	2390	75	Matt	**77498**
34	3000	2340	69	Matt	**77497**

For current information, please refer to our website.

Pleiad Wallwasher G3



Pleiad Wallwasher G3 harmonises with other downlights in the room, but also gives the possibility of creating more dynamic lighting in offices, entrances and other public areas.

Pleiad Wallwasher G3				
System output, W	Colour temp., K	Luminous flux, lm	lm/W	
15	3000	922	61	**77990**
14	4000	889	64	**77992**
26	3000	1574	61	**77991**
24	4000	1581	69	**77993**
30	2700–6500			**77994**

For current information, please refer to our website.

Pleiad Evo

Pleiad Evo is the latest addition to Fagerhult's successful Pleiad family. The focus is on light treatment, quick installation and efficiency in terms of both energy and capital cost. The energy efficiency and longevity of LEDs are perfectly suited for downlights with long burn times, e.g. in entrances, offices and corridors.

Pleiad Evo					
System output, W	Colour temp., K	Luminous flux, lm	lm/W	Reflector	
14	3000	1127	83	Specular	**77440**
14	3000	1127	83	Matt	**77442**
14	4000	1127	83	Specular	**77444**
14	4000	1127	83	Matt	**77446**
19	3000	1574	83	Specular	**77441**
19	3000	1574	83	Matt	**77443**
19	4000	1574	83	Specular	**77445**
19	4000	1574	83	Matt	**77447**

For current information, please refer to our website.

AllFive LED

AllFive LED is a universal luminaire which is just as suitable for garages and conduits as laundry rooms and kitchens. The neat and carefully thought-out design hides the fact that this is a luminaire which has been developed for industrial use and which can tolerate damp and stress. AllFive LED is a very energy-efficient option.

AllFive LED with clear diffuser (standard)

System output, W	Length	Colour temp., K	Luminous flux, lm	lm/W	
28	600	3000	2800	100	**33501**
28	600	4000	2900	104	**33502**
37	1200	3000	4300	116	**33506**
38	1200	4000	4500	118	**33507**
51	1200	3000	5700	112	**33508**
52	1200	4000	6000	115	**33509**

For current information, please refer to our website.

Flow and efficiency with opal diffuser (accessory)

System output, W	Length	Colour temp., K	Luminous flux, lm	lm/W
28	600	3000	2400	86
28	600	4000	2500	89
37	1200	3000	3500	95
38	1200	4000	3800	100
51	1200	3000	4700	92
52	1200	4000	5000	96

For current information, please refer to our website.

Accessories

Opal diffuser 600 mm	**90308**
Opal diffuser 1200 mm	**90309**

For other accessories, please refer to our website.

Parcare

Parcare is a new space-creating luminaire concept for garages which builds on a combination of ceiling-mounted luminaires and wallwashers. The ceiling luminaire operates as a light well, much like a skylight or source of daylight. The wallwasher is mounted in the ceiling and distributes light across the walls. In this way the room is clearly defined and feels lighter and more welcoming.

Pancare's high IP rating and robust construction offers all the functionality of industrial requirements within a concept reminiscent of interior luminaires.

Parcare ceiling

Parcare ceiling				
System output, W	Colour temp., K	Luminous flux, lm	lm/W	
40	4000	3200	81	**33320**

For current information, please refer to our website.

Parcare wallwasher

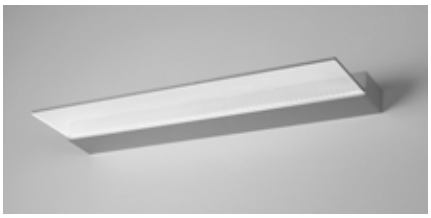
Parcare wallwasher				
System output, W	Colour temp., K	Luminous flux, lm	lm/W	
11	4000	900	85	**33325-402**

For current information, please refer to our website.

Shine

Shine is a bathroom luminaire with a clean and neat design without visible screws. Placed over the bathroom mirror, Shine gives the impression of a bright disc that is almost growing out of the wall.

When the luminaire is switched off, the acrylic diffuser is transparent, but when the light is released it increases the diffuser's opacity. Using a modern side-emitted light technique, combined with both uplights and downlights, comfortable bright surfaces are created that do not cause glare.



Shine

System output, W	Length, mm	Colour temp., K	Luminous flux, lm	lm/W	
15	600	3000	900	60	**17300**
15	600	4000	1000	67	**17301**
23	900	3000	1350	59	**17302**
23	900	4000	1500	65	**17303**

For current information, please refer to our website.

Light control and energy savings

The entire office has been designed for an optimal combination of visual comfort and energy efficiency. Through varied lighting and good design, the lighting environment helps support the employees' biological functions – alertness and wellbeing but also emotionally as well. You feel better and thrive better! The flexible workplaces are equipped with individual control of the luminaires and different luminaire groups can be controlled using traditional control equipment. All luminaires are connected to occupancy detectors; the luminaires can be turned off completely or dimmed when the employees leave the room. In the parts of the office that have large windows and a lot of incidental daylight, the system has been supplemented with daylight control which makes it possible to take advantage of the incoming light and save energy.

Strong brand with sustainable light!

Sustainability is becoming an ever more important part of the brand. Many companies are adopting an overall perspective that includes everything from wellbeing and health to environmental impact and social responsibility. And it is not just a question of appealing to the customers. In order to attract new expertise, you want to offer dynamic working environments with good ergonomics and exciting design.

In this context, the lighting makes a huge difference. In combination with smart control systems, occupancy detectors and daylight sensors, our LED luminaires are really energy efficient and perfectly adapted to “green offices”.

How do I choose a control for my project?

Our goal is that everyone should have the ability to install and use a smart control system that saves energy and money. To easily select the right control for your project, we have divided the decision into five steps.

Dimming produces light in the right place at the right time and in the right amount. Sensors for presence detection and light level provide an optimal energy saving with the best light comfort. Going through the five steps of the decision process increases efficiency and reduces the risk of rework later on.

1. Pilot study and specification
Before choosing a technical solution a pilot study needs to be conducted and analyse what features the facility needs today and in the future. The pilot study provides a set of requirements that form the basis for the selection of the control solution. Conducting a thorough pilot study reduces the risk of time consuming revisions later in the project.

1 **Pilot study**
What are the requirement for the facility?

2 **Central system**

Local system

3

e-Sense Customised
DALI via router

Unlimited systems with advanced functions.

e-Sense Customised
DALI max 64

DALI system with max 64 addresses

Classroom

e-Sense ActiLume Connection Box

e-Sense Connect
Wireless control

Individual office

e-Sense ActiLume

e-Sense smartSWITCH
PIR sensor

Open-plan office

e-Sense ActiLume with personal light
Suspended solution

e-Sense ActiLume
Recessed solution

e-Sense Connect
Wireless control

4 **Function and schematic description.**

Function and schematic description.

5 **Programming by technician.**

Deployment by installer.

2. Central or local system
Based on the specifications you need to determine if the control solution should consist of a central system or more local systems. One crucial difference is that the local system can be deployed by the installer while the central system usually requires programming by a technician.

3. Choice of technical solution
If you choose a solution with a central system it can be custom-made to the specification. If instead you choose to work with local systems there are complete solutions custom-made for most common applications. Please visit the Support Center on our website or look in the main catalogue technical pages for advice and support.

4. Function and schematic description
Having undertaken the initial ground work, the specification of the system consists of an overview of the desired functionality and the technical solution selected (as identified in phase 2/3). This has to be communicated to the technician or installer providing them with instructions on how the system is to be programmed and deployed.

5. Programming or deployed directly
Now the preliminary work is ready, the specifications can be handed over to the technician or installer who will complete the project on site.

Corridor	Stairwells	Cloakroom, store, printer room, WC	Garage and culvert	Conference and conversation rooms
e-Sense Move *Wireless control*	e-Sense Move *Wireless control*	e-Sense Detect *Microwave sensor*	e-Sense Move *Wireless control*	Phase-pulse control
e-Sense with corridor function	e-Sense Detect *Microwave sensor*	e-Sense smart SWITCH *PIR sensor*		e-Sense Customised *DALI max 64 (requires programming by technician).*

Light control and energy savings – choice of system

e-Sense Customised – large DALI system via one or several routers

Do you want to be able to manage large systems with advanced functions that require flexibility and reprogramming? Do you want to manage more than 64 addresses or manage operation and maintenance alarms and emergency lighting? If so, DALI via router is the choice for you.

Current technology makes it possible to integrate thousands of luminaires and control functions in just one system, based on a network with control over DALI routers. In Fagerhult e-Sense Customised we have concentrated all our light-control expertise and experience. We help you with customised solutions in complex projects – from the early design stage through to final programming.

Sweco's head office in Stockholm with control of 100 DALI routers.

DALI system with maximum 64 addresses

Do you want a smaller system, for example, a larger room, a smaller office etc.? If so, there is an individual DALI system which you can control a small number of scenes and programme the lighting solution.

DALI uses a single cable through which a duplex digital signal is transferred between all units in the system. Connected ballasts, control panels, sensors and the programming units communicate with each other. The "intelligence" is distributed, (read stored) in the system's different component parts. This creates greater safety and reliability as the system is not dependent on any central unit.

The DALI-system is very flexible as a change to the design of the premises or usage only results in the need to reprogram the settings.

Smart lighting with Fagerhult e-Sense

So that you can easily find the control system which suits your project best, we have subdivided our range into different levels, ranging from Basic, which contains the simplest systems, to e-Sense Customised, with fully customised systems.

Basic is our more simple system both in terms of installation and commissioning.

Medium requires some form of simple programming, e.g. setting of daylight level.

Fagerhult e-Sense in different applications

Application	Solution	Presence control	Daylight control	Manual control	Level
Classroom	e-Sense ActiLume Connection Box	✓	✓	✓	Medium
	e-Sense Connect	✓	✓	✓	Medium
Individual offices	e-Sense ActiLume	✓	✓	✓	Basic
Open office solutions	e-Sense ActiLume (personal light)	✓	✓	✓	Basic
	e-Sense ActiLume (recessed lighting)	✓	✓	✓	Medium
	e-Sense Connect	✓	✓	✓	Medium
Corridors	e-Sense Move	✓	–	–	Medium
	e-Sense with corridor function	✓	–	–	Basic
Stairwell	e-Sense Move	✓	–	–	Medium
	e-Sense Detect	✓	–	–	Basic
Underground passageways	e-Sense Move	✓	–	–	Medium
Cloakroom	e-Sense Detect	✓	–	–	Basic
Storage area	e-Sense Detect	✓	–	–	Basic
Printer room	e-Sense Detect	✓	–	–	Basic
WC	e-Sense Detect	✓	–	–	Basic

Presence control
Presence control both ignites and extinguishes the lighting. After the last presence detection the light is automatically switched off. The time between detection and switching off is adjustable.

Daylight control
A sensor adapts the lighting output to the amount of incidental light (natural light). If there is no daylight, the function is used to adapt the lighting output to operating values as per the retention factor (constant light function).

IR receiver
To control and program using the remote control if you prefer. The remote control is an accessory.

Absence dampening
The occupancy detection sensor adjusts to a high light level on detection and returns to a low level after a set time. No switch off function.

Absence dimming with switch-off
The occupancy detection sensor adjusts to a high light level on detection and returns to a low level after a set time. The sensor can also switch off the light completely based on a further time setting. The low level can be adjusted from 10 to 50%.

Manual control
Full manual control via dragdim in the luminaire or non-locking switch on the wall.

Channel B 30 % offset
Channel B has a 30% offset, which means the uplight (Channel B) starts to be regulated when Channel A drops to 70%. When Channel A is regulated to 10 %, Channel B is then set to 40 %.

Offset
Between group A, B and C there is an offset of 15% in order to be used for luminaires located further from a window than A. This allows more light further into the room.

Lux level setting
Setting the threshold value prevents the occupancy detector reacting when daylight is sufficient.

Wireless control
Wireless control simplifies the addition of new lighting within existing, older installations. The overall costs are lower because no change to the existing installation is required.

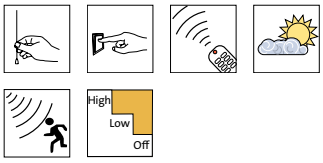
e-Sense ActiLume in individual offices

Advantages of e-Sense ActiLume in individual offices

- Energy-saving.
- Option of personal lighting level.
- Quick installation – only a mains connection.
- Pre-set lighting scenarios for a customised office.
- All functions integrated in the luminaire.

Energy savings of ≤ 60 %

Functions



Fagerhult e-Sense ActiLume luminaires are equipped with integrated light control. An attractive, easy installation without the need for add-on or external sensors. e-Sense ActiLume is the quick and easy way to install light control. No connections – no problems.

The luminaire has a multi-sensor which detects movement in the room, measures the incidence of daylight and adjusts the output accordingly. Pre-set lighting scenarios can easily be selected on the sensor unit.

e-Sense ActiLume offers maximum comfort and energy savings up to 60 %, ensuring a quick return on investment. With the system, the user can also adjust the light to the desired level using a momentary switch, pull switch or remote control. The combination of occupancy detector, light sensor and dimmable ballasts gives a vast range of choices.

Read more about e-Sense ActiLume on our website.

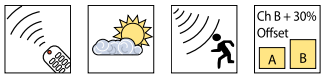
e-Sense ActiLume in open-plan offices with recessed lighting

Advantages of e-Sense ActiLume in open-plan offices

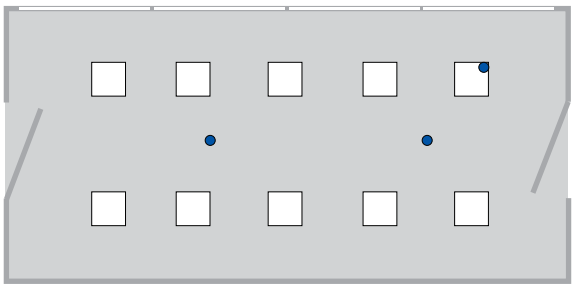
- Even lighting in the whole room, regardless of the amount of daylight present.
- Automatic on/off via sensors in the luminaires.
- Manual control via momentary switch if necessary.
- Easy to add external occupancy detectors in larger office areas.
- Offset function.

Energy savings of ≤ 60 %

Functions



Installation example



Light on occupancy and adapted to the incidental light. Luminaires placed further into the room are controlled with a 30 % offset. Low light level if no occupancy, but not switched off. Effective control for an open-plan office!

Dividing the lighting into zones according to the windows and point of the compass means you can get the right amount of light when working, and at the same time a solution that harmonises with today's approach to energy.

With an e-Sense ActiLume master luminaire positioned next to a window, connected luminaires distributed along the window row (channel A) and other luminaires located more centrally in the room (channel B), compensation is made for reduced availability of daylight further inside the room. When the window row is adjusted to 40 % the inner lighting follows with 70 %, i.e. there is a 30 % offset. This gives an adjustable, but even light over the entire area.

The lighting zone can cover about eight work stations (depending on the furnishing) and contain 10 luminaires. Occupancy detection within the zone can easily be expanded by extra occupancy detectors connected to the same control signal as the luminaires.

Read more about e-Sense ActiLume on our website.

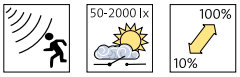
e-Sense with corridor function

Advantages of e-Sense with corridor function

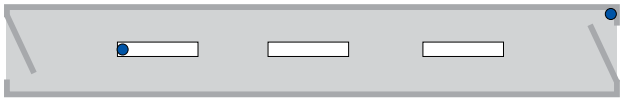
- No passages into dark rooms; eliminates any sense of disquiet and uncertainty.
- Big potential savings in areas which are rarely frequented.
- Rapid return to low level is easy on the light source (when using conventional light sources), electronics and energy.
- Internal sensors can be combined with external standard sensors.

Energy savings of ≤ 40 %

Functions



Installation example



Lighting is usually continuously lit in rarely used corridors and underground passageways, such as corridors in larger building complexes. Using the e-Sense with corridor function, big savings can be achieved in these areas, both in terms of the environment and general economy.

If the intention is that the lighting should always be on, you should ensure that the lighting is set at a high level with occupancy and then reduced to a low energy-saving level while awaiting the next instance of detection. With e-Sense with corridor function, the light is constantly at a low level (10 %), but when occupancy is detected, the light level is immediately increased to 100 %.

By regulating between high and low levels, instead of simply switching on and off, you can avoid having areas where there is no light on at all, with all the sense of disquiet and uncertainty this entails. With LED luminaires, the times for returning to a low level can be significantly reduced.

Read more about e-Sense with corridor function on our website.

e-Sense Detect – control with microwave sensor

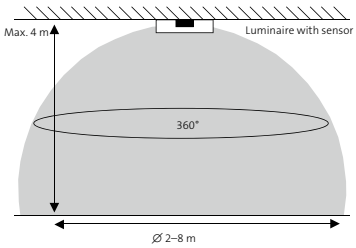
Advantages of e-Sense Detect

- Can be used for many different environments and needs.
- The sensor is concealed in the luminaire – design and IP class are not affected.
- Multiple luminaires can be connected together using a master/slave function.
- On/off function or absence dimming possible.

Energy savings of ≤ 70 %

Functions

Installation example



Ceiling mounting with maximum sensitivity. Sensitivity can be adjusted in fixed steps of 20, 30, 50, 75 and 100%.

e-Sense Detect is the choice for copying and storage rooms, toilets and cloakrooms. Microwave technology means that the sensor unit can be concealed in the luminaire without affecting its design or insulation class.

The microwave sensor can detect movement on the other side of, for example, a thin plasterboard wall, which can be an advantage when the luminaire is located in a toilet, as the light will come on before the door is opened. To prevent erroneous detection in other areas, the sensitivity (i.e. the detection range) can be reduced.

The settings for sensitivity and time after last movement are adjusted in fixed steps on the sensor module itself. The relay output can be loaded in different ways, depending on whether you are switching on/off one or more luminaires, or using the relay to adjust the lighting between various levels – known as absence dimming or corridor function.

A microwave sensor should not be placed close to ventilation outlets or large metal surfaces. This might cause the sensor to detect movement constantly.

Read more about e-Sense Detect on our website.

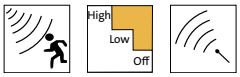
e-Sense Move – wireless control in communication areas

Advantages of e-Sense Move

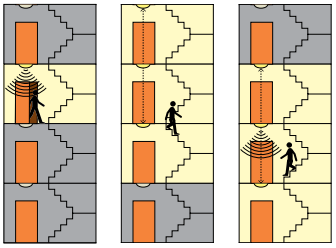
- Light only when and where needed.
- Energy-saving.
- Fast and uncomplicated installation.
- Wireless communication between luminaires – no control cables needed.
- Can be individually programmed for optimum utilisation.

Energy savings of ≤ 60 %

Functions



Installation example



1. The luminaire's integrated sensor detects movement on a floor and lights up.

2. At the same time, the sensor transmits a signal to neighbouring floors to switch on the lighting.

3. For example, if you go down the stairwell, the sensor in the luminaires will continue switching on the lighting in advance.

e-Sense Move is designed primarily for stairwells and is based on microwave technology with multiple luminaires communicating wirelessly with each other and does not require any control cables.

The system is of duplex design and involves all luminaires acting as both master and slave, depending on which luminaire detects occupancy. When occupancy is detected, information is sent on to one or more luminaires, which light up. Each sensor can actively "listen" to 15 other sensors.

e-Sense Move is excellent for use in stairwells of buildings where there are many floors, for instance. In order to optimise energy savings you can choose just to switch on the luminaire on the level above and below the floor where occupancy is detected.

e-Sense Move also has a place in underground passageways, cellars and attic areas, since times and levels can be determined for each luminaire. Settings are performed on the sensor unit in fixed positions.

Read more about e-Sense Move on our website.

Fagerhult develops, manufactures and markets professional lighting systems for public environments. Our business is run with a constant focus on design, function, flexibility and energy-saving solutions.

Fagerhult is part of the Fagerhult Group, one of Europe's leading lighting groups with operations in more than 15 different countries. AB Fagerhult is listed on the NASDAQ OMX Nordic Exchange in Stockholm.

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