

# City of Dreams

### - pioneering lighting solutions at the City of Dreams

The \$2.95 billion City of Dreams casino complex in Macau is a lavish entertainment destination that attracts some 23 million visitors a year to its 500 casino tables, 1,500 gaming machines, top end restaurants, three hotels and shops.

Some six years in the making, the complex was flagged by owner/developer Melco Crown Entertainment to become a bold pioneer propelling Macau's exhilarating entertainment industry to new heights.

When Philips Dynalite came aboard the project, their brief was to provide an intelligent lighting control system that would complement the bold and contemporary lighting throughout the complex.

Today, City of Dreams is Macau's leading visitor destination and the Philips Dynalite lighting control solution has helped to light the way.



## Client requirements

The client required an innovative and integrated lighting control system that would work seamlessly to provide automated illumination of all public spaces throughout the complex.

With over 33 casinos operating in Macau when City of
Dreams was taking shape and fierce competition for
patronage between these facilities, the operators of the
City of Dreams realised that they needed a smart but easyto-use control solution to achieve the operational efficiency
required in such a diverse and complex site.

#### A proven track record

They were particularly interested in using a system that had been shown to work in other casino operations such as the Philips Dynalite EnvisionManager software that had been used successfully in other Melco Crown Casino projects.

The brief for the project included lighting control for the many lobbies, ballrooms, corridors, convention and exhibition spaces in all three hotels as well as the casino.

The solution was to be controlled via software from a central location and distributed throughout the site via the TCP/IP network infrastructure.

The sophisticated and simple to operate Philips Dynalite lighting control solution ensured the casino could achieve operational efficiency and compete with other casinos.

## The Philips Dynalite solution

Critical to designing the most appropriate lighting control system for the complex was Philips Dynalite's proven track record with similar casino projects.

Striking the right balance between functional and ambient lighting was also of paramount importance as lighting control plays a big role in building an exciting environment.

Philips Dynalite worked hard to ensure that the lighting control was innovative and flexible and allowed quick changes, dramatic effects and seamless operation.

While the installation of the lighting control was relatively straight forward, employing typical architectural lighting load controllers which are ideal for large numbers of incandescent, low voltage halogen, neon and selected fluorescent light sources, the sheer size of the complex presented a challenge.

#### Answering the challenge

The sprawl of the three hotels and the casino meant that the cabling distances from the central control computer to a final light point were up to 2,000m.

The simplest method for distributing the control system was over a LAN infrastructure with localised control cabling as needed.

At the time, distributing lighting control over a LAN infrastructure was uncommon and unique at the time for this size of project. Adding to the complexity of the project was that the existing TCP/IP network was run over fibre optic cables, which was also new to the Philips Dynalite team.

#### New technology

While LAN infrastructures over fibre optics may seem standard technology in 2011; in 2007 it was a major technological challenge.

To overcome the obstacles of integrating product traditionally designed for copper-based cabling, Philips Dynalite formed a partnership with Cisco Systems and Kenon Engineering (the Hong Kong based Philips Dynalite Value Added Reseller) to come up with the required fibre optic integration solutions.

The solution utilised a Philips Dynalite standard DMNG 100BT integration unit but with reconfigured Cisco routers to integrate over the TCP/IP fibre optic network.

A systematic integration testing regime and first-class project management by the Kenon Engineering group enabled a smooth implementation when the system went live.

# Products and technology used

A EnvisionManager control management system was chosen because it features the most advanced control settings that define lighting zone areas in a particular space on a particular floor.

#### Advanced lighting control

This enables operators to perform time scheduling and partitioning for an area or a group. In an entertainment venue such as City of Dreams where conference rooms seating 2,000 people are transformed into a gala ballroom seating 500 people within a matter of hours, it's critical that functional and ambient lighting can be quickly and easily reconfigured.

Automatically detecting and highlighting lamp and system controller issues and gaining control down to a particular lighting point is a key feature of EnvisionManager software, enabling operators to predict outcomes and carry out maintenance quickly.

## Key client benefits

The City of Dreams Philips Dynalite integrated control system continues to offer reliability, flexibility and efficiency to ensure the complex continues to be a world-class destination.

The intelligent design of the system has made it possible to deliver functional, ambient and responsive lighting in keeping with the complex's luxury design.

The lighting control system seamlessly delivers secure lighting on the casino floors as well as ambient lighting in the hotels and other areas of the complex.

Importantly, the lighting control system has the flexibility to grow with the complex,

EnvisionManager software gives a floor plan view of the entire project, allowing for live monitoring and adjustments of the lighting control system







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