

Lighting columns - Part 3-1: Design and verification - Specification for characteristic loads

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 40-3-1:2000 sisaldab Euroopa standardi EN 40-3-1:2000 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 08.08.2000 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 40-3-1:2000 consists of the English text of the European standard EN 40-3-1:2000.</p> <p>This document is endorsed on 08.08.2000 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala:</p> <p>This European Standard specifies loads for lighting columns. It applies to post top columns not exceeding 20 m height and to columns with brackets not exceeding 18 m height. Special structural designs to permit the attachment of signs, overhead wires, etc. are not covered by this standard.</p>	<p>Scope:</p> <p>This European Standard specifies loads for lighting columns. It applies to post top columns not exceeding 20 m height and to columns with brackets not exceeding 18 m height. Special structural designs to permit the attachment of signs, overhead wires, etc. are not covered by this standard.</p>
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Võtmesõnad:

English version

Lighting columns

Part 3-1: Design and verification – Specification for characteristic loads

Candélabres d'éclairage public –
Partie 3-1: Conception et vérification –
Spécification pour charges
caractéristiques

Lichtmaste – Teil 3-1: Bemessung
und Nachweis – Charakteristische
Werte der Lasten

This European Standard was approved by CEN on 1999-12-11.

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

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CEN

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

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Contents

	Page
Foreword.....	2
1 Scope.....	3
2 Normative references.....	3
3 Basis of loads.....	3
3.1 Dead loads.....	3
3.2 Wind pressures.....	3
3.3 Shape coefficient.....	8
4 Forces and moments.....	10
4.1 Forces due to wind pressure and dead load.....	10
4.2 Moments due to wind pressure and dead loads.....	12
Annex A (normative) National wind maps and meteorological information.....	13
Annex B (normative) Conditions when topography shall be considered.....	14

Foreword

This European Standard has been prepared by Technical Committee CEN/TC 50 "Lighting columns and spigots", the secretariat of which is held by BSI.

This European Standard replaces EN 40-6:1982.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by August 2000, and conflicting national standards shall be withdrawn at the latest by August 2000.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

There are six Parts to this standard as follows:

- Part 1: Definitions and terms
- Part 2: General requirements and dimensions
- Part 3-1: Design and verification - Specification for characteristic loads
- Part 3-2: Design and verification - Verification by testing
- Part 3-3: Design and verification - Verification by calculation
- Part 4: Specification for reinforced and prestressed concrete lighting columns
- Part 5: Specification for steel lighting columns
- Part 6: Specification for aluminium lighting columns

1 Scope

This European Standard specifies design loads for lighting columns. It applies to post top columns not exceeding 20 m height for post top lanterns and to columns with brackets not exceeding 18 m height for side entry lanterns. Special structural designs to permit the attachment of signs, overhead wires, etc. are not covered by this standard.

The requirements for lighting columns made from materials other than concrete, steel or aluminium (for example wood, plastic and cast iron) are not specifically covered in this standard.

This standard includes performance requirements for horizontal loads due to wind. Passive safety and the behaviour of a lighting column under the impact of a vehicle are not included, this group of lighting columns will have additional requirements (see prEN 40-2:1999).

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

ENV 1991-2-4 Eurocode 1: Basis of design and actions on structures - Part 2-4: Wind action

3 Basis of loads

3.1 Dead loads

The masses of the brackets and the lanterns shall be taken into consideration.

3.2 Wind pressures

3.2.1 General

The characteristic wind pressure $q(z)$, in N/m^2 , for any particular height above ground, z , shall be obtained from the following equation:

$$q(z) = \delta \times \beta \times f \times C_{e(z)} \times q_{(10)}$$