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Ed Hawksford

Colour changing ceiling for Bavaria Downs ballroom

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Using colour-controlled LED lighting and translucent thermoformed ceiling panels, the venue can change its look to suit the occasion

The ballroom at Bavaria Downs was designed for weddings, and its luminous ceiling is part of the festivities. The broad, pitched ceiling can mimic a vast skylight or match a bridesmaid's gowns, it can also be synced to a sound system.

When conceiving the new ballroom for Bavaria Downs, designer Ed Hawksford knew he wanted to do something special with the ceiling. He looked to create the impression of a Lalique glass ceiling from the 1920s, backlit with colour-changing LEDs. The owner had been thinking about a large field of skylights, but even one narrow row of skylights proved to be prohibitively expensive, and would not really give the look and function he wanted. Hawksford suggested a luminous ceiling that was an ingenious merging of traditional style and contemporary technology, saved money and added versatility.

Even though the ceiling is sloped, it uses a conventional two feet by two feet T-bar suspension grid seen so often in flat ceilings. The central portion of the ceiling is laid out in a series of luminous sections made of translucent Ceilume Doric style acoustic panels, a geometric design with numerous angled, light-catching facets. The sections are 14 feet wide, meeting at the peak. They are separated by two feet wide strips of opaque white panels.

The lower parts of the ceiling are opaque Sand-coloured Ceilume Florentine panels. An ornate, deeply-detailed floral design reminiscent of 19th Century decorative plaster, they add a note of traditional style to the room.

Above the ceiling, colour-changing LED fixtures are mounted above the panels, pointing downwards towards the room. A 16-foot long LED strip runs perpendicular to the ridge line of the ceiling, six to eight strips per bay. They are positioned just 20 inches above the translucent panels.

The space between the ceiling and the insulated roof above it has limited height. Lighting designer Scott Wexler, president of Wex-Tech, was concerned that LED lights so close to the panels would not be evenly diffused, and could cause hotspots on the luminous ceiling. To test it, Wexler constructed a simple lightbox using a 24 inch by 24 inch cardboard carton, and duct-taped the thermoformed panel over the end of it. He found, to his surprise, that he could bring the light source to less than six inches away from the Ceilume panel and still get even, diffused light.

