Acerola (*Malpighia emarginata* D.C.) is a fruit with outstanding antioxidant potential and therefore, has become of interest for producers and consumers. Different acerola clones and varieties have been developed in breeding programs aiming to improve their agricultural and postharvest characteristics. This work evaluated postharvest quality attributes and variables of the antioxidant metabolism in acerola cv. 'Flor branca'. Fruits were analyzed in four developmental stages: totally green colored, predominantly green colored, predominantly red colored and red ripe. The evaluated quality attributes were: pH, soluble sugars, soluble solids (SS), titrable acidity (TA), SS/TA ratio; while the antioxidant metabolism evaluated were: total vitamin C, yellow flavonoids, total anthocyanin, total phenols and Trolox equivalent total antioxidant activity (TAA). As fruit developed, pH value was constant (3.3) meanwhile, the TA declined 15%. The soluble sugar content increased from 1.60 to 2.75 mg.100 g\(^{-1}\), as consequently did the SS content, from 5.5 to 6.7 °Brix and SS/TA ratio (4.7 to 6.7). The vitamin C and phenolic content declined from 1966 to 1104 mg.100 g\(^{-1}\) and from 4338 to 1561 mg.100 g\(^{-1}\), respectively, meanwhile the total anthocyanin and yellow flavonoid content increased from 2.5 to 12.4 mg.100 g\(^{-1}\) and from 6.6 to 9.8 mg.100 g\(^{-1}\), respectively. The TAA declined from 120 to 39 µM Trolox.g\(^{-1}\), which is probably related to the decrease in total vitamin C and phenol contents, for these are the main contributors to the antioxidant potential of acerola. The decline observed for the antioxidant components was accentuated as fruit ripening progressed, even though, there were still high levels when compared to other fruit species.