

GigaTera® LED products

WIN GLOBAL EFFICIENCY AWARD

It was with great pride that the Nelson Mandela Bay Municipality (NMBM) recently claimed an international energy efficiency award at the Energie De France energy efficiency competition. The project in Walmer Park Township, which won them the title, is unprecedented both in the energy efficiency and in the lighting provided for the community.

Winning the award is the result of ongoing cooperation between KMW Incorporated and the NMBM. KMW were initially mandated to create an LED high mast product that would replace the existing 1000Watt HID floodlight luminaires on a 40m Mast with an energy efficient LED fitting.

South African municipalities face significant problems in the township areas, particularly related to crime and violence. Thus the need for good sustainable lighting. The NMBM was no exception to these difficulties. The solutions to these problems are challenging due to the expensive energy and maintenance costs of the High Mast Floodlights.

challenges, this was not an undertaking which was entered into lightly. Despite the advances in LED technology, this idea required some exceptional engineering and design to produce a product that is believed to be a global leader in high wattage floodlighting.

Giga Tera is unique in its class as it utilises second-generation reflector technology to produce over 125 lumens per watt from the fixture together with exceptional uniformity.

The Giga Tera MAHA 400Watt LED floodlight has superseded all it's goals and has achieved outstanding results based on the Global standards. Most importantly, the Giga Tera MAHA 400Watt LED floodlight has vastly improved the lighting and security within the township areas. It provides an exceptional energy saving of 65%, together with a management system which can further increase the savings to as much as 80%.

The NMBM Project is the first in a series of projects awarded to Giga Tera. Among these projects is the first phase main road lighting of the Tshwane Bus Rapid Transport System together with the Streetlight management system.

While the Giga Tera brand is new to some, it is

development of the RF Antennae over the last twenty years has resulted in the establishment of an exceptional LED division.

The major challenge faced in both RF and LED is achieving effective heat dissipation. Due to KMW's twenty years of experience dealing with high heat and electronics, they have developed LED solutions that run at extremely low temperatures, with highly effective cooling systems. The Chairman regards the use of thermal cut outs to protect the LED's as unacceptable and a failure in luminaire design. He states that if the luminaire is to shut down, or partly shut down during its normal operations in order to protect itself, it is failing in its ability to deliver light. He notes that it is during this precise time, when the luminaires turn on, that they are most likely to be running hot. Hence, a failure of street lighting at dusk resulting in a potentially high risk scenario.

Having supplied numerous Forbes top 100 Companies, over an extended period of time, ensures that KMW understands the importance of reliability. This results in a vertically integrated factory allowing the company to manufacture the entire luminaire in-house. This uncharacteristically includes the drivers, which are custom-designed for

“GIGA TERA IS UNIQUE IN ITS CLASS AS IT UTILISES SECOND-GENERATION REFLECTOR TECHNOLOGY TO PRODUCE OVER 125 LUMENS PER WATT FROM THE FIXTURE TOGETHER WITH EXCEPTIONAL UNIFORMITY.”

The NMBM mandate was clear and stated that luminaires should show significant improvement in the lighting, whilst achieving the greatest amount of energy efficiency. The municipality further clarified that the thermal cut outs/dimming were not desirable. The lux levels need to be sustainable at all times to ensure safety and security. Not only would the luminaires need to achieve all of the above, but there should also be a management system to control and monitor the product.

Traditionally, LED manufacturers have produced high lux levels in the immediate vicinity of the Mast but continue to struggle with the inability to deliver light uniformly throughout the desired area. Another difficulty which manufacturers encounter, is dissipating the high levels of heat generated by high wattage LED's. Thus reverting to systems which cut the power to the LED's in order to protect against failures.

Considering all of the aforementioned

not surprising that they are global players in the LED lighting market. Giga Tera is the LED division of KMW Incorporated, a Kosdaq listed Company, which is a global leader in the supply of RF communication equipment and antennae to global conglomerates such as Samsung, Ericsson, Huawei, AT&T and Vodafone.

Dr D.Y. Kim heads up the company and currently holds the extremely prestigious position of Chairman of the University of Seoul Alumni. KMW Incorporated employs approximately two thousand people, consisting of around two hundred and fifty R&D engineers. This year alone, group sales are expected to exceed US\$300 million. The company pays great attention to LED development and to date have spent an estimated US\$60 million on their LED division, recently acquiring a 50 000m² factory near Seoul as well as opening a manufacturing facility in California. Their expertise in the manufacturing and

each product within the electronics division. Such control over manufacture permits KMW to offer guarantees over and above their competitors and provide the customer with the assurances required in an LED market fraught with potential failure if incorrect or inappropriate combinations are applied.

Giga Tera has launched a full range of commercial and industrial luminaires on the South African market. Now available for purchase.

CONTACT US:
tel: 011 803 0637 | cell: 082 520 2001
www.envirolight.co.za



The LED high mast product lighting up the streets of the NMBM township.

envirolight
switch on savings