



Queensland Performing Arts Centre

PLI LED Luminaire



Philips Selecon PLI LED Luminaires Deliver Added Benefits for Patrons

In 2008/2009 the Queensland Performing Arts Centre (QPAC) underwent a \$40 million refurbishment to enhance the visitor experience to the iconic Arts Centre and significantly improve disability access and facilities. This refurbishment included upgrades to the Centre's 2000 seat Lyric Theatre, the 1600 seat Concert Hall, foyers and bars. The Concert Hall received particular attention with a LED auditorium house lighting solution. All walls are now grazed with coloured light by linear LED strips and the ceiling coloured by LED wash lights. In 2009 there were no LED products on the market to replace the many 300W Par56 down lights over the auditorium. A reduced number of 500W halogen fittings were used but over time these were found to be unsuitable for the application due to lamp life, labour costs and design of the fitting.

"One of the main problems with finding a replacement for the 500W fitting was the size of the existing holes in the ceiling!" says Doug Brimblecombe QPAC's Manager – Lighting.

"During our initial search Graeme Hicks of The Production Shop mentioned a new product coming on to the market that he thought might be suitable. This was a new LED powered device. The Production Shop, Philips Selecon and QPAC have had an excellent 25 year relationship and hearing that they had a theatrical luminaire that may work architecturally did not surprise me," said Brimblecombe.

"When Peter McKenzie of Philips Selecon showed us the PLI I knew straight away that it would work. Being a theatrical lighting company Philips Selecon understands the need for 0 to 100% dimming as well as consistent colour output. After trials of the PLI's dimming ability with all stakeholders and devising a simple half coupler mounting solution, the choice was easy."

"At this time, the PLI had not yet been released to the market, so we had to work together to sort out typical 'beta test' type issues. The strong relationship meant that any teething issues were resolved quickly, resulting in positive outcomes for both QPAC and Philips Selecon."

"Now installed and working, QPAC is very impressed with the amount of light from the LED luminaires. The ceiling is 19 meters high and the PLI's deliver as much light as the original 300W Parcans. The 14–50 degree beam spread has allowed us to evenly wash the auditorium including the balcony which is only six meters from the ceiling. The consistency is excellent," said Brimblecombe.

The result of the collaboration between QPAC, Philips Selecon and The Production Shop has attained a value added solution because of the ability to colour the down lights.

"The primary reason for the lights was to supply white down light to the seating. With the additive LED colouring, it means that even in the deepest blue it's bright, and what a lovely blue!" Brimblecombe said. "During a concert QPAC is now able to reduce the intensity over the audience, so that patrons can read their programs, not only with light output, but also colour. For instance the Queensland Symphony Orchestra has colour branded their concerts such as red for Classics, blue for Maestro Series and so on. There is now a slight tinge of the branding colour in the dim light while the patrons read."



"The whole room can now be 'flavoured' not just at walk in, interval and the end, but also during the performance," he said.

"Even with all the PLI LED's driven at full, the luminaire only uses 120 watts. Compared to the original 60 x 300W Pars and the redevelopment 500W halogens, we are seeing significant energy savings," adds Brimblecombe. "QPAC's Concert Hall is really hitting the highs with energy efficiencies thanks to Selecon. The purchase of 96 x Selecon Pacific 80V Ellipsoidal in 2009 was the first energy saving initiative. It'll be interesting to see what we do next!"

"Pivotal personal on the decision making process for the project were Duncan Richards and designer Rick Morrison from AECOM. AECOM were appointed consultants to Arts Queensland for the upgrade process. When initial designs were discussed, Duncan was fiercely orientated down the energy efficiency path and the need to future proof the Concert Hall with regards control and client experience, as well as reducing the client's cost of ownership over the life of the luminaire," commented Graeme Hicks.

"The design criteria for the Concert Hall lighting meant that products that were still in Beta testing mode had to be finished and proven. With the acquisition of the Vari Lite LED driver by Philips, the solution was produced and refined very quickly. The PLI option has since been installed in Judith Wright Centre for houselights and St John's Cathedral in Brisbane," said Hicks.

The PLI LED Luminaire installation was completed in April of 2011.

"The end result has produced a stunning result to the lighting capabilities available to clients at QPAC," was Brimblecombe's final comment.

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