

Loading 30-06 Sprg – Hornady 178 gr ELD-X (3074) with RL-16

Setup:

Rifle: T/C Compass II, 22" 1/10 twist, suppressed (yes/no), sand bags

Powder: RL-16

Bullets: Hornady ELD-X (3074) - 178 gr - Polymer Tip Boat Tail – BC 0.552

COL/CBTO & Crimp: COL 3.245", CBTO 2.594" – Very light Lee FCD crimp

Cases: Hornady trimmed to 2.485"

Primers: WLR

Load Data:

For the RL-16 test, I only loaded 54.7 gr as that is a good load using H4350, per my testing. And my research indicates RL-16 and H4350 are nearly the same powder. My initial results were great.

Bullet: 178 GR ELD-X - Hornady #3074 **Powder:** RL-16 **COL:** 3.245"
Hornady indicates 3.220" COL, but use 3.245" (which matches factory Precision Hunter rounds)

Source	Start	Velocity	Max	Velocity	Barrel	Twist	Case	Primer	COL
Hornady (10th) - H4350 (RL-16 N/A)	46.5	2300	55.3	2650	23.8	1/10	Horn	F210	3.22
Alliant RL-16 (start max less 10%)									
Alliant - Speer 180 gr SP	50.1		55.7	2791	24		Win	F210	3.16
Alliant - Nosler 180 gr Partition	50.4		56.0	2824	24		Win	F210	3.23
Speer - 180 gr Spitzer BTHP #2052	49.8	2545	55.2 C	2770			Fed	F210	3.25

Note - Always verify load data for yourself, starting low and working up in safe increments. Published data varies from source-to-source, and subject to typos and transposing errors. Additionally, internet posts such as this are someone's personal experience.

Results: 3 shots each at 50 yds. Shot the same load with and without the suppressor

Caliber: 30-06 Date: 10/16/20 Conditions: 74 F, 65% Distance: 50 yd

Bullet: 178 GR ELD-X - Hornady #3074 COL: 3.245" (2.594") Crimp: FCD

Powder: RL-16 Case: Hornady LG: 2.485" Primer: WLR

Gun: T/C Compass, 22" 1/10 barrel, with and w/out suppressor

54.7 GR Avg: <u>2697</u> ES: <u>33</u> SD: <u>17</u> <u>2677, 2704, 2710</u> <u>SUPPRESSED</u>	54.7 GR Avg: <u>2710</u> ES: <u>0</u> SD: <u>0</u> <u>2710, 2710, 2710</u> <u>NO SUPPRESSOR</u>
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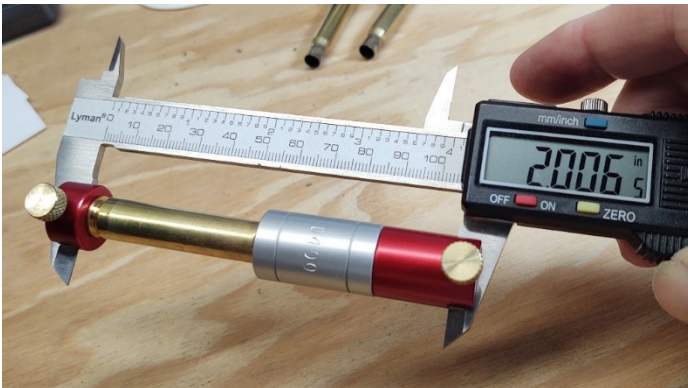
Primers after shooting with and without the suppressor.



Shoulder measurement using the Hornady Lock-N-Load Headspace Gauge – Factory Precision Hunter Cartridge



Shoulder measurement using the Hornady Lock-N-Load Headspace Gauge – Fired from T/C Compass II



DISCLAIMER

The load data contained above was developed using specific components. Other components may not produce equivalent pressure or velocities; therefore, it is recommended that the user be familiar with the basic rules of reloading safety. If you choose to use any load data above, you are using at your own risk.

Always verify load data for yourself, starting low and working up in safe increments. Published data varies from source-to-source, and subject to typos and transposing errors. Additionally, internet posts such as this are someone's personal experience. My recommendation is that you should always consult at least three sources of manufacturer's ammunition and/or powder reloading data before reloading your own ammunition.