

**Test report no.:** 120415/16-I

**Customer:** GEWISS S.p.A.  
Via A. Volta, 1  
24069 CENATE SOTTO (BG)  
ITALY

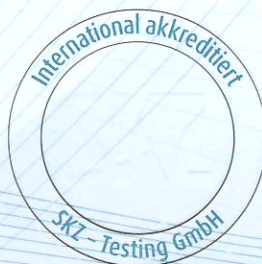
**Order:** Testing the safety against ball throwing according to DIN 18032-3 :  
1997-04 on the luminaire "COLOSSEUM" (code GW84747)

<b>Letter of:</b>	2016-04-29	<b>Ref.:</b>	Silvia Colombelli
<b>Sample received:</b>	2016-06-06	<b>Sample taken:</b>	-
<b>Test period:</b>	2016-06-08 to 2016-06-14		

The test report comprises 4 pages.

Würzburg, 2016-06-21  
De/mo

i. V.   
Dr. Anton Zahn



i. A.   
Dipl.-Ing. Udo Dengel

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## 1 Order

The company GEWISS S.p.A., Via A. Volta, 1, 24069 CENATE SOTTO (BG), ITALY, ordered SKZ - Testing GmbH with letter dated 2016-04-29 to test the safety against ball throwing according to DIN 18032-3 : 1997-04 on the luminaire "COLOSSEUM" (code GW84747).

## 2 Test material

On 2016-04-29 SKZ - Testing GmbH received the following sample material for testing:

- one floodlight (picture 1) with a grey coloured cover and a glass plane, 505 mm x 485 mm
- one lamp "Osram Powerstar HQI-T 1000 W/D"
- one power supply unit GW84616 floodlight (picture 1) with a grey coloured, metal cover, 505 mm x 485 mm

According to the client the luminaire is denominated "COLOSSEUM". The glass plane is made from sodium calcium without lead in a thickness of  $(4 \pm 0,3)$  mm.



**Picture 1:** Front and side view of the luminaire as delivered

SKZ – Testing GmbH had no influence on the selection of the test material.



### 3 Execution of tests

Usually we carry out tests according to standards for which we have an accreditation. The list of all standards for which we are accredited is shown on the homepage at [www.skz.de](http://www.skz.de).

The tests are carried out at a temperature of 21 °C after a minimum of 72 hours storage in this atmosphere.

Before the test the lamp is mounted in the luminaire and the electrical connection to the power supply is done.

For testing purposes the luminaire is fixed to a wooden panel which itself was mounted on an unflexible and rigid metal construction (which simulated the wall) according to the clients general information.



**Picture 2:** Luminaire fixed with bracket (right) and ball throwing machine (left)

The tests were carried out with a ball cannon according to DIN 18032-3 : 1997-04 "Sport halls – Part 3: Halls for gymnastics, games and multi-purpose use – Testing of safety against ball throwing".

The tests were carried out with a handball (in total 54 shots with a speed of  $(23.5 \pm 1.2)$  m/s) according to VDE 0710-13 : 1981-05 clause 18. The weight of the handball was 437 g and the diameter was 18.5 cm. While the shooting the illuminant was switched off.

The horizontal distance between the luminaire and the ball throwing machine was 2.1 m.

#### **4 Test results**

After the shooting the lamp still worked. The luminaires showed no damages and the finger test was positive (no contact possible). The luminaire rotated up to approx. 15 °. The grade of ingress protection against humidity and dust was not influenced in a negative way.

The tested luminaire "COLOSSEUM" withstood the load of the handball without damages and proved to have a limited safety against ball throwing according to DIN 18032-3 : 1997-04. The mechanical requirements of DIN VDE 0710-13 clause 18 for luminaires installed on walls and cannonaded with the handball were fulfilled.

