Lucerne University of Applied Sciences and Arts

## HOCHSCHULE LUZERN

Technik & Architektur CC Gebäudehülle und Ingenieurbau FH Zentralschweiz

## Validation of the Software «GLASGLOBAL» for SIA 2057

The Competence Centre Building Envelopes and Civil Engineering at the Lucerne University of Applied Sciences and Arts was commissioned to validate the Software GLASGLOBAL, version 7.3505, for the structural analysis and computation of glass structures for standard-compliant execution and implementation of SIA 2057:2021. The validation is based on a systematic review of the respective articles of SIA 2057 and their implementation in the software. A check of the implemented calculation model for determining stresses and deformations has already been carried out by the University of German Armed Forces Munich and is not part of this validation.

For this purpose, the Competence Centre Building Envelopes and Civil Engineering was provided with an executable version of the GLASGOBAL calculation software, version 7.3505. The validation is based on the information provided in SIA 2057:2021, SIA 260:2013 and SIA 261:2020.

The standard-compliant calculation of glass structures according to SIA 2057 for laminated and insulated glazing can be confirmed. The relevant articles of SIA 2057 for the design of glazing are implemented correctly and the defaults are selected appropriately. This validation report refers exclusively to the described software version.

For information and advertising purposes, only the complete test documentation (Softwarevalidierung GlasGlobal - SIA 2057) or a shortened version prepared or approved by the Competence Centre Building Envelopes and Civil Engineering may be used. When publishing the test documentation, it must be ensured that the file is protected against changes.

Horw, 04 Februar 2022

Jan Commerell

BSc. Bauingenieur FHZ Wissenschaftlicher Mitarbeiter Horw, 04 Februar 2022

Prof. Dr. Andreas Luible

Dr. sc. Techn. EPFL, Dipl. Ing. TU/SIA

Leiter Kompetenzzentrum

Gebäudehülle und Ingenieurbau