

A scatter plot showing the relationship between the logarithm of luminosity ($\log_{10}(L/L_{\odot})$) on the y-axis and the logarithm of mass ($\log_{10}(M/M_{\odot})$) on the x-axis. The x-axis ranges from 5630 to 57400, and the y-axis ranges from 0.0 to 4.5. Data points are categorized by spectral type: 'g' (purple), 'r' (blue), 'i' (green), and 'z' (orange). The plot shows a general trend where luminosity increases with mass, with a notable cluster of points around $\log_{10}(M/M_{\odot}) \approx 56600$ and $\log_{10}(L/L_{\odot}) \approx 1.5$. A legend in the top right corner identifies the spectral types.

