SharePoint 2010 - Anonymous access, extended web application and search

Recently, I discovered a strange thing with SharePoint 2010: anonymous access never had any search results while authenticated user had.

Here is the situation – you must have Search Application Service and a search center already available:

- Create web application with the following settings (other don't matters):
 - Authentication: classic mode
 - o Port: 80
 - o **Host header**: set with internal URL (such as intranet.sharepoint.contoso.local)
 - Authentication provider: NTLM
 - Anonymous access: No
- Create a root site collection and add some content (doesn't matter the template used)
- Extend the new web application with the following settings:
 - o **Port**: 80
 - o **Host header**: set with public URL (such as intranet.contoso.com)
 - Authentication provider: NTLM
 - o Anonymous access: Yes
 - o **Zone**: Internet
- Allow anonymous access to all the web site (from the Site Settings)
- Launch a full crawl from the Search Administration
- Then connect to the web site using internal URL and do a search which should provide results >>
 You have results
- Do the same using the public URL >> You have no results; sign in and re do the search, you have now results

Interesting no?

The solution is to ${\bf allow}\ {\bf anonymous}\ {\bf access}\ {\bf when}\ {\bf creating}\ {\bf the}\ {\bf web}\ {\bf application}.$

I have not yet identified where the issue is coming from.