The cowpea is an important source of proteins, minerals and fibres and, due to the lack of information about new cultivars genetically modified, of green and white grains, the aim of this study is to sensorially evaluate ten cultivars of cowpea (Aracê; Cauamé; Guariba; Itaim; Juruá; Novaera; Potengi; Tracuateua; Tumucumaque; Xiquexique) and one lineage (Bulk), raw and processed. The raw grains were presented in polyethylene bags and the processed ones in flasks of glass for being evaluated in relation to their attributes, such as: grain colour, hilum colour, size, shape, global acceptance and purchase intention. In the sensorial analysis, it was applied an affective test with hedonic scale and, for the purchase intention, it was applied a structured verbal scale. For the raw beans, the evaluators preferred the white grains, despite not showing any significant differences, the cultivar Potengi demonstrated an average that, in practical terms, resulted in more acceptance from the evaluators, confirmed by the higher purchase intention. For the processed beans it was found that, in relation to characteristics of grain colour, global acceptance and purchase intention, the treatment Tracuateua presented $p>0.05$; in relation to the shape and size, the significant samples were, respectively, Aracê and Juruá. For the hilum colour there was no significant difference. According to the results, it's possible to verify that the white raw grains achieved higher preference from the evaluators but, for the processed ones, this acceptance included the green grains, confirming a marketing potential for that beans.