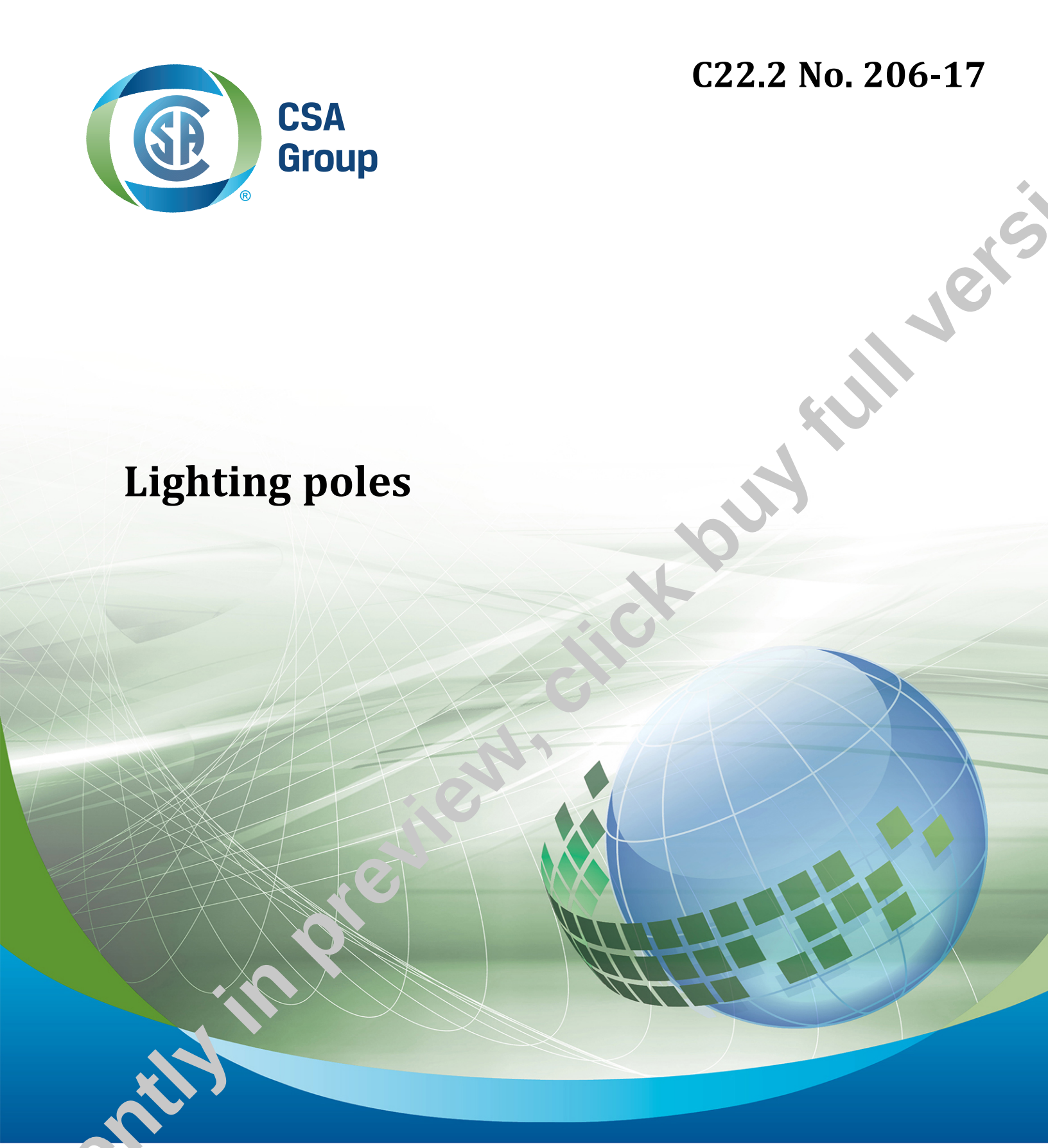
C22.2 No. 206-17

CSA Group

Lighting poles



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CSA Group

Standards Update Service

C22.2 No. 206-17
October 2017

Title: *Lighting poles*

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C22.2 No. 206-17
Lighting poles

Published in October 2017 by CSA Group
A not-for-profit private sector organization
178 Rexdale Boulevard, Toronto, Ontario, Canada M9W 1R3

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or call toll-free 1-800-463-6727 or 416-747-4044.

ISBN 978-1-4883-1116-1

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Preface

This is the third edition of CSA C22.2 No. 206, *Lighting poles*, part of a series of Standards issued by the Canadian Standards Association under Part II of the *Canadian Electrical Code*. It supersedes the previous editions, published in 2013 and 1987.

For general information on the Standards of the *Canadian Electrical Code, Part II*, see the Preface of CAN/CSA-C22.2 No. 0, General Requirements — Canadian Electrical Code, Part II.

Significant changes to this edition include the following:

a) Clause 7.1 — adds reference to the fatigue design of AASHTO LRFD;
b) Clause 7.5 — adds minimum thickness for aluminum poles;
c) Clause 5.1 — clarifies which types of fasteners and special tools are permitted; and
d) Scope — adds fibre reinforced poles.

The purpose of this Standard is to ensure, through the provision of minimum requirements for construction, the mechanical strength aspects, electrical features, as well as the design-load capabilities of lighting poles.

This Standard is considered suitable for use for conformity assessment within the stated scope of the standard.

This Standard was prepared by the Integrated Committee on Lighting Products, under the jurisdiction of the Technical Committee on Consumer and Commercial Products and the Strategic Steering Committee on Requirements for Electrical Safety, and was formally approved by the Technical Committee.

Interpretations: The Strategic Steering Committee on Requirements for Electrical Safety has provided the following direction for the interpretation of standards under its jurisdiction: "The literal text shall be used in judging compliance of products with the safety requirements of this Standard. When the literal text cannot be applied to the product, such as for new materials or construction, and when a relevant committee interpretation has not already been published, CSA's procedures for interpretation shall be followed to determine the intended safety principle."

Notes:

1) *Use of the singular does not exclude the plural (and vice versa) when the sense allows.*
2) *Although the intended primary application of this Standard is stated in its Scope, it is important to note that it remains the responsibility of the users of the Standard to judge its suitability for their particular purpose.*
3) *This Standard was developed by consensus, which is defined by* CSA Policy governing standardization — Code of good practice for standardization *as "substantial agreement. Consensus implies much more than a simple majority, but not necessarily unanimity". It is consistent with this definition that a member may be included in the Technical Committee list and yet not be in full agreement with all clauses of this Standard.*
4) *To submit a request for interpretation of this Standard, please send the following information to inquiries@csagroup.org and include "Request for interpretation" in the subject line:*
   a) *define the problem, making reference to the specific clause, and, where appropriate, include an illustrative sketch;*
   b) *provide an explanation of circumstances surrounding the actual field condition; and*
   c) *where possible, phrase the request in such a way that a specific "yes" or "no" answer will address the issue.*

   Committee interpretations are processed in accordance with the CSA Directives and guidelines governing standardization *and are available on the* Current Standards Activities *page at* ***standardsactivities.csa.ca****.*

5) *This Standard is subject to review within five years from the date of publication. Suggestions for its improvement will be referred to the appropriate committee. To submit a proposal for change, please send the following information to inquiries@csagroup.org and include "Proposal for change" in the subject line:*
   a) *Standard designation (number);*
   b) *relevant clause, table, and/or figure number;*
   c) *wording of the proposed change; and*
   d) *rationale for the change.*

C22.2 No. 206-17
Lighting poles

1 Scope

1.1
This Standard applies to free-standing poles of ferrous metal, aluminum, polymeric, concrete, fibre reinforced structures, and wood, and to their accessories, for use in the support of lighting equipment having ratings of 600 V and less, and intended to be installed in the commercial and industrial nonhazardous locations in accordance with the Rules of the *Canadian Electrical Code, Part I*.

1.2
This Standard applies to poles used for the support of lighting equipment, such as luminaires, electric signs, and traffic lights. The poles may also serve as supports for aerial conductors, PV modules, and wind turbines used to supply the lighting equipment and, in the case of concrete or metal poles, provide wireways for conductors entering the poles.

1.3
This Standard applies to the electrical features of poles as well as to the mechanical strength aspects and the ability to support their design loads.

1.4
This Standard does not apply to the erection of poles or the installation of accessories on site.

Note: *Lighting Poles for residential applications less than 4 m in height may be evaluated to the requirements of CSA CSA C22.2 No 250.0 for electrical safety only, and be marked NOT EVALUATED FOR STRUCTURAL STRENGTH and N'A PAS ÉTÉ ÉVALUÉ QUANT À LA RÉSISTANCE STRUCTURALE.*

1.5
In this Standard, “shall” is used to express a requirement, i.e., a provision that the worker is obliged to satisfy in order to comply with the standard; “should” is used to express a recommendation or that which is advised but not required; and “may” is used to express an option or that which is permissible within the limits of the standard.

Notes accompanying clauses do not include requirements or alternative requirements; the purpose of a note accompanying a clause is to separate from the text explanatory or informative material.

Notes to tables and figures are considered part of the table or figure and may be written as requirements.

Annexes are designated normative (mandatory) or informative (non-mandatory) to define their application.

2 Reference publications
Where reference is made to CSA Group Standards of the *Canadian Electrical Code*, Parts I and II, such reference shall be considered to refer to the latest edition and all revisions thereto, unless otherwise

specified. This Standard shall refer to the following, and the year dates shown indicate the latest editions available at the time of publication:

CSA Group

CAN/CSA-A14-07 (R2012)
Concrete poles

C22.1-2015
Canadian Electrical Code, Part I

CAN/CSA-C22.2 No. 0-10 (R2015)
General Requirements—Canadian Electrical Code, Part II

C22.2 No. 0.4-17
Bonding of electrical equipment

C22.2 No. 107.1-16
General use power supplies

CAN/CSA-C22.2 No. 107.2-01 (R2016)
Battery Chargers

C22.2 No. 250.0-08 (R2013)
Luminaires

CAN/CSA-C22.2 No. 60950-1-07 (R2016)
Information Technology Equipment — Safety — Part 1: General Requirements

CAN/CSA-C22.2 No. 61730-1:11 (R2016)
Photovoltaic (PV) module safety qualification — Part 1: Requirements for construction

CAN/CSA-C22.2 No. 61730-2:11 (R2016)
Photovoltaic (PV) module safety qualification — Part 2: Requirements for testing

CAN/CSA-C61400-1-14
Wind Turbines — Part 1: Design Requirements

CAN/CSA-C61400-2-08 (R2013)
Wind Turbines — Part 2: Design Requirements for Small Wind Turbines

CAN/CSA-O15-15
Wood utility poles and reinforcing stubs

CAN/CSA-O80 Series-15
Wood preservation

O86-14
Engineering design in wood

S6-14
Canadian Highway Bridge Design Code

CAN/CSA-S157-05 (R2015)
Strength design in aluminum

AASHTO (American Association of State Highway and Transportation Officials)

LRFDLTS-1
Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals-1975 2015

ASME (American Society of Mechanical Engineers)

ANSI/ASME B18.6.3-2010
Machine Screws, Tapping Screws, and Metallic Drive Screws (Inch Series)

ANSI/ASME B18.6.4-1998 (R2005)
Thread Forming and Thread Cutting Tapping Screws and Metallic Drive Screws (Inch)

ANSI/ASME B18.6.7M-1999 (R2010)
Metric Machine Screws

NRCC (National Research Council Canada)

National Building Code of Canada, 2015

3 Definitions

The following definition shall apply in this Standard:

Energized — having an electrical potential with respect to the earth.

4 General requirements

4.1

General requirements applicable to this Standard are given in CAN/CSA-C22.2 No. 0.

4.2

A pole shall have the necessary strength and rigidity to support the design loads without permanent damage or deformation of the assembly and loosening or displacement of the component parts.

4.3

Floodlights, secondary wiring, conduit, conduit fittings, distribution panelboards shall be approved for the purpose for which they are to be used, and other electrical pole equipment shall be of a type suitable for that purpose.