



LEED v4.1

UPDATED 18.11.22

CATEGORY	POINTS	DESCRIPTION	REQUIREMENTS FOR LIGHTING	HELVAR IMPACT
<u>Interior Lighting</u>	2	Promote occupants' productivity, comfort, and well-being by providing high-quality lighting.	<ol style="list-style-type: none"> 1. Glare Control 2. Color Rendering (CRI) 3. Lighting Control 	Helvar solutions can precisely control light fixtures to tune the luminance levels of luminaires. Desired CRI can be achieved by selecting the right light sources and with the help of Tunable White LED Drivers. Dimmable lighting for occupied spaces is a core function of Helvar solutions.
<u>Advanced Energy Metering</u>	1	Support energy management and identify opportunities for additional energy savings by tracking building-level and system-level energy use.	Advanced energy metering capabilities.	Helvar Insights allows you to measure the energy consumption of your lighting systems and identify opportunities to improve your energy usage.
<u>Daylight</u>	Up to 3	Connect building occupants with the outdoors, reinforce circadian rhythms, and reduce the use of electrical lighting by introducing daylight into the space.	Provide manual or automatic (with manual override) glare-control devices for all regularly occupied spaces.	Helvar's intelligent lighting solutions help you to maximise the amount of daylight in your space, by working only when needed. Blinds system integrations can be set up for additional glare control possibilities.
<u>Optimise energy performance</u>	Up to 4	Achieve increasing levels of energy performance beyond the prerequisite standard to reduce environmental and economic harms associated with excessive energy use that disproportionately impact frontline communities.	<p>[Option 3]</p> <ol style="list-style-type: none"> 1. Lighting power reduction 2. Daylight controls 	Helvar's luminaire components and intelligent lighting controls can be paired for a strong reduction in lighting energy usage through daylight and occupancy based-control. Increase energy saving opportunities further by integrating with other building systems such as HVAC and blinds.
<u>Minimum energy performance</u>	Required	Promote resilience and reduce the environmental and economic harms of excessive energy use that disproportionately impact frontline communities by achieving a minimum level of energy efficiency for the building and its systems.	Comply with ANSI/ASHRAE/IESNA Standard 90.1-2016, with errata or a USGBC-approved equivalent standard.	Helvar systems are futureproof by design, allowing for easy scalability and updates.
<u>Integrative Process</u>	1	Support high-performance, cost-effective, equitable project outcomes through an early analysis of the interrelationships among systems.	Identify and use opportunities to achieve synergies across energy-related systems.	Helvar Insights works together with intelligent sensors to deliver actionable lighting data reports, allowing you to adjust lighting levels according to space- and energy usage. Optimise for occupant wellbeing without compromising on energy usage.
<u>Innovation</u>	Up to 5	Encourage projects to achieve exceptional or innovative performance to benefit human and environmental health and equity. To foster LEED expertise throughout building design, construction, and operation and collaboration toward project priorities.	Achieve significant, measurable environmental performance using a strategy not addressed in the LEED green building rating system.	Helvar solutions offer a range of opportunities for additional integrations and unique control requirements.
<u>Grid harmonisation</u>	Up to 2	Increase participation in demand response technologies and programs that make energy generation and distribution systems more affordable and more efficient, increase grid reliability, and reduce greenhouse gas emissions.	Participate in demand response programs through load shedding or shifting.	Helvar Insights enables real-time control of many lighting parameters according to Smart Grid needs.



WELL Building Standard™ version 2

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<u>L01 Light Exposure</u>	Prerequisite	Provide appropriate light exposure in indoor environments through lighting strategies.	(Option 4: Circadian lighting design) Regulate indoor light exposure through daylight and electric light control strategies.	Helvar's intelligent control solutions and luminaire components can help achieve criteria for circadian lighting design as set out by the WELL Standard.
<u>L02 Visual Lighting Design</u>	Prerequisite	Provide appropriate illuminances on work planes for regular users of all age groups, as required for the tasks performed in the space.	Comply with various requirements for illuminance thresholds, taking into account the needs of users of the space.	Helvar's customisable solutions allow you to address the individual needs of end-users when designing the lighting system, helping to follow standards such as EN 12464-1.
<u>L03 Circadian Lighting Design</u>	3	Provide users with appropriate exposure to light for maintaining circadian health and aligning the circadian rhythm with the day-night cycle.	Support circadian and psychological health through indoor daylight exposure and outdoor views.	Intelligent lighting controls can be combined with Helvar's Light over Time solution to create optimal circadian lighting profiles for different spaces.
<u>L04 Electric Light Glare Control</u>	2	Manage glare by using strategies, such as calculation of glare and choosing the appropriate light fixtures for the space.	Minimise glare caused by electric light.	Helvar solutions allow you to precisely control the light fixture to tune luminance levels in any space.
<u>L05 Daylight Design Strategies</u>	4	Design spaces to integrate daylight into indoor environments, so that daylight may be used for visual tasks along with electric lighting.	Provide optimal daylight exposure indoors through design strategies.	Helvar controls can be integrated with blinds systems in order to automatically adapt to daylight levels and optimise daylight exposure in your space.
<u>L07 Visual Balance</u>	1	Develop and implement strategies to create a visually comfortable lighting environment.	Create lighting environments that enhance visual comfort.	Helvar solutions provide tools for maximising visual comfort for any range of activities throughout the day and night.
<u>L08 Electric Light Quality</u>	3	Take into account characteristics of electric light used in the space, such as color rendering and flicker.	Enhance visual comfort and minimise flicker for electric light.	Helvar offers a range of flicker-free dimmable LED drivers.
<u>L09 Occupant Lighting Control</u>	3	Implement innovative lighting strategies that take into account personal preferences of users, as well as their interaction with the physical space.	Provide individuals with access to customisable lighting environments.	Helvar offers multiple solutions to help create customised, personalised lighting scenes. E.g. ActiveTune, SceneSet. Note: Individual color+color temperature control requires additional capabilities in luminaires.
<u>Innovate WELL</u>	Up to 10	Promote the continuous evolution of WELL, by encouraging projects to propose a new intervention that addresses health and well-being in a novel way.	Positively impact occupants by supporting health and well-being in a novel way that is not covered in WELL v2.	Helvar solutions offer a range of opportunities for additional integrations and unique control requirements.



BREEAM International

New Construction + Refurbishment

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<u>Hea 01 Visual comfort</u>	Up to 2	Ensure daylighting, artificial lighting and occupant controls are considered at the design stage to ensure best practice in visual performance and comfort for building occupants.	Glare control Daylight harvesting Internal and external lighting	Helvar solutions allow you to fine-tune your lighting system to precise requirements across a variety of spaces, while delivering optimal visual comfort for building occupants.
<u>Ene 01 Reduction of energy use and carbon emissions</u>	Up to 4	Minimise operational energy demand, primary energy consumption, and CO ₂ emissions.	Energy efficient design features e.g. occupancy-based lighting control. Adequate lighting controls must also be provided to all ancillary areas (as applicable).	Helvar's luminaire components and intelligent lighting controls can be paired for a strong reduction in lighting energy usage through daylight and occupancy based-control. Increase energy saving opportunities further by integrating with other building systems such as HVAC and blinds.
<u>Ene 02a Energy monitoring</u>	Up to 2 credits	Encourage the installation of energy sub-metering to allow monitoring of operational energy consumption. Allow managers and consultants post-handover to compare actual performance with targets in order to inform ongoing management and reduce any performance gap.	Energy metering for lighting-specific energy usage.	Helvar Insights allows you to measure the energy consumption of your lighting systems and identify opportunities to improve your energy usage.
<u>Ene 03 External Lighting</u>	1	Recognise and encourage the specification of energy efficient light fittings for external areas of the development.	Output of external light fittings can be controlled through e.g. daylight harvesting, presence detection.	Helvar's precise and durable control solutions can easily be implemented for outdoor applications. e.g. Facade lighting, Infrastructure lighting