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GU10
7W

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Application Private Residence
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Sustainable lighting doesn't have to mean living in a minimalist environment with few of life's luxuries. Thanks to the latest from MEGAMAN® CFL and LED reflectors, a couple in Bogota, Columbia, have re-invented their apartment to create a sustainable, yet warm and welcoming lit environment.

Sustainability and mood creation go hand in hand

When the new owners of an exclusive apartment in Bogota decided to revisit the lighting scheme in the space, they called in the expertise of interior architect, Ricardo Fonseca of Mobil. Their brief to Fonseca was to achieve a light and airy feel to the apartment, whilst lighting it in the most sustainable way possible. After assessing the 200m^2 open-plan living space, Fonseca decided to include a variety of technologies which not only maximised the apartment's energy efficient potential, but ensured it was a warm, friendly environment to live in. He explains: "As well as balancing the impact of the artificial and natural light levels throughout the apartment, and creating a scheme which both added drama and functionality to the space, I wanted to honour the owners' commitment to sustainability and put in simple, yet effective light source and photo sensor solutions which would build energy efficiency into every room."

With these challenges in mind, Fonseca opted to use a selection of MEGAMAN®'s latest CFL and LED light sources to ensure a scheme which maximised drama, yet minimised energy consumption. The results speak for themselves. By replacing the mix of over 80 halogen and incandescent light sources throughout the apartment with a combination of MEGAMAN® CFL and LED light sources, this simple switch has achieved an energy usage saving of 2,797W and has cut the energy bill of the apartment per month in half.

From the ground upwards

Within the entrance way, Fonseca replaced the existing 35W halogen spots within the embedded floor fixtures with MEGAMAN®'s CFL GU10 7W lamps. This simple switch of light sources, not only ensured a more energy efficient solution, but the soft light which this lamp emits now draws out the textured vertical veins within the exposed concrete in blended way, which makes it much easier on the eye when entrancing or exiting the apartment. The choice of warm colour rendering was continued throughout the apartment. Warm colour temperature (2700K) decorative ultra-compact MEGAMAN® CFL 5W Candle light sources were used in all of the table lamps, replacing the existing highly inefficient 40W incandescents. All of the 50W halogen down-lighters throughout the living room, bedrooms and study, were also replaced with MEGAMAN®'s CFL GU10 11W lamps (2700K). However, in the kitchen, a daylight colour temperature of 6500K was chosen, using MEGAMAN®'s CFL AR111 11W directional lamps, to achieve the increased luminance levels required in this working space.

LED colour rendering excellence

Within the dressing room area, MEGAMAN®'s LED PAR16 7W light sources were chosen due to the lamps excellent colour rendering properties (Ra85 for 2800K). These were then linked to an occupancy sensor to maximise efficiencies still further. MEGAMAN®'s LED PAR16 Reflector lamps with the company's patented Thermal Conductive Highway™ (TCH) technology, which has superb heat dissipation, lighting performance and lumen maintenance, meaning that these lamps not only look good, but last up to 25,000 hours.

The end result is a scheme that creates drama and yet is highly functional and energy efficient. Fonseca concludes: "This design is highly replicable – anyone who is serious about sustainability and energy efficiency can have both, and great colour rendering as well. By using a warm palette of light temperatures, I have created a scheme which saves energy and money every month, yet is pleasing to the eye and will last for many years to come."