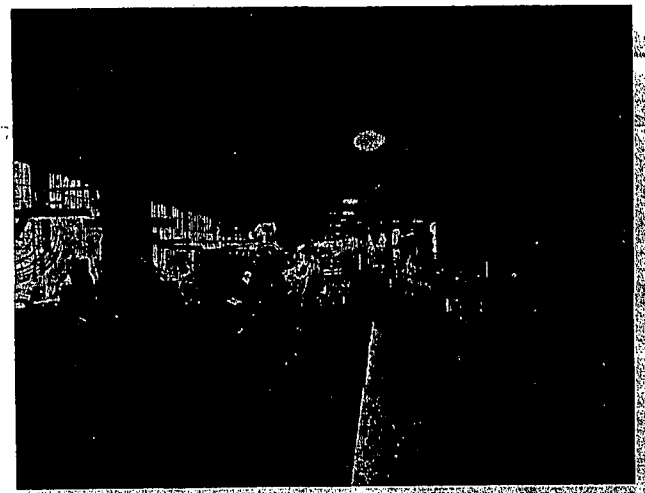

Figure 17. A view of a tool company machinery area before relighting and painting. Incandescent lamps in industrial reflectors provided an average illumination of 3 footcandles.

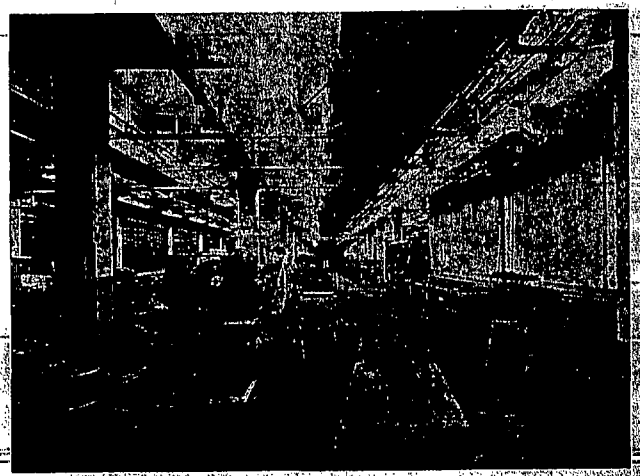

Figure 18. The same machinery area as in Figure 17 after relighting and painting. Two-lamp industrial fluorescent fixtures with 10 per cent upward light, using cool white fluorescent lamps. Average illumination is 40 footcandles.

brightness contrasts. Under these new conditions the accident rate has been cut 35 to 50 per cent.

Other benefits of good lighting include increased production rate and reduced spoilage. A textile mill[52] has kept statistics on their textile products throughout an extended re-lighting program. Their production rate and mending costs are correlated with illumination in Table 3 and Figure 19. Figure 20 shows a typical

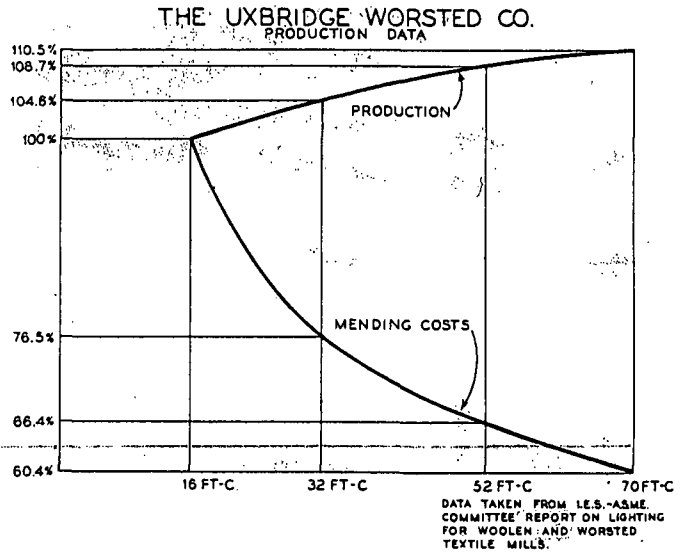

Figure 19. The increase in production and decrease in mending costs under increasing illumination levels in a textile mill. Although increased production is important, the company feels that the mending-cost curve is even more important since it reflects the quality of their product.

weave room of this firm. Note the high-quality lighting system as well as the above-average (70 footcandles) quantity. Later installations in the chain of mills use over 100 footcandles.

TABLE 3

Illumination (footcandles)	16	32	52	70
Production rate (per cent)	100	104.6	108.7	110.5
Mending costs (per cent)	100	76.5	66.4	60.4

Benefits of good seeing conditions also include higher morale of the employees, less eyestrain, and better housekeeping. These contribute to safer working condi-

[52] The Bachman Uxbridge Worsted Corp., Macon Textile Plant, Macon, Ga.