

SUBJECT: RECESSED LIGHTING IN EXTREME SIPs

The primary considerations for the installation of recessed lighting in Extreme SIPs include potential excessive cutting of the structural facing and excessive heat. (Refer to Extreme Panel's ICC ESR-4524, Section 4.2.9.2, Holes in Panels, paragraph 2, and to Extreme Panel Technical Bulletin I-1.)

The SIPs facing is a key structural component. Therefore, excessive cutting of the SIP OSB facers, along with the foam core, may lead to a reduction in the structural capacity of the SIPs. Heat buildup with recessed lights results from being installed in a fully insulated cavity. Although some recessed lights are designated for insulated cavities, these lights are not designed for the superior insulating performance of the rigid insulation solid core within the SIP.

However, if recessed lights are desired to be installed, a cavity or soffit can be created by installing framing material attached to the surface of the SIP before installing gypsum board. This creates a cavity or soffit in which lighting can be installed without cutting the face of the SIP. The use of recessed lighting is not recommended for application within a SIP.

Extreme Panels recommends the best choice for lighting are LED disk lights, whether 110V or low voltage due to their energy efficiency, slim profile, and compatibility with the high-performance insulation of SIP construction. Their ultra-thin design allows seamless integration into the SIPs without compromising the airtightness or structural integrity of the SIPs. LED disk lights generate minimal heat, ensuring they don't interfere with the SIP's insulating performance of the rigid insulation solid core, while their long lifespan reduces maintenance needs. Additionally, their energy-efficient operation compliments the sustainable goals of SIP construction, offering owners lower utility bills and a reduced environmental footprint. Whether using 110V for simplicity or low voltage for added safety, LED disk lights provide a sleek, durable, and efficient light solution tailored to SIP-built spaces.

Other applications can be utilized like surface-mount fixtures or track lighting utilizing a surfaced mount electrical box designed for the application.

Please consult with an Extreme Panel's representative with any questions.