

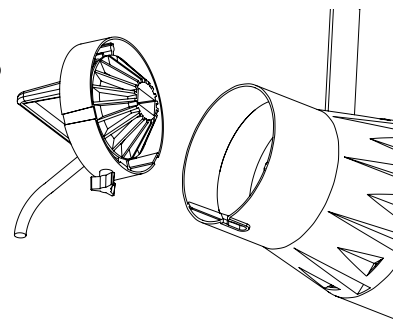
Functions

Lamp Installation

Disconnect the unit from power. To remove the lamp housing, loosen the bottom three-arm handle two full turns and pull the assembly straight out. Please note the three-arm handle stud has a threadless section preventing inadvertent removal of the socket assemblage during typical alignment procedures.

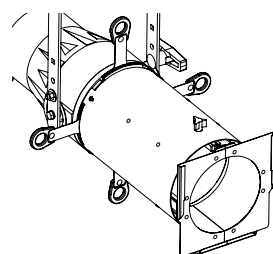
The lamp socket assembly includes a medium two-pin socket mounted within a heat sink assembly. Push the lamp firmly into the socket until it stops, then push again harder and the lamp will ease in an additional 1/16". A properly seated lamp will require a substantial tug to remove. Proper lamp installation is important to insure maximum lamp and socket life.

Reinsert the lamp housing by lining up the knob indentations of the socket housing with the respective bosses on the reflector housing. Tighten the bottom handle against the reflector housing.



Focusing

Loosen but do not remove the focus locking knob on the top front of the unit. The lens tube can now be moved in and out for desired focus. Soft focus should be typically attained by moving the lens tube out past sharp focus. Inward soft focus positions will produce a wider (flooded) field of diminished uniformity. Tighten the knob to maintain a desired focus position.



Lamp Alignment

The 5/50 Series Ellipsoidals feature a rapid and precise lamp alignment system, consisting of two handles. The center three-arm knob on the lamp housing assembly accurately positions the lamp within the reflector, while the bottom three-arm handle controls peak/flat alignment.

Peak/flat focus is achieved by loosening the bottom handle. Move the assembly forward for peak focus (brighter intensity) or back for flat focus (even intensity throughout light beam). Tighten the bottom handle after desired focus is achieved.

To center the lamp, loosen the three-arm handle on lamp housing assembly and move lamp along 'x' or 'y' axis. Tighten back handle when setting is achieved.

The peak alignment condition is useful for area blending and highlighting, while flat focus is particularly useful for single isolated areas and pattern projection.

Additionally, intentional lamp misalignment is useful for unusual beam shaping and highlighting.

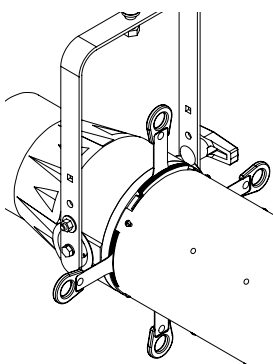
Beam Shaping

Beam shaping components include the framing shutters, a pattern projection slot and an optional iris.

Each framing shutter blade travels in its own plane and is capable of ± 60° of angulation. This provides greater versatility in creating unusual three and four sided figures. Each blade has a heat resistant handle with a convenient finger hole.

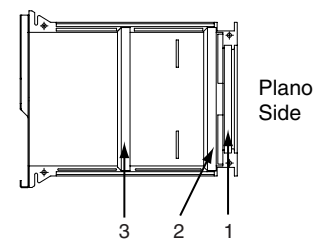
A customer installed iris is available as an accessory. If all components are used concurrently, a soft edge on either the iris or the shutter can be expected.

Beam size and shape may also be altered by profile pattern projection (see Pattern Projection).



Lenses

Leviton NSI-Colortran ellipsoidal spotlights feature a patented lens system allowing variable locations for plano-convex lenses, creating different system field angles. The lenses in the 30° model (Cat. No. EL30) may be repositioned as a 40° (Cat. No. EL40) or a 20° (Cat. No. EL20). The addition of a 6" x 12" lens creates the 15° (Cat. No. EL15).



To change lenses: Remove the focus knob, at the top front of the unit, pull out the lens tube assembly, and remove the four phillips head screws that hold it together.

The tube contains three lens retaining grooves. See Figure 1 for the lens placements to obtain various field spreads.

FIELD ANGLE	LENS SIZE	LENS POSITION	FIELD STOP POSITION
20°	6X9	3	1
30°	4.5X9	1	2
	6X9	3	
40°	4.5X9	1	N/R
	6X9	2	

Figure 1

NOTE

Some beam combinations require a corrective field stop. For optimum sharpness, make sure the correct stop is in place in the designated groove. The extra stops may be purchased as optional accessories.

When reassembling, make sure the three rubber lens mounts have been replaced on 120° centers. The lenses must not touch metal. Also be sure that the sliding locking nut is in the groove formed by the top joint of the castings.

NOTE

Interchangeability is limited to 20°, 30° and 40° fixtures.

Color

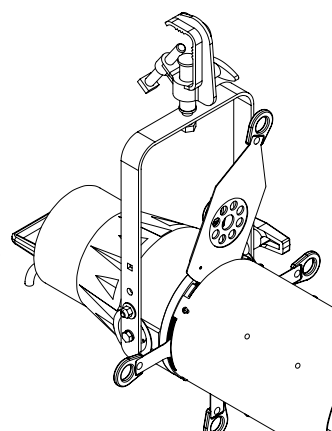
Lee Color Effect Filters are recommended for all filter applications. These filters are available in over 175 colors, color corrections, and diffusion selections. Lee Filters are available in both 21" x 4" sheets and 25' x 4' rolls.

Pattern Projection

All Leviton NSI-Colortran spotlights are equipped with pattern projection slots. Standard pattern holders are available as an accessory (Cat. No. 000-AELPH-000).

Place the pattern in the holder and the holder in the slot. Focus for sharpest detail. If haze appears around the image, align the lamp to a flat field condition (see Lamp Alignment). Additional clarity and contrast may be achieved by the use of projection stops. These stops fit into the accessory clips and block flare which decreases projection contrast.

Custom patterns of sheet metal cut to fit pattern holder may also be used.



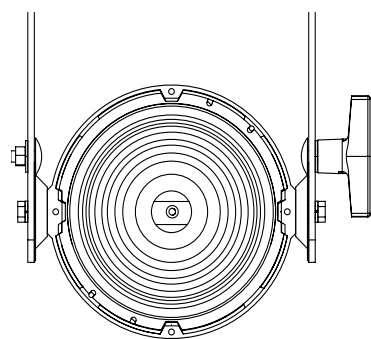
Maintenance

Reflector

The reflector may be taken out by removing the shroud mounting plate, then removing the two reflector retaining screws.

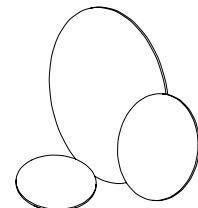
The Alzak® finish requires little maintenance: Occasionally wipe it with cotton, tissue, or a laundered handkerchief moistened with isopropyl alcohol, then rinse with water.

Strong alkaline or acid cleaners and abrasives **SHOULD NOT** be used.



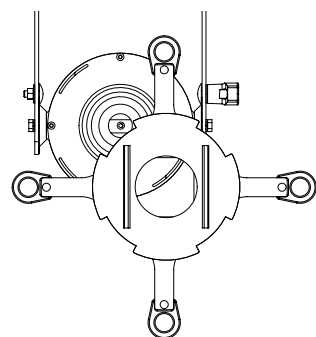
Lenses

All lenses are precision molded using the highest quality low-expansion borosilicate glass. Since the spotlight is state-of-the-art, quality lenses are necessary to withstand the high radiation energy densities. NEVER use a lens that is chipped, cracked, scratched, or tinted green.



Gate

The gate is accessed by removing the four phillips head screws holding the lens shroud to the reflector housing. The gate assembly is comprised of a sandwich of shutter blades and separate planes topped by the pattern slot plate. The assembly is retained within the casting and tension applied by four spring clips. A single blade or plate may be removed for replacement by taking the spring clips off and then reapplying them.



Recommended Lamps

Watts	Part No.	ANSI	Color Temp.	Life (Hrs.)
1000	176-033	FEL	3200°K	300
750	176-185	EHG	3200°K	500
750	176-187	EHF	3000°K	2000
500	176-029	EHC/EHB	3200°K	500
500	176-031	EHD	3000°K	2000
750	◇ HX86	FKR	3200°K	300
1000	◇ 176-095	FEP	3200°K	300

◇ (220 or 240 Volt lamps)

Photometric Performance

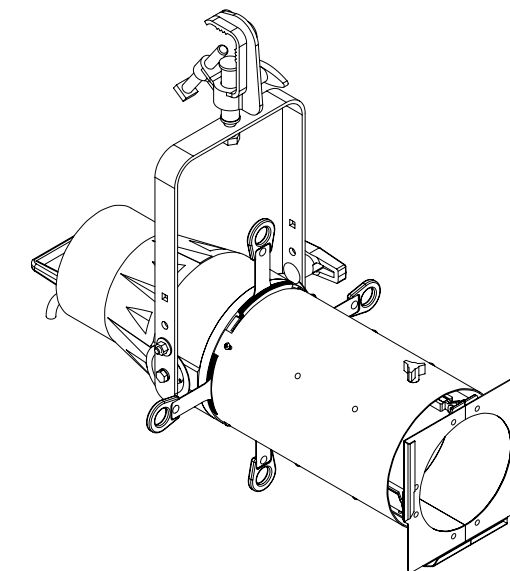
With 1000 Watt, FEL lamp, Model No. 176-033

For illumination from any distance, divide candlepower by the distance squared. For field diameter at specific distance, multiply field multiplier by distance.

Field Angle	Beam Angle Peak (Cosine)	Candlepower Peak (Cosine)	Field Multiplier
10°	5.8° (6.7°)	563,000 (563,000)	0.14
15°	6.8° (10.0°)	306,000 (286,000)	0.26
20°	8.3° (15.3°)	224,000 (171,000)	0.35
30°	11.0° (20.0°)	154,000 (118,000)	0.54
40°	15.0° (26.7°)	112,000 (48,000)	0.73
50°	17.5° (26.7°)	68,200 (27,000)	0.73

LIMITED TWO YEAR WARRANTY AND EXCLUSIONS

Leviton warrants to the original consumer purchaser and not for the benefit of anyone else that this product at the time of its sale by Leviton is free of defects in materials and workmanship under normal and proper use for two years from the purchase date. Leviton's only obligation is to correct such defects by repair or replacement, at its option, if within such two year period the product is returned prepaid, with proof of purchase date, and a description of the problem to **Leviton Manufacturing Co., Inc., Attn: Service Department, 20497 SW Teton Ave., Tualatin, Oregon 97062**. All products returned to Leviton-NSI must have factory authorization for return prior to shipping. The purchaser is responsible for completing and mailing to Leviton, within 15 days of purchase, the warranty registration card enclosed with each product. This warranty excludes and there is disclaimed liability for labor for removal of this product or reinstallation. This warranty is void if this product is installed improperly or in an improper environment, overloaded, misused, opened, abused, or altered in any manner, or is not used under normal operating conditions or not in accordance with any labels or instructions. There are no other or implied warranties of any kind, including merchantability and fitness for a particular purpose, but if any implied warranty is required by the applicable jurisdiction, the duration of any such implied warranty, including merchantability and fitness for a particular purpose, is limited to two years. Leviton is not liable for incidental, indirect, special, or consequential damages, including without limitation, damage to, or loss of use of, any equipment, lost sales or profits or delay or failure to perform this warranty obligation. The remedies provided herein are the exclusive remedies under this warranty, whether based on contract, tort or otherwise.



10° - 50°
SPOTLIGHTS
USER GUIDE

5/50
Series

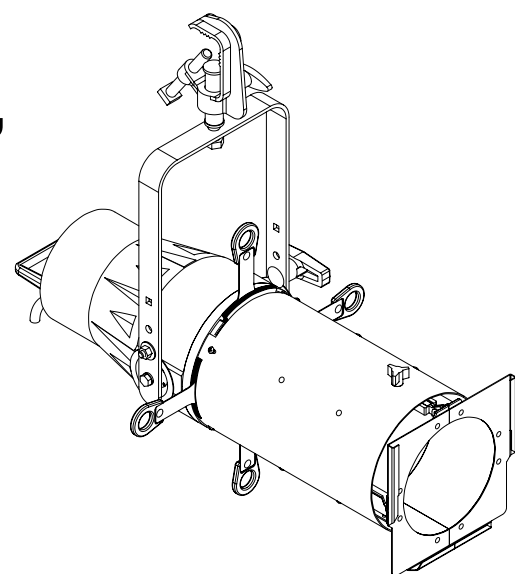
Engineered for Safe and Easy Operation.

Leviton NSI-Colortran 5/50 Ellipsoidal Series features thermally insulated handles manufactured with high technology thermoplastics for cool touch and safe operation. Insulated shutter blade fingerholes make for quick positioning. Lamp housing is easily removed by grasping the large insulated adjustment handle and loosening the bottom phenolic knob.

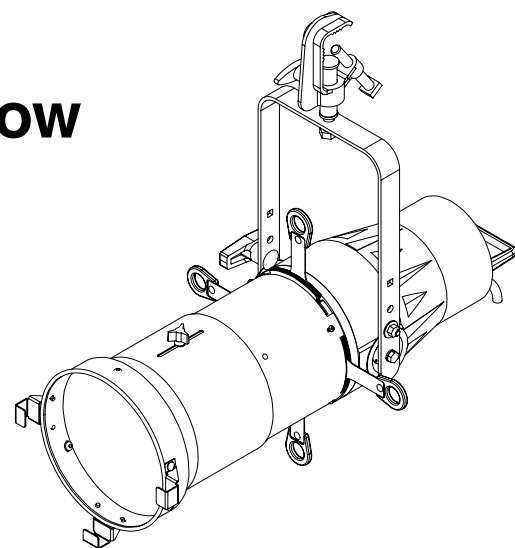


5/50 Series 1000 Watt Ellipsoidals

Available in:
50°, 40°, 30°,
20° and 15°



Plus 10°
Medium Throw



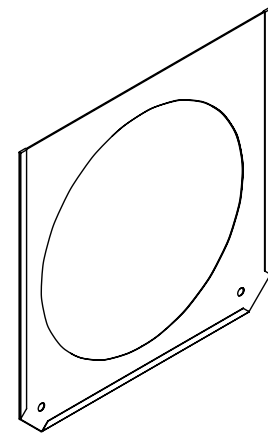
Medium throw 10° spotlight is perfect for spotlight applications from 55 feet to 100 feet. 8" x 14" lens projects 563,000 beam candlepower with 10° field angle and 5.8° beam angle.



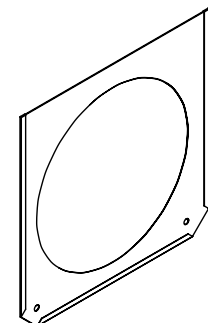
REPLACEMENT ITEMS			
Ref.	Qty.	Description	Item Number
1	1	Socket assembly	N00-AS294-490
2	1	U-ground plug	000-05266-00C
3	1	Twist-lock plug	061-02311-000
4	1	Stage pin plug	
5	1	C-clamp	000-A00CC-000
6	1	Reflector housing	N00-SM292-991
7	2	Step bolt, 5/16-18 x 3/4"	
8	2	Disc clutch	
9	8	Rivet, 1/8" x 15/32"	
10	2	Pivot bushing	
11	1	Yoke	
12	2	Lock washer, split, 5/16"	
13	2	Screw, hex head, 5/16-18 x 1"	
14	1	T-Bolt, 5/16-18, insert	N00-KB287-832
15	2	Flat washer, 5/16", steel	
16	1	Hex nut, flexlock, 5/16-18	
17	1	Reflector	N00-SM293-099
18	2	Screw, pan head, 6-32 x 3/8"	N00-HD020-800
19	1	Shroud mounting plate	N01-SM293-090
20	4	Screw, flat head, 8-32 x 1"	
21	4	Shutter blade assembly	N00-AS240-701
22-ABCDE	4	Spacer, 3 1/4" diameter	N00-SM235-711
22-F	1	Spacer, 3 1/4" diameter	N00-SM235-711
23-F	1	Spacer, 2 1/2" diameter	
24	1	Mounting pattern holder	
25	4	Spring clip	N00-HD748-800
26-ABCDE	1	Shroud, 15° - 50°	
27-F	1	Shroud, 10°	
28	4	Screw, pan head, 6-32 x 1/4"	
29	4	Washer, internal tooth, #6	
30	1	3-Arm knob, 10-24 x 1/4" stud	N00-KB010-040
31	1	Flat washer, teflon	
32-A	1	Lens assembly, 50°	N03-AS294-741
33-B	1	Lens assembly, 40°	N04-AS294-742
34-C	1	Lens assembly, 30°	N05-AS294-743
35-D	1	Lens assembly, 20°	N06-AS294-744
36-E	1	Lens assembly, 15°	N07-AS294-745
37	1	Lens assembly, 10°	N00-AS295-700

SUFFIX DESIGNATION	
A	— suffix denotes 50° unit only.
B	— suffix denotes 40° unit only.
C	— suffix denotes 30° unit only.
D	— suffix denotes 20° unit only.
E	— suffix denotes 15° unit only.
F	— suffix denotes 10° unit only.

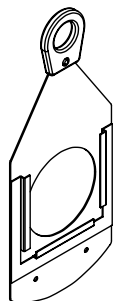
ACCESSORIES



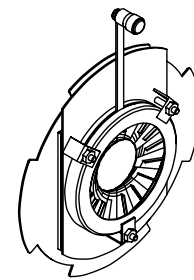
Color frame, 10°
000-A2KCF-000



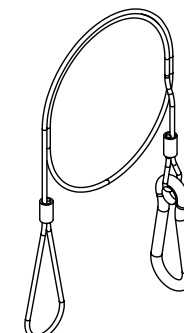
Color frame, 15° thru 50°
000-AELKF-000



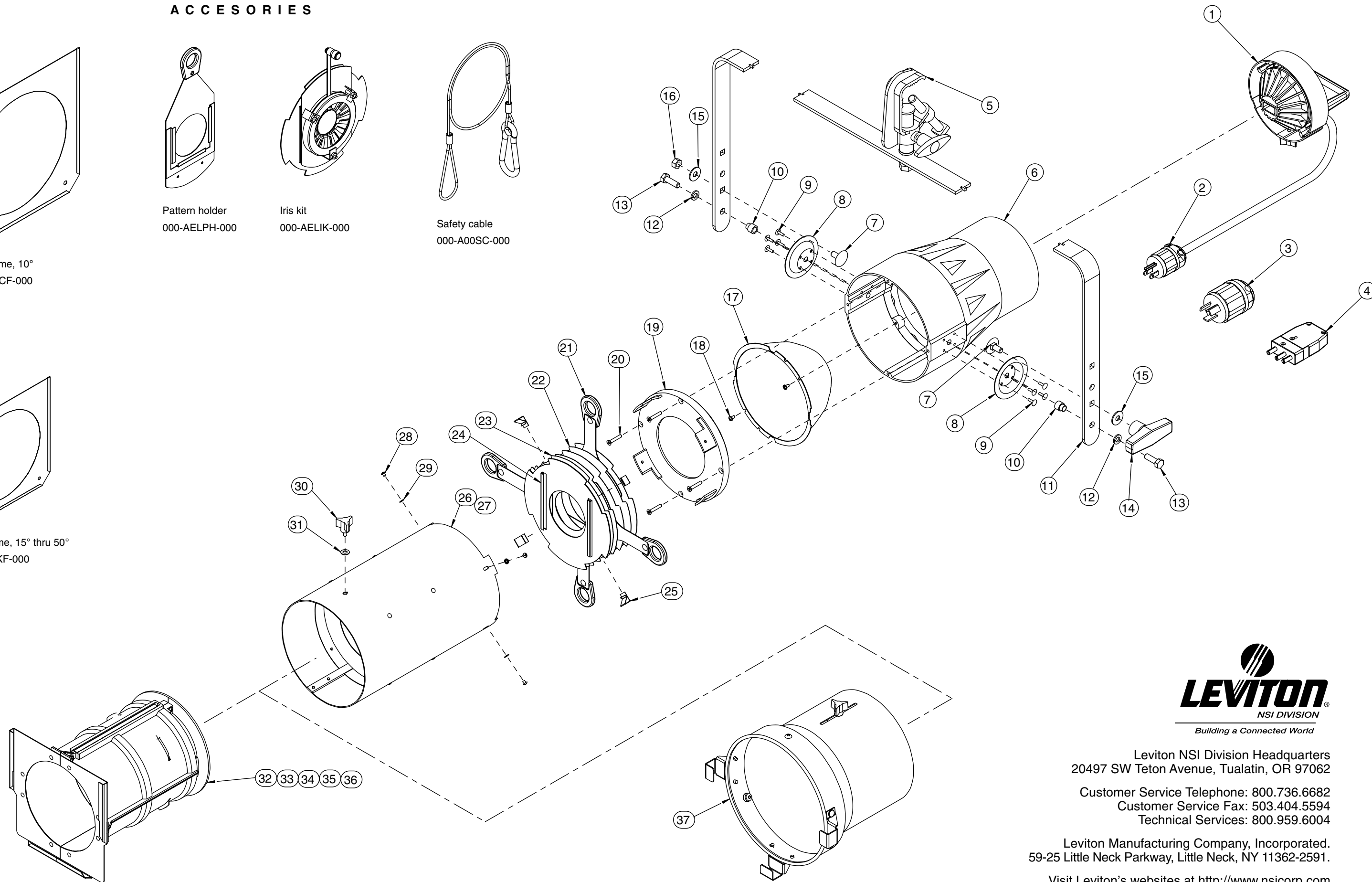
Pattern holder
000-AELPH-000



Iris kit
000-AELIK-000



Safety cable
000-A00SC-000



Leviton NSI Division Headquarters
20497 SW Teton Avenue, Tualatin, OR 97062

Customer Service Telephone: 800.736.6682
Customer Service Fax: 503.404.5594
Technical Services: 800.959.6004

Leviton Manufacturing Company, Incorporated.
59-25 Little Neck Parkway, Little Neck, NY 11362-2591.

Visit Leviton's websites at <http://www.nsicorp.com>
& <http://www.leviton.com>

Copyright© 2003. Leviton Manufacturing Company, Inc. All Rights Reserved
Specifications and pricing subject to change at any time.