

## Impact-Rated Recessed Fixtures

### Why is an impact rated fixture important?

In many applications today, a well-illuminated and secure environment is required. Examples of such environments are common areas, passage ways and entry/exit areas in multi-family structures. Using light fixtures that have a proven measure of impact resistance can help maintain the environment despite what nefarious elements may try to do<sup>1</sup>.

DMF Lighting provides recessed fixtures, such as the DRDHNJ / DRD2M / DRD2TRJS family, with a low profile trim and robust polycarbonate lens, that offer a level of protection, suitable for use in common entry/exit passageway applications where impact resistance is required.

### What is IK10?

The IK rating system, developed by the International Electrotechnical Commission (IEC) in 2002<sup>2</sup>, defines the degree of protection offered by electrical equipment enclosures against external mechanical impacts. The level of protection is defined by two numbers, for example IK10. The ratings range from 00 (not protected) to 10 (protected to 20 joules of impact energy). The standard defines how an enclosure containing electrical equipment should be tested to achieve a given rating. For example, the IK10 rating requires a 5 Kg mass with a radius of 50 mm to be dropped onto the enclosure five times from a distance of 400 mm. After the test, the enclosure should exhibit no observed defects<sup>3</sup>.

### What rating does the DRD2M have?

The DRD2M LED module family is protected by a substantial polycarbonate lens and has been tested and found to comply to the highest level offered, IK10. The IK10 rating gives assurance that the DRD2M will withstand all but the most serious attempts to disable it. The combination of the low profile junction box trim DRD2TRJS and IK10 rated DRD2M LED module recessed mounted into a ceiling makes it almost impossible to land a knockout blow to disable it from below. A series of pictures illustrating the test is shown on the following page.

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<sup>1</sup> See Impact Rating video at [dmflighting.com](http://dmflighting.com)

<sup>2</sup> See IEC 62262 ED. 1.0 B:2002

<sup>3</sup> Note a free fall hammer or pendulum hammer test can be applied.

# Technical Bulletin

