Texte zu den geplanten neuen EU-Regelungen zur umweltgerechten Produktgestaltung und zur Energieverbrauchskennzeichnung in der Beleuchtung – Zusammenstellung * des Umweltbundesamtes (UBA), Deutschland

Entwürfe der EU-Kommission vom 3. Juli 2018

Arbeitshilfe:

Vergleiche mit den Entwürfen vom 13. November 2017 – Begriffsbestimmungen in Haupttexten und Anhängen

EN: Information on the coming EU Lighting Regulations – Ecodesign and Energy Labelling – Compilation * of the Federal Environment Agency (UBA), Germany

The EU Commission's drafts of 3 July 2018

Working aid: Comparison with the drafts of 13 November 2017 – Definitions in main texts and annexes

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FR: Informations sur les futures réglementations de l'UE concernant l'éclairage – l'écoconception et l'étiquetage énergétique – Compilation * de l'Agence Fédérale de l'Environnement (UBA), Allemagne

Les projets de la Commission Européenne du 3 juillet 2018

Aide de travail : Comparaisons avec les projets du 13 novembre 2017 – Définition dans les textes principaux et les annexes

Indication : Veuillez noter que dans le présent texte la traduction en français se limite aux titres et à quelques indications.

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* https://www.eup-network.de/de/eup-netzwerk-deutschland/offenes-forum-eu-regelungen-beleuchtung/dokumente/texte/

DE: ↓

EN: → page V

FR : → page VII

Regelungsentwürfe der EU-Kommission auf dem Weg zu neuen Verordnungen sowie Einordnung (●) der Dokumente der EU-Kommission vom 3. Juli 2018 (versandt am 13. Juli 2018)

Die Dokumente der EU-Kommission vom Juli 2018 stellen nur einen Zwischenstand auf dem Weg zu neuen Regelungen dar:

* zur Produktgestaltung ** zur Produktinformation

Liste der Hilfstexte zu den Dokumenten der EU-Kommission vom 3. Juli 2018 und Kennzeichnung des vorliegenden Textes (●)

A Hilfen für die Arbeit mit den Entwürfen vom Juli 2018:

- Aufteilung des Regelungsumfanges zwischen den Verordnungen zur Produktgestaltung und -information *
- Begriffsbestimmungen: Zusammenfassung und Vergleich zwischen den Regelungsentwürfen zu Produktgestaltung und –information

B Vergleich der Entwürfe vom Juli 2018 mit denen vom November 2017:

- Zusammenfassung der folgenden Vergleiche

Produktgestaltung und -information:

- - Gliederung der Entwurfstexte: Inhaltspunkte/-verzeichnisse in Haupttexten und Anhängen
- ● - Begriffsbestimmungen in Haupttexten und Anhängen

Produktgestaltung:

- - Haupttext: Artikel 1 und 3 bis 11 **.
- - Geltungsbereich *: Vergleiche zu
  - Haupttext Artikel 1: Gegenstand und Geltungsbereich sowie
  - Anhang III: Ausnahmen
- - Anforderungen an die Produktgestaltung ***: Vergleiche zu
  - Anhang II, 1: Stromeffizienz und
  - Anhang II, 2: Betriebseigenschaften von Lichtquellen

* Stand: 19. 8. 2018: Dieser Text ist noch nicht verfügbar.

** Zu Artikel 2 *Begriffsbestimmungen* siehe den oben genannten Text

*** Zu Artikel 4 *Ausbaubarkeit von Lichtquellen und getrennten Betriebsgeräten* siehe den Vergleich der Haupttext.

EN: List of EU Commission documents as of 3 July 2018 (sent out on 13 July 2017) and identification of the text at hand

Draft regulation of the EU-Commission on the way to new regulations and identification (●) of EU Commission documents of 3 July 2018 (sent on 13 July 2018)

These documents are only an interim stage on the way to new regulations:

- Preliminary drafts of November 2015 for the Consultations Forum
  ↓
- Drafts of November 2017 for the Consultations Forum
  ↓
- ● Drafts of 3 July 2018 for inter-service consultation (7'2018)
  ↓
- Drafts for WTO-notification (8/9'2018)
  ↓
- Drafts for Regulatory Committee * and Technical Expert Meeting ** (12'2018/1'2019 ?)
  ↓
- Regulation(s) No. …/2019/EU

* on product design ** on product information

List of work aids on EU Commission documents of 3 July 2018 and identification (●) of the text at hand

A Aids for the utilisation of the drafts of July 2018:

- Allocation of the regulatory content between the regulations for product design and product information *
- Definitions: Compilation and comparison between product design and product information

B Comparison of the drafts of July 2018 with those of November 2017:

- Summary of the following comparisons

Product design and product information:

- - Structure of the drafts: content points (chapter headings) in main texts and annexes
- - Definitions in main texts and annexes

Product design:

- - Main Text: Article 1 and 3 to 11 **.
- - Scope *: Comparison of
  - Main text Article 1: Subject matter and scope and
  - Annex III: Exemptions
- - Requirements on product design ***: Comparison of
  - Annex II, 1: Energy efficiency and
  - Annex II, 2: Functionality of light sources

* Status as of 19 August 2018: This text is not yet available.

** For Article 2 *Definitions* see the text above.

*** For Article 4 *Removal of light sources and separate control gear*, see the comparison of the main texts.

FR: Liste des documents de la Commission européenne du 3 juillet 2018 (envoyé le 13 juillet 2018) et marquage du présent document

Projets de la Commission Européenne sur la voie de la nouvelle réglementation et marquage (●) des documents de la Commission européenne du 3 juillet 2018 (envoyés le 13 juillet 2018)

Ces documents ne sont qu'une position provisoire sur la voie de nouvelles réglementations.

- ○ Avant-projets du novembre 2015 pour la Forum consultatif
- ↓
- ○ Projets du novembre 2017 pour la Forum consultatif
- ↓
- ● Projets du 3 juillet 2018 pour la consultation inter-services (7'2018)
- ↓
- ○ Projets pour la notification à l'OMC (8/9'2018)
- ↓
- ○ Projets pour la comité de réglementation * et pour la réunion d'experts techniques ** (12'2018/1'2019 ?)
- ↓
- ○ Réglementation(s) N° …/2019/UE

* sur la conception des produits ** sur l'information relative aux produits

Liste des aides de travail sur les documents de la Commission européenne du 3 juillet 2018 et marquage (●) de le présent document

A Aides pour utiliser les projets du juillet 2018 :

- Répartition du contenu normatif entre les règlements sur la conception des produits et sur l'information relative aux produits *
- Définitions : Compilation et comparaison entre les définitions pour conception des produits et celles pour l'information relative aux produits

B Comparaison des projets du juillet 2018 avec ceux du novembre 2017 :

- Synthèse des comparaisons suivantes

Conception des produits et information relative aux produits :

- - Structure des projets de textes : points de contenus (titres des chapitres) dans les textes principaux et les annexes
- ● - Définition dans les textes principaux et les annexes

Conception des produits :

- - Texte principal : Articles 1 et 3 à 11 **.
- - Champ d'application * : Comparaisons de
  - Texte principal Article 1 : Objet et champ d'application et
  - Annexe III : Exemptions
- - Exigences de la conception des produits *** : Comparaisons de
  - Annexe II, 1 : Efficacité énergétique et
  - Annexe II, 2 : Fonctionnalités des sources lumineuses

* État au 19 août 2018 : Ce texte n'est pas encore disponible.

** Pour l'article 2 *Définitions*, voir le texte ci-dessus.

*** Pour l'article 4 *Suppression de sources lumineuses et de appareillages de commande séparées*, voir la comparaison du texte principal.

Es folgt ein unveränderter Originaltext.

EN: The following is an unmodified original text.

FR: Ce qui suit est un texte original.

Dessau-Roßlau, den 18. 8. 2018

Offenes Forum EU-Regelungen zur Beleuchtung:

Vergleiche der Regelungsentwürfe der EU-Kommission vom 3. Juli 2018 mit denen vom 13. November 2017: Begriffsbestimmungen

– Arbeitshilfe von Christoph Mordziol, UBA –

EN:

Open Forum EU Policies on Lighting:

Comparison of the EU Commission's draft regulations of 3 July 2018 with those of 13 November 2017: Definitions

— Working aid by Christoph Mordziol, UBA —

FR:

Forum ouvert sur le politique européenne de l'éclairage :

Comparaison des projets de règlement de la Commission européenne du juillet 2018 avec ceux du novembre 2017 : Définitions

— Aide de travail par Christoph Mordziol, UBA —

b

Inhaltsverzeichnis ◊ **EN**: Contents list → page d ◊ **FR** : Table des matières → page e

EN: Contents list

FR : Table des matières

DE	EN | FR (première traduction)

Vorbemerkungen ◊ Preliminary remarks ◊ Remarques préliminaires

Am 13. Juli 2018 machte die EU-Kommission neue Entwürfe für Regelungen zu Beleuchtungsprodukten mit Anforderungen an die Produktgestaltung und -information bekannt [1]. Diese Texte mit Stand vom 3. Juli stellen nur eine Zwischenstufe auf dem Weg zu neuen Regelungen dar.

On 13 July 13 2018, the EU Commission announced new draft regulations on lighting products with requirements on product design and product information [1]. These texts, dated July 3, are only an intermediate stage on the way to new regulations.

Leider lassen die genannten Texte nicht erkennen, welche Änderungen gegenüber den vorigen Entwürfen vom 13. November 2017 vorgenommen wurden [2]. Deshalb soll der vorliegende Text, wie andere Hilfstexte zu den genannten Regelungsentwürfen auch, es erleichtern, die Unterschiede zwischen den Entwürfen vom November 2017 und denen vom Juli 2018 schneller zu erfassen.

Unfortunately, the texts mentioned do not indicate what changes have been made to the previous drafts of 13 November 2017 [2]. Therefore, like other aid texts on these new Commission drafts, the present text aims to make it easier to grasp the differences between the draft regulations of November 2017 and those of July 2018 faster.

Hierfür wurden die Bezeichnungen und zugehörigen Begriffsbestimmungen der genannten Entwürfe verglichen. Diese liegen sowohl zunächst für November 2017 als auch Juli 2018 nur auf jeweils vier Texte verteilt vor. Deshalb waren bereits Arbeitshilfen erstellt worden, die die Bezeichnungen und zugehörigen Begriffsbestimmungen zusammenfassen [3]. Diese Texte bildeten die Grundlage für den hier behandelten Vergleich.

For this purpose, the designations and corresponding definitions of the above drafts were compared. Initially, they are be distributed in four texts for both November 2017 and July 2018. Therefore, work aids have been created that summarize the terms and related definitions [3]. These texts formed the basis for the comparison here.

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1 Zu den Bezugsquellen dieser Texte siehe Abschnitt A.1.2 (ab Seite 29). ◊ **EN**: The sources of supply of these texts can be found in section A.1.2 (page 29ff). ◊ **FR** : Les sources de référence pour cette textes se trouve dans chapitre A.1.2 (à partir de la page 29).

2 Zu der Bezugsquelle dieses Textes siehe Abschnitt A.1.1 (Seite 29). ◊ **EN**: The source of this text can be found in section A.1.1 (page 29ff.). ◊ **FR** : La source de référence pour cette texte se trouve dans chapitre A.1.1 (page 29).

3 11/2017: https://www.eup-network.de/fileadmin/user_upload/Lichtquellen_Arbeitshilfe_02g1.pdf
7/2018: https://www.eup-network.de/fileadmin/user_upload/Lichtquellen_Arbeitshilfe_02n2.pdf

DE	EN | FR (première traduction)

1 Hauptergebnisse der Vergleiche ◊ Main results of comparisons ◊ Résultats principaux des comparaisons

Der Vergleich zeigt zwei Arten von Änderungen gegenüber den Entwürfen vom November 2017:

- Änderungen im Gefüge“: Begriffsbestimmungen wurden gestrichen, verschoben oder sind neu hinzugekommen sowie
- Änderungen im Wortlaut der Begriffsbestimmungen.

The comparison shows two types of changes compared to the designs of November 2017:

- Changes in the structure: Definitions have been deleted, moved or added and
- Changes in the wording.

1.1 Änderungen im Gefüge ◊ Changes in the structure ◊ Changements dans la structure

Es gibt Begriffsbestimmungen in den Entwürfen vom November 2017, die in denen vom Juli 2018 nicht mehr auftauchen, die also **gestrichen** wurden:

There are definitions in the drafts of November 2017, which no longer appear in those of July 2018, i.e. which have been **deleted**:

| extra low voltage | final owner |

Andere Begriffsbestimmungen sind erst in den Entwürfen vom Juli 2018 zu finden; sie sind also **hinzugekommen**:

Other definitions can only be found in the drafts of July 2018; So they were **added**:

| colour purity index | connected separate control gear | LED die or LED chip | LED package | photosensitive patients | QXL (Quick eXchange Lamp) | stroboscopic effect |

\+ G16d; GX16d; GY16; G22; G38; P28s; P40s; PGJX50; R9; G9.5,; GX9.5; GY9.5; G9.5HPL

Weiterhin gibt es Begriffsbestimmungen, die in den Entwürfen vom November 2017 unter einer eigenen Überschrift standen, die aber in den Entwürfen vom Juli 2018 aber nur Teil einer anderen Begriffsbestimmung sind, die also **verschoben** wurden:

Furthermore, there are definitions which have their own headline in the drafts of November 2017, but which are only part of another definition in the July 2018 drafts, i.e. which have been **moved**:

DE	EN | FR (première traduction)

| gas discharge | halogen light source | mains or mains voltage or mains electricity supply | Power-over-Ethernet switch or PoE switch | Pst LM |

Schließlich gibt es Begriffsbestimmungen, die **umbenannt** wurden:

Finally, there are definitions that have been **renamed**:

| colour temperature | portable battery-operated (product) |

→ Zu den Einzelheiten siehe Abschnitt 2.

→ For details see in section 2.

1.2 Änderungen im Wortlaut ◊ Changes in the wording ◊ Changements de formulation

Wesentlich für den Geltungsbereich ist die Festlegung dessen, was als Lichtquelle im Sinne der Verordnung gelten soll. Hier gibt es mehrere Änderungen:

- Der vorige Entwurf sah vor, daß nur solche Produkte in den Geltungsbereich der Verordnung fallen, bei denen, neben anderen Bedingungen, der Wert sogenannten Spezifischen Lichtausstrahlung < 1000 lm/mm² Lichtabgabefläche beträgt. Diese Grenze liegt in dem Entwurf vom Juli bei 500 lm/mm².

  → Siehe im Abschnitt 3 unter „light source“.

Essential for the scope is the definition of what should be considered as light source in the sense of the regulation. there are several changes here:

- The previous draft stipulated that only those products fall within the scope of the regulation, where — among other conditions— the value of the so called luminous exitance is < 1000 lm/mm² projected light-emitting surface. This limit is in the draft of July at 500 lm/mm².

→ See in section 3 under “light source”.

DE	EN | FR (première traduction)
• Außerdem nennt der neue Entwurf vier Produktgruppen, die nicht als Lichtquellen im Sinne der Verordnung gelten, unter anderem ○ Hüllprodukte, deren enthaltene Lichtquellen zur Prüfzwecken ausgebaut werden können, also beispielsweise Kühlschränke [4] sowie ○ lichtabgebende Elemente in einer Lichtquelle, die nicht zu Prüfzwecken entnommen werden können, also beispielsweise ALED-Module [5] in einer E27-Sockel-Lampe [4].	• In addition, the new draft identifies four product groups that are not considered to be light sources within the scope of the Regulation, inter alia ○ products containing light source(s) from which these light source(s) can be removed for verification, e.g. a refrigerator [4]; ○ light-emitting parts contained in a light source from which these parts cannot be removed for verification as a light source, e.g. an ILED-module [5] in an E37 socket lamp [4].
→ Siehe im Abschnitt 3 unter „light source“.	→ See in section 3 under “light source”.
Im Zusammenhang mit den Entwürfen vom November 2017 wurden vielfach über die Frage der Ausbaubarkeit von Lichtquellen sowie darüber diskutiert, was als Hüllprodukt gelten soll. • Hüllprodukte: Die Begriffsbestimmung umfaßt nicht mehr die Verpflichtung der Anbieter, eine Überprüfung der Anforderungen durch die Marktüberwachungsbehörden zu ermöglichen.	In connection with the drafts of November 2017, many debated the question of the removability of light sources as well as what should be considered as a containing product. • Containing products: The definition no longer includes the obligation for manufacturers or importers to enable verification by market surveillance authorities of compliance.
→ Siehe im Abschnitt 3 unter „containing product“.	→ See in section 3 under “containing product”.

[4] Dieses Beispiel ist nicht den Regelungsentwürfen entnommen. ◊ **EN**: This exeample was not taken from the draft regulation.

[5] ALED = Anorganische LED (Leuchtdiode), im Gegensatz zur OLED = Organischen LED ◊ **EN**: (In-/) Anorganic LED (light emitting diode), in contrast to OLED = Organic LED ◊ **FR**: DELi = diode électroluminescente inorganique, contrairement à la diode électroluminescente organique (DELo).

DE	EN | FR (première traduction)
Des weiteren fallen folgende Änderungen auf:	Furthermore the following changes are noticeable:
• Der Regelungsentwurf zur Produktgestaltung sieht einen Höchstwert für die Elektroleistung von getrennte Betriebsgeräten im Schein-Aus-Zustand vor; siehe Anhang II, Punkt 1. Gemäß dem neuen Entwurf beschränkt sich die Betrachtung dieses Zustandes nun auf solche getrennten Betriebsgeräte, bei denen der Anbieter in den Technikunterlagen erklärt hat, daß sie für diesen Zustand ausgelegt sind.	• The draft regultion on ecodesign sets for separate control gear a maximum value for power demand in no-load mode; see Annex II, point 1. According to the new draft, the consideration of this mode is now limited to those separate control gear for which the manufacturer or importer has declared in the technical documentation that it has been designed for this mode.
→ Siehe im Abschnitt 3 unter „no-load mode“.	→ See in section 3 under “no-load mode”.
• Der Begriff der Farblichtquellen mit veränderlichem Spektrum (CTLS) wurde erweitert von ALED-Netzlichtquellen (CLS) auf jegliche Lichtquellen bestimmter Eigenschaften.	• The designation of Colour-tuneable light source (CTLS) has been extended from ALED connected light sources (CLS) to any light source of certain characteristics.
→ Siehe im Abschnitt 3 unter „colour-tuneable light source“.	→ See in section 3 under “colour-tuneable light source”:
• Daneben wurden einige Begriffsbestimmungen geschärft.	• I addition, some definitions have been refined.
• Außerdem fällt auf, daß zahlreiche Abweichungen in der Wortwahl zwischen den Regelungen zu Produktgestaltung und –information, die noch in den Entwürfen vom November 2017 zu finden sind, beseitigt wurden.	• It is also noticeable that numerous deviations in wording between the regulations on product design and product information, which could be found in the draft of November 2017, have been eliminated.

DE	EN	FR (première traduction)

2 Änderungen im Gefüge ◊ Changes in the structure ◊ Changements dans la structure

Im folgenden sind, alphabetisch geordnet, alle Bezeichnungen gegenübergestellt, zu denen es in den Entwürfen vom November 2017 und/oder Juli 2018 Begriffsbestimmungen gibt.

The following is an alphabetical list of all designations for which there are definitions in the November 2017 and / or July 2018 drafts.

In der linken Spalte der Gegenüberstellungen sind die Bezeichnungen der Entwürfe vom November 2017 und in der rechten Spalte die der Entwürfe vom Juli 2018 aufgeführt. Die mittlere Spalte zeigt in Form von Symbolen inwieweit es Änderungen gibt:

In the left column of the comparisons the designations of the drafts of November 2017 are listed and in the right column the drafts of July 2018. The middle column shows to what extent there are deviations

→ Die Begriffsbestimmung (aus dem Entwurf vom November 2017) ist auch in dem Entwurf vom Juli 2018 zu finden. ◊ **EN**: The definition (from the draft of November 2017) can also be found in the draft of July 2018. ◊ **FR** : La définition (dans le projet du novembre 2017) se trouve également dans le projet du 2018 juillet.

↳ Die Begriffsbestimmung ist in dem Entwurf vom Juli 2018 in eine andere Begriffsbestimmung eingefügt. ◊ **EN**: The definition is inserted in a different definition in the draft of July 2018. ◊ **FR** : La définition est insérée dans une définition différente dans le projet de juillet 2018.

↑ Siehe ebenda. ◊ **EN**: See ibidem. ◊ **FR** : Voir ibidem.

− Die Begriffsbestimmung ist nicht mehr Teil des Entwurfes vom Juli 2018. ◊ **EN**: The definition is no longer part of the draft of July 2018. ◊ **FR** : La définition ne fait plus partie du projet du 2018 juillet

\+ Die Begriffsbestimmung ist in dem Entwurf vom Juli 2018 hinzugekommen. ◊ **EN**: The definition has been added to the draft of July 2018. ◊ **FR** : La définition a été ajouté au projet du 2018 juillet.

Umbenennungen von Bezeichnungen sind kenntlichgemacht: ~~alte Bezeichnung~~neue Bezeichnung

Renaming of designaitons is indicated: ~~old designaiton~~new designation.

11/2017		7/2018
anti-glare shield	→	anti-glare shield
beam angle	→	beam angle
chromaticity	→	chromaticity
colour consistency	→	colour consistency
—	+	colour purity index
colour rendering index	→	colour rendering index
colour-tuneable light source	→	colour-tuneable light source
compact fluorescent light source	→	compact fluorescent light source
connected light source	→	connected light source
—	+	connected separate control gear
containing product	→	containing product
control gear	→	control gear
control gear efficiency	→	control gear efficiency
control mode	→	control mode
control signal	→	control signal
colour temperature	→	correlated colour temperature
data-connection parts	→	data-connection parts
declared value	→	declared value
directional light source	→	directional light source
displacement factor	→	displacement factor
end-user	→	end-user
equivalent model	→	equivalent model
extra low voltage	−	—
final owner	−	—
flicker	→	flicker
fluorescence / fluorescent light source	→	fluorescence or fluorescent light source
full-load	→	full-load
functionality after accelerated endurance testing	→	functionality after endurance testing
G4, GY6.35 and G9	→	G4, GY6.35 and G9

11/2017		7/2018
—	✚	G9.5, GX9.5, GY9.5, G9.5HPL, G16d, GX16d, GY16, G22 and G38
gas discharge	↳	high intensity discharge ↑
halogen light source	↳	incandescence ↑
high intensity discharge	→	high intensity discharge
high-pressure mercury light source	→	high-pressure mercury light source
high-pressure sodium light source	→	high-pressure sodium light source
HL R7s	→	HL R7s
incandescence	→	incandescence
inorganic light emitting diode	→	inorganic light emitting diode
—	✚	LED die or LED chip
—	✚	LED package
LFL T5-HE	→	LFL T5-HE
LFL T5-HO	→	LFL T5-HO
LFL T8 2-foot; LFL T8 4-foot; LFL T8 5-foot	→	LFL T8 2-foot; LFL T8 4-foot; LFL T8 5-foot
lifetime	→	lifetime
light	→	light
light source	→	light source
lighting control parts	→	lighting control parts
lumen maintenance factor	→	lumen maintenance factor
luminous flux or flux	→	luminous flux or flux
luminous intensity	→	luminous intensity
magnetic induction light source	→	magnetic induction light source
mains light source	→	mains light source
mains; mains voltage; mains electricity supply	↳	control gear ↑
metal halide light source	→	metal halide light source
network	→	network
networked standby mode	→	networked standby mode
networked standby power	→	networked standby power
no-load mode	→	no-load mode

11/2017		7/2018
no-load power	→	no-load power
non-clear envelope	→	non-clear envelope
non-directional light source	→	non-directional light source
non-lighting parts	→	non-lighting parts
non-mains light source	→	non-mains light source
on-mode power	→	on-mode power
organic light emitting diode	→	organic light emitting diode
—	✚	P28s, P40s and PGJX50
—	✚	photosensitive patients
point of sale	→	point of sale
portable battery-operated (product)	→	~~portable~~ battery-operated ~~(product)~~
Power-over-Ethernet switch; PoE switch	↳	control gear ↑
projected light-emitting surface area	→	projected light-emitting surface area
Pst LM	↳	flicker ↑
—	✚	QXL (Quick eXchange Lamp)
—	✚	R9
reference control settings	→	reference control settings
remotely initiated trigger	→	remotely initiated trigger
second envelope	→	second envelope
separate control gear	→	separate control gear
specific effective radiant ultraviolet power	→	specific effective radiant ultraviolet power
standby mode	→	standby mode
standby power	→	standby power
—	✚	stroboscopic effect
survival factor	→	survival factor
T2, T5, T8, T9 and T12	→	T2, T5, T8, T9 and T12
useful luminous flux	→	useful luminous flux

DE	EN | FR (première traduction)

3 Änderungen im Wortlaut ◊ Changes in the wording ◊ Changements de formulation

Die Begriffsbestimmungen in den Entwürfen zu Produktgestaltung und denen zu Produktinformation sind nicht in allen Fällen vollkommen identisch. Ein Grund dafür ist, daß der Regelungsentwurf zur Produktgestaltung auf Lichtquellen und Betriebsgeräte zielt, der Regelungsentwurf zur Produktinformation aber nur auf Lichtquellen.

The definitions in the draft regulations on product design and product information are not completely identical in all cases. One reason for this is that the draft regulation on product design is aimed at light sources and control gear, but the draft regulation on product information is only for light sources.

Deshalb sind Textteile, die entweder nur in dem Regelungsentwurf zur Produktgestaltung oder nur dem zur Produktinformation enthalten sind, in den Zusammenfassungen für November 2017 und Juli 2018 [6] kenntlich gemacht. Dies erscheint folglich auch im vorliegenden Text.

Therefore, parts of the text that can be found only in either the draft regulation on product design or in the draft regulation on product information, are marked in the summarizing working aids for November 2017 and July 2018 [6]. Consequently, this also appears in the present text

Textteile, die nur in dem Regelungsentwurf zur Produktgestaltung enthalten sind, sind wie im folgenden Beispiel dargestellt, in schwarzer Schrift gesetzt und wie folgt eingeklammert

Therefore, parts of the text which can be found only in the draft regulation on product design are in black writing and bracketed, as shown in the following example:

> … connected to the light sources ⌈and/or to the separate control gear⌉

Textteile, die nur in dem Regelungsentwurf zur Produktinformation enthalten sind, sind wie im folgenden Beispiel dargestellt, in grüner Schrift gesetzt und eingeklammert. Beispiel:

Parts of the text which can only be found in the draft regulation on product information are in green writing and bracketed, as shown in the following example:

> … the term does not include ⌈products/devices⌋ …

6 11/2017: https://www.eup-network.de/fileadmin/user_upload/Lichtquellen_Arbeitshilfe_02g1.pdf
7/2018: https://www.eup-network.de/fileadmin/user_upload/Lichtquellen_Arbeitshilfe_02n2.pdf

DE	EN | FR (première traduction)
Änderungen in den Entwürfen vom Juli 2018 gegenüber denen vom November 2018 sind wie folgt gekennzeichnet: ~~gestrichene Textteile~~ und ergänzte Textteile	Changes in the drafts of July 2018 compared to those of November 2018 are marked as follows ~~deleted text parts~~ and added text parts
Unterschiede, die belanglos sind, sind im Text nicht weiter kenntlich gemacht. Beispiele:	Differences which are negligible are not indicated in the text. Examples:
high-pressure sodium in the directional light source~~,~~;	
Wie im vorigen Abschnitt 2 dargestellt, werden mehrere Begriffsbestimmungen in den Entwürfen vom Juli 2018 nicht mehr unter einer eigenen Bezeichnung geführt, sondern nur noch als Teil einer andern Begriffsbestimmung. Da im vorliegenden Abschnitt die Veränderungen im Wortlaut dargestellt werden, sind die derart verschobenen Begriffsbestimmungen hier noch unter der gleichen Bezeichnung aufgeführt, unter der sie auch in den Entwürfen vom November 2017 zu finden sind. Die Begriffsbestimmungen jedoch, die in der beschriebenen Art erweitert wurden, sind hier – wieder wegen des Zweckes des vorliegenden Abschnittes – ohne diese Erweiterungen wiedergegeben. Der vollständige Wortlaut der Begriffsbestimmungen in den Entwürfen vom Juli 2018 kann in einer hierzu erstellten Arbeitshilfe nachgelesen werden [7].	As explained in the previous section 2, several definitions in the July 2018 drafts are no longer run under their own designation, but only as part of another definition. Since this section shows the changes in the wording, the definitions thus deferred are still listed here under the same name as they appear in the November 2017 drafts. The definitions, however, which have been extended in the manner described, are reproduced here – again for the purpose of this section – without these extensions. The full text of the definitions in the drafts of July 2018 may be found in a working aid prepared for this purpose [7].
Im folgenden sind die Begriffsbestimmungen, die in den Entwürfen vom November 2017 und/oder denen vom Juli 2018 enthalten sind, aufgeführt; alphabetisch geordnet nach den zugehörigen Bezeichnungen.	The following are the definitions contained in the drafts of November 2017 and/or those of July 2018; arranged alphabetically according to the associated designations.

7 https://www.eup-network.de/fileadmin/user_upload/Lichtquellen_Arbeitshilfe_02n2.pdf

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In der ersten Spalte sind die schon im vorigen Abschnitt 2 verwendeten Symbole zu finden; siehe deren Erklärung auf Seite 6.	The first column shows the symbols already used in the previous section 2; see the referring explanation on page 6.

→ **'anti-glare shield'**

means a mechanical or optical reflective or non-reflective impervious baffle designed to block direct visible radiation emitted from the light emitter in a directional light source, in order to avoid temporary partial blindness (disability glare) if viewed directly by an observer. It does not include surface coating of the light emitter in the directional light source;

→ **'beam angle'**

of a directional light source means the angle between two imaginary lines in a plane through the optical beam axis, such that these lines pass through the centre of the front face of the light source and through points at which the luminous intensity is 50 % of the centre beam intensity, where the centre beam intensity is the value of luminous intensity measured on the optical beam axis;

For light sources that have different beam angles in different planes, the largest beam angle shall be ~~considered~~the one taken into account;

For light sources with user-controllable beam angle, the beam angle corresponding to the 'reference control setting' shall be ~~considered~~the one taken into account;

→ **'chromaticity'**

means the property of a colour stimulus defined by its chromaticity coordinates (x and y).

→ 'colour consistency' means the maximum deviation of the initial (after a short period of time), spatially averaged chromaticity coordinates (x and y) of a single light source from the chromaticity centre point (cx and cy) declared by the manufacturer or the importer, expressed as the size (in steps) of the MacAdam ellipse formed around the chromaticity centre point (cx and cy);

\+ **'colour purity index':**

a percentage computed for a CTLS set to emit light of a certain colour, using a procedure further defined in standards, by drawing a straight line on an (x,y) colour space graph from a point with colour coordinates x=0.313 and y=0.330 (D65 reference point, point 1), going through the point representing the (x,y) colour coordinates of the light source (point 2), and ending on the outer border of the colour space (locus; point 3). The colour purity index is

computed as the distance between points 1 and 2 divided by the distance between points 1 and 3. The full length of the line represents 100% colour purity (point on the locus). The D65 reference point represents 0% colour purity (white light);

→ '**colour rendering index**' (CRI~~), expressed in Ra~~)

is the average Ra of the colour rendering for the first 8 test colours (R1-R8) defined in standards, and means the effect of an illuminant on the colour appearance of objects by conscious or subconscious comparison with their colour appearance under the reference illuminant~~. For the purposes of this Regulation it refers to the mean of colour rendering indices for a set of 8 test colour samples as specified in standards (Ra8).~~;

→ '**colour-tuneable light source**' (CTLS)

means a ~~connected~~ light source ~~(CLS) using LED- or OLED-technology,~~ that can be set to emit light with a large variation of colours outside the range defined in article 2(1~~)(a),~~) but can also be set to emit white light inside the range defined in article 2(1~~)(a~~) for which the light source is in scope of this Regulation;

The term does not include tuneable-white light sources that can only be set to emit light, with different correlated colour temperatures, within the range defined in Article 2(1~~)(a~~).

The term also does not include dim-to-warm light sources, that shift their white light output to lower correlated colour temperature when dimmed, simulating the behaviour of incandescent light sources;

→ '**compact fluorescent light source**' (CFL)

means a single-capped fluorescent light source with a bent-tube construction designed to fit in small spaces. CFLs may be primarily spiral-shaped (i.e. curly forms) or primarily shaped as connected multiple parallel tubes, with or without a second bulb-like envelope. CFLs are available with (CFLi) or without (CFLni) physically integrated control gear;

→ '**connected light source**' (CLS)

means a light source including data-connection parts that are physically or functionally inseparable from the light emitting parts to maintain the 'reference control settings'; ~~To maintain the reference control settings the data-connection parts cannot be disconnected, switched-off or their power consumption minimised.~~

The light source can have physically integrated data-connection parts in a single inseparable housing, or the light source can be combined with physically separate data-connection parts placed on the market together with the light source as a single product.

✚ ‘**connected separate control gear**’ (CSCG)

means a separate control gear including data-connection parts that are physically or functionally inseparable from the actual control gear parts to maintain the ‘reference control settings';

The separate control gear can have physically integrated data-connection parts in a single inseparable housing, or the separate control gear can be combined with physically separate data-connection parts placed on the market together with the control gear as a single product;

→ ‘**containing product**’

means a product containing one or more light sources ~~{~~and/or separate control gears~~}~~ ~~in scope of this Regulation~~.

~~{Manufacturers or importers/Suppliers} of containing products shall enable verification by market surveillance authorities of compliance of light source(s) {and/or control gear(s)} as set out in Annex {IV/VI}.~~

Examples of containing products are luminaires that can be taken apart to allow separate verification of the contained light source(s), household appliances containing light source(s), furniture (shelves, mirrors, display cabinets) containing light source(s), and other products that cannot be practically verified as light source themselves, so that the contained light source(s) have to be considered;

→ ‘**control gear**’

means one or more devices, possibly integrated in a light source, intended to prepare the mains electricity supply for the electric format required by one or more specific light sources within boundary conditions set by electric safety and electromagnetic compatibility. It may include transforming the supply and starting voltage, limiting operational and preheating current, preventing cold starting, correcting the power factor and/or reducing radio interference.

⌈The term ‘control gear’ does not include power supplies within the scope of Commission Regulation (EC) No 278/2009 ~~([8]).~~. The term does also not include lighting control parts and non-lighting parts (as defined in Annex ~~II~~I), although such parts may be physically integrated with a control gear or marketed together as a single product. A Power over Ethernet (PoE) switch is not a control gear in the sense of this Regulation.⌋

8 OJ L93, 7.4.2009, p.3.

→ '**control gear efficiency**'

is the output power divided by the input power of a separate control gear ~~in~~using the conditions and methods defined in measurement standards~~, with.~~ Any lighting control parts and non-lighting parts are disconnected, switched off or set to minimum power consumption according to manufacturer's instructions~~.~~ and subtracting this power consumption from the overall input power;

→ '**control mode**'

means the condition of lighting control parts where they are connected to the light source ⌈and/or to the separate control gear⌉ and performing their functions in such a way that a ~~lighting~~ control signal can be internally generated or ~~an external control signal~~a remotely initiated trigger can be received, by wire or wireless, and processed to lead to a change in the light emission of the light source ⌈or to a corresponding desired change in the power supply by the separate control gear;⌉

→ '**control signal**'

means an analogue or digital signal transmitted to ⌊the⌋ light source ⌈or separate control gear⌉ wirelessly or wired either via voltage modulation in separate control cables or via a modulated signal in the supply voltage. The signal transmission is not through a network but e.g. from an internal source or from a remote control delivered with the product;

→ '**correlated colour temperature**' (~~Tc~~CCT [K])

means the temperature of a Planckian (black body) radiator whose perceived colour most closely resembles that of a given stimulus at the same brightness and under specified viewing conditions;

→ '**data-connection parts**'

means parts that perform any one of the following functions:

– (a) reception or transmission of wired or wireless data signals and the processing thereof (either used to control the light emission function or otherwise),

– (b) sensing and processing of the sensed signals (either used to control the light emission function or otherwise),

– (c) actuation by audio control (including voice control),

– (d) a combination of these;

→ '**declared value**'

for a parameter means the value given by the manufacturer or importer in the technical documentation pursuant to ⌈point 2 of Annex IV to Directive 2009/125/EC./Article 3(3) of Regulation 2017/1369⌋;

→ '**directional light source**' (DLS)

means a light source having at least 80% of total luminous flux within a solid angle of π sr (corresponding to a cone with angle of 120°);

→ '**displacement factor** (cos φ1)'

means the cosine of the phase angle φ1 between the fundamental harmonic of the mains supply voltage and the fundamental harmonic of the mains current. It is used for mains light sources using LED- or OLED-technology;

The displacement factor is measured at full-load, for the reference control settings where applicable, with any lighting control parts in control mode and non-lighting parts disconnected, switched off or set to minimum power consumption according to the manufacturer's instructions;

→ '**end-user**'

means a natural person buying or expected to buy a product for purposes which are outside his trade, business, craft or profession;

→ '**equivalent model**'

means a model with the same relevant technical and performance characteristics as another model placed on the market under a different commercial code;

— ~~'**extra-low voltage**' (ELV)~~

~~means an electricity supply of less than 120 V direct current, as further defined in relevant standards.~~

— ~~'**final owner**'~~

~~means the entity owning a product during the use phase of its life cycle, or any other entity acting on its behalf.~~

→ '**flicker**'

means the perception of visual unsteadiness induced by a light stimulus the luminance or spectral distribution of which fluctuates with time, for a static observer in a static environment. The fluctuations can be periodic and non-periodic and may be induced by the light source itself, the power source or other influencing factors.

The metric for flicker used in this Regulation is the 'Pst LM', where 'st' stands for short term and 'LM' for light flickermeter method, as defined in standards. A value Pst LM=1 means that the average observer has a 50% probability of detecting flicker;

→ '**fluorescence**' or '**fluorescent light source**' (FL) means the phenomenon or a light source using an electric gas discharge of the low-pressure mercury type in which most of the light is emitted by one or more layers of phosphors excited by the ultraviolet radiation from the discharge. Fluorescent light sources may have one ('single-capped') or two ('double-capped') connections ('caps') to their electricity supply. For the purposes of this Regulation, magnetic induction light sources are also considered as fluorescent light sources;

→ '**full-load**' means:

- the condition of a light source, within the declared operating conditions, in which it emits~~/is emitting~~ the maximum (undimmed) initial luminous flux⌈, or
- the operating conditions and loads of the control gear under efficiency measurement as specified in the relevant standards;⌉

→ **'functionality after ~~accelerated~~ endurance testing'**

means the functionality of a LED or OLED light source ~~or of a separate control gear for LED or OLED light sources after accelerated~~after endurance testing as defined in Annex V;

→ '**G4**', '**GY6.35**' and '**G9**'

means an electrical interface for a light source consisting of two small pins at distances of 4, 6.35 and 9 mm respectively, as defined in standards;

✚ '**G9.5**', '**GX9.5**', '**GY9.5**', '**G9.5HPL**', '**G16d**', '**GX16d**', '**GY16**', '**G22**' and '**G38**'

means an electrical interface for a light source consisting of two pins at distances of 9.5, 16, 22 and 38 mm respectively, as defined in standards. 'G9.5HPL' includes a heatsink of specific dimensions as used on High-Performance halogen lamps, and may include additional pins for grounding purposes;

↳ **'Gas discharge'**

means a phenomenon where light is produced, directly or indirectly, by an electric discharge through a gas, plasma, metal vapour or mixture of gases and vapours.

↳ **'Halogen light ~~(HL)~~ source'**

means an incandescent light source with a threadlike conductor made from tungsten surrounded by gas containing halogens or halogen compounds;

→ **'high intensity discharge'** (HID)

means an electric gas discharge in which the light- producing arc is stabilised by wall temperature and the arc chamber has a bulb wall loading in excess of 3 Watts per square centimetre. For the purpose of this Regulation, HID light sources are limited to metal halide, high-pressure sodium and mercury vapour types as defined in Annex ~~II~~I;

→ **'high-pressure mercury light source'**

means a high intensity discharge light source in which the major portion of light is produced, directly or indirectly, by radiation from predominantly vaporized mercury operating at a partial pressure in excess of 100 kilopascals;

→ **'high-pressure sodium light source'** (HPS)

means a high intensity discharge light source in which the light is produced mainly by radiation from sodium vapour operating at a partial pressure of the order of 10 kilopascals. HPS light sources may have one ('single-ended') or two ('double-ended') connectors to their electricity supply.

→ **'HL R7s'**

is a mains-voltage, double capped, linear halogen light source with a cap-diameter of 7 mm;

→ **'incandescence'**

means a phenomenon where light is produced from heat, in light sources typically produced through a threadlike conductor ('filament') which is heated by the passage of an electric current. Incandescent light sources are either GLS - General Lamp Shape light sources or halogen light sources.

→ '**inorganic light emitting diode**' (LED)

means a technology in which light is produced from a solid state device embodying a p-n junction of inorganic material. The junction emits optical radiation when excited by an electric current;

✚ '**LED die** or **LED chip**'

means a small block of light-emitting semiconducting material on which a functional light emitting diode (LED) circuit is fabricated;

✚ '**LED package**'

means a single electric part comprising principally at least one LED die. It does not include (parts of) a control gear, does not include a cap, is not connected directly to the supply voltage, and does not include active electronic components. It is used as a part of an LED module or of an LED lamp. It can include one or more of the following: optical elements, light converters (phosphors), thermal, mechanical and electric interfaces, parts to address electrostatic discharge concerns. So called Chip-on-Board (CoB) packages, and similar light-emitting devices that are intended to be used directly in an LED luminaire, are not considered to be LED packages, but LED modules;

→ '**LFL T5-HE**'

means a high-efficiency linear fluorescent T5 light source with driving current lower than 0.2 A;

→ '**LFL T5-HO**'

means a high-output linear fluorescent T5 light source with driving current higher than or equal to 0.2 A;

→ '**LFL T8 2-foot**', '**LFL T8 4-foot**' or '**LFL T8 5-foot**'

means a linear T8 fluorescent light source with a length of approximately 600 mm (2 feet), 1200 mm (4 feet) or 1500 mm (5 feet) respectively, as defined in standards;

→ '**lifetime**' for LED and OLED light sources

means the time in hours between the start of their use and the moment when for 50% of a population of light sources ~~have either abruptly failed (no light output anymore) or their~~the light output has gradually degraded to a value below 70% of the initial luminous flux. This is also referred to as the ~~M70F50~~L70B50 lifetime;

→ '**light**'

means electromagnetic radiation with a wavelength between 380 nm and 780 nm;

→ '**light source**'

means an electrically operated product intended to emit and/or be possibly tuned to emit light with all of the following optical characteristics:

(a) chromaticity coordinates x and y in the range
0,270 < x < 0,530 and
– 2,3172 x2 + 2,3653 x – 0,2199 < y < – 2,3172 x2 + 2,3653 x – 0,1595;

(b) a luminous flux < ~~1000~~500 lm per mm² of projected light-emitting surface area as ~~[~~defined~~/specified]~~ in Annex ~~III~~;

(c) a luminous flux between 60 and 82 000 lumen;

(d) a colour rendering index (CRI) Ra > 0~~ Ra~~;

using incandescence, fluorescence, high-intensity discharge, inorganic light emitting diodes (LED) or organic light emitting diodes (OLED), or their combinations as lighting technology~~.~~, and that can be verified as a light source according to the procedure of Annex V.

High-pressure sodium light ~~[~~sources~~/emitters]~~ ~~(HPS, as defined in Annex II)~~ that do not fulfil condition ~~1)~~(a) are anyway considered light sources in the sense of this Regulation.

~~If a containing product is itself a light source, the light source to be considered for the purpose of this Regulation is the smallest physical unit that can be readily removed from the containing product without permanent mechanical damage and that meets the definition for light source.~~

For the purpose of this Regulation, the following products are not considered to be light sources:

(a) LED dies or LED chips;

(b) LED packages;

(c) products containing light source(s) from which these light source(s) can be removed for verification;

(d) light-emitting parts contained in a light source from which these parts cannot be removed for verification as a light source.

→ '**lighting control parts**'

means parts that are integrated in a light source ⌈or in a separate control gear⌉, or physically separated but marketed together with a light source ⌈or separate control gear⌉ as a single product, that are not strictly necessary for the light source to emit light at full-load, ⌈or for the separate control gear to supply the electric power that enables light source(s) to emit light at full-load,⌉ but that enable manual- or automatic-, direct- or remote-, control of

luminous intensity, chromaticity, correlated colour temperature, light spectrum and/or beam angle. Dimmers shall also be considered as lighting control parts;

The term also includes data-connection parts, but the term does not include ⌈products/devices⌋ within the scope of Commission Regulation (EC) No 1275/2008 [9];

→ '**lumen maintenance factor**' (LMF)

means the ratio of the luminous flux emitted by a light source at a given time in its life to the initial luminous flux;

→ '**luminous flux**' or '**flux**' (Φ), expressed in lumen (lm),

means the quantity derived from radiant flux (radiant power) by evaluating the electromagnetic radiation in accordance with the spectral sensitivity of the human eye. It refers to the total flux emitted by a light source in a solid angle of 4π steradians under conditions (e.g. current, voltage, temperature) specified in applicable standards. It refers to the initial flux for the undimmed light source after a short operating period, unless it is clearly specified that the flux in a dimmed condition or the flux after a given period of operation is intended. ~~'Luminous flux' without further specification is the total luminous flux in a 360° sphere.~~ For light sources that can be tuned to emit different light spectra and/or different maximum light intensities, it refers to the flux in the 'reference control settings' as defined in Annex II;

→ '**luminous intensity**' (candela or cd)

means the quotient of the luminous flux leaving the source and propagated in the element of solid angle containing a given direction, by the element of solid angle;

→ '**magnetic induction light source**'

means a light source using fluorescent technology, where energy is transferred to the gas discharge by means of an induced high-frequency magnetic field, instead of using electrodes placed inside the gas discharge. The magnetic inductor can be external or internal to the shape of the discharge tube;

→ '**mains light source** (MLS)'

means a light source that can be operated directly on the mains electricity supply. ~~⌊Examples include incandescent light sources designed to operate directly on the mains, light sources with physically integrated control gear.⌋~~ ...

[9] 1 OJ L 339, 18.12.2008, p. 45 and later amendments.

Light sources that ~~can~~ operate both directly on the mains, and can also operate indirectly on the mains using a separate control gear, shall be considered to be mains light sources. ~~⌊E.g. tubular LED light sources intended to replace linear FL, by-passing or keeping the existing FL control gear.⌋~~

↳ '**Mains**' or '**mains voltage**' or '**mains electricity supply**' (MV)

means the electricity supply of 230 (±10 %) Volt of alternating current at 50 Hz.

→ '**metal halide light source**' (MH)

means a high intensity discharge light source in which the light is produced by radiation from a mixture of metallic vapour, metal halides and the products of the dissociation of metal halides. MH light sources may have one ('single-ended') or two ('double-ended') connectors to their electricity supply. The material for the arc tube of MH light sources can be quartz (QMH) or ceramic (CMH);

→ '**network**'

means a communication infrastructure with a topology of links, an architecture, including the physical components, organisational principles, communication procedures and formats (protocols);

→ '**networked standby mode**'

means the condition of a connected light source (CLS) ⌈or a connected separate control gear (CSCG)⌉ where it is connected to the power supply but the light source is intentionally not emitting light~~,~~ ⌈or the control gear does not supply the electric power that enables light source(s) to emit light,⌉ and is awaiting a remotely initiated trigger (from a network) to return to a state with light emission. Lighting ~~-~~control parts shall be in their control mode and data-connection parts shall be in a state enabling the networked standby function. Non-lighting parts shall be disconnected or switched off or their power consumption shall be minimized following manufacturer's instructions;

→ '**networked standby power**' (Pnet), expressed in Watts,

is the electric power consumption of a connected light source (CLS) ⌈or of a connected separate control gear CSCG)⌉ in networked standby mode;

→ '**no-load mode**'

means the condition of a separate control gear in which its input is connected to the mains power source and its output is intentionally disconnected from light sources, and, if

applicable, from data-connection parts, lighting control parts and non-lighting parts. If these parts cannot be disconnected, they shall be switched off ~~or~~and their power consumption shall be minimized following the manufacturer's instructions~~.~~;

No-load mode only applies to separate control gear for which the manufacturer or importer has declared in the technical documentation that it has been designed for this mode;

→ '**no-load power**' (P_{no}), expressed in Watts,

is the electric power consumption of a separate control gear in no-load mode;

→ '**non-clear envelope**' ~~(~~for a HID light source

means a~~/means a HID light source with a)~~ non-transparent outer envelope or outer tube in which the light producing arc tube is not visible.

→ '**non-directional light source**' (NDLS)

means a light source that is not a directional light source;

→ '**non-lighting parts**'

means parts that are integrated in a light source ⌈or in a separate control gear⌉, or physically separate but marketed together with a light source ⌈or separate control gear⌉ as a single product, that are not necessary for the light source ⌈to emit light at full-load, or for the separate control gear to supply the electric power that enables ~~connected~~ light source(s)⌉ to emit light at full-load, and that are not 'lighting control parts'. Examples include, but are not limited to: speakers (audio), cameras, repeaters for communication signals to extend the range (e.g. WiFi), parts supporting grid balance (switching to own internal batteries when necessary), battery charging, visual notification of events (mail arriving, door bell ringing, alert), use of Light Fidelity (Li-Fi, a bidirectional, high-speed and fully networked wireless communication technology);

→ '**non-mains light source** (NMLS)',

means a light source that is not a mains light source. These light sources require a separate control gear to operate on the mains~~. but they are placed on the market without such control gear. (Examples include extra-low-voltage light sources, light sources for operation on power-over-ethernet, and LED-, OLED-, HID- and FL- light sources placed on the market without control gear)~~;

→ '**on-mode power**' (Pon), expressed in Watt,

is the electric power consumption of a light source in full-load with all lighting control parts and non-lighting parts disconnected. If these parts cannot be disconnected they shall be switched off or their power consumption shall be minimised following the manufacturer's instructions;

In case of a non-mains light source (NMLS) that requires a separate control gear to operate, Pon can be measured directly on the input to the light source, or Pon is determined using a control gear with known efficiency, whose electric power consumption is subsequently subtracted from the measured mains power input value;

→ '**organic light emitting diode**' (OLED)

means a technology in which light is produced from a solid state device embodying a p-n junction of organic material. The junction emits optical radiation when excited by an electric current;

\+ '**P28s**', '**P40s**' and '**PGJX50**'

means an electrical interface for a light source that uses a flange contact to correctly position (pre-focus) the light source in a reflector, as defined in standards;

\+ '**photosensitive patients**'

means people with a specific condition causing photosensitive symptoms and who experience adverse reactions to natural and/or certain forms of artificial lighting technology;

→ '**point of sale means**'

a physical location where the product is displayed or offered for sale, hire or hire-purchase to the end-user.

→ '~~**portable** **battery-operated** (**product**)~~'

means a ~~containing~~ product that ~~is not (permanently) fixed to (its surroundings/the ambient), that is intended to be carried around (by people) or to be frequently moved, whose position can be changed by a simple manual pick-and-place operation, and that~~ operates only on direct current (DC) ~~with a voltage of less than 24 V~~ supplied from a source contained in the same product, without being connected directly or indirectly to the mains electricity supply.

↳ '**Power-over-Ethernet switch**' or '**PoE switch**'

means equipment for power-supply and data-handling that is installed between the mains and office equipment and/or light sources for the purpose of data transfer and power supply

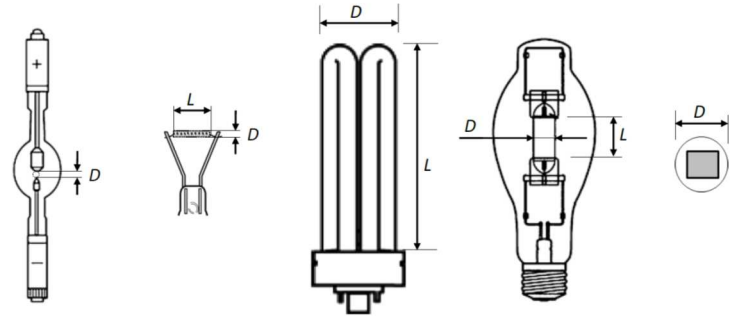
→ '**projected light-emitting surface area** (A)'

is the surface area in mm² (square millimetres) of the view in an orthographic projection of the light-emitting surface from the direction with the highest light intensity, where the light-emitting surface area is the surface area of the light source that emits light with the declared optical characteristics, such as the approximately spherical surface of an arc (a), cylindrical surface of a filament coil (b) or a gas discharge lamp (c, d), flat or semi-spherical envelope of a light-emitting diode (e).

For light sources with ~~(~~a~~)~~ non-clear envelope or with anti-glare shield, the light-emitting surface area is the entire area through which light ~~(~~leaves~~/is leaving)~~ the light source.

For light sources containing more than one light emitter, the projection of the smallest gross volume enveloping all emitters shall be taken as the light-emitting surface.

For HID light sources definition (a) applies, unless the dimensions defined in (d) apply with L>D, where L is the distance between the electrode tips and D the inner diameter of the arc tube.



(a) $A=\frac{1}{4}\pi D^2$ (b) $A=L\cdot D$ (c) $A=L\cdot D$ (d) $A=L\cdot D$ (e) $A=\frac{1}{4}\pi D^2$

↳ ~~'**Pst LM**'~~

~~is~~ The metric for flicker used in this Regulation is the 'Pst LM', where 'st' stands for short term and 'LM' for light flickermeter method, as defined in standards. A value Pst LM=1 means that the average observer has a 50% probability of detecting flicker;

✚ '**Quick eXchange Lamp** (QXL)'

means an electrical interface for a light source consisting, on the light source side, of two lateral tabs including the electrical contact surfaces and, on the opposite (rear) side, of a central protrusion allowing to grab the light source with two fingers. It has been specifically

designed for use in a class of stage lighting luminaires, in which the light source is inserted from the rear of the luminaire using a ¼ turn rotation to fix or unfix it;

✚ '**R9**'

means the colour rendering index for a red coloured object as defined in standards

→ '**reference control settings**' (RCS)

means a control setting or a combination of control settings that is used to verify compliance of a light source with this Regulation. These settings are relevant for light sources that allow the end-user to control, manually or automatically, directly or remotely, the luminous intensity, colour, correlated colour temperature, spectrum, and/or beam angle of the emitted light.

In principle, the reference control settings shall be those predefined by the ~~{~~manufacturer~~/supplier}~~ as factory default values, and encountered by the user at first installation (out-of-the-box values). If the installation procedure foresees an automatic software update during first installation, or if the user has the option to perform such an update, the resulting change in settings (if any) shall be taken into account.

If the out-of-the-box value is deliberately set differently from the reference control setting (e.g. at low power for safety purposes), the manufacturer shall indicate in the technical documentation how to recall the reference control settings for compliance verification.

The light source ~~{~~manufacturer~~/supplier}~~ shall define the reference control settings such that:

- the light source is in scope of this Regulation according to Art. ⌈~~.~~1/(2~~(1)~~)⌋ and none of the conditions for exemption of Annex I applies (if this is not possible, the light source is out-of-scope or exempted);
- the power consumption of lighting control parts and non-lighting parts is minimal (if these parts cannot be disconnected or switched-off);
- the full-load condition is obtained (maximum initial luminous flux given the other chosen settings);
- when the end-user opts to reset factory defaults, the reference control settings are obtained.

For light sources that allow the manufacturer of a containing product to make implementation choices that influence light source characteristics (e.g. definition of the operating current(s); thermal design), and that cannot be controlled by the end-user, the reference control settings need not be defined. In that case the test conditions defined in applicable standards apply;

→ **'remotely initiated trigger'**

means a signal that comes from outside the light source ⌊or separate control gear [10]⌋ via a network;

→ **'second envelope'**

means a second outer envelope on a HID light source that is not required for the production of light, such as an external sleeve for preventing mercury and glass release into the environment in case of lamp breakage. In determining the presence of a second envelope, the HID arc tubes shall not count as an envelope;

→ **'separate control gear',**

means a control gear that is not physically integrated with a light source and is placed on the market as a separate product or as a part of a containing product;

→ **'specific effective radiant ultraviolet power'** (mW/klm)

means the effective power of the ultraviolet radiation of a light source weighted according to the spectral correction factors and related to its luminous flux;

→ **'standby mode'**

means the condition of a light source ⌈or of a separate control gear⌉, where it is connected to the power supply but the light sources are intentionally not emitting light, and the light source ⌈or control gear⌉ is awaiting a control signal (from a source different from a network) to return to a state with light emission. Lighting control parts enabling the standby function shall be in their control mode. Non-lighting parts shall be disconnected or switched off or their power consumption shall be minimized following manufacturer's instructions;

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[10] Hinweis des Herausgebers: Die Änderung in dieser Begriffsbestimmung ist nicht einfach darzustellen. Die folgende Liste zeigt welcher Wortlaut in welchen Texten zu finden ist. PG = Produktgestaltung; PI = Produktinformation; die Werte in runden Klammern nennen die Nummer der Begriffsbestimmung. ◊
EN: Editor's note: The changes in this definition are not easy to describe. The following list shows which wording can be found in which drafts. PG = product design; PI = product information; the values in parentheses indicate the number of the definition.

11/2017	PG	(19)	"… from outside the light source or separate control gear via a network."
	PI	(18)	"… from outside the light source via a network."
7/2018	PG	(19)	"… from outside the light source via a network;"
	PI	(18)	"… from outside the light source via a network;"
		(20)	"… from outside the light source or separate control gear via a network;"

→ '**standby power**' (Psb), expressed in Watts,

is the electric power consumption of a light source ⌈or of a separate control gear⌉ in standby mode;

✚ '**stroboscopic effect**'

means a change in motion perception induced by a light stimulus the luminance or spectral distribution of which fluctuates with time, for a static observer in a non-static environment. The fluctuations can be periodic and non-periodic and may be induced by the light source itself, the power source or other influencing factors.

The metric for the stroboscopic effect used in this Regulation is the 'SVM' (Stroboscopic Visibility Measure), as defined in standards. SVM=1 represents the visibility threshold for an average observer;

→ '**survival factor**' (SF)

means the defined fraction of the total number of light sources that continue to operate at a given time under defined conditions and switching frequency;

→ '**T2**', '**T5**', '**T8**', '**T9**' and '**T12**'

means a tubular light source with diameter of approximately 7, 16, 26, 29 and 38 mm respectively, as defined in harmonised standards. The tube can be straight (linear) or bent (e.g. U-shaped, circular);

→ '**useful luminous flux**' (Φuse), means the part of the luminous flux of a light source that is considered when determining its energy efficiency:

- for non-directional light sources it is the total flux emitted in a solid angle of 4π sr (corresponding to a 360° sphere).
- for directional light sources with beam angle ≥ 90° it is the flux emitted in a solid angle of π sr (corresponding to a cone with angle of 120°).
- for directional light sources with beam angle < 90° it is the flux emitted in a solid angle of 0.586π sr (corresponding to a cone with angle of 90°).

A Anhang ◊ Annex ◊ Annexe

A.1 Bezugsquellen für Dokumente, auf die im vorliegenden Text verwiesen wird ◊ Sources of supply for documents referred to in the text at hand ◊ Sources de référence pour les documents auxquels il est fait référence dans le présent texte

A.1.1 Entwürfe der EU-Kommission vom 13. November 2017 ◊ EU Commission's drafts of 13 November 2017 ◊ Projets de la Commission européenne du 13 novembre 2017

Begründung ◊ **EN**: Explanatory memorandum ◊ **FR** : Mémoire explicatif

http://www.eup-network.de/fileadmin/user_upload/Lichtquellen_EK_2017_11_13_Begruendung.pdf

Entwurf für Anforderungen an die Produktgestaltung ◊ **EN:** Draft for product design ◊ **FR :** Projet d'exigences de la conception des produits

DE: Haupttext ◊ **EN:** main text ◊ **FR :** Texte principal

http://www.eup-network.de/fileadmin/user_upload/Lichtquellen_EK_2017_11_13_UgP_Haupttext.pdf

DE: Anhang ◊ **EN:** Annex ◊ **FR :** Annexe

http://www.eup-network.de/fileadmin/user_upload/Lichtquellen_EK_2017_11_13_UgP_Anhang.pdf

Entwurf für Anforderungen an die Produktinformation ◊ **EN**: Draft for product information ◊ FR : Projet d'exigences en matière d'information sur le produit

DE: Haupttext ◊ **EN:** main text ◊ **FR :** Texte principal

http://www.eup-network.de/fileadmin/user_upload/Lichtquellen_EK_2017_11_13_EnVK_Haupttext.pdf

DE: Anhang ◊ **EN:** Annex ◊ **FR :** Annexe

http://www.eup-network.de/fileadmin/user_upload/Lichtquellen_EK_2017_11_13_EnVK_Anhang.pdf

A.1.2 Entwürfe der EU-Kommission vom 3. Juli 2018 ◊ EU Commission's drafts of 3 July 2018 ◊ Projets de la Commission européenne du 3 juillet 2018

Entwurf für Anforderungen an die Produktgestaltung ◊ **EN:** Draft for product design ◊ **FR :** Projet d'exigences de la conception des produits

DE: Haupttext ◊ **EN:** main text ◊ **FR :** Texte principal

https://www.eup-network.de/fileadmin/user_upload/Lichtquellen_EK_2018_07_03_PG_Haupttext.pdf

DE: Anhang ◊ **EN:** Annex ◊ **FR :** Annexe

https://www.eup-network.de/fileadmin/user_upload/Lichtquellen_EK_2018_07_03_PG_Anhang.pdf

Entwurf für Anforderungen an die Produktinformation ◊ **EN**: Draft for product information ◊ **FR** : Projet d'exigences en matière d'information sur le produit

DE: Haupttext ◊ **EN:** main text ◊ **FR :** Texte principal

https://www.eup-network.de/fileadmin/user_upload/Lichtquellen_EK_2018_07_03_PI_Haupttext.pdf

DE: Anhang ◊ **EN:** Annex ◊ **FR :** Annexe

https://www.eup-network.de/fileadmin/user_upload/Lichtquellen_EK_2018_07_03_PI_Anhang.pdf

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