Nº1 | April 2007 | every 4 months

Everlux® news

The new ISO 16069 Norm

The birth of millicandelas

Firex 2007

The new ISO 16069 Norm

ISO 16069-2004 - The latest (safety Way Guidance System) Norm

The Photoluminescent Safety Sign is recognised by all as being essential in the safety system and its properties have been demonstrated in the most varied situations. They have also been the subject of several Norms and Legislation, both nationally and internationally.

Recently a new study gave origin to a new ISO Norm which defines with accuracy the several levels of location of Photoluminescent Safety Signs.›

picture 1

editorial

A bit about us...

- October 1989 a "small" company is created in Figueira da Foz, Portugal, with the objective of the study and development of all technologies related to the manufacturing of photoluminescent products and their application in the area of safety: the Photoluminescent Safety Signs;
- 1991 first presence in a Safety Exhibition in Portugal and the publication of a 3-page catalogue dedicated exclusively to Photoluminescent Safety Signs.
- 1994 initiate exports to the Spanish market
- 1997 initiate sales to Great Britain
- 2003 initiate sales to the Republic of Ireland, Malta, France and the Middle East
- 2004 initiate exports to Hungary
- 2004 awarded Lloyds Type Approval Product Certificate
- 2005 opening of a new production unit in Brazil
- 2006 awarded ISO 9001:2000 Certificate
- April 2007 welcome to Everlux® news!

First of all we would like to thank you in advance for your willingness to take the time to read this first edition of our Newsletter, which we have named Everlux® news.

After 17 years of activity in the area of Photoluminescent Safety Signs, we have decided to start a new innovative project of producing a regular publication.

continue on the back page ›

› The new ISO 16069 Norm

Safety Way Guidance system
This is the ISO 16069 which defines the concept SWGS Safety Way Guidance System. The basis of this new Norm is the analysis and the need to create a system for the several levels of location of signs for evacuation routes and for safety equipment, bearing in mind the need to analyse:
- the various types of risk and risk situations;
- the various types of lighting and the corresponding light (lux) in the several places where the photoluminescent signs are located;
- the characteristics of luminescence (mcd/m^2) demand of the photoluminescent signs;
- the various technical solutions that should be applied.

In this way we can define what the existing needs are at a safety sign level in all the situations and analyse the conditions of lighting that we may find. This will enable us to decide what the best technical solutions are to be implemented, in order to obtain the best results in a sign system.

As a result of this study there are 3 levels of needs and solutions:

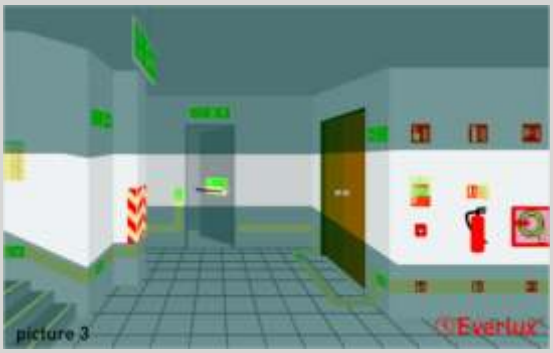
First case: in all situations and in all buildings there should always be a guaranteed good visibility of exits, an easy visibility of safety route signs and quick identification of the alarm call points and fire fighting equipment.
It is essential that all these signs are placed at an appropriate height so that from every place there will always be a visible sign identifying the evacuation route, the exit doors, the location of first aid and fire fighting equipment.
In order to achieve this, these signs must be placed sufficiently high so as to guarantee that small obstacles (furniture, ornaments, machines and other equipment) do not obstruct the signs.
Also, at high location, the signs will be closer to the light sources: First Concept: a Sign System at high level (above 1.8 m).
ISO 16069 therefore defines that the signs to identify and show exits, emergency exits and location of alarm call points and fire fighting equipment must be placed at a height not below 1.80m above floor level (see picture 2). The same Norm also defines that this sign system is essential and of the highest importance.

picture 2

Second case: There is still a need to complement the information given to users of a building with instructions and other additional information so as to achieve a better and more adequate behaviour from the users in case of an emergency. Examples of these needs and situations are the way how door mechanisms should be used to open the doors (push/pull to open, slide, etc.); instructions on how to use fire extinguishers correctly (type of fire fighting agent required for each fire); the non obstruction of fire doors; the doors that should not be used in case of emergency; the fire action notices; the emergency floor plans, etc.
This is therefore additional information to be read at a short distance.

Its main objective is to complement the signs at high level and serves as a second stage of the action: after we know where the door is located and as we reach it, we are informed on how to operate it; after we know where the fire extinguishers are located, by the sign placed at high level, as we reach one of them we will learn in what type of fire each particular extinguisher should be used, etc. This is also useful for prevention and training, informing the users in advance of the safety instructions and of the evacuation scheme that appears in the emergency floor plans. This is the Second Concept: a sign system at intermediate location.

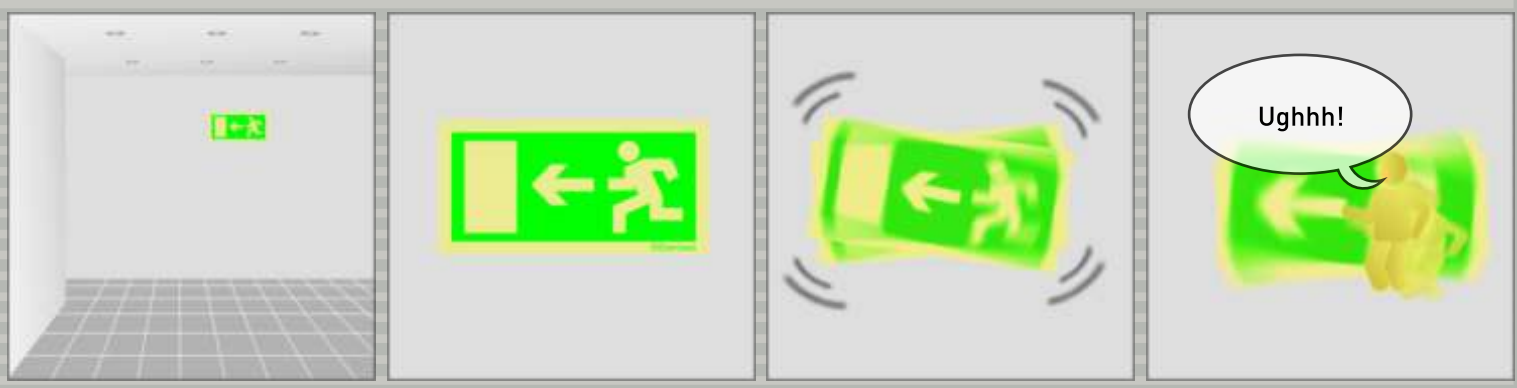
The new ISO 16069 defines that this intermediate level is especially designed to inform the user and is therefore only a complement to the remaining high and low levels (see picture 3). Given that the normal reading height is between 1.20m and 1.60m, all the complementary signs should therefore be placed at eye level.



picture 3

Third case: In the event of an incident or an accident or when there is smoke and the electrical light system fails to perform (see picture 4), people will have to leave the area immediately, bending down or crawling, in a risk situation and in ›

millicandelas



conditions leading to panic because they can't see any of the signs we mentioned above and do not know which route will lead them to an exit.
This shows the absolute and essential need to have signs at floor level, and due to the risk situation this is classified as of major importance as are the signs at high level. The objective is also to show the exits, doors, alarm call points and fire fighting equipment, etc. It is not classified as complementary but as principal.
This is the Third Concept: photoluminescent sign and lighting system at low level.

picture 4

This new ISO 16069 apart from defining very clearly the principal signs at low level, their size, how they should be fixed and their functional characteristics, has also taken into account the characteristics of reduced light existing at the level where they are fixed (40cm above floor level). It considers therefore that buildings should be equipped with a sign system at low level that has also a lighting capability.
So ISO 16069 determines that:
The photoluminescent lighting system signs and strips at low level should stimulate with 25 lux (and not the 1000 lux used in normal signs), should be placed at floor level (up to 40cm of height), must illuminate the evacuation routes, must signal the escape routes and emergency exits and must show where the first intervention equipment is located.

ISO 16069 implies therefore the use of new photoluminescent products different from the traditional ones, as these do not stimulate at 25 lux.

Everlux®-LLL

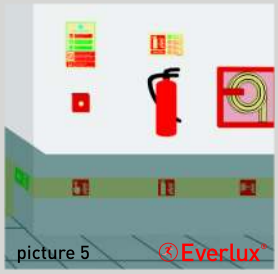
Low Location Lighting system (LLL)

Photoluminescent Safety Sign System at Low Level

In this new Photoluminescent Safety Sign System at Low Level, the Norm pays special attention to the requirement for the use of photoluminescent materials of the highest quality which can perform in extreme situations:

- can be stimulated with a light of only 25 lux;
- the stimulation period required is very low, only 15 minutes;
- the bulb to be used in tests is only 36W;
- in these conditions must perform with a light intensity of 20 millicandelas per square meter (mcd/m^2) at 10 minutes, of 2.8 mcd/sqm at 60 minutes;
- obtain the same period of light decay of 340 minutes of the DIN 67510 Norm (this one for 1000 lux of stimulation).

Aiming to be always able to meet the consumers' needs, if not to anticipate them, Everlux® has developed its Photoluminescent Safety Sign System at Low Level which we will call Everlux®-LLL .



picture 5

picture 6

This new system, included in the Everlux® catalogue, is unique in assisting evacuation routes to be illuminated, ensuring also the identification and location of fire fighting equipment, escape routes and exits.
In this way the best conditions to escape are ensured, reducing the risk of panic and any subsequent loss of life. Everlux®-LLL is produced with a new generation of photoluminescent products, especially developed for these situations, where an extremely high intensity of lighting can be achieved despite being located in places where they receive minimum light (floor level).
The luminescent characteristics, considering the required stimulation of only 25 lux and for only 15 minutes is well above the ISO Norm:

	10 minutes	60 minutes	period of light decay
ISO 16069 Norm	20 mcd/m^2	2.8 mcd/m^2	340 minutes
Everlux®-LLL	60 mcd/m^2	8 mcd/m^2	800 minutes

› Editorial

This Newsletter will be exclusively technical and will be of interest to all those involved in the market where we operate, from the final consumers, to the distributors and staff who do the installation - our clients - to planners and to entities responsible for areas of inspection, verification and the production of legal and normative rules.

In the Everlux® news we aim to publish:
- articles of high technical quality of an informative and training nature;
- information and interpretation of norms and legislation, both national and international, and from the European Union, which apply to the photoluminescent signs;
- general articles on safety of premises, from the point of view of photoluminescent safety signing;
- articles and technical rules which promote the best and most appropriate use of signs.

Every four months you will also find in Everlux® news , articles highly illustrated (with photographs of real situations and technical drawings) where we try to clarify doubts and suggest the best technical solutions for the most diverse situations where photoluminescent safety signs are necessary.

The whole Team at Everlux® would like to thank you for the privilege and honour of being one of your partners in the various activities of the safety market where we all operate. It is our ambition to be able to maintain and consolidate this partnership and we will always be aiming to develop and present to you our best technology with the most advanced products and the best service.

We hope Everlux® news will be a great tool towards this mission.

Many thanks.
The Everlux Team

News

From 21st to 24th May Firex 2007 will take place in Birmingham and as in previous years Everlux® will be represented there, in Hall 8, Stand number J30.

Firex is THE meeting place for all those who are involved, at all levels, in the protection and safety market: official bodies, planners, manufacturers, those in charge of the installation, risk managers, health and safety officers, distributors and final consumers. This is therefore the ideal occasion for Everlux® to make the official presentation of its new catalogue and to have a better feeling of the whole safety market.

In this new catalogue, Everlux® presents a wider variety of signs and adds new ranges and more sign systems, among them the brand new sign system for high-rise buildings. The recent accidents in the World Trade Centre in the United States, the Windsor Tower in Spain and the East Tower in the Central Park in Venezuela among others, show the high risk and the different specifications particular to this type of buildings.

Everlux® has developed a complete sign system to sign stairs and evacuation routes to meet these needs.

Besides these new products, the Everlux® catalogue also offers other new range of signs:
- The Everlux® disc, with a metal support, to sign evacuation routes in platforms and metallic stairs;
- Signs for numbering extinguisher products, which allows for the numbering of the sign and of the extinguisher, to ensure that after being checked or used, this type of equipment will be placed in its right place, so as to avoid the risk of it being swapped, which could have very serious consequences;
- Photoluminescent fire extinguisher labels;
- Self-adhesive photoluminescent signs for doors and mechanisms to operate the doors;
- Everlux®-AL ,alumimium photoluminescent safety signs for tunnels, in accordance with Directive 2004/54/CE.

All the Team at Everlux® will be at your disposal and will be very pleased to welcome you and listen to your opinions, comments and suggestions and also to show you all the new products in our 2007 catalogue.

Look forward to seeing you in Firex!

Keep receiving the Everlux news

If you wish to continue receiving the Everlux® news , please fill out this form and send it via email to *everluxnews@everlux.eu* or via Fax n 00351233402545.

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