CSEC LRP Wind Drift Estimator 2.0 for .308 Caliber

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This sheet demonstrates the use of the **CSEC LRP Wind Drift Estimator 2.0** for all .**308** calibers.

WD = (CW/K) x R

Base K_{LR} = 10
Base Alt = 0 feet, sea level
Base MV = 2700fps for all calibers.
Base BW = 165gr

Altitude correction: .00006 times altitude feet, or .06 for every 1000'
Bullet Weight correction: ±.01 per 1 grain above/below Base BW
Muzzle Velocity correction: ±.001 per 1 fps above/below 2700 fps MV

Senario 1: You are planning an Elk hunt that will take place at 5000' ft altitude using your preferred cartridge; 300 Win Mag 220gr at 2850 fps muzzle velocity.
Calculate Corrections:

- Altitude Correction: .30, Bullet Weight Correction: .55, Muzzle Velocity Correction: .15
- **Total Correction: 1.0**

Calculate corrected K_{LR} = 10 x (1 + 1.0) = 20

Calculate K_{HR}: K_{HR} = K_{LR} x 1.4 = 20 x 1.4 = 28

You write this on your scope cover for quick reference.

A month later and two days into the hunt you set up looking over 900 yards of sage flat. You estimate the cross wind using the parallax knob on your scope to be about 7 mph. Since you've decided you won't take a shot over 600 yards, you mentally calculate the wind component of the wind drift formula using K_{HR}:

(CW/K_{HR}) = (7mph/K_{HR}28mph) = .25 or ¼

Mid-morning the wind hasn't changed and you see a nice Bull Elk that laser ranges at 485 yards.
You round off the range to 500 yds and quickly calculate **WD** = **¼ x 5 = 1.25 MOA_R**

Compare with Hornady 4DOF ballistic Calculator Total Wind Drift = 1.45 MOA_R.
Compare with Bison ballistic calculator Total Wind Drift = 1.4 MOA_R

Scenario 2: Next morning a storm is moving in and your buddy needs to fill his cow tag ASAP! He's shooting a .308 Win Federal Trophy Bond 180gr at 2600 fps. Just after first light a cow elk at 325 yards steps into the open, the crosswind is 18 mph right to left … he looks at you and says, "what the <bleep's> the wind call?" Luckily you'd figured out his K_{LR} & K_{HR} while sitting in the dark (corrections Alt: . 3, BW .15, MV -.1 = .25 Total. K_{LR} = 12 and K_{HR} = 17) and (18/17 x 3.25) = 1+ x 3.25 = about 3.25+ MOA_R. Knowing he has a duplex reticle, you tell him **hold 10" right!** He makes a solid hit in the crease of the shoulder and drops the cow in its tracks. Your buddy thinks you are a genius!

Compare to Bison ballistic calculator Total Wind = 3.4 MOA_R, which equals 11" right at 325 yards.

Scenario 3: After your successful Elk hunt you go to the CSEC LRP and using the same rifle and load, you decide to try for the 2000 yard target. Wind is blowing 30º from right to left at 14 mph, or a half-value 7 mph crosswind. Your corrected **K_{LR}** value is still **20**. To make the shot you first calculate the corrected **K_{ELR}**:
K_{ELR} = K_{LR} x .75 = 20 x .75 = 15

WD = (7mph/K_{ELR}15mph) x 2000/100 = 9.3 MOA_R, add 1.5 MOA_L for spin drift, Total Windage = 7.8 MOA_R

Compare to Hornady 4DOF ballistic calculator **Total Wind Drift = MOA 7.75 MOA_R.**
The RSO calls IMPACT!

Scenario 4: You decide to give Target 12, 1199 yards a try. This time you use K_{LR}.

WD = (7mph/K_{LR}20mph) x 12 = 4.2 MOA_R, and add .5 MOA L for spin drift for **Total Windage = 3.75 MOA_R**

Compare to Hornady 4DOF ballistic calculator Total Wind Drift = 3.67 MOA_R