

EWA - Extra Wide Angle Binoculars

This line of wide-angle binoculars was developed based on the latest optical systems, and is ideal for both amateur and professional use. These wide-angle binoculars offer many features, including various sizes, weights and a range of magnifications. They provide over 25-30% wider field of view and 10-15% longer eye relief when compared with regular wide-angle binoculars.

The large field of view in these units allows an object to be quickly spotted or an entire panorama to be viewed. These units feature an exterior green camouflage pattern, achromatic lenses for true color transmission and bright/sharp images even in unfavorable weather conditions.

The EWA 6x30 and EWA 7x35 are ideal for indoor performances, sporting events and travel. They have the smallest size, weight and the largest field of view.

The EWA 8x40 are the most universal, featuring an optimal combination of compact size, weight, magnification and large field of view.

The EWA 10x35 has the largest magnification, which makes them ideal for outdoor use, wildlife observation or detailed examining.

Specifications	EWA 6X30	EWA 7x35	EWA 8x40	EWA 10x50
Magnification	6	7	8	10
Field of View	12 30'	11	9 30'	7 50'
Diameter of exit pupil	5	5	5	5
Resolution in the center	8"	6"	5"	4.5"
Dimensions, mm	66x115x173	60x125x173	60x145x178	60x185x188
Weight, kg	0.65	0.78	0.88	1.00



Newcon Optik Binoculars Test Report: **OPTICAL TEST REPORT ON 8x40mm AND 10x50mm EWA BINOCULARS**

The term "wide angle" binocular usually implies the fact that an eyepiece design of 65 degrees apparent field of view or greater needs to be used with the binocular objective. To accomplish this properly, care needs to be taken with the size of the prisms, since the size requirement also increases with field of view. Many "wide angle" binocular systems that I have tested might be acceptable for daytime viewing, because the eye "stops down" the binocular objective lens to a useable level, but they often fail under the night sky for astronomical use.

Recently, I was pleasantly treated to well-made and well-executed binoculars – Newcon Optik's EWA Binoculars. Laboratory tests showed that both the eyepiece and prism designs were well matched to the objective lenses in these high performance and cost effective systems. Two (2) sizes were evaluated: The 8x40mm and the 10x50mm EWAs.

The Newcon 8x40mm and 10x50mm EWA binoculars represent an excellent all-around choice for binocular viewing. The edge-to-edge sharpness rivals many top binocular systems from Germany and Japan. The contrast and control of stray light is excellent as well. What is most surprising is that this is accomplished over very large effective field of views.

The 8x40mm EWA field of view measured at 9 degrees 36 minutes. Over the central 50%, resolution is limited only by the observer's eye (usually around 8 arc-seconds on high contrast subjects). The color correction is very good. The light fall off at the edge of the field is 60%, which is close to some very expensive binocular systems tested that had only 80% the field angle of these units.

The 8x40mm EWA binocular is lightweight and easy to hold. The overall transmission measured 92% of that of the most efficient binocular available for astronomy. However, for the majority of field work this would not be a factor. The center focus is on the tight side, but I found that it maintains its setting better than the many loose units I often come across.

Having a 5mm exit pupil maximizes contrast, sharpness and resolution over the very wide field. Under the night sky, nebulae, star clouds and constellations are observed from a unique perspective. During daytime viewing, the depth and rich color saturation mimics a binocular of three or more times the cost of these units.

The 10x50mm EWA binocular tested was equally impressive. The optical bench tests showed very similar results (only scaled by 25%). The very large field of view of 7 degrees 50 minutes demonstrated respectable performance across the entire field. At 50% field, a keen observer could resolve down to 6 arc-seconds on a high contrast subject. Again, color correction was very good across the field. The light fall-off at the edges was the same as the smaller 8x40 binocular.

In the field, the additional field of view from a 50mm objective at 10x provided much better views than normal binoculars. Viewing the full moon showed very good control of the internal reflections, and no false color was detected. Again, the 5mm exit pupil is ideal for nighttime applications, since the eye and pupil aberrations are still within acceptable performance limits.

CONCLUSIONS

Both the 8x40mm and 10x50mm Newcon Optik EWA binocular products represent enriched value, unusually good performance over extra large viewing angles, and easy to use binocular for all-around viewing use. I highly recommend these units for both daytime terrestrial and appropriate nighttime astronomical uses.

Respectfully submitted,



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