UL 568

STANDARD FOR SAFETY

Nonmetallic Cable Tray Systems

UL Standard for Safety for Nonmetallic Cable Tray Systems, UL 568

First Edition, Dated October 15, 2002

Summary of Topics

This revision of ANSI/UL 568 dated September 9, 2019 is being issued to update the title page to reflect the most recent designation as a Reaffirmed American National Standard (ANS). No technical changes have been made.

As noted in the Commitment for Amendments statement located on the back side of the title page, UL and CSA are committed to updating this harmonized standard jointly. However, the revision pages dated September 9, 2019 will not be jointly issued by UL and CSA as these revision pages address UL ANSI approval dates only.

Text that has been changed in any manner or impacted by UL's electronic publishing system is marked with a vertical line in the margin.

The requirements are substantially in accordance with Proposal(s) on this subject dated May 17, 2019.

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First Edition

Nonmetallic Cable Tray Systems

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Approved American National Standard

ANSI/UL 568-2004 (R2019)

Commitment for Amendments

This standard is issued jointly by the Canadian Standards Association (operating as "CSA Group") and Underwriters Laboratories Inc. (UL). Comments or proposals for revisions on any part of the standard may be submitted to CSA Grou, or UL at anytime. Revisions to this standard will be made only after processing according to the standards development procedures of CSA Group and UL. CSA Group and UL will issue revisions to this standard by means of a new edition or revised or additional pages bearing their date of issue.

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

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This ANSI/UL Standard for Safety consists of the First Edition including revisions through September 9, 2019.

The most recent designation of ANSI/UL 568 as a Reaffirmed American National Standard (ANS) occurred on September 9, 2019. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, Title Page (front and back), or the Preface.

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Preface

This is the harmonized UL and CSA Standard for Nonmetallic Cable Tray Systems. It is the first edition of CSA C22.2 No. 126.2 and the first edition of UL 568.

This harmonized standard was prepared by the CANENA Technical Harmonization Committee for Nonmetallic Cable Tray Systems, which comprises members from Underwriters Laboratories, the Canadian Standards 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. The requirements of CSA Standard C22.2 No. 126, published in 1991, are superseded by this standard for products covered in this standard as indicated in the scope of this standard. Where reference is made to a specific number of samples to be tested, the specified number is considered to be a minimum quantity.

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 for CSA and UL.

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 that the safe use of electrical cable tray is dependent on the design, performance, and installation of the cable tray system. 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.

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Nonmetallic Cable Tray Systems

1 Scope

This standard specifies the requirements for nonmetallic cable trays and associated fittings designed for use in accordance with the rules of the Canadian Electrical Code (CEC) Part 1, and the National Electrical Code® (NEC).

2 Definitions and abbreviations

2.1 Definitions

The following definitions apply in this standard (see also Figure 1):

Accessory – Components used to supplement the function of a straight section or fitting. Examples include, but are not limited to, dropout, cover, conduit adapter, hold-down device, and divider.

Cable tray support span – The distance between the centerlines of supports.

Cable tray system – A section or assembly of sections, and associated fittings, forming a mechanical system used to support cables and raceways.

Channel cable tray – A fabricated structure consisting of a one-piece ventilated-bottom or solid-bottom channel section.

Connector (splice plate) – A component that joins any combination of cable tray straight sections and fittings. The basic types of connectors include rigid, expansion, adjustable, and reducer.

Fasteners – Screws, nuts, bolts, washers, rivets, spacers, pins, and other items used to connect and assemble cable tray systems.

Fitting – A component that is used to change the size or direction of a cable tray system.

Horizontal cross – A fitting that joins cable trays in four directions at 90° intervals in the same plane.

Horizontal elbow – A fitting that changes the direction of cable tray in the same plane.

Horizontal tee – A fitting that joins cable trays in three directions at 90° intervals in the same plane.

Horizontal wye – A fitting that joins cable trays in three directions at other than 90° intervals in the same plane.

Ladder cable tray – A fabricated structure consisting of two longitudinal side rails connected by individual transverse members (rungs).

Reducer – A fitting that joins cable trays of different widths in the same plane.

Left-hand reducer – A reducer having, when viewed from the large end, a straight side on the left.

Right-hand reducer – A reducer having, when viewed from the large end, a straight side on the right.

Straight reducer – A reducer having two symmetrical offset sides.

Solid bottom or nonventilated cable tray – A fabricated structure consisting of a bottom without ventilation openings within integral or separate longitudinal side rails.

Straight section – A length of cable tray without change in direction or size.

Support – A component that provides a means for supporting a cable tray, including, but not limited to, cantilever bracket, trapeze, and individual rod suspension.

Trough or ventilated cable tray – A fabricated structure consisting of integral or separate longitudinal rails and a bottom having openings sufficient for the passage of air and utilizing 75 percent or less of the plan area of the surface to support cables where the maximum open spacings between cable support surfaces of transverse elements do not exceed 100 mm (4 in) in the direction parallel to the tray side rails.

Notes:

(1) On horizontal bends only, the maximum distance between transverse elements is measured at the centerline of the bend.

(2) A ladder cable tray having rung spacing such that the cable tray meets the definition described above is considered to be a ventilated cable tray.

Vertical elbow – A fitting that changes the direction of cable tray to a different plane.

Inside vertical elbow – A fitting that changes the direction of cable tray upward from the horizontal plane.

Outside vertical elbow – A fitting that changes the direction of cable tray downward from the horizontal plane.

Vertical tee – A fitting that joins cable trays in three directions at 90° intervals in different planes.

2.2 Abbreviations

The following abbreviations appear in this standard:

ac – alternating current

°C – degrees Celsius

°F – degrees Fahrenheit

ft – foot

in – inch

kg – kilogram

lb – pound

lin ft – linear foot

lin m – linear meter

m – meter

min – minute

mm – millimeter

SI – International System of Units (metric)

3 General

3.1 Reference publications

Where reference is made to other publications, such reference shall be considered to refer to the latest edition and all amendments published to that edition up to the time when this Standard was approved.

CSA Standard

C22.1-02
Canadian Electrical Code, Part I

ASTM† Standards

ASTM C 581-00
Standard Procedure for Determining Chemical Resistance of Thermosetting Resins Used in Glass-Fiber-Reinforced Structures Intended for Liquid Service

ASTM D 149-97
Standard Test Method for Dielectric Breakdown Voltage and Dielectric Strength of Solid Electrical Insulating Materials at Commercial Power Frequencies

ASTM D 570-98
Standard Test Method for Water Absorption of Plastics

ASTM D 790-00
Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials

ASTM D 4329-99
Standard Practice for Fluorescent UV Exposure of Plastics

ASTM D 4385-95
Standard Practice for Classifying Visual Defects in Thermosetting Reinforced Plastic Pultruded Products

ASTM D 5025-99
Standard Specification for Laboratory Burner Used for Small-Scale Burning Tests on Plastic Materials

ASTM D 5207-98
Standard Practice for Confirmation of 20 and 125 mm Test Flames for Small-Scale Burning Tests on Plastic Materials

ASTM E 84-00
Standard Test Method for Surface Burning Characteristics of Building Materials

ASTM G 155-00
Standard Practice for Operating Xenon Arc Light Apparatus for Exposure of Nonmetallic Materials

ANSI‡ Standards

ANSI/NFPA 70-2002
National Electrical Code® (NEC)

ANSI/NEMA VE 2-2000
Cable Tray Installation Guidelines

NRCC Publication**

National Building Code of Canada, 1995

ULC§ Standard

CAN/ULC-S102-M88
Standard Method of Test for Surface Burning Characteristics of Building Materials and Assemblies

† American Society for Testing and Materials
‡ American National Standards Institute
** National Research Council Canada
§ Underwriters' Laboratories of Canada

3.2 Units of measurement

3.2.1 The values given in SI (metric) units are mandatory. Any other values given are for information only.

Note: Lengths are shown in millimeters or meters (inches or feet). Widths, deflections, and similar measurements are generally defined in millimeters (fractions of inches), and load-bearing capacity in kilograms/meter (pounds/foot).

4 Construction

4.1 Materials

4.1.1 All cable tray materials shall meet the requirements of Clause 5.

Note: Nonmetallic cable trays are typically made of, but are not limited to, fiber reinforced thermoset resin systems such as polyester, vinyl ester, and phenolic.

4.1.2 Pultruded parts made of fiber-reinforced thermoset resins shall have a corrosion-resistant resin-rich surface provided by complete coverage of a surfacing veil. Resin transfer molded and compression molded parts do not require a surfacing veil.

4.2 Typical dimensions

4.2.1 General

Clauses 4.2.2 – 4.2.7 provide typical dimensions used in the industry. Other dimensions shall also be acceptable. Dimensions are based on rationalized conversions.

4.2.2 Lengths of straight sections

Typical lengths, not including connectors, are

a) 3 m ±5 mm (10 ft ±3/16 in) and

b) 6 m ±5 mm (20 ft ±5/16 in).

4.2.3 Widths

4.2.3.1 For other than channel cable trays, typical widths are

a) 150 mm (6 in),

b) 225 mm (9 in),

c) 300 mm (12 in),

d) 450 mm (18 in),

e) 600 mm (24 in),

f) 750 mm (30 in), and

g) 900 mm (36 in).

Note: The tolerance of the widths is within ±13 mm (1/2 in) for inside dimensions.

Overall width shall not exceed the inside width by more than 100 mm (4 in).

4.2.3.2 For channel cable trays, typical widths are

a) 50 mm (2 in),

b) 75 mm (3 in),

c) 100 mm (4 in),

d) 150 mm (6 in),

e) 200 mm (8 in),

f) 250 mm (10 in), and

g) 300 mm (12 in).

Notes:

(1) The tolerance of the widths is within ±13 mm (1/2 in) for inside dimensions.

(2) Widths exceeding 150 mm (6 in) are considered trough or ventilated cable tray and are therefore subject to load testing requirements. See Clause 4.6.

4.2.4 Depths

4.2.4.1 For other than channel cable trays, typical depths for sections are

a) 75 mm (3 in),

b) 100 mm (4 in),

c) 125 mm (5 in), and

d) 150 mm (6 in).

Note: The tolerance of the depths is within ±10 mm (3/8 in). The measurement is fill depth.

The measurement shall be made from the top of the cable support surface to the top of the rail. Outside depths shall not exceed inside depths by more than 50 mm (2 in).

4.2.4.2 For channel cable trays, typical depths are 30 – 50 mm (1-1/4 – 2 in) outside dimensions.

Note: Depths exceeding 50 mm (2 in) are considered trough or ventilated cable tray and are therefore subject to load testing requirements. See Clause 4.6.

4.2.5 Nominal rung spacings on straight sections

Typical rung spacings are

a) 150 mm (6 in),

b) 225 mm (9 in), and

c) 300 mm (12 in).

Note: Nominal rung spacings 102 mm (4 in) are considered ventilated cable tray.

4.2.6 Inside radii

Typical inside radii of curved sections are

a) 300 mm (12 in),

b) 600 mm (24 in), and

c) 900 mm (36 in).

4.2.7 Degree of arc for elbows

Typical degrees of arc for elbow sections are

a) 30°,

b) 45°,

c) 60°, and

d) 90°.

4.3 Quality of work

Cable tray systems shall be free from burrs or other sharp projections that could cause damage to the cable jacket during installation. All cut edges shall be sealed with a polymeric coating.

4.4 Fittings

Fittings shall not be required to be subjected to the load testing requirements specified in Clause 5.8.

4.5 Fasteners

Fasteners used for connection and assembly of a cable tray system shall be supplied according to the manufacturer's instructions, and shall be made of either corrosion-resistant nonmetallic material or stainless steel Type 304 or better.

4.6 Load capacity

4.6.1 Straight sections of cable tray shall meet the requirements of the test specified in Clause 5.8.

Notes:

(1) The load ratings in Table 1 are those most commonly used.

(2) See Clause 5.8.9.4 for interpolation of test data when determining the load rating of spans shorter than the tested span.

4.6.2 A concentrated static load is not included in Table 1. Some user applications may require that a given concentrated static load be imposed over and above the working load. Depending on concentrated load value and location of load, some cable tray systems may not be suitable for support. When considering a concentrated load applied other than described below, consult the manufacturer.

A concentrated static load represents a static weight applied on the centerline of the tray at midspan. When so specified, the concentrated static load may be converted to an equivalent uniform load (w_e) in kg/lin m (lb/lin ft), using the following formula, and added to the static weight of cables in the tray.

$$w_e = \frac{2 \times (\text{Concentrated Static Load, kg (lb)})}{\text{Span Length, m (ft)}}$$

4.6.3 Channel cable tray straight sections, not exceeding 150 mm (6 in) in width and 50 mm (2 in) in depth need not be load tested in accordance with Clause 5.8.

5 Tests

5.1 Visual defects (pultruded reinforced thermosetting resins)

Testing shall be conducted in accordance with ASTM D 4385, and evaluated at visual defect Level 2. Defects associated with exposed underlayer shall be evaluated at visual defect Level 1.

5.2 Water absorption

The weight gain of edge-sealed cable tray specimens shall be no greater than 0.50 percent when immersed in water at 23 ±2°C for 24-hours, in accordance with ASTM D 570.

5.3 Dielectric strength

Cable tray side rails and bottoms shall withstand, without breakdown, the application of 5000 V ac for one minute when tested in accordance with ASTM D 149. Cable trays designed expressly to dissipate static charges need not comply with this requirement.

5.4 Weathering

Five specimens taken from laminate of cable tray component shall be subjected to a flexural test in accordance with ASTM D 790, and the value shall be recorded. An additional five specimens from the same sample source shall be subjected to 1000 hours of ultraviolet exposure in accordance with ASTM D 4329 or 1000 hours of xenon arc exposure in accordance with ASTM G 155 using the following respective apparatus settings.

ASTM D 4329	Cycle:	4 hours at 65°C followed by 4 hours at 45°C with water condensation
	Fluorescent bulb type:	QUV-A
ASTM G 155	Test method:	A
	Wavelength:	0.35 W/m^2 at 340 nm
	Temperature:	63 ±3°C

Following the exposure, the specimens shall be subjected to the flexural test specified above. The material shall retain at least 75 percent of the originally recorded strength.

5.5 Chemical resistance

The resins employed shall have been tested for chemical resistance by the resin manufacturer in accordance with ASTM C 581. The acceptable level of chemical resistance shall be based upon agreement between the cable tray manufacturer and end-user.

5.6 Combustibility of cable tray assemblies

5.6.1 When subjected to the test in Clauses 5.6.2 – 5.6.5, a cable tray section specimen that includes three rung/joint assembly locations shall not emit flaming or glowing particles or dropping particles that ignite the cotton layer situated below the flame application point.

5.6.2 The cable tray section specimen shall be subjected to a 125 mm (5 in) flame.

5.6.3 The test burner shall conform to ASTM D 5025, or an equivalent burner may be used. The burner shall be calibrated to the requirements of ASTM D 5207.

5.6.4 The test specimens shall be mounted in their normal position or located in the most adverse position for flame impingement. A 6 mm (1/4 in) layer of cotton shall be positioned 300 mm (12 in) below the flame application point. The burner shall be positioned so the 40 mm (1-9/16 in) inner blue cone impinges on the specimen. The burner shall be at an angle of at least 20 degrees to avoid dripping of flaming particles into the barrel.

5.6.5 The flame shall be applied for 3 cycles consisting of a one-minute flame application followed by a 30-second removal, except that subsequent applications shall not be reapplied until after the sample self-extinguishes.

5.7 Flame spread

Material shall meet a flame spread index of 25 or less, when tested in accordance with ASTM E 84 or CAN/ULC-S102.

Note: In Canada, flame spread requirements for this application are specified in the National Building Code of Canada.

5.8 Load testing

5.8.1 General

Cable tray specimens shall be subjected to either loading to destruction (Method A), as specified in Clause 5.8.8, or loading to residual deflection (Method B), as specified in Clause 5.8.9.

5.8.2 Test specimen

For each design of cable tray, two specimens shall be tested. An unspliced straight section of the greatest width shall be used in each test.

For trays with rungs, rung spacings shall be the largest in a particular class.

Differences in height of rail(s), rung design, rung spacings greater than the tested spacings, bottom to rail connection, or the configuration of any part shall constitute a different design.

5.8.3 Type and length of span

The test specimen shall be a simple beam span, with free unrestrained ends. Trays shall not have side restraints. Span lengths shall be as specified, with a tolerance of ±38 mm (1-1/2 in).

5.8.4 Orientation of specimen

Specimens shall be tested in the horizontal position. The total length of the test specimen shall be not more than the specified span length plus 20 percent. Any overhang shall be equally distributed beyond both supports.

5.8.5 Supports

Each end of the specimen shall be supported by steel bar(s) of 30 mm (1-1/8 in) width and 19 mm (3/4 in) height, with a 120° V-notch cut in its bottom to a depth of 5 mm (3/16 in). The V-notch shall rest on a 25 mm (1 in) solid round steel bar fastened to a rigid base, or the specimen shall be supported directly on a 65 mm (2-1/2 in) diameter round steel bar or heavy wall steel tube fastened to a rigid base.

5.8.6 Loading material

Loading material shall be steel strips, lead ingots, or other loading materials meeting the following requirements.

a) Individual steel strips shall have rounded or deburred edges, a maximum thickness of 3 mm (1/8 in) and a maximum width of 100 mm (4 in), and a maximum length of 6 m (20 ft). When full span strips are used, the maximum thickness shall be 1.6 mm (1/16 in) and the maximum width shall be 100 mm (4 in).

b) Five lead ingots, each weighing approximately 2.3 kg (5 lb) shall be interconnected across corners into a string of 5 ingots approximately 550 mm (22 in) long. Individual ingots shall be hexagonal, approximately 75 mm (3 in) in diameter, and 38 mm (1-1/2 in) deep.

c) Other loading materials shall have an approximate maximum weight of 4.5 kg (10 lb) and a maximum width of 125 mm (5 in) and a maximum length of 300 mm (12 in).

5.8.7 Load application

5.8.7.1 Where the destruction load divided by 1.5 is 149 kg/lin m (100 lb/lin ft) or greater, the test load shall be applied in at least 10 increments that are approximately equal in weight. Where the destruction load divided by 1.5 is less than 149 kg/lin m (100 lb/lin ft), the test load shall be applied in at least 5 increments that are approximately equal in weight.

5.8.7.2 Loading shall be uniformly distributed for the length and breadth of the specimen, except that the loading material shall not be closer than 13 mm (1/2 in) nor farther than 25 mm (1 in) from the innermost elements of the sides. It shall be arranged across the tray with a minimum of 10 mm (3/8 in) between stacks so that the loading material does not bridge transversely. All loading materials shall be placed between supports without overhanging. In multi-tier cable trays, the loading shall be uniformly distributed among the tiers.

5.8.7.3 For loading weight in trays with rungs, it shall be permissible to cover the bottom of the tray between supports with a flat sheet of No. 9 gauge, flattened expanded material not more than 900 mm (3 ft) long and with a wire hole size of 19 mm (3/4 in), or a flat sheet of No. 16 gauge sheet steel not more than 900 mm (3 ft) long. The expanded metal or sheet steel shall not be fastened to the tray and shall be no closer than 13 mm (1/2 in) to the side rails. The lengths shall not overlap by more than 50 mm (2 in). The weight of expanded metal or sheet steel shall be added to the total weight of the loading material.

5.8.7.4 In addition to the test described in 5.8.7.1 – 5.8.7.3, the deflection test described in Annex A shall be optional for determining vertical deflection of the tray.

5.8.8 Loading to destruction (Method A)

The total weight of the loading material on the cable tray, before the addition of the incremental weight that causes the destruction, shall be considered to be the destruction load. The rated load capacity of the cable tray shall be the destruction load divided by a safety factor of 1.5. For multi-tier trays, failure of any of the tiers shall be considered as failure of the whole cable tray.

5.8.9 Loading to residual deflection (Method B)

5.8.9.1 Minimum test load

The minimum test load to be applied shall be determined in accordance with the following formula:

$$\text{Total minimum test load} = 1.5 \times l \times w$$

where:

1.5 = safety factor,

l = span length, m (ft), and

w = rated load, kg/m (lb/ft).

5.8.9.2 Load application

The specimen shall first be loaded to 10 percent of the minimum test load. The vertical deflection of the tray shall be measured at three points along the line midway between the supports and at right angles to the longitudinal axis of the tray. The three points of measurement shall be under each side rail and at the center of the tray. In trays where there are no side rails, the three points of measurement shall be under the outer edges and under the center. This measurement shall be known as the initial deflection. The

loading shall then be continued until all of the rated load is applied. The deflection shall be measured in the same manner as the initial deflection. The loading shall then be continued until the total minimum test load has been applied. The total load shall then be removed from the tray. After 15 min the vertical deflection shall be measured in the same manner as previously used. This measurement shall be known as the residual deflection. The specimen may then be reloaded until it collapses, and the values of the load at collapse shall be recorded. The information concerning the load at collapse point is optional, but some users may require it to obtain product acceptance.

5.8.9.3 Measurement of residual deflection

The residual deflection at each point of measurement of the two specimens shall be averaged. Where a residual deflection for either specimen is equal to or exceeds 80 percent of the initial deflection and, in addition, deviates from the average by more than 10 percent, two more specimens shall be tested. The average of the three highest values at the point of measurement of the four specimens shall be regarded as the final result.

In multi-tier trays, the maximum deflection in any of the tiers shall be considered the maximum deflection of the whole tray.

5.8.9.4 Interpolation of test data

When allowable load and deflection data are determined by the load test, destruction load capacity for span lengths less than the tested span shall be interpolated with the formula shown below. When interpolating in this manner, ensure that the rung strength is also sufficient to support the load.

$$w_2 = w_1 \times L_1^{\,2} / L_2^{\,2}$$

where:

w_2 = *calculated load, kg/m (lb/ft)*

w_1 = *tested load, kg/m (lb/ft)*

L_1 = *tested span length, m (ft) and*

L_2 = *new span length, m (ft).*

5.9 Rung load capacity (optional)

5.9.1 General

If rung load capacity is to be specified by the manufacturer, the capacity shall be determined in accordance with Clauses 5.9.2 – 5.9.8.

5.9.2 Test equipment

All load bearing surfaces shall be flat, with edges rounded to a maximum radius of 3.2 mm (1/8 in). An example of the application of the load is shown in Figure 2.

5.9.3 Test specimen

For each rung design, two separate tests of the greatest rung length shall be made.

5.9.4 Span length and supports

Test spans shall be simple beam spans with free, unrestrained ends. Rungs shall not have side restraints. The specimen shall be supported at a span length as specified, with a tolerance of ±38 mm (1-1/2 in).

5.9.5 Orientation of specimens

Specimens shall be tested in the horizontal position. The total length of the test specimen shall be not more than the specified span length plus 20 percent. Any overhang shall be equally distributed beyond both supports.

5.9.6 Loading

All specimens shall be loaded to destruction. The loading shall be a concentrated load, applied to the 25 mm (1 in) central length of the span.

5.9.7 Load capacity

The maximum load applied to the rung shall be considered the destruction load capacity of the rung. The rated load capacity shall be the destruction load divided by a safety factor of 1.5. The allowable load may be expressed as a uniform load by multiplying the concentrated load by a factor of 2.

5.9.8 Interpolation of rung load test data

When the rated load data are determined by Clause 5.9.7, the rated load capacity for span lengths less than the tested span shall be interpolated with the following formula:

$$w_2 = w_1 \times L_1^{\,2} / L_2^{\,2}$$

where:

w_2 = calculated load, kg/m (lb/ft)

w_1 = tested load, kg/m (lb/ft)

L_1 = tested span length, m (ft) and

L_2 = new span length, m (ft).

6 Markings and product information

Note: In Canada, there are two official languages, English and French. Annex B lists French translations of the markings specified in this Standard.

6.1 Marking on product

6.1.1 Dimensions and measurements marked on the product shall include SI units. Markings expressed in inch-pound units shall be optional.

6.1.2 Each straight section of cable tray and each fitting shall be marked in a permanent and readily visible manner with the following:

a) The manufacturer's name, trademark, or other recognized symbol of identification;