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David Walter Stoner* (applepi2012@gmail.com), 208 Ashwood Drive, Aiken, SC 29801. *On Symmetric but not Cyclotomic Numerical Semigroups.*

A numerical semigroup is called *cyclotomic* if its corresponding numerical semigroup polynomial $P_S(x) = (1-x) \sum_{s \in S} x^s$ is expressible as the product of cyclotomic polynomials. Ciolan, García-Sánchez, and Moree conjectured that for every embedding dimension at least 4, there exists some numerical semigroup which is symmetric but not cyclotomic. We affirm this conjecture by giving an infinite class of numerical semigroup families $S_{n,t}$, which for every fixed t is symmetric but not cyclotomic when $n \geq \max(8(t+1)^3, 40(t+2))$ and then verify through a finite case check that the numerical semigroup families $S_{n,0}$, and $S_{n,1}$ yield acyclotomic numerical semigroups for every embedding dimension at least 4. (Received September 26, 2017)