1106-20-1734 **Keith Jones** (keith.jones@oneonta.edu), Department of Mathematics, State University of New York at Oneonta, 108 Ravine Parkway, Oneonta, NY 13820, and **Gregory A. Kelsey*** (gregory.kelsey@trincoll.edu), Department of Mathematics, Trinity College, 300 Summit St., Hartford, CT 06106. *The horofunction boundary of the lamplighter group with the Diestel-Leader metric.*

The horofunction boundary of a proper metric space X is formed by embedding it in $C(X)$ and taking the closure. We fully describe the horofunction boundary of a Cayley graph for the lamplighter group (the Diestel-Leader graph $DL(2,2)$). This boundary can be partitioned into several sets which are invariant under the action of the lamplighter group. Two of these sets have union equal to the visual boundary of the group. Two of these sets consist of only a single point each, which gives that the action of the lamplighter group on this horofunction boundary has two global fixed points. These global fixed points are the functions that map a lamp stand to the position of its lamplighter, and its negation. (Received September 15, 2014)