1135-11-309 **Edray H. Goins** and **Pamela E. Harris*** (peh2@williams.edu), 33 Stetson Ct, Bascom House, Rm 106C, Williamstown, MA 01267, and **Bethany Kubik** and **Aba Mbirika**. *Lattice point visibility on generalized lines of sight.*

For a fixed $b \in \mathbb{N} = \{1, 2, 3, \ldots\}$ we say a point (r, s) in the integer lattice $\mathbb{Z} \times \mathbb{Z}$ is b-visible from the origin if it lies on a power function $f(x) = ax^b$ with $a \in \mathbb{Q}$ and no other integer lattice point lies on this line of sight between $(0, 0)$ and (r, s). We prove that the proportion of b-visible integer lattice points is given by $\frac{1}{\zeta(b+1)}$, where $\zeta(s)$ denotes the Riemann-zeta function. We also show that even though the proportion of b-visible lattice points approaches 1 as b approaches infinity, there exist arbitrarily large b-invisible rectangular arrays of lattice points for any fixed b. This work specialized to $b = 1$ recovers original results from the classical lattice point visibility setting where the lines of sight are given by linear functions with rational slope through the origin. (Received August 23, 2017)