

**Method of measurement of centre beam intensity and  
beam angle(s) of reflector lamps**

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## EESTI STANDARDI EESSÕNA

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Käesolev Eesti standard EVS-EN 61341:2011 sisaldab Euroopa standardi EN 61341:2011 ingliskeelset teksti.

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**Method of measurement of centre beam intensity and beam angle(s) of  
reflector lamps**  
(IEC/TR 61341:2010)

Méthode de mesure de l'intensité dans  
l'axe du faisceau et de l'angle (ou des  
angles) d'ouverture des lampes à  
réflecteur  
(CEI/TR 61341:2010)

Verfahren zur Messung der Lichtstärke in  
Hauptausstrahlungsrichtung und des (der)  
Ausstrahlwinkel(s) von Reflektorlampen  
(IEC/TR 61341:2010)

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

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## Foreword

The text of the International Standard IEC/TR 61341:2010, prepared by SC 34A, Lamps, of IEC TC 34, Lamps and related equipment, was submitted to the Unique Acceptance Procedure and was approved by CENELEC as EN 61341 on 2011-07-04 without any modification.

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The following dates were fixed:

- latest date by which the EN has to be implemented  
at national level by publication of an identical  
national standard or by endorsement (dop) 2012-07-04
- latest date by which the national standards conflicting  
with the EN have to be withdrawn (dow) 2014-07-04

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## Endorsement notice

The text of the International Standard IEC/TR 61341:2010 was approved by CENELEC as a European Standard without any modification.

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## INTRODUCTION

While the light output of lamps is normally characterized by the luminous flux, for reflector lamps it is characterized by the centre beam intensity together with the beam angle(s).

This Technical Report gives guidance with regard to the measurement and interpretation of these two basic characteristics of reflector lamps in order to allow the comparability of reported values.

The adopted principles may help to classify lamps into beam angle groups; they are not intended for the assessment of individual lamps.

For additional information, the reader is referred to the CIE Technical Report No 43, describing the photometric characteristics of floodlight luminaires.

# METHOD OF MEASUREMENT OF CENTRE BEAM INTENSITY AND BEAM ANGLE(S) OF REFLECTOR LAMPS

## 1 Scope

This Technical Report describes the method of measuring and specifying the centre beam intensity and the associated beam angle(s) of reflector lamps.

It applies to incandescent, tungsten halogen and gas-discharge and LED based reflector lamps for general lighting purposes. It does not apply to lamps for special purposes such as projection lamps.

These recommendations relate to design testing of lamps only.

## 2 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

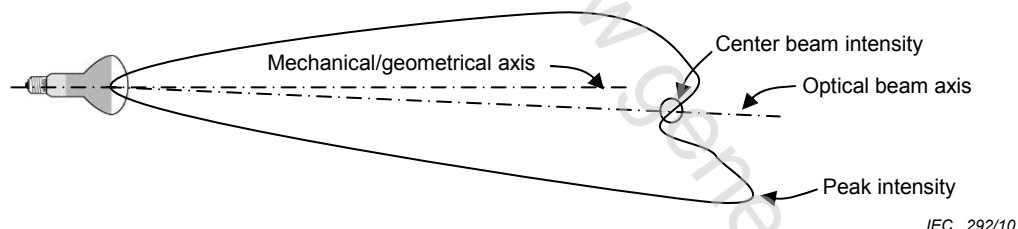
### 2.1

#### optical beam axis

the axis about which the luminous intensity distribution is substantially symmetrical

NOTE 1 The optical beam axis is not necessarily the same as the lamp axis through the lamp cap or the lamp axis normal to a reference plane on the reflector (e.g. the rim), see Figure 1.

NOTE 2 It is assumed that only small (negligible) errors occur when symmetry is determined visually.



**Figure 1 – Relation between optical beam axis, geometrical-mechanical axis, peak intensity and centre beam intensity**

### 2.2

#### peak intensity

$I_p$

the highest value of the luminous intensity regardless of whether or not it occurs on the optical beam axis

NOTE The peak intensity is expressed in candela.

### 2.3

#### centre beam intensity

$I_c$

the value of the luminous intensity measured on the optical beam axis

NOTE The centre beam intensity is expressed in candela.