



ICC-ES Listing Report ESL-1007

Reissued July 2024

This listing is subject to renewal July 2025.

- CSI:**
- DIVISION: 13 00 00—SPECIAL CONSTRUCTION
 - Section: 13 48 53—Manufactured Seismic Control Components
 - Section: 13 48 63—Fabricated Seismic Control Assemblies

 - DIVISION: 22 00 00—PLUMBING
 - Section: 22 05 48—Vibration and Seismic Controls for Plumbing Piping and Equipment

 - DIVISION: 23 00 00—HEATING, VENTILATING, AND AIR-CONDITIONING (HVAC)
 - Section: 23 05 48—Vibration and Seismic Controls for HVAC

 - DIVISION: 25 00 00—INTEGRATED AUTOMATION
 - Section: 25 05 48 — Vibration and Seismic Controls for Integrated Automation

 - DIVISION: 26 00 00—ELECTRICAL
 - Section: 26 05 48—Vibration and Seismic Controls for Electrical Systems

 - DIVISION: 27 00 00—COMMUNICATIONS
 - Section: 27 05 48—Vibration and Seismic Controls for Communications Systems

 - DIVISION: 28 00 00—ELECTRONIC SAFETY AND SECURITY
 - Section: 28 05 48—Vibration and Seismic Controls for Electronic Safety and Security

Product Certification System:

The ICC-ES product certification system includes evaluating reports of tests of standard manufactured product, prepared by accredited testing laboratories and provided by the listee, to verify compliance with applicable codes and standards. The system also involves factory inspections, and assessment and surveillance of the listee's quality system.

Products: Seismic Wire Rope/Cable™ Bracing System Components (See Tables 1 through 4)

Listee: LOOS & CO., INC.

Evaluation: The tension-only (Cable Type) Seismic Sway Brace Assemblies and components listed in Tables 5 through 16, when installed in accordance with the manufacturer's instructions, conform to the following standards:

- ASCE/SEI 19-16, Structural Applications of Steel Cables for Buildings, American Society of Civil Engineers/Structural Engineering Institute.
- ASTM A1023-09 (Table 9), Standard Specification for Stranded Carbon Steel Wire Ropes for General Purposes, ASTM International.

Findings: Seismic Wire Rope/Cable™ Bracing meets the requirements for tension-only bracing systems using the requirements of ASCE/SEI 19, as referenced in the following section of the applicable code edition:

2018 *International Building Code*® (IBC)
Applicable Section: 2208.1

Identification:

1. Each component of the Seismic Wire Rope/Cable™ Bracing is identified with a label indicating the manufacturer's name and address, the product name, the part number of the component, the ICC-ES Listing Report Number (ESL-1007), and when applicable, the ICC-ES Listing Mark.
2. The report holder's contact information is the following:

LOOS & CO., INC.
901 INDUSTRIAL BOULEVARD
NAPLES, FLORIDA 34104
(800) 321-5667
www.loosseismicbracing.com

Installation: The system must be installed in accordance with the Loos & Co., Inc., installation instructions.

Conditions of Listing:

1. This listing report addresses only those findings noted above.
2. Approval of the products' use is the sole responsibility of the local code official.
3. This listing report applies only to the materials tested and as submitted for review by ICC-ES.
4. The tabulated cable breaking strength must be higher than the cable assembly required strength determined in accordance with ASCE/SEI 19-16 Section 3.3.1.
5. Steel cables must be color-coded as indicated in Tables 5 through 16, for field identification.
6. All components of the cable assembly must be able to develop the minimum breaking strength of the steel cables as required in ASTM A1023, Table 9.

TABLE 1—STRUCTURAL ATTACHMENT FITTING SERIES

FITTING	SIZE
Structural Attachment Fitting (SAF)	SAF-1/4, SAF-3/8, SAF-1/2, SAF-5/8, SAF-3/4, SAF-7/8, SAF-1, SAF-1 1/4
Structural Attachment Fitting Retrofit (SAFR)	SAFR-1/4, SAFR-3/8, SAFR-1/2, SAFR-5/8
Structural Attachment Fitting 8 (SAF8)	SAF8-3/8, SAF8-1/2, SAF8-5/8, SAF8-3/4
Structural Attachment Fitting 8 Retrofit (SAF8R)	SAF8R-3/8, SAF8R-1/2, SAF8R-5/8
Structural Attachment Fitting 2 Way (SAF2)	SAF2-1/4, SAF2-3/8, SAF2-1/2, SAF2-5/8, SAF2-3/4, SAF2-7/8
Structural Attachment Fitting 2 Way Retrofit (SAF2-R)	SAF2-1/4 R, SAF2-3/8 R, SAF2-1/2 R, SAF2-5/8 R



STRUCTURAL ATTACHMENT FITTING (SAF)



STRUCTURAL ATTACHMENT FITTING RETROFIT (SAFR)



STRUCTURAL ATTACHMENT FITTING 8 (SAF8)



STRUCTURAL ATTACHMENT FITTING 8 RETROFIT (SAF8R)



STRUCTURAL ATTACHMENT FITTING 2 WAY (SAF2)



STRUCTURAL ATTACHMENT FITTING 2 WAY RETROFIT (SAF2R)

TABLE 2—OVAL SLEEVES

COMPONENT NUMBER	REFERENCE CABLE DIAMETER (inch)
SL2-3P	$\frac{3}{32}$
SL2-4P	$\frac{1}{8}$
SL2-4SB	$\frac{1}{8}$
SL2-6P	$\frac{3}{16}$
SL2-8P	$\frac{1}{4}$

For **SI**: 1 inch = 25.4 mm.



OVAL SLEEVE

TABLE 3—LOW PRY FITTINGS

Component Number	Hole Diameter (inch)
LPF-1/4	0.260
LPF-3/8	0.415
LPF-1/2	0.525
LPF-5/8	0.660
LPF-3/4	0.798
LPF-7/8	0.890

For **SI**: 1 inch = 25.4 mm.



Low Pry Fitting (LPF)

TABLE 4—Stake EYE AND CABLE ASSEMBLIES

STAKE-EYE PART NUMBER	CONFIGURATION
EY8-251-3P	1
EY8-376-3P	2
EY8-500-3P	2
EY8-500-3P45	2
EY8-260-4P	1
EY8-376-4P	2
EY8-501-4P	2
EY8-505-6P	2
EY8-375-6P	2
EY8-625-8P	2
EY8-625-8P45	2



CONFIGURATION 1



CONFIGURATION 2

STAKE-EYE CONFIGURATION

TABLE 5—STRUCTURAL ATTACHMENT FITTING (SAF) AND CABLE ASSEMBLY
(Fitting Mounted 0° to 90° from Line of Tension)

Cable Color Code	Nominal Cable Diameter (Inch)	Cable Construction	Cable End Fittings	Cable Breaking Strength (lbf)
Green	³ / ₁₆	7x19	SAF-1/4, SAF-3/8, SAF-1/2, SAF-5/8, SAF-3/4, SAF-7/8, SAF-1, and SAF-1-1/4; and Oval Sleeve	4,200
Orange	¹ / ₈	7x7	SAF-1/4, SAF-3/8, SAF-1/2, SAF-5/8, SAF-3/4, SAF-7/8, SAF-1, and SAF-1-1/4; and Oval Sleeve	1,700
Gold	³ / ₃₂	7x7	SAF-1/4, SAF-3/8, SAF-1/2, SAF-5/8, SAF-3/4, SAF-7/8, SAF-1, and SAF-1-1/4; and Oval Sleeve	920

For SI: 1 inch = 25.4 mm, 1 lbf = 4.45N.

TABLE 6—STRUCTURAL ATTACHMENT FITTING 8 (SAF8) AND CABLE ASSEMBLY
(Fitting Mounted 0° to 90° from Line of Tension)

Cable Color Code	Nominal Cable Diameter (Inch)	Cable Construction	Cable End Fittings	Cable Breaking Strength (lbf)
Black	¹ / ₄	7x19	SAF8-3/8, SAF8-1/2, SAF8-5/8, and SAF8-3/4; and Oval Sleeve	7,000
Green	³ / ₁₆	7x19	SAF8-3/8, SAF8-1/2, SAF8-5/8, and SAF8-3/4; and Oval Sleeve	4,200
Orange	¹ / ₈	7x7	SAF8-3/8, SAF8-1/2, SAF8-5/8, and SAF8-3/4; and Oval Sleeve	1,700
Gold	³ / ₃₂	7x7	SAF8-3/8, SAF8-1/2, SAF8-5/8, and SAF8-3/4; and Oval Sleeve	920

For SI: 1 inch = 25.4 mm, 1 lbf = 4.45N.

TABLE 7—STRUCTURAL ATTACHMENT FITTING (SAF2) AND CABLE ASSEMBLY
(Fitting Mounted 0° to 90° from Line of Tension)

Cable Color Code	Nominal Cable Diameter (Inch)	Cable Construction	Cable End Fittings	Cable Breaking Strength (lbf)
Green	³ / ₁₆	7x19	SAF2-1/4, SAF2-3/8, SAF2-1/2, SAF2-5/8, SAF2-3/4, and SAF2-7/8; and Oval Sleeve	4,200
Orange	¹ / ₈	7x7	SAF2-1/4, SAF2-3/8, SA2F-1/2, SAF2-5/8, SAF2-3/4, and SAF2-7/8; and Oval Sleeve	1,700
Gold	³ / ₃₂	7x7	SAF2-1/4, SAF2-3/8, SAF2-1/2, SAF2-5/8, SAF2-3/4, and SAF2-7/8; and Oval Sleeve	920

For SI: 1 inch = 25.4 mm, 1 lbf = 4.45N.

TABLE 8—STRUCTURAL ATTACHMENT FITTING RETROFIT (SAFR) AND CABLE ASSEMBLY
(Fitting Mounted 0° to 90° from Line of Tension)

Cable Color Code	Nominal Cable Diameter (Inch)	Cable Construction	Cable End Fittings	Cable Breaking Strength (lbf)
Orange	¹ / ₈	7x7	SAFR-1/4, SAFR-3/8, SAFR-1/2, and SAFR-5/8; and Oval Sleeve	1,700
Gold	³ / ₃₂	7x7	SAFR-1/4, SAFR-3/8, SAFR-1/2, and SAFR-5/8; and Oval Sleeve	920

For SI: 1 inch = 25.4 mm, 1 lbf = 4.45N.

TABLE 9—STRUCTURAL ATTACHMENT FITTING 8 RETROFIT (SAF8R) AND CABLE ASSEMBLY
(Fitting Mounted 0° to 90° from Line of Tension)

Cable Color Code	Nominal Cable Diameter (Inch)	Cable Construction	Cable End Fittings	Cable Breaking Strength (lbf)
Black	¹ / ₄	7x19	SAF8R-3/8, SAF8R-1/2, and SAF8R-5/8; and Oval Sleeve	5,000 ¹
Green	³ / ₁₆	7 x 19	SAF8R-3/8, SAF8R-1/2, and SAF8R-5/8; and Oval Sleeve	4,200
Orange	¹ / ₈	7x7	SAF8R-3/8, SAF8R-1/2, and SAF8R-5/8; and Oval Sleeve	1,700
Gold	³ / ₃₂	7x7	SAF8R-3/8, SAF8R-1/2, and SAF8R-5/8; and Oval Sleeve	920

For SI: 1 inch = 25.4 mm, 1 lbf = 4.45 N

¹The tabulated breaking strength value is for Black colored cable when used with the cable end fittings and oval sleeve listed in this table.

**TABLE 10—STRUCTURAL ATTACHMENT FITTING RETROFIT 2 (SAF2-R) AND CABLE ASSEMBLY
(Fitting Mounted 0° to 90° from Line of Tension)**

Cable Color Code	Nominal Cable Diameter (Inch)	Cable Construction	Cable End Fittings	Cable Breaking Strength (lbf)
Orange	1/8	7x7	SAF2-1/4R, SAF2-3/8R, SAF2-1/2R, and SAF2-5/8R; and Oval Sleeve	1,700
Gold	3/32	7x7	SAF2-1/4R, SAF2-3/8R, SAF2-1/2R, and SAF2-5/8R; and Oval Sleeve	920

For SI: 1 inch = 25.4 mm, 1 lbf = 4.45N.

**TABLE 11—LOW PRY FITTING (LPF) AND CABLE ASSEMBLY
(Fitting Mounting 0° to 90° from Line of Tension)**

Cable Color Code	Nominal Cable Diameter (Inch)	Cable Construction	Cable End Fittings	Cable Breaking Strength (lbf)
Green	3/16	7x19	LPF-1/4, LPF-3/8, LPF-1/2, LPF-5/8, LPF-3/4; and LPF-7/8; and Oval Sleeve	4,200
Orange	1/8	7x7	LPF-1/4, LPF-3/8, LPF-1/2, LPF-5/8, LPF-3/4; and LPF-7/8; and Oval Sleeve	1,700
Gold	3/32	7x7	LPF-1/4, LPF-3/8, LPF-1/2, LPF-5/8, LPF-3/4; and LPF-7/8; and Oval Sleeve	920

For SI: 1 inch = 25.4 mm, 1 lbf = 4.45N.

**TABLE 12—BENT (45°) STAKE EYE AND CABLE ASSEMBLY WITH STAKE EYE
(Mounted 0° to 90° from Line of Tension)**

Cable Color Code	Nominal Cable Diameter (Inch)	Cable Construction	Cable End Fittings	Cable Breaking Strength (lbf)
Orange	1/8	7x7	EY8-260-4P	1,700
Gold	3/32	7x7	EY8-251-3P, EY8-376-3P	920

For SI: 1 inch = 25.4 mm, 1 lbf = 4.45N.

**TABLE 13—BENT (45°) STAKE EYE AND CABLE ASSEMBLY WITH STAKE EYE
(Mounted 0° to 60° from Line of Tension)**

Cable Color Code	Nominal Cable Diameter (Inch)	Cable Construction	Cable End Fittings	Cable Breaking Strength (lbf)
Black	1/4	7x19	EY8-625-8P	7,000
Green	3/16	7x19	EY8-375-6P, EY8-505-6P	4,200
Orange	1/8	7x7	EY8-260-4P, EY8-376-4P, EY8-501-4P	1,700
Gold	3/32	7x7	EY8-251-3P, EY8-376-3P, EY8-500-3P	920

For SI: 1 inch = 25.4 mm, 1 lbf = 4.45N.

**TABLE 14—STRAIGHT STAKE EYE AND CABLE ASSEMBLY WITH STAKE EYE
(Mounted In Line with Tension - 0° angle)**

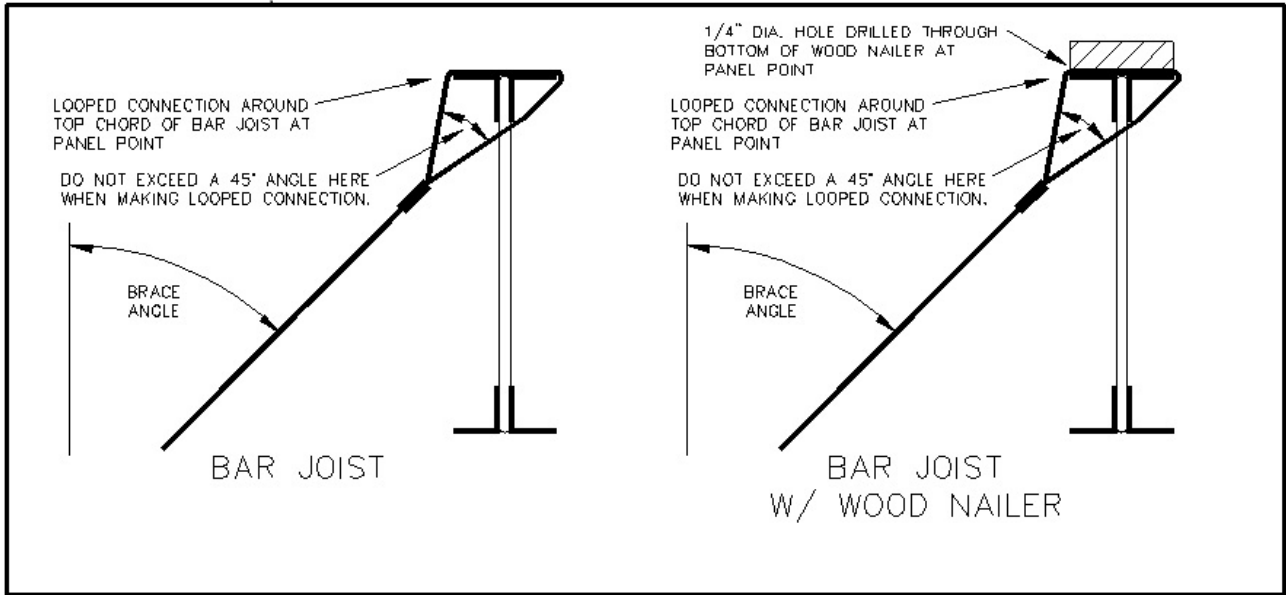
Cable Color Code	Nominal Cable Diameter (Inch)	Cable Construction	Cable End Fittings	Cable Breaking Strength (lbf)
Black	1/4	7x19	EY8-625-8P	7,000
Green	3/16	7x19	EY8-375-6P, EY8-505-6P	4200
Orange	1/8	7x7	EY8-260-4P, EY8-376-4P, EY8-501-4P	1,700
Gold	3/32	7x7	EY8-251-3P, EY8-376-3P, EY8-500-3P	920

For SI: 1 inch = 25.4 mm, 1 lbf = 4.45N.

TABLE 15—CABLE LOOP ON BAR JOIST
(In Line with Tension - 0° angle)

Cable Color Code	Nominal Cable Diameter (Inch)	Cable Construction	Cable End Fittings	Cable Breaking Strength (lbf)
Black	1/4	7x19	Cable Loop with Oval Sleeve	7,000
Green	3/16	7x19	Cable Loop with Oval Sleeve	4,200
Orange	1/8	7x7	Cable Loop with Oval Sleeve	1,700
Gold	3/32	7x7	Cable Loop with Oval Sleeve	920

For SI: 1 inch = 25.4 mm, 1 lbf = 4.45N.



BAR JOIST LOOP

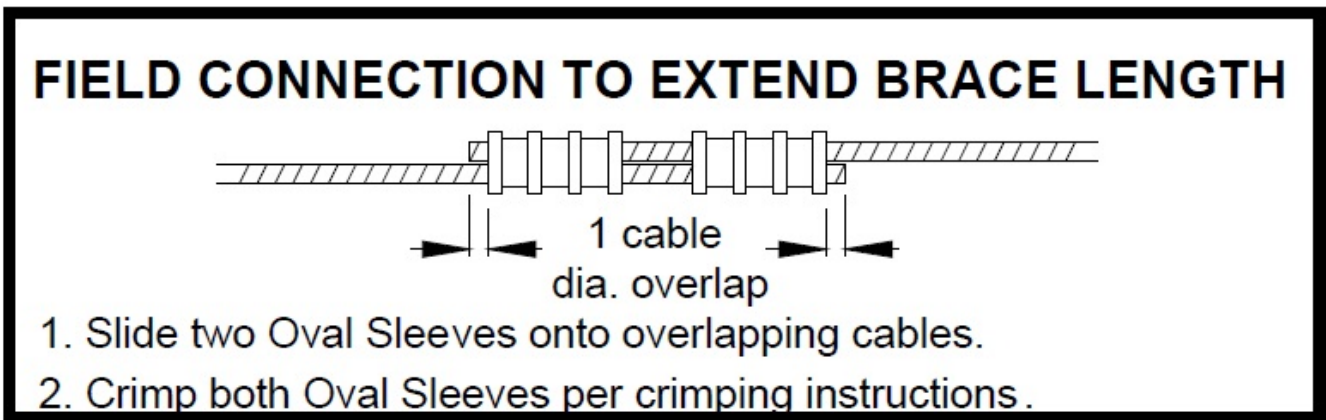
TABLE 16—CABLE SPLICE WITH OVAL SLEEVES
(In Line with Tension [0° angle])

Cable Color Code	Nominal Cable Diameter (Inch)	Cable Construction	Cable End Fittings	Cable Breaking Strength (lbf)
Black	1/4	7x19	SL2-8P Oval Sleeves ¹	7,000
Green	3/16	7x19	SL2-6P Oval Sleeves ¹	4,200
Orange	1/8	7x7	SL2-4P Oval Sleeves ¹	1,700
Orange	1/8	7x7	SL2-4SB Oval Sleeves ¹	1,700
Gold	3/32	7x7	SL2-3P Oval Sleeves ¹	920

For SI: 1 inch = 25.4 mm, 1 lbf = 4.45N.

Note:

¹Two Oval Sleeves are required.



CABLE SPLICE