

PASSENGER SHIP TECHNOLOGY

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LED builds cruise footprint but obstacles remain

LED is becoming the go-to for lighting within the cruise industry, but there are still challenges and building relationships is key for vessel owners

by Rebecca Moore

THE use of light emitting diode (LED) technology has quickly gained momentum within the cruise ship refit market - but there are still challenges to overcome, an industry expert has said.

North American lighting design specialist and installation firm MRD has been involved since cruise ships first started using LED lighting. Celebrity Cruises was one of the first operators to express interest in the technology, and in 2006 it hired MRD to install lighting into one of its public spaces on board *Celebrity Infinity*. Following the success of the project, Celebrity Cruises asked MRD to conduct LED surveys for other cruise ships in its fleet.

MRD chief executive Michael Riotta recalled: "Word was starting to spread. We were also working for Royal Caribbean Cruises. We did the *Oasis of the Seas* newbuild, where we specified a lot of LED lighting."

Fast forward to 2015, and MRD has expanded its contracts with Royal Caribbean Cruises. "Whenever it has scheduled upgrades, we do a lot of the LED lighting in public spaces. We work with interior designers and architects to look at the infrastructure and at the existing cabling, and try to reuse as much as we can. We have done this successfully for a number of years. This has led to savings, because copper cabling is expensive," said Mr Riotta.

The lighting specialist has also worked with Princess Cruises and Crystal Cruises. It recently upgraded the lighting in the shops on *Caribbean Princess* to LED while the ship was in service. It has also upgraded dimming systems on some of the cruise operator's ships, so that the systems are ready for the application of LED installations at a later date.

Commenting on the market in general, Mr Riotta said: "The intention is there. Cruise operators want LED, but demand can run hot and cold. When fuel prices were out of control three or four years ago, operators could not get us onto their ships fast enough. Now that fuel is cheaper, this has slowed down. But there is still a lot of refurbishment out there and cruise operators are trying for LED lighting if they can."

He said that the deployment of LED for lighting as opposed to halogen was around 50:50 in newbuilds. The market has been slightly slower for refits. Mr Riotta said: "LED is not cheap, but it is not as expensive as it used to be. This helps, and it means that refits are starting to catch up."

Nevertheless, there are still a lot of challenges attached to using LED lighting. "Technology has been growing exponentially for the last 15-18 years, but the level of knowledge has flatlined. People still do not understand it. I think

a lot of this has to do with relationships. There are a lot of so called experts out there. This is a big problem, as all it takes is for an owner to get steered in the wrong direction. The next thing they know is that they are out of pocket, because the LED installation is failing, so they ask for halogen to be put back in." Mr Riotta said that he had seen clients undo all the LED work and all the rewiring to put back halogen.

"LED can be installed successfully. It depends on who is doing the work, what manufacturers are being used and what dimming systems are being used." Mr Riotta pointed out that the use of the correct dimming system is crucial. "It is a big component as that is the engine for the LED. It has to work and be compatible with the lights used. This aspect has improved in the newbuilding environment, but in the refurbishment market it tends to remain a sore point. Our job is to constantly try and educate the client so that they understand the importance of having enough time to do the job properly, of doing a proper survey and doing the dimming properly."

Mr Riotta warned: "LED technology is still so new that it is changing rapidly. This means that a company has to invest a lot of time, internally. Cruise operators need to steer clear of the cheap stuff, of poor quality and unsubstantiated facts and specifications and build relationships with consultants and manufacturers." **PST**



MRD converted the neon lights to LED on RCI's *Vision of the Seas*

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