Antico de la compansión Fluorescent induction lamps - Performance specification



### **EESTI STANDARDI EESSÕNA**

### **NATIONAL FOREWORD**

	This Estonian standard EVS-EN 62639:2012 consists of the English text of the European standard EN 62639:2012.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
, and the second	Date of Availability of the European standard is 20.04.2012.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile <a href="mailto:standardiosakond@evs.ee">standardiosakond@evs.ee</a>.

ICS 29.140.30

### Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega: Aru 10, 10317 Tallinn, Eesti; <a href="www.evs.ee">www.evs.ee</a>; telefon 605 5050; e-post <a href="mailto:info@evs.ee">info@evs.ee</a>

#### The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation: Aru 10, 10317 Tallinn, Estonia; www.evs.ee; phone 605 5050; e-mail info@evs.ee

### **EUROPEAN STANDARD**

### EN 62639

## NORME EUROPÉENNE EUROPÄISCHE NORM

April 2012

ICS 29.140.30

English version

# Fluorescent induction lamps - Performance specification

(IEC 62639:2012)

Lampes fluorescentes à induction -Spécification de performance (CEI 62639:2012) Leuchtstoff-Induktionslampen -Anforderungen an die Arbeitsweise (IEC 62639:2012)

This European Standard was approved by CENELEC on 2012-03-27. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

### **CENELEC**

European Committee for Electrotechnical Standardization Comité Européen de Normalisation Electrotechnique Europäisches Komitee für Elektrotechnische Normung

Management Centre: Avenue Marnix 17, B - 1000 Brussels

#### **Foreword**

The text of document 34A/1526/FDIS, future edition 1 of IEC 62639, prepared by SC 34A, "Lamps", of IEC/TC 34, "Lamps and related equipment" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62639:2012.

The following dates are fixed:

•	latest date by which the document has	(dop)	2012-12-27
	to be implemented at national level by		
	publication of an identical national		
	standard or by endorsement		
•	latest date by which the national	(dow)	2015-03-27
	standards conflicting with the		
	document have to be withdrawn		

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

### **Endorsement notice**

ent I.

.9:2012 was The text of the International Standard IEC 62639:2012 was approved by CENELEC as a European Standard without any modification.

# Annex ZA (normative)

- 3 -

# Normative references to international publications with their corresponding European publications

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

Publication	<u>Year</u>	<u>Title</u>	EN/HD	<u>Year</u>
IEC 60081	1997	Double-capped fluorescent lamps - Performance specifications	EN 60081	1998
IEC 60598-1	- (	Luminaires - Part 1: General requirements and tests	EN 60598-1	-
IEC 60929	-	AC and/or DC-supplied electronic control gea for tubular fluorescent lamps - Performance requirements	ar EN 60929	-
IEC 61347-2-3	-	Lamp controlgear - Part 2-3: Particular requirements for a.c. and/or d.c. supplied electronic control gear for fluorescent lamps	EN 61347-2-3 or	-
IEC 62532	2011	Fluorescent induction lamps - Safety specifications	EN 62532	2011
		0/2		
			O'	
			9_	
				5

### CONTENTS

FC	REW	DRD	3
IN	rodi	UCTION	5
1	Scop	e	6
2	Norm	native references	6
3	Term	is and definitions	6
4	Lam	o requirements	7
	4.1	General	7
	4.2	Marking	8
		4.2.1 General	8
		4.2.2 Correlated colour temperature (CCT) and colour rendering index $(R_a)$	
		4.2.3 Polarity	
	4.3	Dimensions	
	4.4	Starting characteristics	
	4.5	Electrical characteristics	
	4.6	Photometric characteristics	
	4.7	Lumen maintenance	
5	4.8	mation for ballast design	
	Infor	mation for luminaire design	و
6	Dete	sheets	9
7			
	7.1	Diagrammatic data sheets for location of lamp dimensions	
	7.2 7.3	Maximum outline sheets	
Δn		(normative) Method of test for starting characteristics	
		(normative) Method of test for electrical and photometric characteristics	
		(normative) Method of test for lumen maintenance and life	
		(informative) Information for ballast design	
		(informative) Information for luminaire design	
		phyphy	
BIL	ollogra	pny	67
Fic	uire A	1 – Test circuit for measurement of starting characteristics	56
_		1 – Schematic set-up for measurement of electrical characteristics of	00
		y coupled induction lamps and photometrical characteristics	59
		2 – Example of calorimetric set-up for measurement of power of internally a- oled induction lamps	60
		.1 – Circuit for testing ballasts – Lamp voltage, lamp current, phase shift and y measured at starting and during operation	63
_	•	.2 – Circuit for testing ballasts – Lamp voltage, current and frequency d at starting	64
		.3 – Circuit for testing ballasts – Lamp voltage, current, phase shift and y measured during operation	65
Ta	ble A	1 – Frequencies of specially prepared ballasts	55

### INTRODUCTION

Performance standard IEC 62639 follows IEC 62532:2011-01, which is the safety standard for induction lamps.

Requirements are given on marking, dimensions, starting characteristics, electrical characteristics, photometric characteristics, lumen maintenance and life. Further, information is given for designing ballasts and luminaires.

e detai, me sheets The requirements are detailed by means of lamp data sheets, diagrammatic data sheets and maximum lamp outline sheets.

# FLUORESCENT INDUCTION LAMPS – PERFORMANCE SPECIFICATION

#### 1 Scope

This International Standard specifies the performance requirements for fluorescent induction lamps for general lighting purposes.

In this standard, the term "lamp" stands for "induction lamp".

It may be expected that lamps which comply with this standard will start and operate satisfactorily at voltages between 92 % and 106 % of rated supply voltage and at an ambient air temperature between 10 °C and 50 °C, when operated with ballasts complying with IEC 60929 and IEC 61347-2-3, as far as applicable, and in a luminaire complying with IEC 60598-1.

NOTE For some lamps, additional information for ballast design is given for proper starting at an ambient air temperature of  $-15\,^{\circ}\text{C}$ .

#### 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60081:1997, Double-capped fluorescent lamps - Performance specifications

IEC 60598-1, Luminaires – Part 1: General requirements and tests

IEC 60929, AC and/or DC-supplied electronic control gear for tubular fluorescent lamps – Performance requirements

IEC 61347-2-3, Lamp control gear – Part 2-3: Particular requirements for a.c. and/or d.c. supplied electronic control gear for fluorescent lamps

IEC 62532:2011, Fluorescent induction lamps - Safety specifications

### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 62532 and IEC 60081 apply, together with the following.

#### 3.1

### ambient temperature

 $T_{amb}$ 

average temperature of air or another medium in the vicinity of the lamp