

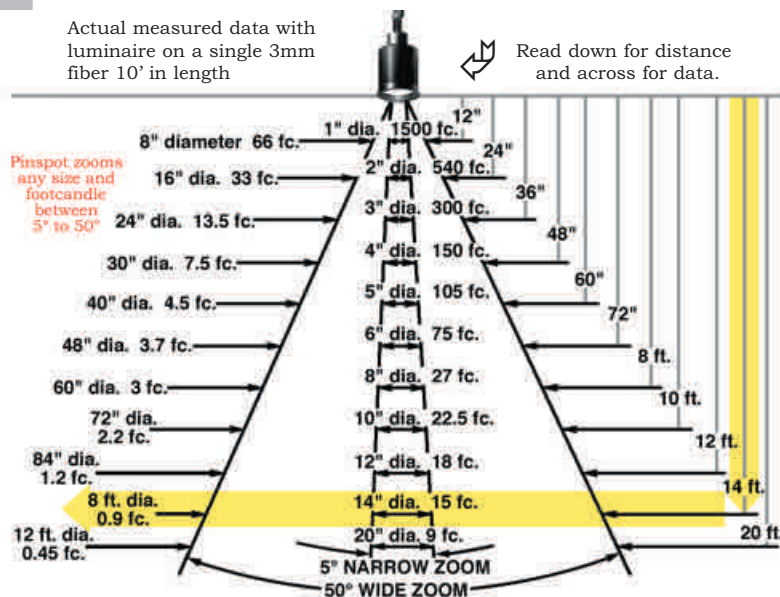
ULTRA-FOL PINSPOTS

A TRUE PINSPOT WITH PIN-POINT ACCURACY AND AN AMAZING 10:1 ZOOM RANGE.

Actual measured data with
luminaire on a single 3mm
fiber 10' in length



Read down for distance
and across for data.



DESCRIPTION: The absolute ultimate in pinspot lights, the ULTRA-FOL™ uses a single 3mm (1/8") fiber and can be smoothly zoomed from an exacting 5° pinspot to a wide 50° flood. The beam is perfectly circular, clean and uniform in brightness with no spill. Mounting in only a 1-5/8" hole, the ULTRA-FOL produces an intense, small pinspot for working close drama, a brilliant small spot for reaching from the ceiling of a case to the case's floor or a focused beam to reach across a room. It can also be zoomed out to a wide flood. The ULTRA-FOL Pinspot is available in several different forms and types of mounts to fit various applications. No other light can do this!

FEATURES:

- Even, 10:1 zoom from a 5° to a 50° beam
- Uniform, perfectly circular beam
- Clean, soft beam edges, with no spill
- No halos, aberrations or dark spots
- No peaks or hot spots
- Stone-cold, pure-white light (3200K)
- No UV, No IR
- 10-year warranty

SPECIFICATIONS:

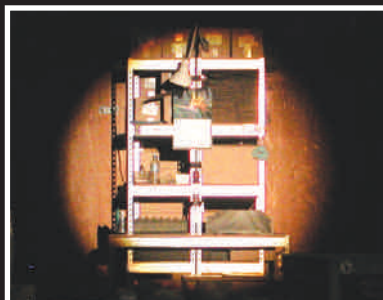
- Black anodized aerospace aluminum
- 1-5/8" diameter body
- 1-3/4" O.D. bezel
- Powered by one 3mm (1/8") fiber
- Externally threaded for mounting
- Mounting ring and seal included
- FIBER-LOCK™ locks adjustments

APPLICATIONS:

The ULTRA-FOL Pinspot is fun at your finger tips. It is the ultimate in control with an amazing range of beams from an unheard of 5° narrow pinspot for individual objects opening out to as wide as a spot. Use bright light for a gemstone or reach across a room. Pinspots have been used to light everything from ruby slippers and famous diamonds to the structural dome of a national archives.

ULTRA-FOL Pinspot adjusted to 5° beam with
MICRO-FOL Spot adjusted to a 15° beam.
(illuminated by one MICRO-FOL Spotlight)

Again, what a BIG difference *the world's only fiber optic reflector* and *the world's only fiber optic lens* makes in performance! This is a photograph of a test using a single pinspot mounted on a wall and aimed across **60 feet** to light this inventory rack. No other fiber optic light can do this...a 60-foot distance with a white, smooth beam in a sea of black. That's beam control without spill!



One fiber.

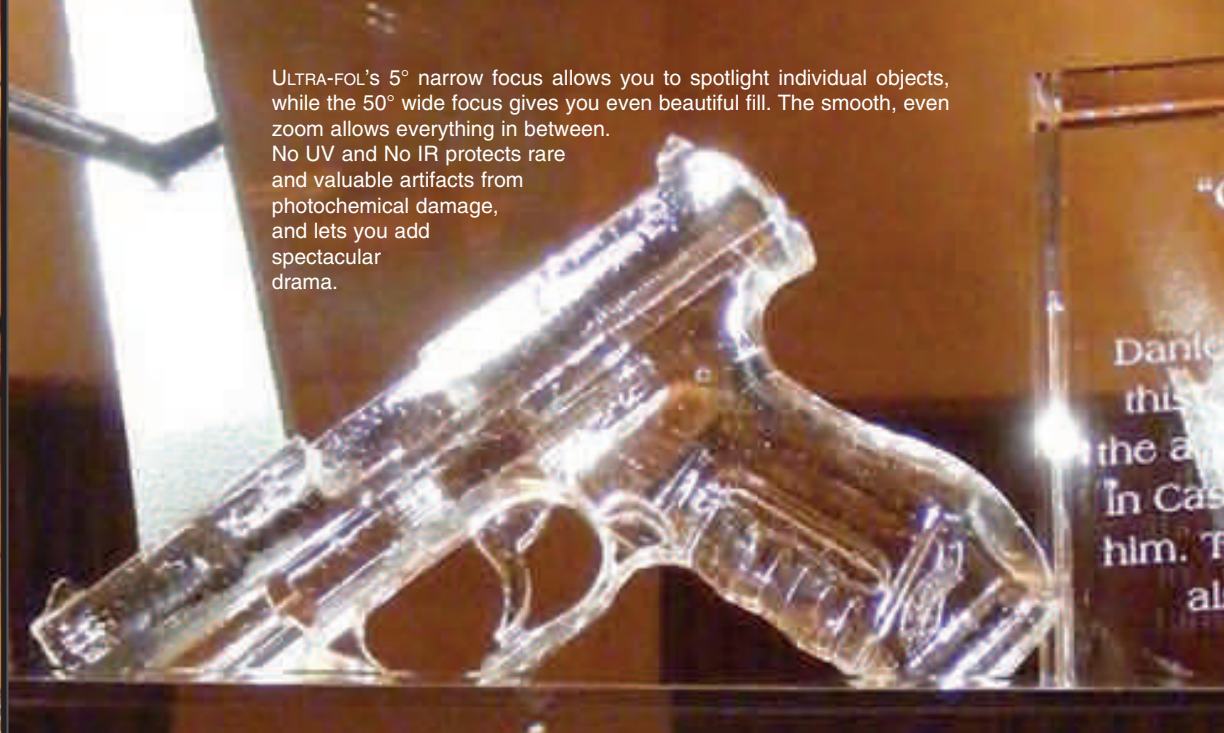
One pinspot...
frames a 12" x 16" oil
painting without spilling
light all over the wall.
One fiber.

One pinspot...
mounted **16 feet away**
lit at 10 footcandles.
High-tech amazing.





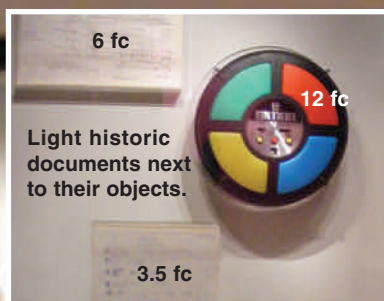
Two glass guns framed with pinspots from outside the case 18 feet away.



ULTRA-FOL's 5° narrow focus allows you to spotlight individual objects, while the 50° wide focus gives you even beautiful fill. The smooth, even zoom allows everything in between. No UV and No IR protects rare and valuable artifacts from photochemical damage, and lets you add spectacular drama.

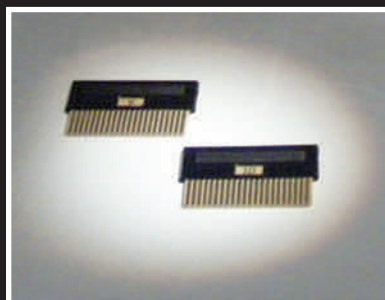
Fiber and projector systems in case's open top behind the panel are easy to install and maintain.

One projector lights the cases at "rest" at 2-3fc. Occupancy sensors turn on additional projectors when visitors approach increasing light levels. Guests never approach a dark case. They do not notice the change.



From an even wash to pinspot accuracy, NoUVIR gives you the tools.

The most interesting things can get missed. NoUVIR lets you point them out. These important game chips made history. They were the first changeable programs for the first mass marketed home video gaming system. A pinspot in the tall case's ceiling perfectly encircles them even though they sit on the case's floor. They stand out in a crowd of other e-game artifacts.



How can **two tiny black chips** draw attention when nearby the world's first commercial coin-operated video game was sculpted in dazzling metallic **candy apple red** splendor?

Answer: **Use a pinspot in the other case.**



FLAT-TRACK with ZSFT Spots (page 1-9) hidden behind case's edge.

Hide stone-cold lights where visitors never notice them unless you close a door or move a piece of furniture. The projector is in the basement. The luminaires are mounted on a stand alone frame behind the door that faces the visitors' backs. A few ZSBA spots are attached with removeable adhesive to the top of a pocket door frame. Floods light important ceiling details at 3 fc. Spots light objects including items on tables at 5 to 10 fc. One pinspot shows off by lighting the most important object in the space, a colonial three-dimensional portrait, at 9 fc from **behind the door and across the room**. Now no one misses it.



No holes. Everything removes without harm. No structural impact.

Opened against the wall, the door forms a triangle that hides the lighting.

If fiber is hidden and will not be abused, it does not need to be jacketed.



One ZPBL Pinspot from across the room. No spill onto the painting. Remarkable.



There are no pinspots here. A spot and a pinspot have identical beams at 15°. Spots save money. Don't pay for a 5° beam unless you really need it,

This example is from a historic house. This case is one of many built against the walls of a basement with a very low ceiling. With no room for lighting on the ceiling, NoUVIR allowed the space to be recovered and turned into wonderful exhibit gallery.

ULTRA-FOL ULTRA-WIDE-ZOOM PINSPOT LUMINAIRES

A TRUE PINSPOT WITH PIN-POINT ACCURACY AND AN AMAZING 10:1 ZOOM RANGE



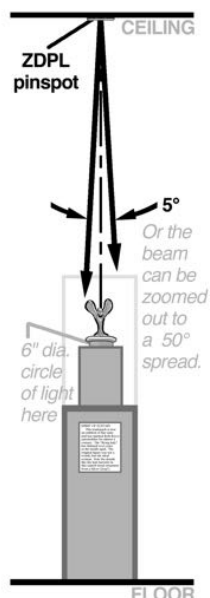
*For a tight 5° beam without sacrificing full 10:1 zoom ability, order **ZDPL***

ZDPL • ULTRA-FOL PINSPOT LUMINAIRE ZOOM-AND-DIM PINSPOT LUMINAIRE

The ZDPL ULTRA-FOL™ pinspot is a zoomable tight focus spotlight for mounting through a ceiling or panel. It mounts flush through a 1-5/8" diameter hole. Adjustable from a 5° beam spotlight to a wide angle 50° conical flood, the ZDPL is a lovely and versatile pinspot for applications requiring an extremely tight focus or a very long throw.

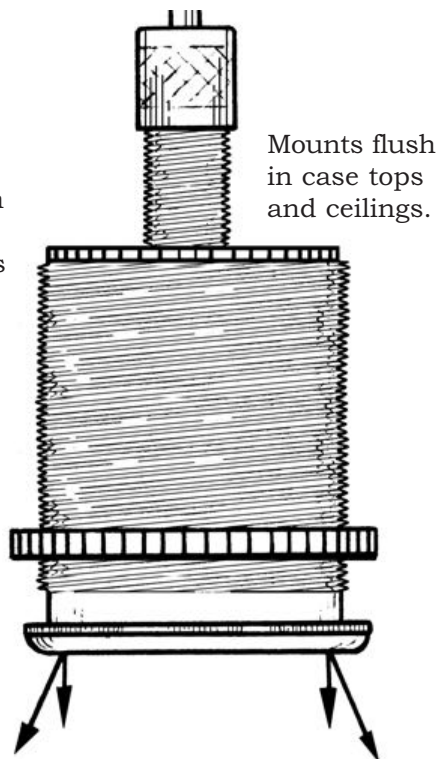
FEATURES:

- Even, 10:1 zoom, 5° to 50°
- Incredibly tight focus
- Incredibly long throws
- Uniform, circular beam
- Soft, clean beam edges
- No halos or aberrations
- Stone-cold, pure-white light
- No UV, No IR.
- 10-year warranty



A 5° beam equals one inch of beam diameter for every foot away from the pinspot:
3" beam at 3',
6" beam at 6',
and a 20" beam at 20'.

ZDPL
FULL SIZE
CLIP ART



This mineral is brilliantly lit by a single ZDPL, but the lens in the case's ceiling is dim and without glare.

Photo: B Wynne, NCMNS

ZPBL • ULTRA-FOL PINSPOT *with Bracket* ZOOM-AND-DIM PINSPOT WITH BRACKET LUMINAIRE

Identical to the ULTRA-FOL pinspot described above, with the same features, tight focus, and awesome 10:1 range of adjustment, the ZPBL comes with a large 90° mounting bracket which can be attached to a case or wall with an included screw and washer. It's ideal for mounting on a shelf or behind a panel or false front to light through holes or to peak over an edge to illuminate objects on an opposite wall. ZPBLs can also be mounted in plain view, resembling miniature PAR cans, but with no UV or IR.



*Pinspot with bracket, order **ZPBL***

ZDPP • FIBER-STEM ULTRA-FOL PINSPOT LUMINAIRE ZOOM-AND-DIM PINSPOT PENDANT

The ULTRA-FOL™ spot may also be ordered as a pendant fixture on black 1/4" dia. x .030" wall aluminum tubing in any length 6" to 72" long including fractional values. (Specify total length including luminaire.) Pendant fixtures can be bent in any shape on a 6" radius with a tubing bender and mounted in any orientation. Pendant includes hardware for mounting.



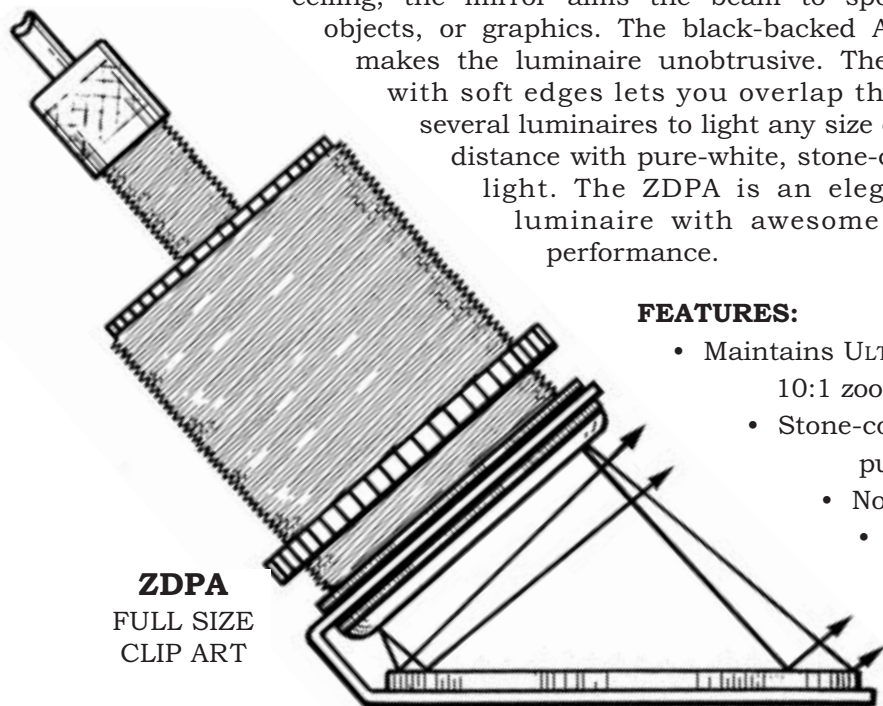
*Order **ZDPP** pendant (followed by the length, 6" to 72")*

ULTRA-FOL ULTRA-WIDE-ZOOM PINSPOT LUMINAIRES

A TRUE PINSPOT WITH PIN-POINT ACCURACY AND AN AMAZING 10:1 ZOOM RANGE

ZDPA • AZ-EL ULTRA-FOL PINSPOT LUMINAIRE
ZOOM-AND-DIM PINSPOT WITH AZ-EL MIRROR

The ULTRA-FOL™ pinspot with an AZ-EL mirror gives a narrow bright beam capable of projecting across a room that can be swiveled 360° around nadir axis *and* aimed 45° to 90° off axis with ease. Mounted in a ceiling, the mirror aims the beam to spotlight walls, objects, or graphics. The black-backed AZ-EL mirror makes the luminaire unobtrusive. The even beam with soft edges lets you overlap the light from several luminaires to light any size object from a distance with pure-white, stone-cold, NoUVIR light. The ZDPA is an elegant looking luminaire with awesome optics and performance.

**FEATURES:**

- Maintains ULTRA-FOL 10:1 zoom, 5° to 50°
- Stone-cold, pure-white light
- No UV, No IR.
- 10-yr warranty

Plus

- 360° azimuth aim around axis
- 45° to 90° off-axis aim
- 97% first surface mirror



For an ULTRA-FOL™ 5° to 50° zoom pinspot with an AZ-EL mirror, order **ZDPA**



Pinspots have reach. This alien jumps out of the dark, lit by ZPBAs on top of a case on the other side of the gallery.

ZPBA • AZ-EL ULTRA-FOL PINSPOT LUMINAIRE *with Bracket***ZOOM-AND-DIM PINSPOT WITH BRACKET AND AZ-EL MIRROR**

All of the performance of an AZ-EL Pinspot but with a bendable bracket, screw and washer, the ZPBA is easily installed with one screw, focuses from 5° to 50° and can be aimed by rotating or bending either the bracket or the mirror. The ZPBA is perfect for fine focus and long throw applications where there are wide frames around or above a viewing window or where there is room to conceal the luminaire behind a wall, ledge or ceiling beam. For an AZ-EL Pinspot with a pair of 90° mounting brackets (1 large and 1 small), order ZPBA.

For an AZ-EL Pinspot with a bracket, order **ZPBA** **ZPAP • AZ-EL FIBER-STEM™**

ULTRA-FOL PINSPOT LUMINAIRE**ZOOM-AND-DIM PINSPOT WITH AZ-EL MIRROR PENDANT**

ULTRA-FOL pinspot with an AZ-EL mirror on a 1/4" diameter black aluminum pendant in any length from 6" to 72" (including fractional values). Specify total length including luminaire. Against a dark background a ZPAP is almost invisible. Fits in hard to mount places with the pinspot projecting a beam over distance.



Order **ZPAP** and specify length, 6" to 72".

ULTRA-FOL ULTRA-WIDE-ZOOM PINSPOT LUMINAIRES

A TRUE PINSPOT WITH PIN-POINT ACCURACY AND AN AMAZING 10:1 ZOOM RANGE

ZPFT • FLAT-TRACK™ ULTRA-FOL PINSPOT LUMINAIRE

ZOOM-AND-DIM PINSPOT FOR FLAT-TRACK AND 4" DIA.

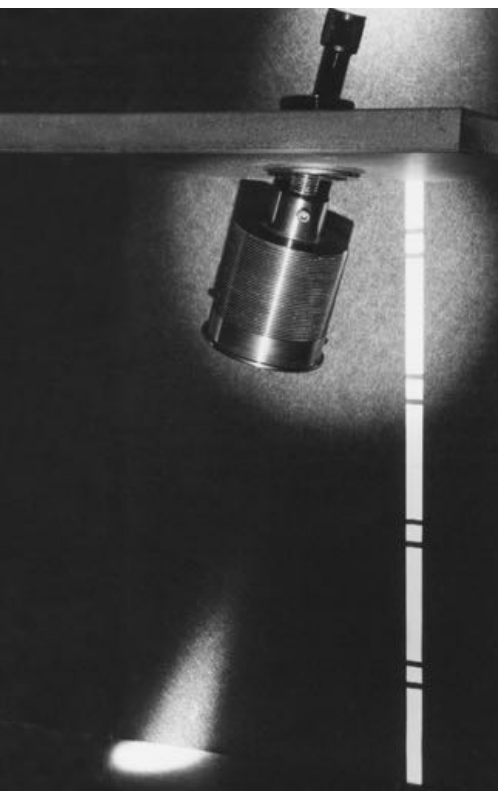
BANNISTERS

The ZPFT is an ULTRA-FOL pinspot with AZ-EL mirror on a clip to fit FLAT-TRACK track, a low profile wide-angle track and also the FIBER-RAIL 4" bannister. The clip makes it easy to move, arrange and rearrange luminaires for changing exhibits and displays.

Please see Section 4 for the details on all of NoUVIR's wonderful fiber optic track systems.



*For a Flat-Track pinspot, order **ZPFT***



Order **LNPL**

LNPL • SPHERI-FOL LONGNECK EYEBALL PINSPOT LUMINAIRE

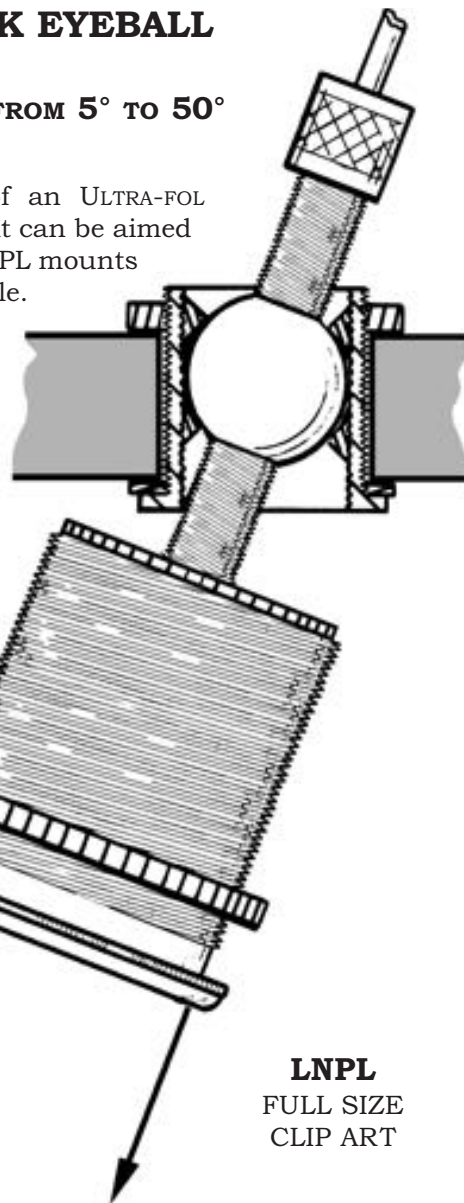
**LONGNECK PINSPOT LUMINAIRE ZOOM FROM 5° TO 50°
AND AIM 30° OFF AXIS**

The LNPL has the optical performance of an ULTRA-FOL pinspot integrated into an eyeball mount that can be aimed up to +/- 30° off the transverse axis. The LNPL mounts with a gasket seal through a 1" diameter hole.

The eyeball mount is internally sealed with o-rings. It's airtight. The LNPL zooms from a 5° beam to a 50° beam and aims up to 30° off of and 360° around the transverse axis **all from outside an exhibit case** with an easy to grab body.

FEATURES:

- Even, 10:1 zoom, 5° to 50°
- Aimable up to 30° off axis
- Mounts in a 1" diameter hole
- Uniform, perfectly circular beam
- No halos, aberrations, or dark spots
- Completely sealed
- Stone-cold, pure-white light
- No UV, No IR
- 10-year warranty



LNPL
FULL SIZE
CLIP ART



*With mirror, order **LNPA***

LNPA • SPHERI-FOL EYEBALL PINSPOT WALL WASHER

LONGNECK PINSPOT AZ-EL MIRROR

The versatile SPHERI-FOL LONG-NECK Pinspot is also available as a LNPA with an AZ-EL mirror to allow aim over virtually any angle around the transverse axis of the luminaire. Zoom characteristics remain the same, 5° to 50°. All adjustments can be made and locked from the outside of the case. This luminaire can require some planning to accommodate the 6" bend radius of the fiber out the back. But the first-surface mirror reaches a beam that can change size into the most impossible places.

ULTRA-FOL ULTRA-WIDE-ZOOM PINSPOT LUMINAIRES

A TRUE PINSPOT WITH PIN-POINT ACCURACY AND AN AMAZING 10:1 ZOOM RANGE

ZDPO • AIMABLE ULTRA-FOL PINSPOT LUMINAIRE**ZOOM-AND-DIM PINSPOT WITH 0-15° OFF-AXIS AIM FROM A SMALL 1-5/8" HOLE****The ZDPO is the ultimate pinspot.**

The ZDPO mounts flush,
operates on one 3mm fiber, and
zooms from 5° to 50° like all of our pinspots.

BUT it can also be aimed up to 15° off center in any direction ***without moving the lens or the housing!***

Light any object, anywhere in a case, without moving these flush mount fixtures.

The beam aims. But nothing seems to move. It's magic.

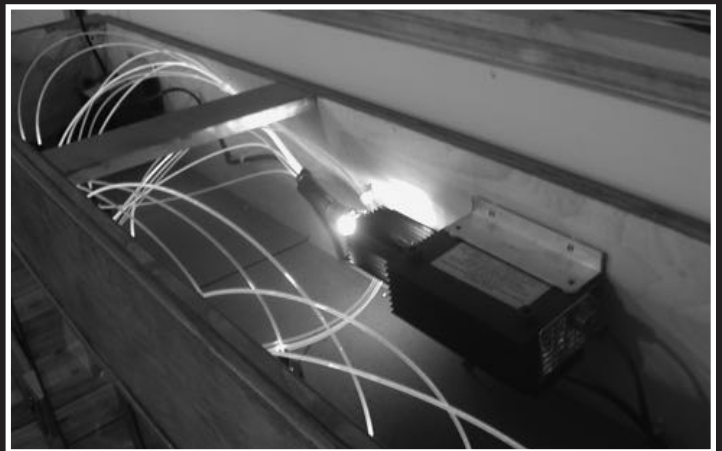
Change exhibits and case contents without having to re-engineer cases or move luminaires.

You can simply aim and focus.

Now that's a bright idea!



A case with a rotten base was given to a museum. This case was in such bad shape, it was ***headed to the dump.*** Volunteers of the museum cleaned it, polished the brass, built a wood base and an open top, backed the case with fabric, installed a projector with 10 ZDEL eyeballs and 6 ZDPO pinspots, then set glass shelves in place. It looked so incredible that a collection of carved birds by a famous artist was donated out of the community.



Larger beams were used for the top birds. Tighter beams slipped between the art and through the glass shelves to light the lower objects. Small art was kept on top and larger art on the bottom to limit shadows. The ZDPO pinspot could tightly light a hawk head on the floor of the case through the original glass top and two glass shelves. The trophy case no longer had dark spots where case structure had blocked light. The ZDPOs easily reached two birds in the middle of the case behind the brass. After seeing it re-lit, the case donor wished it had kept the case.



ULTRA-FOL ULTRA-WIDE-ZOOM PINSPOT LUMINAIRES

A TRUE PINSPOT WITH PIN-POINT ACCURACY AND AN AMAZING 10:1 ZOOM RANGE

CONVERSATIONS WITH AN EXHIBIT DESIGNER

(overheard at a major museum)

Designer: "I know that the plan says dead center, but don't you think that it would look better offset a little?"

Installer: (Looking at the NoUVIR ZDPO pinspots in the case):
"That's no problem."

Designer: "And, maybe a little to the back. It ought to be back."

Installer: "No problem."

Designer: "Do you think we could put it inside its presentation case? Could we display it that way? We'd need a bigger beam. Can you make the beam a little bigger?"

Installer: "No problem."

Designer: "And raise the case a little on the stand."

Installer: "No problem."

Designer: "And maybe tip it a little toward the front. Can you light it like that?"

Installer: "No problem."

Designer: "And it has to be 4.8 footcandles. No more."

Installer: "With a DIMMER-SPLICE, that's no problem"

Designer: "What if we paint it green and pin it on a frog?"

Installer: (Looking up sharply)
"No problem."

Designer: "I was joking."

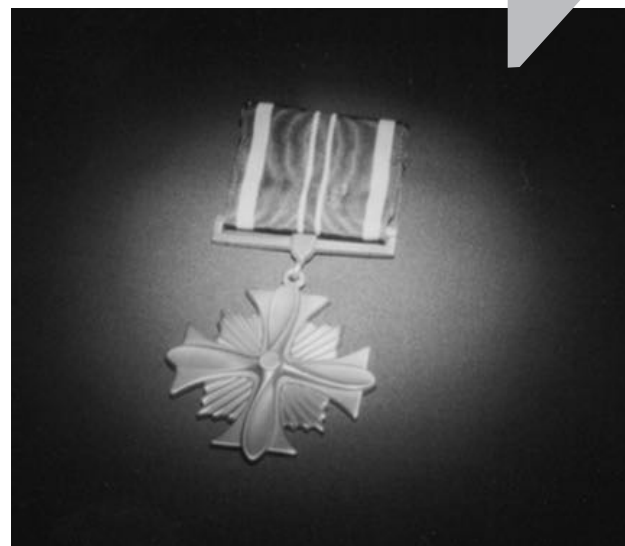
Installer: "No problem."
And they both laughed.

You know this designer!

Part of the art of creating an exhibit is being able to do some adjusting as it comes to life.

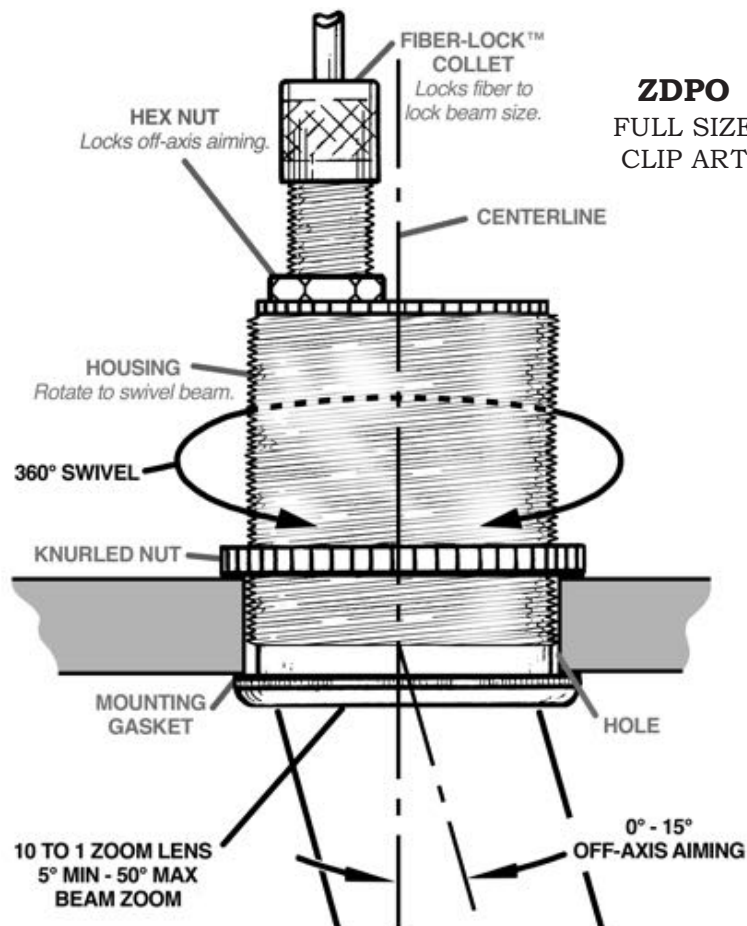
The installer can be anybody, because NoUVIR is designed for adjusting. Install, aim, focus, arrange, rearrange, re-aim, even add another fiber or luminaire. With NoUVIR it's simple and easy.

Exhibits change all the time.
With NoUVIR that's "no problem!"



ZDPO *The Ultimate Pinspot!*

ZDPO • AIMABLE ULTRA-FOL PINSPOT LUMINAIRE ZOOM-AND-DIM PINSPOT WITH 0-15° OFFSET AIM



MULTIPLE-FIBER LUMINAIRES

MORE FOOTCANDLES FROM A SINGLE SOURCE IN ONE HOUSING.

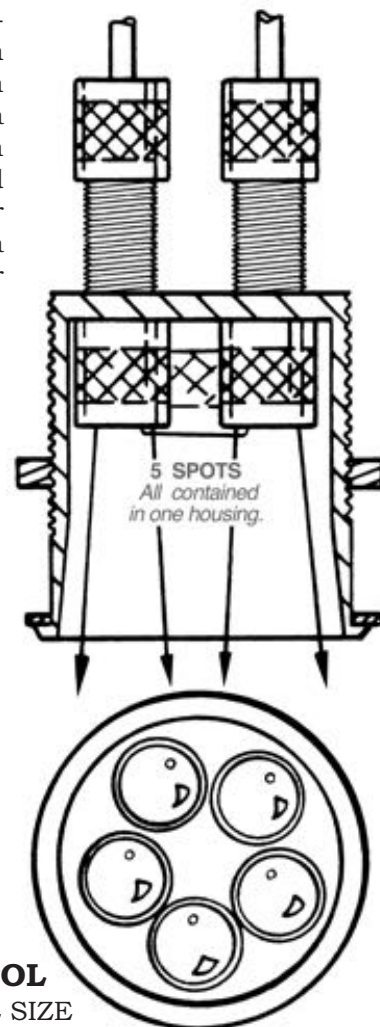
PFOL • PENTA-FOL MULTIPLE FIBER POWER LUMINAIRE

PENTA FIBER OPTIC LUMINAIRE

This specialty luminaire use five standard fibers. It is the most unique light you have ever held in your hands. (And yes, it will be stone-cold in those hands.)

The flexible PENTA-FOL™ Multiple Fiber Power Luminaire provides bright illumination from five individual, zoom-and-dim MICRO-FOL lenses deeply recessed within a single, black anodized aluminum housing. Each lens can be individually focused into a smooth, superimposed beam that blends into the others to form a uniform, very bright beam from edge to edge. But unlike any lighting fixture before, one or more of the five beams may be zoomed out from the spot to form a floodlight beam which will smoothly surround the brighter spotlight beam in the center. The spotlight beam in the center can be subtle or strong. The surrounding flood can be bright or dim. The flood can be slightly larger or zoomed out wide. You pick. You adjust until you like what you see.

The PFOL produces a heatless equivalent to a multiple LED array, 8-inch commercial downlight. Side-by-side in a 19-foot ceiling on a job site, the best LED money could buy was inferior. Unlike an LED, there is no UV below 250 nm. There is no visible blue spike to damage. Color is rich, full and accurate. *There is no harsh glare.* The beam quality of a PFOL is excellent. A PFOL can also be equated to a 25-watt halogen or a 40-watt incandescent lamp. But it has an infinite control in intensity, brightness and beam sizes. These luminaires are good for



For spots within a flood, or an extremely bright spot, order **PFOL**

downlighting sculptures, large items, important graphics, reaching across a space, natural displays or for lighting a painting where there is no room for several spots in a thin row. The PENTA-FOL light is fun to use and magic to see.

Individual ZDST spots are the best way to evenly light this historic painting.

FEATURES:

- Even, 4:1 zoom from 15° beam to 50° beam for each of five beams
- Uniform, circular beams
- Soft, overlapping beam edges, no spill
- Ability to focus a spot within a flood
- infinitely adjustable.
- Stone-cold, pure-white light (3200K)
- No UV, No IR
- 10-year warranty

SPECIFICATIONS:

- Black anodized aerospace aluminum
- 1-5/8" diameter body
- 1-3/4" O.D. bezel
- Powered by five 3mm (1/8") fibers
- Externally threaded for mounting
- Mounting ring and seal included
- FIBER-LOCKS™ lock adjustments



A PFOL would be used only if the lights had to be compacted into one location.

PENTA-FOL MULTIPLE FIBER POWER LUMINAIRES
5 MICRO-FOL™ ZOOM-AND-DIM SPOTLIGHTS IN ONE PRECISION-MACHINED LUMINAIRE

PFBL • PENTA-FOL MULTIPLE FIBER POWER LUMINAIRE with Bracket
PENTA FIBER OPTIC BRACKET LUMINAIRE

The PENTA-FOL five fiber spotlight with a large 90° bracket is ideal for areas hidden from view. The bracket provides secure installation with two screws. Each beam of the PENTA-FOL is individually adjustable from a 15° beam to a 50° beam. *By looking closely at the photograph you can see each of the evenly overlapping beams reflecting on the wall behind the PFBL and one tightly focused beam down the center.* The PENTA-FOL luminaire, with or without a bracket, is an extremely bright light and wonderfully versatile.

Sometimes you need to aim a beam down a tight corridor to light a painting. But you also want to softly light the wall behind it. This luminaire can be a good choice. Look at the full photometry in Section 9.



*For five overlapping infinitely adjustable beams and a mounting bracket, order **PFBL***

PFLA • AZ-EL PENTA-FOL MULTIPLE FIBER LUMINAIRE
PENTA FIBER OPTIC LUMINAIRE WITH AZ-EL MIRROR

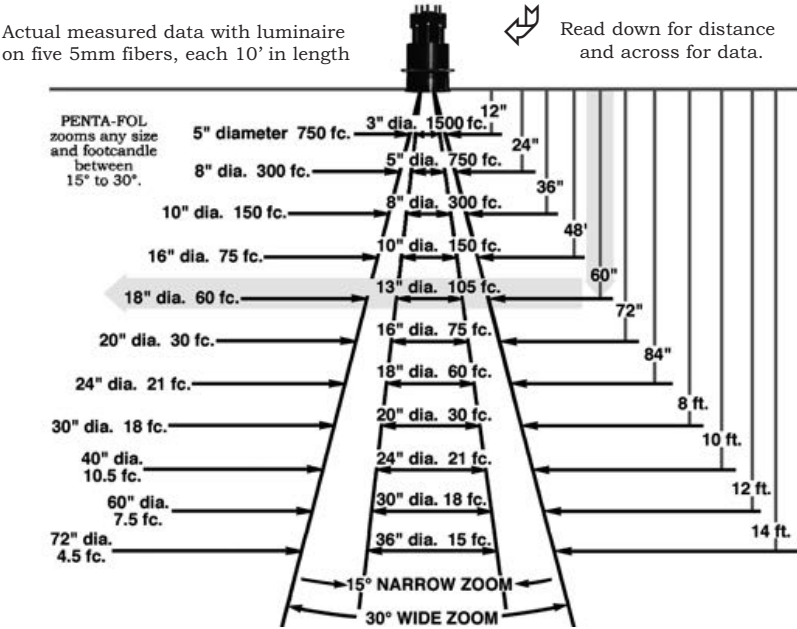
The flexible PENTA-FOL™ Multiple Fiber Power Luminaire equipped with an AZ-EL mirror provides the same powerful illumination from five standard fibers as the standard PENTA-FOL™ with the ability to aim 45° to 90° off of nadir and 360° around the transverse axis of the luminaire. Each of the five lenses can be individually focused from a 5° spotlight beam to a 50° conical flood as part of a superimposed beam. Individual beams blend into each other to form unique adjustable floods with a bright center. The spotlight beam in the center can be subtle or strong, and the surrounding flood bright or dim. The range of adjustment of the PENTA-FOL™ in intensity, center brightness, and beam size is amazing and impossible with any other light source.



*Five overlapping adjustable spots, aimed 45° to 90° to transverse axis, order **PFLA***

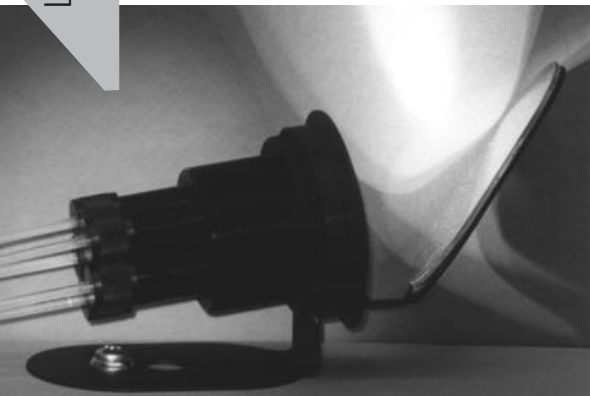
**PENTA-FOL™ MULTIPLE FIBER
SPOTLIGHT PHOTOMETRY**

(Full photometry for all luminaires can be found at the end of Section 9 - Applications)



PENTA-FOL MULTIPLE FIBER POWER LUMINAIRES

5 MICRO-FOL™ ZOOM-AND-DIM SPOTLIGHTS IN ONE PRECISION-MACHINED LUMINAIRE

**PFBA • AZ-EL PENTA-FOL MULTIPLE FIBER LUMINAIRE with Bracket
PENTA FIBER OPTIC LUMINAIRE WITH BRACKET AND AZ-EL MIRROR**With mirror and bracket, order **PFBA**

The PENTA-FOL™ luminaire with the AZ-EL mirror is available with a pair of large bracket mount. The 90° bracket makes it ideal for mounting in areas hidden to the viewer. The bendable, adjustable bracket adds to the range of aim of the luminaire and secures with two screws which are included with the luminaire. The mirror tucks the fiber in line with the luminaire, yet the beam is pointed at a tight angle without curving the fiber. The mirror is flexible in adjustment and can rotate as well as bend. Mounted to a wall, ceiling or case structure, the PENTA-FOL with an AZ-EL mirror provides incredible light, infinite adjustment, and no UV, no IR. It is ideal for hiding on top of a case where it can't be seen and aiming a lot of light at an object on the opposite side of the room facing the case.

POWER-FOL TEN-FIBER PINSPOT LUMINAIRES

THE OPTICAL POWER OF TEN 3MM FIBERS IN ONE 10° FIXED FOCUS PINSPOT

PRFL • POWER-FOL TEN-FIBER PINSPOT LUMINAIRE**POWER FIBER OPTIC LUMINAIRE**Ten fiber, 10° pinspot, order **PRFL**

Sometimes you need footcandles with no UV and no IR. The power-house of pinspots, the PRFL uses ten 3mm fibers to form a narrow 10° *fixed-focus uniform beam*. Equivalent to a 30-watt MR-16 lamp, the PRFL is capable of producing 800 footcandles over a 4" diameter beam at a short distance of 12", 70 footcandles over a 10" diameter beam at 48" or 10 footcandles over a 26" diameter beam at 10 feet. This luminaire is for applications where high light levels are required from a distance and there is room behind the luminaire for a bundle of fiber. The PRFL luminaire is a favorite with aquariums. With no electricity *plus all lamp changes in a safe place*, it keeps maintenance away from deadly aquatic life.

FEATURES:

- Extremely bright
- Fixed focus 10° pinspot beam
- Uniform, circular beams
- Clean, soft beam edges, with no spill
- Stone-cold, pure-white light (3200K)
- No UV, No IR.
- 10-year warranty

SPECIFICATIONS:

- Black anodized aerospace aluminum
- 1-5/8" diameter body
- 1-3/4" O.D. bezel
- Minimum 12" plenum height required for vertical mounting.
- Powered by ten 3mm (1/8") fibers
- Externally threaded for mounting
- Mounting ring and seal included

More can be less. Instead of PRFLs, this museum used an amazing star ceiling.



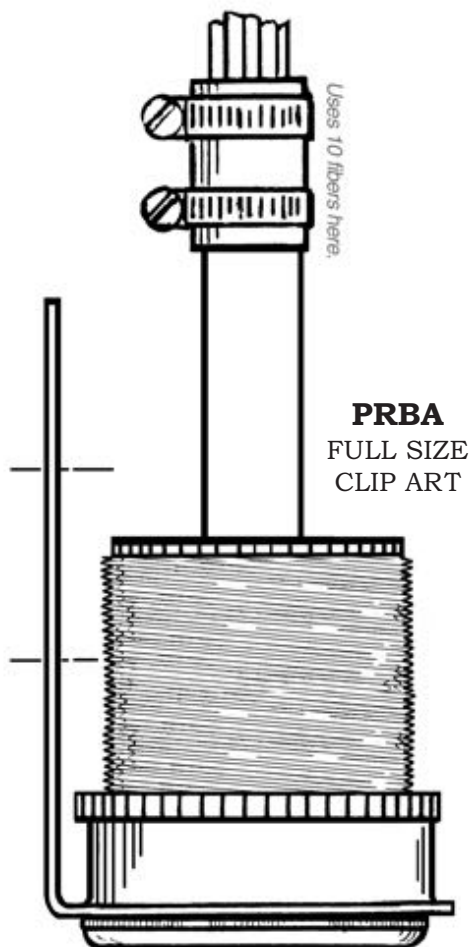
POWER-FOL TEN-FIBER PINSPOT LUMINAIRES

THE OPTICAL POWER OF TEN 3MM FIBERS IN ONE 10° FIXED FOCUS PINSPOT

PRBL • POWER-FOL TEN-FIBER PINSPOT *with Bracket*

POWER FIBER OPTIC BRACKET LUMINAIRE

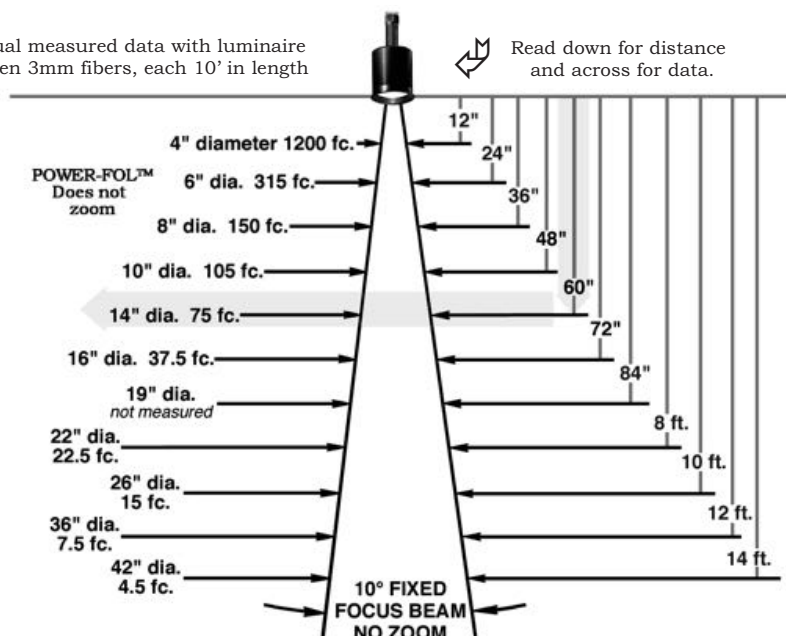
Instead of mounting the luminaire as a downlight through a hole, use a large bracket. The fix-focused (no zoom control) POWER-FOL ten fiber pinspot with a large bendable mounting bracket is for a horizontal mounting, mounting parallel to a surface and for areas hidden from view. The bracket provides secure instant installation for a extremely powerful, no UV, no IR, pinspot luminaire. Remember to design for the space needed for the fibers. There is a 6-inch bend radius and a stiff bushing holding the ten 3mm fibers. With 32 fibers powered by a single projector, three of these lights can be operated from a single lamp.



POWER-FOL TEN-FIBER PINSPOT PHOTOMETRY

(Full photometry for all luminaires can be found at the end of Section 9 - Applications)

Actual measured data with luminaire on ten 3mm fibers, each 10' in length



POWER-FOL luminaires do **not** have zoom focus.

A five-fiber PENTA-FOL can be a better option. The photometry charts in Section 9 help you choose the best luminaire for the job or simply give us a call at 302-628-9933.

PRFA • POWER-FOL TEN-FIBER PINSPOT LUMINAIRE

POWER FIBER OPTIC LUMINAIRE WITH AZ-EL MIRROR



The powerful, ten-fiber 10° fix-focused pinspot with an AZ-EL mirror. A special luminaire that will do some near impossible jobs. Order **PRFA**

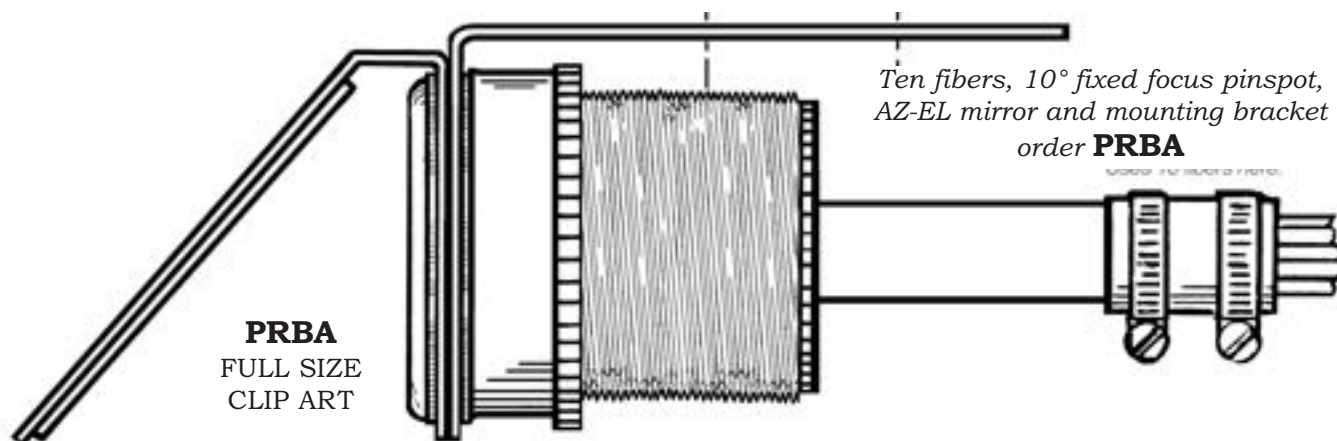
The PRFA is structurally and optically identical to the other POWER-FOL luminaires, but it is equipped with an AZ-EL mirror for aiming. Frankly the mirror allows the powerful beam to be aimed without worrying about bending the ten fibers as they stay parallel to the body. The mirror will let the beam be positioned anywhere between 60° to 90° off of the centerline and 360° around the transverse axis.

POWER-FOL TEN-FIBER PINSPOT LUMINAIRES

THE OPTICAL POWER OF TEN 3MM FIBERS IN ONE 10° FIXED FOCUS PINSPOT

PRBA • POWER-FOL TEN-FIBER PINSPOT LUMINAIRE *with Bracket*
POWER FIBER OPTIC LUMINAIRE WITH BRACKET AND AZ-EL MIRROR

The PRBA is structurally and optically identical to the other POWER-FOL luminaires, but it is equipped with an AZ-EL mirror for aiming *and* a 90° bracket.



Eight CLDN-HP fiber optic projectors are mounted in a ring with their noses pointed inward. Fiber comes to each nose as a bundle. Individual fiber is not jacketed. But to protect it over the years, the bundles are covered with split loom from the nose to where the fibers enter conduit in the wall.

The conduit is 1" diameter or greater using sweep els. Limit bends to make pulling the fiber easier. Fiber runs here average 40 feet, with a few runs as long as 65 feet (not recommended). Each fiber terminates in a luminaire in the rooms on the other side of the concrete wall. The rooms were a wet environment with trickling waterfalls and pools. NoUVIR luminaires are not electric. Some are submerged.

Power supplies are mounted below the projectors. Code allowed a cord-and-plug electrical connection to GFI outlets here instead of hard wiring through metal conduit.

The utility room is well ventilated, because of the other equipment. A NoUVIR projector needs 45 sq. in. intake and outtake. But its anodized aluminum construction has no problem working in an industrial like surrounding. The high-tech, museum-quality lighting looks right at home surrounded by water pumps, filtration equipment and electrical hardware. Lamp changes happen here. Maintenance ignores the pretty side where the luminaires are. When something eventually wears out, the drawer that contains everything electrical can be repaired on a work bench without removing the projector or disconnecting the fiber. NoUVIR Lighting rebuilds drawers to like-new condition for a nominal fee. NoUVIR systems are durable, easy to maintain, work for years (10-year limited warranty including fiber) and have operated whisper quiet in museum galleries, utility rooms, above suspended ceilings, under floor boards, in closets, upside-down hanging from rafters or floor joists or in pump rooms like this one.

