

## **D2Di Summary from the 2022 DLC Summit**

### **What was discussed**

Device-to-device interoperability (D2Di) is a method of providing QPL users with an indication of potential interoperability between lighting hardware, such as a luminaire to a networked lighting control system, a luminaire to a luminaire, or among various control components. Relying on industry standard compliance and disclosure, D2Di will facilitate easier selection and identification of interoperable equipment, which in turn will increase the likelihood of successful connected lighting projects.

At the DLC summit, stakeholders provided feedback on the benefits and challenges related to D2Di, opportunities for influence, the use of industry standards to predict interoperability, and other sources of information that can help address interoperability. The discussion made clear that the seemingly simple concept of standards reporting quickly grows into a web of complexity. Which industry standards? How do you validate compliance? What degree of confidence will these standards provide? How do you use the information? How does this address installation and operation challenges?

### **High-level, key takeaways**

During the D2Di discussion session, stakeholders identified the numerous benefits that could be realized through interoperability, such as increased reliability, flexibility, scalability, greater installer confidence, improved customer satisfaction, and additional cost and energy savings. However, much of the discussion was centered on the challenge of reaching these goals. Standards take time to develop and gain traction, and they change over time. And, even within the same standard, interoperability isn't always guaranteed, especially since many manufacturers include proprietary communication. Manufacturers would face a steep burden to verify and test their systems with countless other devices. This makes integrating one system with another difficult. Additionally, a focus on standards at the product/specification level does nothing to address the interoperability challenges that exist at the installer and end user levels.

There were numerous suggestions and ideas offered by stakeholders to overcome these challenges. First, a methodical step-by-step approach to D2Di could allow for incremental improvements in interoperability. After all, this is a pervasive issue that won't be solved overnight. Additional input and discussion on industry standards, and with the standards organizations, is needed. DLC needs to better articulate the purpose and intent of D2Di if we expect stakeholders to understand and benefit from it. Developing boundaries for D2Di with clear definitions will be important. Finally, end user and contractor education should be emphasized, potentially with a focus on commissioning.

### **Next steps**

1. Additional outreach is necessary to standards organizations to better understand the scope of their standards, the certification process (if any), the level of openness, and future development plans.
2. DLC needs to more clearly articulate how this information will be shared, how it could be used, and why.
3. We will need clear definitions for D2Di and will need to establish a process for validating information.
4. Explore what, if anything, can be done to address interoperability at the installer and end-user levels.