



Figure 2. An acuity chart for width, for three fonts: Pelli, Gotham Condensed Light, and Sloan. On each line, there are three fonts, and all characters on the line have the same width, though their heights vary greatly. Each line down is smaller, by a factor of $2^{-0.5} = 71\%$. Thus, going down two lines halves the letter size. Sloan is the USA standard for acuity testing. It has a 1:1 aspect ratio. Of all the commercially available fonts that we tested, Gotham Condensed Light, with aspect ratio 2.8:1, has the narrowest legible width. We created several experimental fonts (Arouet and Sticks, not shown) and final created the “Pelli” Eye Chart font, which has the narrowest legible width. It has a 5:1 aspect ratio. Sloan’s stroke is 1/5 its width; Pelli’s stroke is 1/2 its width. In our sample of normally sighted adults, threshold width is about 0.02 deg for Pelli, 0.04 deg for Gotham (Condensed Light), and 0.10 deg for Sloan. You can use this chart to confirm this for your own eyes. At any viewing distance, once you reach your limit for Sloan, you’ll be able to read two more line of Gotham and four more lines of the Pelli font. Copyright 2016, Denis G. Pelli.