

BREEAM

Sustainability - a priority for everyone



Schröder & Sustainability

Sustainability has always been one of Schröder's fundamental values.



As a responsible lighting manufacturer, we promote environmental protection practices throughout the entire product lifecycle, from the selection of the raw materials, through the manufacturing of the luminaire, to its use and its end-of-life treatment.

Our commitment is to develop products with the lowest environmental impact and to be transparent about it.



As an independent and family-owned company, we are still guided by our founder Jules Schröder's entrepreneurial spirit and principles.

Expertise, passion, innovation and sustainability drive our company to use the power of light for the safety and well-being of all, from public spaces to higher-risk environments, such as warehouses, factories and transport yards where the consequences of a dark or dimly lit workplace can lead to injuries.

What is BREEAM?

BREEAM (Building Research Establishment Environmental Assessment Method) is one of the world's leading sustainability assessment method for buildings, communities and infrastructure projects, owned by BRE (Building Research Establishment, UK).

As a quality label, it encourages the market to focus on sustainability in building design as well as the environmental impact of products in buildings.

BREEAM evaluates the overall building concept, taking into account 9 main categories with multiplied issues. Credits are awarded and weighted for each category in order to generate the final score for the building. The levels range from pass to outstanding.

Reduce operating costs,
improve well-being and
increase property value

BREEAM
(August 2020):

2,310,170



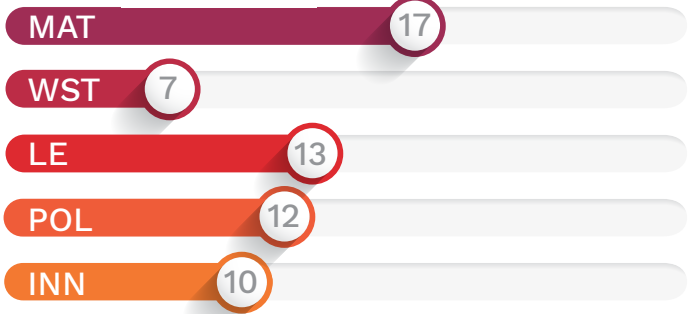
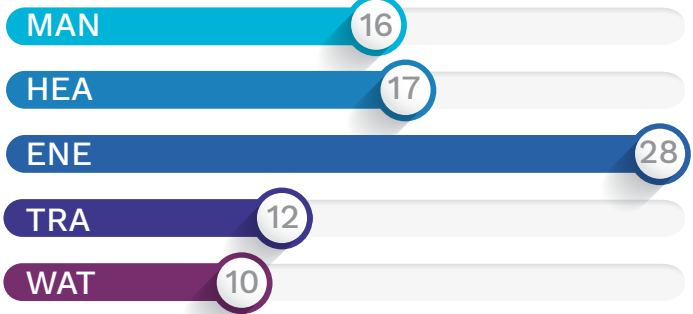
REGISTERED

591,906



CERTIFICATES

Categories, maximum
points & certification levels*



*The maximum amount of credits available can differ slightly depending on building type.

Schröder & BREEAM

Using Schröder solutions, up to 17 credits can be achieved in the BREEAM assessment (according to BREEAM International New Construction 2016*).
The analysis and the substantiation in this brochure have been drawn up by the independent engineering firm Encon.



CATEGORIES		MAX CREDIT	 INDOOR LIGHTING*	 OUTDOOR LIGHTING*	 CONTROL SOLUTION*
MANAGEMENT (MAN)	MAN03 Responsible construction practices	6	2	2	2
	MAN04 Commissioning and handover	4	3	3	3
	MAN05 Aftercare	3	2	2	2
HEALTH & WELLBEING (HEA)	HEA01 Visual comfort	4	1	1	1
	HEA06 Accessibility	2	1	1	1
ENERGY (ENE)	ENE01 Reduction of energy use and carbon emissions	15	2	2	2
	ENE02 Energy monitoring	2	0	0	2
	ENE03 External lighting	1	0	1	1
MATERIALS (MAT)	MAT01 Life cycle impact	6	1	1	1
POLLUTION (POL)	POL04 Night time light pollution	1	0	1	1
INNOVATION (INN)		10	1	1	1

*The credits can slightly differ according to national BREEAM adaptation. Additional technical information: www.schröder.com



BREEAM

criteria in details

MAN 03

RESPONSIBLE
CONSTRUCTION
PRACTICES



6
CREDITS



2



2



2

AIM

To recognise and encourage construction sites which are managed with environmental and social considerations, in a responsible and accountable manner

CRITERIA

Monitoring of construction site impacts – max. 2 credits

- Transport of construction material and waste

Schröder solution: environmental analysis

An environmental analysis is carried out for all Schröder products. All the materials, processes and transport requirements (from the suppliers to the assembly factory and from the assembly to the customer site) are carefully examined and integrated into a life cycle analysis. The documents are available on request from our local sales teams.



MAN 04

COMMISSIONING
AND HANDOVER



4
CREDITS



3



3



3

AIM

To encourage a properly planned handover and commissioning process that reflects the needs of the building occupants

CRITERIA

Commissioning and testing schedule and responsibilities – max. 1 credit

- Existing schedule of commissioning
- Identification of the appropriate standards
- An appropriate project team member is appointed

Commissioning building services – max. 1 credit

- For buildings with complex building services and systems, a specialist commissioning manager is appointed
- For simple building services, this role can be carried out by an appropriate project team member

Handover – max. 1 credit

- A building or home user guide is developed
- A training schedule is prepared for building occupants

Schröder solution: a turnkey solution provider

We developed a comprehensive approach to provide full scope solutions, from design to after-sales services. We define a plan, incorporating the Building Information Modelling (BIM) files if needed and manage the entire project, including the installation, commissioning, testing and validation. We also provide after-sales services. Our goal is to facilitate a smooth installation with minimal disruption and give you peace of mind.



MAN 05

AFTERCARE



3
CREDITS



2



2



2

AIM

To provide post-handover aftercare to the building owner or occupants during the first year of occupation and to ensure that the building operates and adapts correctly

CRITERIA

Aftercare support – max. 1 credit

- There are operational infrastructure and resources in place to provide aftercare support to the building occupants
- Monitoring of energy and water consumption data for a minimum of 12 months

Seasonal commissioning – max. 1 credit

- The seasonal commissioning activities will be completed over a minimum 12-month period, once the building becomes substantially occupied

Schröder solution : Smart Label

The Schröder Smart Label enables building owners to retrieve all key lighting information. In case of luminaire failure, they can use the troubleshooting assistance and follow the instructions to find out the root cause, fix the issue and if needed, request spare parts to repair the luminaire. As part of our after-sales programme, Schröder engineers can perform yearly visits to verify your lighting performance.



HEA 01

VISUAL
COMFORT



4
CREDITS



1



1



1

AIM

To ensure that daylight, artificial light and controls are considered at the design stage to ensure best practice visual performance and comfort for building occupants

CRITERIA

High frequency ballasts for all fluorescent lamps or LED lighting

External & internal lighting levels, zoning and control

- Light parameters in compliance with national best practice
 - Illuminance levels (i.e. lux)
 - UGR limits (i.e. avoiding glare)
 - Uniformity ratio (i.e. even distribution)
- Local standard EN 12464 (lux levels)
- Internal lighting is zoned to allow for occupant control

Schröder solution: daylight sensor & lens design

Our daylight harvesting system enables LED fittings to work in harmony with the natural light available. As a result, lighting remains at the ideal level at all times. Our technology uses photo sensors to closely monitor the level of natural light, adjusting LED output automatically. We design our lenses in-house to optimise the performance without compromising on visual comfort: we have solutions offering a UGR* of 16.



*UGR = unified glare rating

HEA 06

ACCESSIBILITY

2

CREDITS



1



1



1

AIM

To recognise and encourage effective measures that promote safe and secure access to and from the building

CRITERIA

Safe access – max. 1 credit

- The lighting for access roads, pedestrian routes and cycle lanes in accordance with the national best practices

Schröder solution: uniformity & motion detection

Lighting plays an important role to ensure safe access to and from the building at all times. Our application engineers can propose the best combination of lumen packages and light distributions to ensure a high level of uniformity, preventing patches on the ground and therefore meeting the safety challenge. A motion detector can be added to the solution to ensure that the light increases gradually to create a safe environment when needed.



ENE 01

REDUCTION OF
ENERGY USE
AND CARBON

15

CREDITS



2



2



2

AIM

To recognise and encourage buildings that minimise their operational energy consumption through efficient design

CRITERIA

Defining the building energy performance using a building energy calculation software

- Assessed building compared to notional equivalent
- National building = local regulations or ASHRAE Standard (if local regulations are less rigorous)
- Minimum 6 credits needed for excellent rating
- Minimum 10 credits needed for outstanding rating

Energy modelling study & qualified engineer required

- Modelling software = National Calculation Methodology or BRE approved (country-specific)
- Approved software: Designbuilder, TRNSYS, EPB-Software 3G

Schröder solution: energy efficiency

We are constantly developing new technologies to reduce the energy consumption of our luminaires. Furthermore our luminaires can be set to either dim or switch off entirely when no movement is detected after a specific period of time. These technologies ensure that energy is not wasted on lighting empty spaces, such as little-used storage areas.



ENE 02

ENERGY
MONITORING

2

CREDITS



0



0



2

AIM

To recognise and encourage the installation of energy sub-metering that facilitates the monitoring of operational energy consumption

CRITERIA

Sub-metering of major energy-consuming systems – max. 1 credit

- Where the total consumption of any single end-use category is more than 10% of the annual energy consumption for a given fuel type, it is necessary for this end-use to be sub-metered
- Sub-metering of floors – max. 1 credit**
- In most circumstances, sub-metering should be per floor, or per floor plate where there are multiple service risers, cores, or floor plates

Schröder solution: control system - OWLET & ABS

Thanks to our control systems, the energy consumption of the lighting system can be closely monitored. Furthermore, they can use the same communication protocol as other services to be part of an overall integrated energy management plan (with lighting control and other building services). Customised reporting enables facility managers to track and continuously monitor energy costs and savings throughout the entire facility.



ENE 03

EXTERNAL
LIGHTING

1

CREDITS



0



1



1

AIM

To recognise and encourage the specification of energy efficient light fittings for external areas

CRITERIA

- The average initial luminous efficacy of the external light fittings within the construction zone is not less than 60 luminaire lumens per circuit Watt
- All external light fittings are automatically controlled to prevent constant lighting during daylight hours or in areas of intermittent pedestrian traffic

Schröder solution : optimised outdoor spaces

Because outdoor lighting is as important as indoor lighting, we also have solutions to illuminate outdoor areas like loading bays and car parks. We have a wide portfolio of solutions that can be deployed for all of your lighting needs. Those solutions are energy optimised and environmentally adaptive to minimise light pollution (CPLL).



MAT 01

LIFE CYCLE
IMPACTS

6

CREDITS



1



1



1

AIM

To recognise and encourage the use of robust appropriate life cycle assessment tools and specification of materials with low environmental impact over the full building life cycle

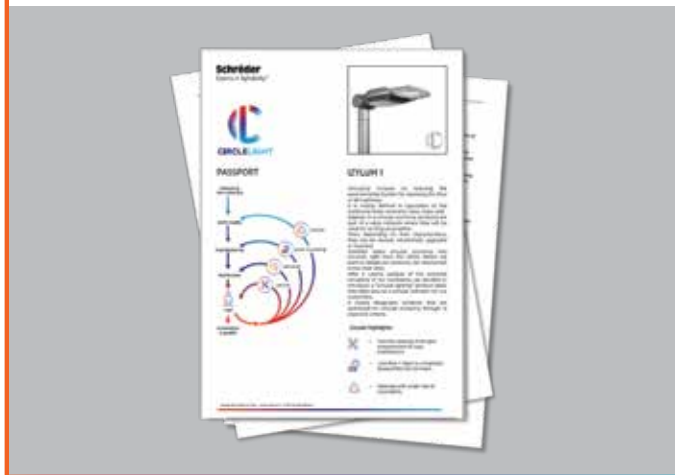
CRITERIA

Measuring the life cycle environmental impact of building elements

- Building fabric, services & landscaping
- Evaluating a range of material options for the building with a Life Cycle Assessment (LCA) tool > BREEAM MAT1 Calculator required (5 credits)

Schröder solution: Circle Light Label

After a careful analysis of the potential circularity of our luminaires, we decided to introduce a "Circle Light" product label. This label acts as a circular indicator for our customers. It clearly promotes products that are optimised for circular economy through 12 criteria. This label complements our product life-cycle analysis to give the full picture of our products' sustainability.



INN 01

INNOVATION

10

CREDITS



1



1



1

AIM

To support innovation within the construction industry, through the recognition of sustainability related benefits (which are not rewarded by standard BREEAM issues).

CRITERIA

- Exemplary performance in existing BREEAM issues AND/OR
- Innovation application(s)
- For each application: assessment of BRE required

Schröder solution: Innovation at Schröder

Innovation is in Schröder DNA. Over the last 113 years Schröder has been a pioneer in lighting technology. Hundreds of patents have been filed. In 2015, we launched the SHUFFLE: the first smart modular-based lighting system on the market that integrates state-of-the-art technologies beyond light – Connectivity (4G and WIFI), Security (CCTV-cameras and panic button), Mobility (EV charger), Community (loudspeakers for announcements and music), Environmental sensors.



POL 04

REDUCTION OF
NIGHT TIME LIGHT
POLLUTION

1

CREDITS



0



1



1

AIM

To ensure that external lighting is only illuminating the appropriate areas and that upward lighting is minimised, reducing unnecessary obtrusive light pollution, energy consumption and nuisance to neighbouring properties

CRITERIA

All external lighting (except for safety and security lighting) can be automatically switched off between 23:00 and 07:00
Safety and security lighting complies with CIE 150-2003 and CIE 126-1997
Maximum luminance (cd/m²) as outlined in the manual

Schröder solution: Pure Night Solution

Schröder expertise in photometry and lighting studies is key to provide the right light for the right place. Our control systems enable dimming programmes and light-on-demand scenarios. Furthermore, we have developed accessories to ensure that light is where you need it without glare, light spill or ULR. Schröder has created a certification software which enables you to check if the configuration of a luminaire will ensure dark sky compliance.



BUILDING RESEARCH ESTABLISHMENT ENVIRONMENTAL ASSESSMENT METHOD

Schröder

Experts in lightability™



www.schreder.com

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