

**Intensity Fluctuation of Shadow Bands During Total Solar Eclipse of  
October 24, 1995**

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**Abstract**

Intensity fluctuations of shadow bands during total solar eclipse of October 24, 1995 were recorded on magnetic tape using cross - shaped array of sixteen photodetectors at Nim Ka Thana. The plane of the array was placed perpendicular to the Sun rays. Eight photodetectors were placed in vertical arm and eight were placed in horizontal arm. The 16-detectors were multiplexed at the rate of 8 ms. The detector was broad spectrum and output varied linearly with light intensity upto 50 Lux. The lowest frequency of the modulator circuit was adjusted to 2 KHz for zero Lux and highest frequency to 402 KHz, for 50 Lux. Additional starting pulse was introduced to discriminate individual detector output. The output was recorded on hi-fi tape recorder. In another experiment, two identical LDRs were connected to two independent square wave generators having linear photo-intensity to frequency conversion. The output of these square wave generators was recorded on two independent channels of tape recorder. The power spectrum analysis of the data was carried out.