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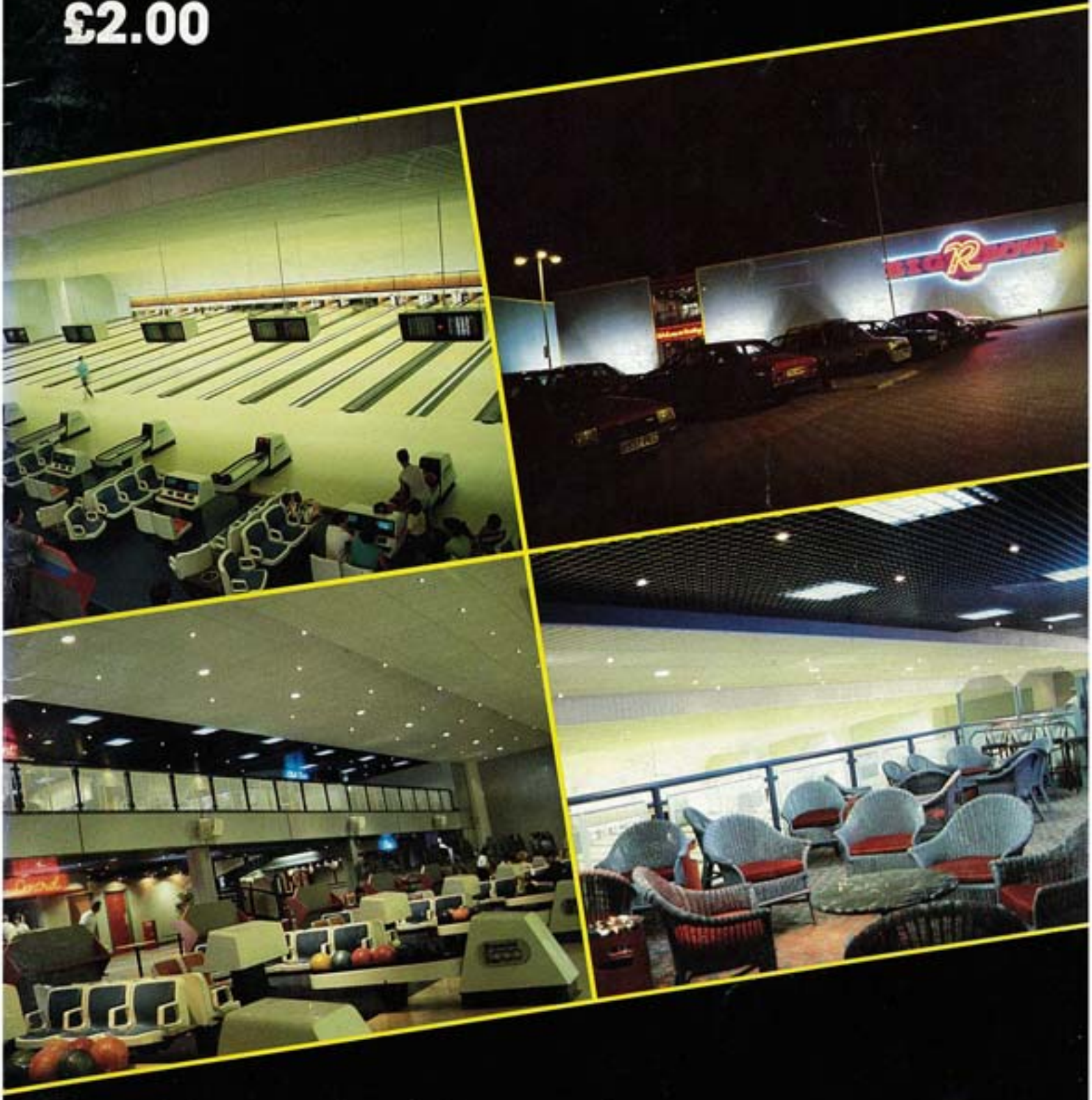

SOUND AMONGST THE SKITTLES

BIG R BOWL - BIG R LEISURE'S FIRST TEN PIN BOWLING ALLEY - WITH SOUND INSTALLATION BY AVITEC ELECTRONICS

(SEE FEATURE PAGES 31-33)

LOW VOLTAGE BEAMS

Francis Reid considers their Past, Present and Future

In my 75th birthday tribute to Strand in last month's L+SI, I welcomed their decision to take Britain into low voltage beamlight manufacturing. However, the promotional infomation about beamlights which has just appeared in **The Strandbook** suggests to me that there may be need for some clarification about the use of this type of light. To anyone unfamiliar with low voltage beamlights (marketed by Strand as Beamlites) and seeking guidance as to why they should buy them, Strandbook offers the following advice:

> **The new Beamlites with their integral transformers mounted axially to the lamp, make neat, compact units, producing a 5 degree beam spread of very high intensity to create dramatic lighting effects over very long throws. Low voltage Beamlights are widely used in continental Europe for general lighting, and are now finding increasing favour with UK lighting designers.**

Now there is nothing actually false in this statement but its selectivity could possibly mislead newcomers to this type of equipment. The economy of words necessary in writing catalogue copy requires care in choice of priorities and it is questionable whether long throw performance is the prime selling point of these lights. This is particularly so if a 5 degree cone is the nearest that pricing constraints will allow us to approach a truly parallel beam.

A beamlight is distinguished from all types of lens spotlight in that the light beam from a parabolic reflector is parallel rather than conical. A perfect beamlight would have zero beam angle and would therefore light the same area irrespective of throw. This is what has long endeared it to central European theatres as a discreet follow spot. The beam from a standard sized reflector is just about the right diameter for head to waist, with just the right softening off towards the edges. It maintains this size as the throw changes useful for all the following, but particularly so for following from backstage positions when the throw can double during an actor's diagonal walk. Absence of lenses makes for an easily balanced unit, particularly if the transformer is mounted externally. Absence of lenses also helps to maintain light output from a low voltage lamp.

Since a narrow beam is produced without the light losses inherent in a complex lens system, the beamlight becomes an attractive proposition for long throws. Therefore in huge theatres, beamlights can find themselves used as substitutes for more conventional instruments for backlighting, side lighting and even frontal bash.

Typical Central European Parabolspiegel Scheinwerfer (240v, 500w Beamlight with integral transformer) as used for more than 40 years.

However, most of the excitement of beamlights comes from uses not specifically associated with long throws. My own love affair with low voltage beams dates from seeing them in action in German opera houses in the 1950s and using them extensively myself at Glyndebourne throughout most of the 1960s.

The bright incisive concentrated beam made the beamlight a prominent feature of post-war central European stage lighting, particularly in the east. It is an instrument which lends itself to a style based on high contrast directional lighting of the scenery from a relatively small number of sources, with the actors being separately covered by follow spots from a series of appropriate angles, both front of house and on stage.

With sensitive operators, such a lighting style can be, not only visually dramatic, but also appropriate in lighting management terms for a daily changing repertoire so large that extended gaps between performances can lead to singers being less than precise in taking up their stage positions.

Parallel beams do not easily lend themselves to the precisely defined lighting of acting areas. However, a series of beams can be butt joined to light an area with a sweep that can have more visual credibility than a single cone. Parallel beams, especially intense ones, tend to pick up any particles in the air and this helps to give the light a bite.

For most of the 1960s, I had 24V beamlights in my standard Glyndebourne rig: 500 watts from side auditorium slots close to the stage and 250 watts from the downstage booms. These were Reich & Vogel with a silvered lamp screwed through the centre of the parabolic reflector and no spillrings. Their transformer weight made them uncomfortable to rig, but once in position they were finely balanced for an easy twice daily focus. And beamlight focus is fast because, apart from pan and tilt, the only adjustment is a lamp centring knob to remove any central black hole. As a repertoire unit they could produce intense directional white swathes when working with the Germans, or the gentler, more colourful, although still highly directional light favoured by the Italians. Checked well down and colour corrected, they could even supply a bit of fill in the occasional production that just called for soft discretion.

Strand Lighting's newly introduced Beamlite 500 (24v, 500w with integral toroidal transformer).

Although an ideal beamlight would emit a pure parallel beam, design and manufacturing problems (particularly the production of a perfect parabolic reflector at a price that we would be prepared to afford) usually mean that the beam will emerge with some conical tendency. There will therefore, be a certain amount of beam spread, but as this is but a few degrees, it only becomes significant on really long throws. Alas it is beam quality which tends to suffer and the extent is unlikely to be acceptable unless the desired effect is that of a splodge gobo.

In general I personally would rarely wish to use a beamlight (with the possible exception of a precision model purposely made for follow spotting) on any throw much longer than that on which I would use a parcan. Indeed, parcans are a member of the beamlight family and when they first appeared, I immediately embraced them as downmarket beamlights. So with low voltage beamlights now available in Britain as an indigenous species rather than just an import, perhaps newcomers to this source might find it useful to think of them as upmarket parcans with a more biting, incisive, smoother and symmetrical oomph.