UL 1574

STANDARD FOR SAFETY

Track Lighting Systems

UL Standard for Safety for Track Lighting Systems, UL 1574

Third Edition, Dated September 7, 2004

Summary of Topics

This revision of ANSI/UL 1574 dated February 6, 2025 includes the following changes in requirements:

– Installation Instructions published on publicly available website; 84.1.2.

– Inherently protected recessed luminaire assemblies; 3.30A, 36.6, 36.7, Table 54.1, Section 54A, and 83.12

– Flammability of decorative parts and parts in class 2 circuits; Table 40.1

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

The new requirements are substantially in accordance with Proposal(s) on this subject dated February 23, 2024 and August 16, 2024.

No Text on This Page

SEPTEMBER 7, 2004
(Title Page Reprinted: February 6, 2025)

1

UL 1574

Standard for Track Lighting Systems

Prior to the first edition, the requirements for the products covered by this standard were included in the Standard for Electric Lighting Fixtures, UL 57.

First Edition – January, 1987
Second Edition – May, 1995

Third Edition

September 7, 2004

This ANSI/UL Standard for Safety consists of the Third edition including revisions through February 6, 2025.

The most recent designation of ANSI/UL 1574 as an American National Standard (ANSI) occurred on February 6, 2025. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, and Title Page.

Comments or proposals for revisions on any part of the Standard may be submitted to ULSE at any time. Proposals should be submitted via a Proposal Request in the Collaborative Standards Development System (CSDS) at https://csds.ul.com.

No Text on This Page

CONTENTS

INTRODUCTION

CONSTRUCTION – TRACK SYSTEMS

CONSTRUCTION – TRACK NETWORKS

TRACK

CONNECTORS AND CANOPIES

FITTINGS

CONSTRUCTION – LUMINAIRE ASSEMBLIES

PERFORMANCE

SYSTEM

TRACK NETWORKS

INTRODUCTION

1 Scope

1.1 These requirements cover track lighting systems intended for permanent connection to sources of supply in commercial or residential ordinary locations in accordance with the National Electrical Code, NFPA 70. The track lighting systems covered by this standard are:

a) connected to a branch circuit not rated more than 300 volts and not more than 50 amperes; or

b) connected to a remotely located power source rated not more than 30 Vac or 60 Vdc and not more than 25 amperes.

1.2 *Deleted*

1.3 These requirements cover:

a) Track networks consisting of track and connectors;

b) Mono-, duo-, and multi-point canopies;

c) Incandescent, fluorescent, and high intensity discharge (HID), and LED luminaire assemblies intended to be electrically connected to and physically supported by the track in track networks and canopies;

d) Mounting means for the track; and

e) Accessories.

1.4 These requirements do not cover:

a) Busways intended for lighting, receptacles, or other general-purpose adaptors covered by the Standard for Busways, UL 857, and intended for use in accordance with Article 364 of the National Electrical Code, NFPA 70; or

b) Track lighting systems for marine use aboard a ship or boat.

1.5 Track lighting systems are not intended for use:

a) In wet or damp locations;

b) In installations where the track is concealed;

c) In hazardous locations;

d) Where subject to physical damage;

e) Where the track is extended through walls or partitions of building structures;

f) Where subject to corrosive vapors; or

g) In storage battery rooms.

1.6 A track lighting luminaire assembly that uses a tungsten-halogen lamp, fluorescent lamp, high-intensity-discharge, or LED lamp shall also comply with:

a) The applicable requirements from the Standard for Luminaires, UL 1598, if rated more than 30 Vac or 60 Vdc; or

b) The applicable requirements from the Standard for Low Voltage Lighting Systems, UL 2108, if rated 30 Vac or 60 Vdc or less.

1.7 Light emitting diode (LED) components and subassemblies integral to lighting track or a luminaire assembly covered by this standard shall comply with the applicable requirements of the Standard for Light Emitting Diode (LED) Equipment for Use in Lighting Products, UL 8750.

2 Units of Measurement

2.1 Values stated without parentheses are the requirement. Values in parentheses are explanatory or approximate information.

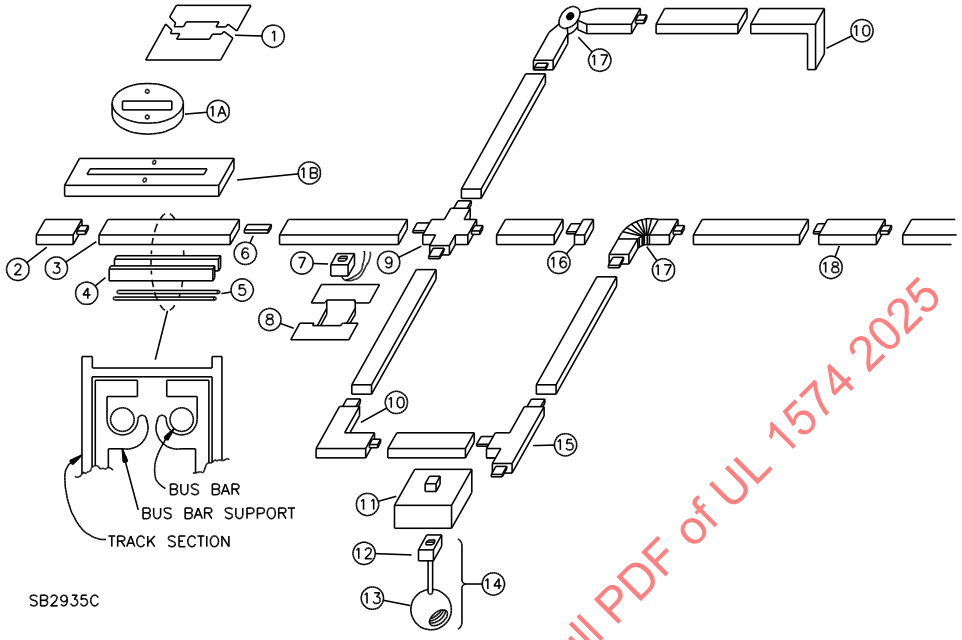
2.2 Unless indicated otherwise, all ac voltage and current values mentioned in this standard are root mean square (rms).

3 Glossary

3.1 For the purpose of this standard, the following definitions apply. Some terms unique to track systems are illustrated in Figure 3.1.

Figure 3.1

Electrical fittings in a typical track system



1 – Canopy (see 3.6)

1A – Mono- or duo-point canopy (see 3.7)

1B – Multi-point canopy (see 3.8)

2 – End feed connector (see 3.18)

3 – Track (see 3.46)

4 – Bus bar support– mounted inside track section (see 3.5)

5 – Bus bars – mounted inside bus bar support (see 3.4)

6 – Straight intercept connector (see 3.23)

7 – Floating feed connector (see 3.21)

8 – Canopy for floating feed connector (see 3.6)

9 – X-shaped intercept connector (see 3.23)

10 – L-shaped intercept connector (see 3.23)

11 – Power pack (see 3.37)

12 – Adaptor (see 3.3 and 3.30)

13 – Luminaire head (see 3.31)

14 – Luminaire assembly (see 3.30)

15 – T-shaped intercept connector (see 3.23)

16 – End cap (see 3.17)

17 – Adjustable intercept connector (see 3.23)

18 – Center feed connector (see 3.9)

3.2 ACCESSORY – An attachment (such as a shutter, barn door assembly, or iris) provided by the manufacturer for connection to a luminaire assembly.

3.3 ADAPTOR – A component of a luminaire assembly intended to mate with a track and provide mechanical securement and electrical connection.

3.4 BUS BAR – A conductor electrically connected to the source of supply and physically located inside a track (conductors in connectors are considered internal wiring). The bus bar provides power for luminaire assemblies along the length of the track.

3.5 BUS BAR SUPPORT – An insert, usually made of a polymeric material, that runs the length of a section of track and serves to support the bus bars and to isolate them while providing an opening that makes electrical contact between the bus bars and an adaptor possible.

3.6 CANOPY – A cover, either provided integral with or separate from a feed connector, that is intended to cover the outlet box by securing to the outlet box feed connector or directly to the ceiling.

3.7 CANOPY, MONO- OR DUO-POINT – A canopy which mounts directly over an outlet box and is provided with a section of track that can accept one or two luminaire assemblies at a time. A mono- or duo-point canopy is constructed such that additional lengths of track cannot be mechanically or electrically connected to the canopy.

3.8 CANOPY, MULTI-POINT – A canopy which mounts directly over an outlet box and is provided with a section of track that can accept more than one luminaire assembly at a time. A multi-point canopy is constructed such that additional lengths of track cannot be mechanically or electrically connected to the canopy.

3.9 CENTER FEED CONNECTOR – An intercept connector provided with means for connection between two sections of track and to a power source.

3.10 CLASS 2 CIRCUIT – A circuit supplied by an isolating source that complies with the requirements of the Standard for Class 2 Power Units, UL 1310, or the Class 2 requirements of the Standard for Low Voltage Transformers – Part 3: Class 2 and Class 3 Transformers, UL 5085-3.

3.11 COMPONENT – An electrical device such as a lampholder, current-interrupting device, fuse wire, or transformer.

3.12 CONNECTOR – A generic term used to refer to an electrical fitting that connects:

a) Track sections to each other (intercept connectors); and

b) A track system to a power supply (feed-type intercept connectors).

3.13 CURRENT-INTERRUPTING DEVICE – A component (such as a switch or breaker) intended to stop the flow of current in a track network or luminaire assembly circuit.

3.14 DECORATIVE PART – A part of the luminaire, outside the enclosure, that has no safety function.

3.15 ELECTRIC SHOCK – A risk of electric shock is considered likely to occur at any part if the potential between the part and earth ground or any other accessible part is more than 30 Vac or 60 Vdc and the continuous current flow through a 1500-ohm resistor exceeds 5 milliamperes.

3.16 ELECTRICAL FITTING – A generic term used to refer to each separate electrical portion of a track system. (For example: adaptors, connectors, luminaire assemblies, and track sections are electrical fittings.)

3.17 END CAP – A cover intended to close the open end of a track.

3.18 END FEED CONNECTOR – An electrical fitting intended to connect a source of supply to the end of a track. The connector is provided with a knockout or canopy for permanent connection to a source of supply.

3.19 FEED CONNECTOR – An electrical fitting (such as an end feed connector or a floating feed connector) intended to connect a track network to a power supply.

3.20 FITTING – A hook, stem, or other part of a track system intended primarily to perform a mechanical rather than an electrical function.

3.21 FLOATING FEED CONNECTOR – An electrical fitting intended to connect a track to a source of supply at any point along the length of the track. This is accomplished by attaching the connector to the bus bars in the same manner as an adaptor connects to the bus bars.

3.22 HEAVY-DUTY LIGHTING TRACK – A lighting track identified for use on circuits exceeding 20 amperes, but not greater than 50 amperes. Each lighting fitting attached to a heavy-duty lighting track has individual supplementary overcurrent protection.

3.23 INTERCEPT CONNECTOR – An electrical fitting intended to connect two or more sections of track together. The connector may be L-shaped, T-shaped, X-shaped, straight, or adjustable. An intercept connector that is also intended to connect a track system to the power supply is considered to be a feed connector.

3.24 KNOCKOUT – A precut portion of a feed connector that can be readily removed at the time of installation to provide an open hole for the attachment of a permanent wiring system.

3.25 LAMP – A part, commonly called a "light bulb" or "bulb" intended to be inserted into a lampholder (socket) to produce light.

3.26 LAMP CONTAINMENT BARRIER – A barrier that consists of the top, sides, and bottom that enclose the lamp compartment. The barrier may consist of a metal housing, a polymeric enclosure, a glass diffuser or lens, a metal screen, or the like.

3.27 LAMP-SUPPORTED LAMPHOLDER – A lampholder that, when connected as intended, is supported by the lamp, which is in turn supported by the luminaire assembly. Lamp-supported lampholders are usually constructed to accept lamps with prong connectors.

3.28 LIVE PART – A conductive part without basic insulation, where a risk of electric shock exists. The neutral conductor is considered to be a live part.

3.29 LOW-VOLTAGE CIRCUIT – A circuit that operates less than 30 Vac or 60 Vdc and that is not electrically isolated from the primary of a transformer or power supply.

3.29A LOW-VOLTAGE ISOLATED CIRCUIT – A circuit that operates at less than 30 Vac or 60 Vdc and that is electrically isolated from the primary of a transformer or power supply.

3.30 LUMINAIRE ASSEMBLY – An assembly consisting of a luminaire head and an adaptor. In this standard, designs where the luminaire head and adaptor are manufactured as a one-piece assembly is identified as an integral luminaire assembly.

3.30A LUMINAIRE ASSEMBLY, RECESSED, INHERENTLY PROTECTED – A recessed luminaire assembly that does not require a thermal protective device and that complies with the normal temperature limits under normal and abnormal operating conditions described in this standard.

3.31 LUMINAIRE HEAD – An assembly that includes a lamp enclosure or lamp compartment and any components and parts necessary for connecting the lamp compartment to the adaptor.

3.32 MOUNTING MEANS – Hardware (such as screws or clips) provided for mechanically securing a track to a mounting surface.

3.33 OPEN HOLE – An aperture in an enclosure that is not covered or filled by another part.

3.34 OPENING – An aperture in an enclosure that is covered or filled by a plug or knockout and that has the potential of becoming an open hole.

3.35 PACKAGING OF TRACK – A single section of track individually wrapped or multiple sections of track packaged together.

3.36 PENDANT-TYPE TRACK – A ceiling-mounted track system in which the track sections and connectors are suspended from the ceiling by a metal stem, metal chain, or metal cable.

3.37 POWER PACK – Generally a separate unit connected between the track and the adaptor of the luminaire assembly. It is provided with a switching power supply, linear power supply, or isolating transformer to supply power to a track lighting luminaire.

3.37.1 RACEWAY – A channel which serves to enclose wires or cables. Some examples of raceways are: rigid metal or nonmetallic conduit, electrical metal tubing, conduit fittings, flexible metal or nonmetallic conduit, flexible metal or nonmetallic tubing, metal or nonmetallic surface raceway.

3.38 RECESSED CHANNEL – A metal channel intended to be recessed into a wall or ceiling with a means provided for securing a track lighting system within it. The channel may be integral with the track.

3.39 RECESSED LUMINAIRE ASSEMBLY – A luminaire assembly intended for installation in a recessed channel such that all or part of the luminaire head is recessed into a wall or ceiling. A luminaire assembly, where only the stem and/or adapter is recessed when installed, is not considered a recessed luminaire assembly.

3.40 RECESSED TRACK – A track intended to be installed in a recessed channel such that all or part of the track is behind the mounting surface.

3.41 STRAIN RELIEF DEVICE – A knot, bushing, or the equivalent intended to prevent strain from being transmitted to a wire or cord at a termination point.

3.42 SURFACE-MOUNTED TRACK – A non-recessed track.

3.43 TERMINAL, PRESSURE-WIRE – A terminal where one or more conductors are clamped under a pressure plate or saddle by one or more screws or nuts.

3.44 TERMINAL, PUSH-IN – A terminal where the stripped end of a conductor is pushed into the terminal and the clamping pressure is maintained by a spring mechanism, without the use of screws.

3.45 TERMINAL, WIRE-BINDING SCREW – A terminal in which a single conductor is clamped directly under the head of the screw when it is tightened. The single conductor is either bent around the screw in a 3/4 loop or is otherwise retained by interference fit.

3.46 TRACK – An enclosure that houses the bus bars and that houses or is integral with the bus bar support. Track is usually made of extruded material that usually resembles an "H" in cross section, with two vertical members connected by a horizontal member. The bus bar support and bus bars are factory-mounted in the lower half of the "H" and the connection of luminaire assemblies is accomplished through the open bottom.

3.47 TRACK NETWORK – An electrical distribution system consisting of track and connectors.

3.48 TRACK SYSTEM – A complete assembly that includes a track network, mounting hardware, and one or more luminaire assemblies.

4 Components

4.1 Except as indicated in 4.2, a component of a product covered by this standard shall comply with the requirements for that component. See Appendix A for a list of standards covering components generally used in the products covered by this standard.

4.2 A component is not required to comply with a specific requirement that:

a) Involves a feature or characteristic not required in the application of the component in the product covered by this standard, or

b) Is superseded by a requirement in this standard.

4.3 A component shall be used in accordance with its rating established for the intended conditions of use.

4.4 Specific components are incomplete in construction features or restricted in performance capabilities. Such components are intended for use only under limited conditions, such as certain temperatures not exceeding specified limits, and shall be used only under those specific conditions.

5 Undated References

5.1 Any undated reference to a code or standard appearing in the requirements of this standard shall be interpreted as referring to the latest edition of that code or standard.

CONSTRUCTION – TRACK SYSTEMS

6 Assembly

6.1 The electrical portion of each electrical fitting shall be completely assembled and wired prior to being shipped from the factory.

Exception: An "X" or "T" shaped intercept connector complying with 33.2 and 81.1 need not be prewired prior to being shipped from the factory.

6.2 Adaptors shall be of such construction as to preclude the user from making electrical connections.

Exception: A pendant adaptor intended for cord or chain suspended luminaires may have provision for making electrical connections if the adaptor complies with Section 52, Pendant Luminaire Adapter.

7 Packaging

7.1 If a feed connector is intended to be used with a separable canopy, the canopy shall be included in the same package as the feed connector or marked as specified in 82.4 with a marking that is visible during installation or mounting of the track.

8 Enclosures

8.1 When a track system is installed as intended, all splices, wires, components, and leads or terminals for connection of supply wires shall be enclosed in accordance with 8.2 for a track network and 40.1 for a luminaire assembly.

8.2 An enclosure for a track network as specified in 8.1 shall be constructed of:

a) Metal; or

b) A polymeric material that complies with the requirements in 8.5.

8.3 A canopy shall be made of metal at least 0.016 inch (0.4 mm) thick or of a polymeric material that complies with the requirements in 8.5.

8.4 The minimum wall thickness of a pendant mounted metal stem shall be:

a) 0.025 inch (0.64 mm) without threads or with pressed (rolled) threads; and

b) 0.040 inch (1.02 mm) with die-cut threads.

8.5 A polymeric material used as an enclosure for a track network shall comply with:

a) The requirements in Table 8.1;

b) The requirement in 8.6;

c) The Normal Temperature Test, Section 54;

d) The Polymeric Enclosure Impact Test, Section 61; and

e) The Mold Stress Relief Distortion Test, Section 57.

Exception No. 1: A small part as described in 8.7 that is not used for direct support of a live part need not comply with the requirements in (a) – (e).

Exception No. 2: A polymeric material that is not rated for or does not comply with the hot wire ignition or high current arc resistance to ignition requirements in Table 8.1 may be determined to be acceptable if the part fabricated with the polymeric material is tested in accordance with, and found to comply with, the applicable tests for stationary equipment described in the Standard for Polymeric Materials – Use in Electrical Equipment Evaluations, UL 746C.

Exception No. 3: A polymeric material associated with a track intended for connection to a Class 2 circuit need not comply with Table 8.1 but shall have a minimum flammability rating of HB.

Table 8.1
Network polymeric material requirements

Properties					
Applications	Minimum flammability class[a]	Resistance to ignition		Electrical	
		Minimum hot wire (HWI)[b]	Minimum high current (HAI)[b]	Minimum dielectric breakdown strength[b]	Comparative tracking index (CTI)[b]
		Maximum performance level category	Maximum performance level category	Minimum volts	Maximum performance level category
Enclosure[c]	V-0	–	3	–	–
Enclosure – indirect support of live parts[d]	V-0	–	3	–	–
Enclosure – direct support of live parts[e]	V-0	4	3	5000	5
	V-0	4	3	5000	5
Bus bar support	V-1	3	2	5000	5

[a] The flammability classification is to be determined by the tests described in the Standard for Tests for Flammability of Plastic Materials for Parts in Devices and Appliances, UL 94.

[b] Tests are to be conducted in accordance with the Standard for Polymeric Materials – Short Term Property Evaluations, UL 746A.

[c] An enclosure of an electrical fitting that is not used for direct or indirect support of live parts (such as cover) and where there are no uninsulated live parts enclosed.

[d] An enclosure in direct contact with insulated live parts or where uninsulated live parts are enclosed and spaced greater than 1/32 inch (0.8 mm) from enclosure.

[e] An enclosure in direct contact with or within 1/32 inch (0.8 mm) of uninsulated live parts.

8.6 A polymeric material used in the construction of a part shall have a temperature rating consistent with the temperature measured on the part during the temperature test.

Exception: A polymeric material used for a small part as defined in 8.7 need not have a temperature rating if the small part is not used for the direct or indirect support of a live part or if the small part is not used as electrical insulation.

8.7 A small part is one that:

a) Has a volume not exceeding 0.012 cubic inches (0.2 cm^3);

b) Has a maximum dimension not exceeding 1.2 inches (3.0 cm); and

c) Cannot propagate flame from one area to another or act as a bridge between a possible source of ignition and other ignitable parts because of its location.

8.8 A knockout in an enclosure of metal or polymeric material shall comply with Section 56, Security of Knockout Test.

9 Corrosion Protection

9.1 All ferrous sheet-metal parts shall be plated, galvanized, enameled, painted, varnished, lacquered, or the equivalent.

Exception No. 1: Parts need not be provided with corrosion protection if they are intended only for decoration.