



FIG. 11. Continuous recording in 5 s samples for a luxotonic unit, 8-IV-73-13, during various changes in luminance and administration of N₂O, Valium, and Brevital, as indicated. Graph at lower right plots data from line A. 1, Experimenters talking and making noise. 2, Light occluded from area 21 x 28° in center of field of view. 3, Occlusion removed, full field luminance continues at 680 cd/m². 4, Left eye occluded (both eyes open up to this point), no effect. 5, Right eye occluded, left eye open; both eyes open at end of 5. 6, Amplifier blocked by switching transient from hot pad. Unit studied for 1 h prior to this record. Failed to respond to strobotron, excited by light any place in field of view, occlusion of more than (any) three-fourths of 56 x 80° field of view required to decrease rate of discharge when diffuse luminance 680 cd/m². Dose of Brevital for surgical level of anesthesia approximately 15 mg/kg.

normal distribution about their mean, descriptions of variability such as the standard deviation are invalid, e.g., for the 5-s data samples used for Figs. 7, 9, 10, 11, and 12. Data on variability have thus been omitted from these figures. The source of such irregularity is unknown, but in some

instances fluctuations in rate can be attributed to "psychological factors," as illustrated by abrupt changes in rate following loud, unexpected sounds (Figs. 11A, 12B); or the reduced variation seen after administration of Valium (Fig. 11D, E) or nitrous oxide (Figs. 11B-D, 12E, F). However, the