MLX Reticle Mil - Ranging One of the advantages of having the reticle set on the First Focal Plane is that the measuring qualities of the optic do not change with the magnification adjustment. This allows for accurate ranging abilities from the reticle without worry about what magnification the optic is set on.

To range with the MLX reticle system, we need to understand MIL's and what they mean over distance. Then have a grasp on "average" size of targets to be able to measure, estimate and calculate, to determine the distance to target for a shooting solution.

In the MLX reticle, the space between the dot centers subtends (1/2 to FULL MIL) increments.

One Mil subtends roughly 3.6" at 100 yards, or 36" at 1,000 yards. With this information, the operator should be able to estimate range to the target in the reticle if they know how big the target is.

EXAMPLE - A person, on average is 6 feet tall or 2 yards. The formula used for estimating range to the target is:

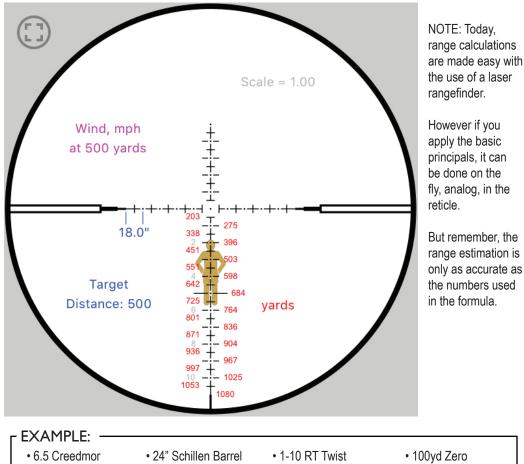
(Size of target x 1000 divided by number of mils the target covers) (Height of target (yards) X 1,000 = Range (yards)

A 6-foot-tall man (2 yards). measure from the top of the head to the feet. In this example the measurement is just a about (4) MILs.

A little guick math...(2 divided by 4, multiplied by 1000 = 500)

Knowing this is an estimate, with a 500yd range estimation and knowing what your bullet drop is at 500vds, adjust your hold over in the MLX reticle or dial the elevation turret to compensate for the bullet drop, review the environment for any wind correction necessary, send the round.

> NOTE: if you choose to dial, you have just altered your ZERO. Remember to put it back to avoid confusion and possibly a missed shot later.



But remember, the range estimation is only as accurate as the numbers used

• Elevation - 5000ft



LUCID OPTICS

ON TARGET • UNDER BUDGET

MLX

First Focal Plane, MIL / MIL Precision 4.5-18x44 Riflescope

www.lucidoptics.com

## Accessories for the MLX

Protect your MLX with a ScopeCoat optic cover



More Accessories being developed all the time!



Make the critical connection with your rifle on a 30mm QD Mount

Cut through optical mirrage and glare with a 44mm sun shade

www.lucidoptics.com

# LUCID Optics LIMITED LIFETIME WARRANTY

• B.C. .565

• 130g Berger VLD

LUCID OPTICS warrants this and ALL our products to be free of defects in materials and workmanship when they leave our warehouse. This warranty extends to the product regardless of the date of purchase or where the customer purchased it from. We recognize that from time to time, something may make it past our quality control team. If this happens we will make every effort to make the situation right and fair for all involved.

Velocity - 2750fps

Please keep in mind, when and if you have an issue with a LUCID OPTICS product, please remember, when contacting LUCID OPTICS in efforts to get the issue resolved, be nice. Aggressive and abusive behavior will not help to get your issue resolved any faster or better.

This warranty is VOID and a charge for a repair or replacement will be necessary if the item has been damaged by negligence, abuse or if the item has been customer altered in anyway. Additionally ANY item that has experienced an attempted "self repair" by a non-authorized LUCID OPTICS warranty center, will VOID this warranty. LUCID OPTICS does not and will not assume ANY responsibility for any consequential damages occasioned by this product.

Should the item prove to have an issue, in need of warranty assistance, contact the LUCID OPTICS warranty department to acquire a return authorization number (RA#). Then send the item to the following address with a complete description of the problem. A qualified and skilled warranty representative will review the item and respond with a solution in a timely manner. The typical turn time for this process is (48) hours. NOTE: When shipping the item in question back, LUCID OPTICS recommends insuring the item in case of damage or loss during shipping.

**LUCID OPTICS Warranty Repair** 307.463.2633 #303 | support@mylucidgear.com | 1697 North 8th Street West, Riverton WY, 82501 Thank you for your support in the purchase of the LUCID Optics, MLX, 4.5-18x44 Rifle Scope.

Over the years LUCID Optics has had several requests for a First Focal plane, Mil / Mil riflescope. While we were growing into the riflescope space from the red dot market, we always found fascination with the first focal plane optical engineering. So when it came time to bring an optic like this into our mix, we went to the matches and sat at the bench with competitive PRS shooters and professional bad guy hunters alike. It was in these discussions that we learned exactly what the needs of a FFP optic. True to LUCID Optics ideal we balanced the "Must Have", list of features and benefits with the "Want to Have", list of specifications and are proud to introduce the NEW MLX riflescope.

This precision optic was built from the ground up, offering a crystal clear 4.5-18x magnification range, built on a proven and easy to mount, 30mm, one piece, 6063 aluminum tube construction with nearly 6" of mounting length. The optical system is set on the First Focal plane, keeping the MLX reticle measurement aspects precisely consistant through the entire range of magnification. The NEW MLX reticle is a highly useful Mil based reticle with over 10MIL's of measurement in "hold over" and 5 Mil's of hold under available on the highest magnification in the field of view. The windage and elevation turrets are metered in a precise, 1/10Mil click adjustment increments, featuring a very useful "Lift, Adjust Press down to lock, Lift Higher to re-zero", mechanism. The MLX turrets are designed for secure and precise adjustments to meet the demanding needs of the shot. The glass selection and lens coatings have been specifically designed to offer an exceptional high resolution image through the carefully balanced optical engineering with a 44mm objective lens providing the light gathering performance second to few.

As always here at LUCID Optics we took all of the above in product balanced by affordability, then packed it all into a unique optic with the proven and trusted LUCID Optics Lifetime Warranty. We are additionally proud of being able to offer this optic at a price that is shockingly low.

There is no need to compromise on quality even if your shooting is done on a budget.

### Introducing the LUCID OPTICS MLX 4.5-18x44 (FFP. MIL / MIL) Precision Riflescope 1/10 MIL Turrets (Lift, adjust, Lift Higher to "re-zero", Press down to lock) Waterproof & FogProof (Nitrogen Purged) **Rubber enhanced Turrets** (Easy grip in all weather conditions) **Shockproof** Parallax Adjustable (15yds to ~) (Tested to .338LAPUA) (Reverse Side) **LUCID Optics MLX Reticle** Ocular Focus (-2.5 to +3) (Clean, Precise, Highly Functional) 34mm Ocualr (Easy to find Eyebox) 44mm Objective (Sun Shade & Flash Filter Available) **Precise Magnification Adjustment** First Focal Plane Optical Engineering **FBMC Multi Coated Lenses** (Exceptional clarity and color accuracy) 30MM Mounting Tube 3.6" Eye Relief **Compact Design** 6063 Aluminum "one-piece" Construction (Suitable for Magnum Calibers)

## **LUCID OPTICS**

#### **MLX Turrets Detail**

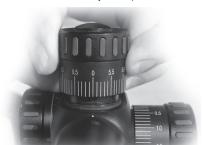
The LUCID Optics MLX turrets are designed to be tough Accurate and highly functional for the precision shooter. With the "LIFT" function the operator can access the adjustments metered in 1/10MIL with positive click indications for each adjustment in both windage and elevation.

Once the desired adjustments are made, the operator can re-align the turret with the index mark on the optics frame by "Lifting Further", to dis-engage the turret mechanism, while keeping preasure on the turrets spring loaded machanism, simply twist the turret to align the "0" as it aligns with the index mark on the optics frame. Now the optic is re-zeroed.

Once the desired adjustments have been made and the turret is re-zeroed, the operator can simply press the turret down to lock in the adjustment. This way the optics zero and desired adjustments in windage and elevation can not get inadvertantly bumped and changed with out the operators knowledge.



MLX Turret in the "LIFT" adjustable position



MLX Turret in the "LIFT Further" re-zeroable positio



MLX Turret in the locked position

# MLX Reticle Explained

The LUCID Optics MLX riflescope is equipped with the MLX reticle, designed to be clean and simple to use. The MLX reticle will easily assist the operator in moving target lead holds, long distance shot placement and range estimation. Set on the first focal plane, the increments in the MLX reticle are consistant at all magnification ranges. The precise etched glass reticle ensures that the MLX is kept to the tightest tolerances possible.

The MLX reticle is based in "milliradian" in short, "MIL's". A milliradian is a specific, trigonometric, unit of an optical, angular measurement. There is a lot of math involved in developing a shooting solution and arriving at a usable measurement for a shooter. So we will simply cut to the chase and give you the measurements you need to know. If you want to learn more about the actual math involved, visit www.lucidoptics.com.

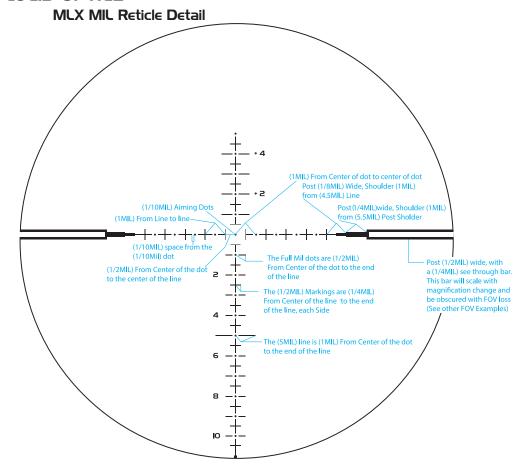
One MIL equals 3.6 inches at 100 yards. The MLX reticle is metered in (MIL - 1/2MIL) increments or at 100yds (3.6" - 1.8"). Reference the chart below for a general guide advancing out over distance.

1MIL @ 100yds = 3.6"	1MIL @ 200yds = 7.2"	1MIL @ 300yds = 10.8"
1MIL @ 400yds = 14.4"	1MIL @ 500yds = 18"	1MIL @ 600yds = 21.6"
1MIL @ 700yds = 25.2"	1MIL @ 800yds = 28.8"	1MIL @ 900yds = 32.4"
1MIL @ 1000yds = 36"	(and so on, and so fourth to infinity)	

In order to use the MLX reticle effectively, you will need to know the ballistic profile of your projectile and load as fired from your firearm. Things like bullet weight, projectile B.C., muzzle velocity, and other environmental details such as relative humidity and elevation for "air density" calculations, will effect the flight of the bullet over distance. We like to use a ballistic calculator called STRELOK for this. See example to the right.

## LUCID OPTICS

(13.89" Long & 26oz Weight)



### LUCID OPTICS

#### STRELOK Example

With the immensely useful addition of having the MLX reticle available in STRELOK, the operator can now tailor their rig to the reticle and know without a doubt where the shot will place.

We are very proud to be included in the wide variety of reticle offerings within the field tested and super accurate ballistic calculator "STRELOK" from Igor Borisov.

STRELOK is a full featured and very handy mobile device application offering super accurate ballistic calculations with a spot on graphical representation of where the shot will place within the field of view given a detailed set of operator entered data.



STRELOK on Apple and Android Market:

### EXAMPLE:

- 6.5 Creedmor 24" Schillen Barrel
- 130g Berger VLD • B.C. .565
- 1-10 RT Twist
  - 100yd Zero
- Velocity 2750fps
- Elevation 5000ft

NOTE: Unlike the L5 series from LUCID Optics, where the reticle is set on the second focal plane, the MLX reticle is set on the First Focal Plane, the reticle increments will not change with the magnification adjustment. The MLX reticle's increments will remain a constant and the reticle will grow and shrink accordingly with magnification changes.