

May 22, 2014

SUBJECT: SUNOPTICS PRISMATIC SKYLIGHT FALL PROTECTION

The purpose of this letter is to provide information regarding OSHA regulations covering fall protection requirements that are applicable to skylight covers as well as to openings in a roof for skylight installation.

The first regulation addresses skylight covers. Occupational Safety and Health Administration (OSHA) regulation Section 1926.502(i)(2) states *“All [other] covers shall be capable of supporting, without failure, at least twice the weight of employees, equipment, and materials that may be imposed on the cover at any one time”*. This OSHA fall protection standard applies to skylights being placed in the openings in a roof at the time of installation.

Many skylight manufacturers claim that their skylights meet or exceed the OSHA fall protection standard. Indeed, Sunoptics® Signature series skylights meet the OSHA 1926.502 fall protection requirements when initially installed. A nominal 4’x8’ Sunoptics Signature series 800 MD Class 1 skylight has been tested by an independent third party



Figure 1

Independent drop test conditions

testing laboratory and demonstrated no damage after five minutes of observation when exposed to a 400 pound drop test (Figure 1). All plastics age, however, when exposed to ultraviolet rays (UV) from the sun over time. No plastic skylight of any kind is immune to degradation over time and any skylight would be unlikely to continue to meet the OSHA 1926.502 requirements after having been exposed to 10 to 20 years of UV radiation. When future roofing construction or maintenance occurs,

an aged skylight could break as the result of impact from a falling worker or heavy object. After a skylight has been installed and degradation occurs, these skylights will in all likelihood no longer meet the OSHA standard and therefore could break as a result of an impact from a falling individual. Therefore, it is imperative that the OSHA regulations addressed in the subsequent paragraph (1910.23(a)(4) be followed and strictly adhered to.

For this reason, an additional section of the OSHA regulation addresses fall-through resistance requirements applicable to a skylight opening after construction is completed. OSHA section 1910.23(a)(4), states, *"Every skylight floor opening and hole shall be guarded by a standard skylight screen or a fixed standard railing on all exposed sides"*. Ultimately, once a skylight is installed, this additional post-construction OSHA regulation becomes applicable. The risk this safety standard addresses is the reason Sunoptics highly recommends that building owners purchase, as secondary protection, skylight curbs with standard integrated fall protection screens or fall protection screens that can be retrofitted into curbs that currently do not have any fall protection system. It is imperative that the building owner, contractor, designer and architect comply with OSHA section 1910.23(a)(4) and install an appropriate guard or screen to prevent injuries to third parties.

In summary, the Sunoptics Signature series skylights are compliant with OSHA 1926.502 (i)(2) when new. Like all skylights, however, the Sunoptics Signature series skylights may perform differently in the future when subsequent roofing construction occurs and they have been exposed to environmental conditions over an extended period of time. As a result, Sunoptics recommends the use of safety security screens with skylights for fall protection as required for compliance with OSHA 1910.23(a)(4).



6201 27th Street
Sacramento, California 95822
916.395.4700
800.289.4700 Toll Free
www.sunoptics.com

At Sunoptics, we are committed to providing a long-term solution for fall protection in addition to the energy savings and productivity advantages of rooftop daylighting.¹

¹ The following document is for informational purposes only and does not constitute a legal opinion or conclusion of Sunoptics. All contractors, architects, engineers and users should consult their own legal counsel to obtain guidance on complying with all OSHA standards and all local building codes and standards.