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CONTENTS

	Page
Preface	iii
Foreword (NEMA)	iv
Foreword (CSA)	v
Section 1 SCOPE	1
Section 2 DEFINITIONS AND ABBREVIATIONS	2
2.1 Definitions	2
2.2 Abbreviations	3
Section 3 GENERAL	4
3.1 Reference Publications	4
3.2 Units of Measurement	4
Section 4 CONSTRUCTION	5
4.1 Materials	5
4.2 Finishes	5
4.3 Typical Dimensions	6
4.3.1 General	6
4.3.2 Lengths of Straight Sections	6
4.3.3 Widths	6
4.3.4 Depths	7
4.3.5 Nominal Rung Spacings on Straight Sections	7
4.3.6 Inside Radii	7
4.3.7 Degrees of Arc for Elbows	7
4.4 Quality of Work	8
4.5 Fittings	8
4.6 Fasteners	8
4.7 Bonding	8
4.8 Load Capacity	8
Section 5 TESTS	9
5.1 Electrical Continuity of Connections	9
5.2 Load Testing	9
5.2.1 General	9
5.2.2 Test Specimen	9
5.2.3 Type and Length of Span	9

	5.2.4	Orientation of Specimen.....	9
	5.2.5	Supports.....	9
	5.2.6	Loading Material.....	10
	5.2.7	Load Application.....	10
	5.2.8	Loading to Destruction (Method A)	10
	5.2.9	Loading to Residual Deflection (Method B).....	11
5.3		Interpolation of Test Data	11
5.4		Rung Load Capacity (Optional).....	12
	5.4.1	General	12
	5.4.2	Test Equipment	12
	5.4.3	Test Specimen	12
	5.4.4	Span Length and Supports	12
	5.4.5	Orientation of Specimens.....	12
	5.4.6	Loading	12
	5.4.7	Load Capacity	12
	5.4.8	Interpolation of Rung Load Test Data	12
Section 6		MARKINGS AND PRODUCT INFORMATION.....	13
6.1		Marking on Product	13
6.2		Product Information.....	13
6.3		Cable Tray Installation.....	13
Tables			
Table 1		HISTORICAL LOAD/SPAN CLASS DESIGNATION	14
Figures			
Figure 1		ILLUSTRATION OF SELECTED DEFINITIONS.....	15
Figure 2		APPLICATION OF LOAD—RUNG LOAD CAPACITY.....	16
Annexes (informative)			
Annex A		MARKINGS—FRENCH TRANSLATIONS.....	17

Preface

This is the common CSA and NEMA Standard for Metal Cable Tray Systems. It is the second edition of C22.2 No. 126.1, superseding the previous edition published in 1998, and the fourth edition of NEMA VE 1, superseding the previous edition published in 1998.

This common Standard was prepared by the CANENA Technical Harmonization Committee for Metal Cable Tray Systems, comprising members from the Canadian Standards Association, National Electrical Manufacturers Association, and the cable tray manufacturing industry. The efforts of the CANENA Technical Harmonization Committee are gratefully acknowledged.

This Standard was reviewed by the CSA Subcommittee on C22.2 No. 126, under the jurisdiction of the Technical Committee on Wiring Products and the Strategic Resource Group, and has been formally approved by the Technical Committee. Where reference is made to a specific number of samples to be tested, the specified number is considered to be a minimum quantity. This Standard was also approved at NEMA by the Codes and Standards Committee.

NOTE—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.

Level of Harmonization

This Standard uses an IEC format, but is not based on, nor is it to be considered equivalent to, an IEC standard. This Standard is published as an equivalent standard.

An equivalent standard is a standard that is substantially the same in technical content, except as follows. Technical deviations are allowed for Codes and Governmental Regulations and those recognized as being in accordance with NAFTA Article 905, for example, because of fundamental, climatic, geographical, technological, or infrastructural factors, scientific justification, or the level of protection that the country considers appropriate. Presentation is to be word for word except for editorial changes.

Reasons for Differences to IEC

The Technical Harmonization Committee identified one IEC standard that addresses electrical cable tray systems included in the scope of this Standard. The THC determined the safe use of electrical cable tray is dependent on the design, performance, and installation of the cable tray system. The IEC standard does not mention the equipment grounding function of cable tray, and there are no requirements for corrosion protection at this time. Significant investigation is required to assess safety and system issues that may lead to harmonization of traditional North American electrical cable tray standards with those presently addressed in the known IEC standard. The THC agreed such future investigation might be facilitated by completion of harmonization of the North American standards for electrical cable tray.

Interpretations

The interpretation by the Standards Development Organization (SDO) of an identical or equivalent standard is to be based on the literal text to determine compliance with the standard in accordance with the procedural rules of the SDO. If more than one interpretation of the literal text has been identified, a revision is to be proposed as soon as possible to each of the SDOs to more accurately reflect the intent.

CSA Effective Date

The effective date for CSA will be announced through CSA *Informs* or a CSA Certification Notice.

NEMA Effective Date

The effective date for NEMA will be the publication date.

Foreword (NEMA)

This Standards Publication provides technical requirements concerning the construction, testing, and performance of metal cable tray systems. The development of this publication is the result of many years of research, investigation, and experience by the members of the Cable Tray Section of NEMA. Throughout the development of this publication, test methods and performance values have been related as closely as possible to end-use applications. It has been developed through consultation among manufacturers, with users and engineering societies, to result in improved serviceability and safety of metal cable tray systems.

This publication reflects the study of applicable building codes and the National Electrical Code[®], and adheres to applicable national material and manufacturing standards, such as those of the American Society for Testing and Materials, the American Iron and Steel Institute, the Aluminum Association, and Underwriters Laboratories, Inc. The NEMA Cable Tray Section periodically reviews this publication for any revisions necessary, to keep it up to date with advancing technology.

Comments or recommended revisions are welcomed and should be submitted to:

Vice President, Engineering
National Electrical Manufacturers Association
1300 North 17th Street, Suite 1847
Rosslyn, Virginia 22209

The primary purpose of this Standards Publication is to encourage the manufacture and utilization of standardized metal cable tray systems and to eliminate misunderstandings between manufacturers and users.

The cable tray system manufacturer has limited or no control over the following factors, which are vital to a safe installation:

- a. environmental conditions;
- b. system design;
- c. product selection and application;
- d. installation practices; and
- e. system maintenance.

This Standards Publication was developed by the Cable Tray Section, and has been promulgated with a view towards promoting safety of persons and property by the proper selection and use of metal cable tray systems. At the time it was approved, the Cable Tray Section was composed of the following members:

Cablofil, Inc.—Mascoutah, IL
Chalfant Manufacturing Company—Cleveland, OH
Champion Fiberglass, Inc.—Spring, TX
Cooper B-Line—Highland, IL
GS Metals Corporation—Pinckneyville, IL
MP Husky Corporation—Greenville, SC
P-W Industries, Inc.—Atlanta, GA
T. J. Cope, Inc.—Wayne, MI
The Wiremold Company—West Hartford, CT
Thomas & Betts Corporation—Memphis, TN

Foreword (CSA)

The Canadian Standards Association (CSA) develops standards under the name Canadian Standards Association, and provides certification and testing under the name CSA International. CSA International provides certification services for manufacturers who, under license from CSA, wish to use the appropriate registered CSA Marks on certain products of their manufacture to indicate conformity with CSA Standards.

CSA Certification for a number of products is provided in the interest of maintaining agreed-upon standards of quality, performance, interchangeability and/or safety, as appropriate. Where applicable, certification may form the basis for acceptance by inspection authorities responsible for enforcement of regulations. Where feasible, programs will be developed for additional products for which certification is desired by producers, consumers, or other interests.

In performing its functions in accordance with its objectives, CSA does not assume or undertake to discharge any responsibility of the manufacturer or any other party. The opinions and findings of the Association represent its professional judgement given with due consideration to the necessary limitations of practical operation and state of the art at the time the Standard is processed.

Products in substantial accord with this Standard but which exhibit a minor difference or a new feature may be deemed to meet the Standard providing the feature or difference is found acceptable utilizing appropriate CSA International Operating Procedures. Products that comply with this Standard shall not be certified if they are found to have additional features which are inconsistent with the intent of this Standard. Products shall not be certifiable if they are discovered to contravene applicable laws or regulations.

Testing techniques, test procedures, and instrumentation frequently must be prescribed by CSA International in addition to the technical requirements contained in Standards of CSA. In addition to markings specified in the Standard, CSA International may require special cautions, markings, and instructions that are not specified by the Standard.

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Manufacturers should note that, in the event of the failure of CSA International to resolve an issue arising from the interpretation of requirements, there is an appeal procedure: the complainant should submit the matter, in writing, to the Secretary of the Canadian Standards Association.

If this Standard is to be used in obtaining CSA Certification please remember, when making application for certification, to request all current Amendments, Bulletins, Notices, and Technical Information Letters that may be applicable and for which there may be a nominal charge. For such information or for further information concerning CSA Certification, please address your inquiry to Applications and Customer Service, CSA International, 178 Rexdale Boulevard, Toronto, Ontario, Canada M9W 1R3.

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Section 1

SCOPE

This Standard specifies the requirements for metal cable trays and associated fittings designed for use in accordance with the rules of the *Canadian Electrical Code (CEC), Part I*, and the *National Electrical Code (NEC)*.