

Product Design with OLEDs

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SENIOR PRODUCT DESIGNER
VISA LIGHTING

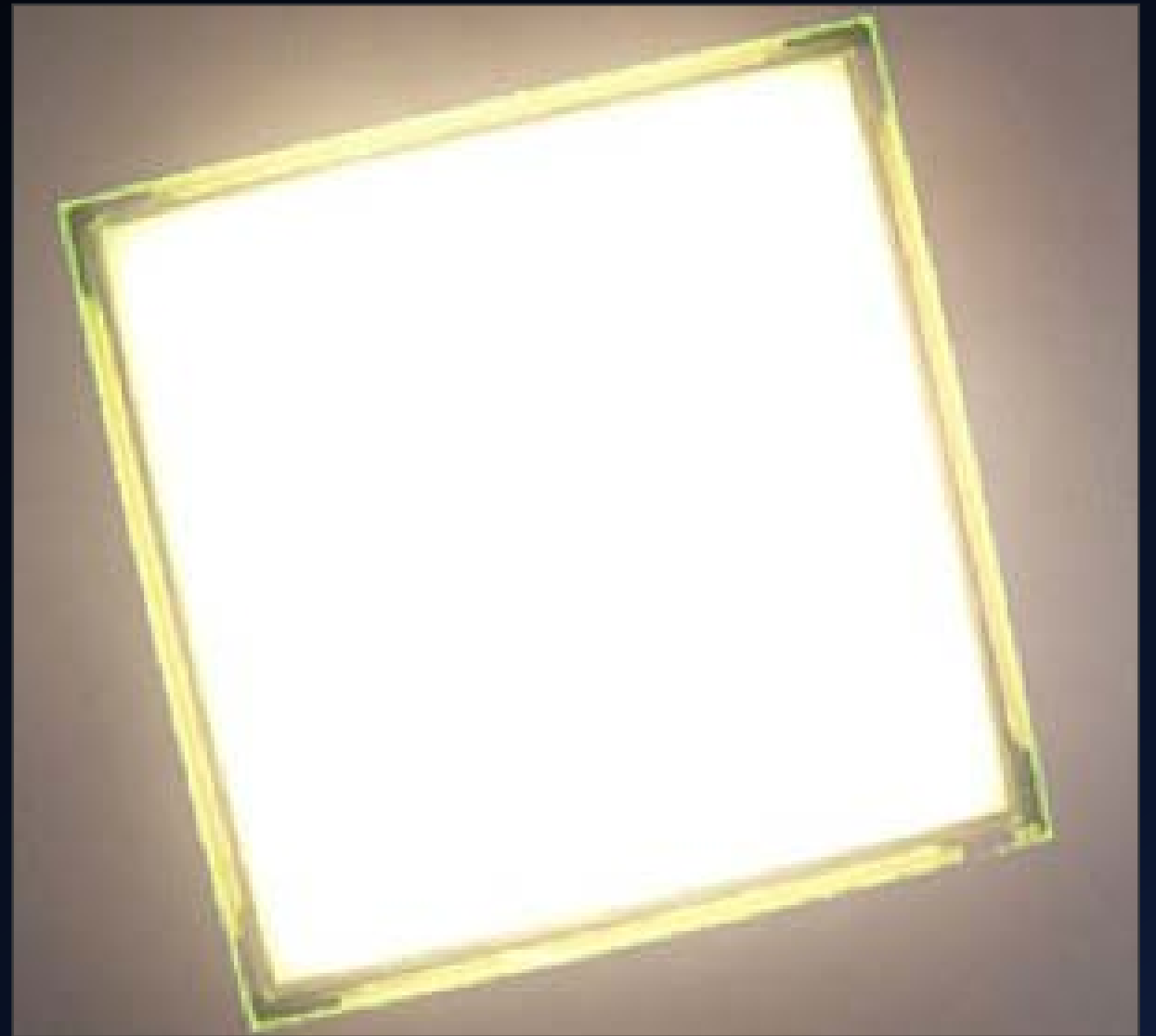


What makes designing with OLEDs attractive





EVEN DIFFUSE LIGHT



THIN PROFILE



NEW FORM FACTORS

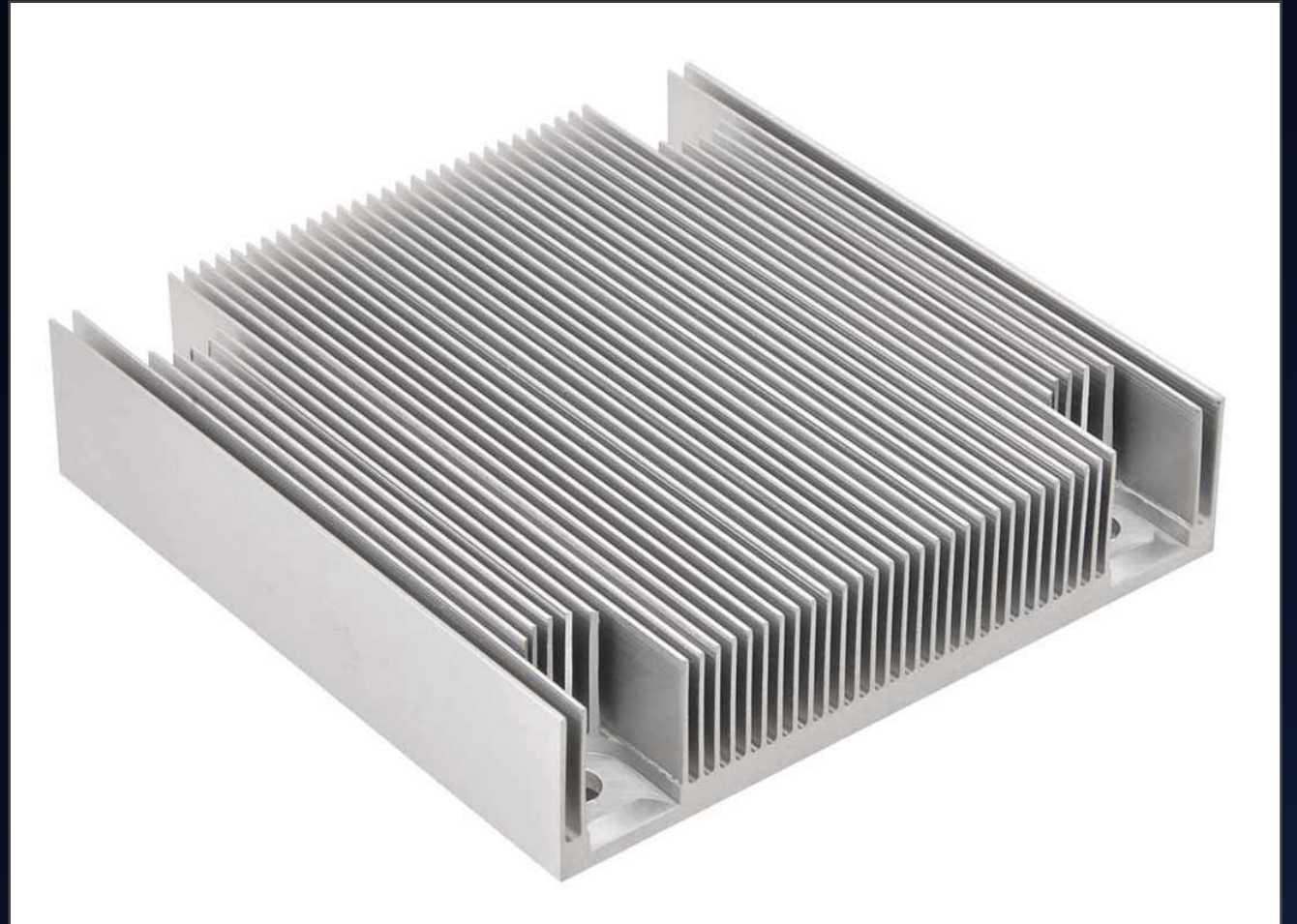




FLEXIBLE



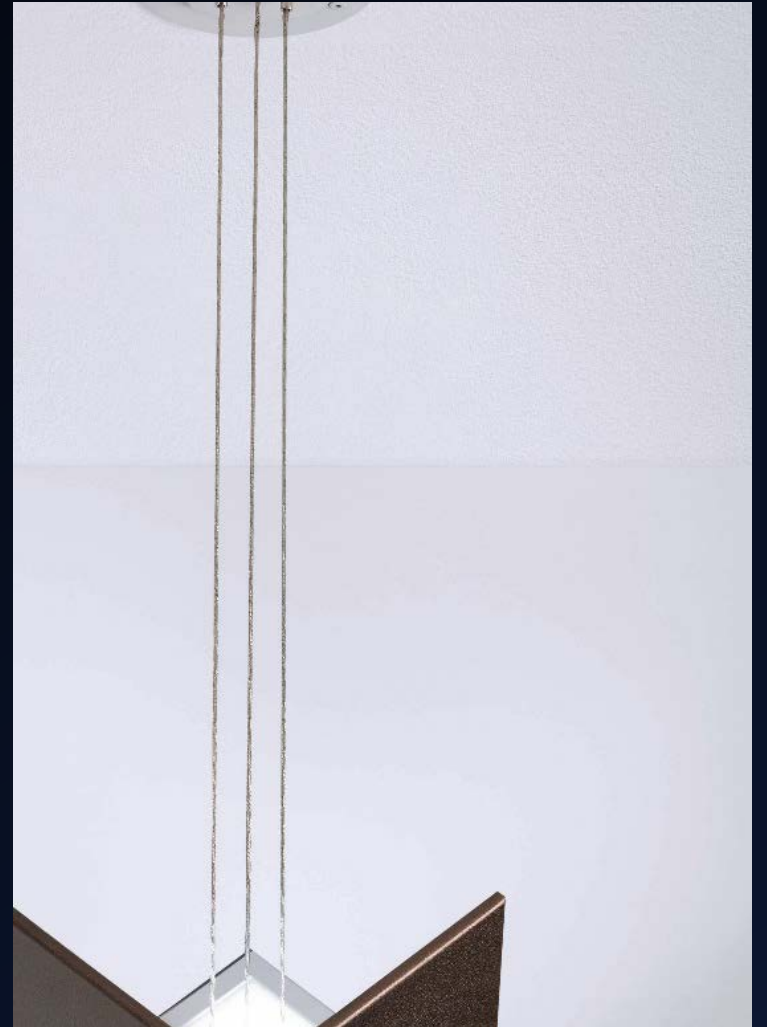
NO HEATSINKING REQUIRED





CLEAR WHEN OFF





Challenges Designing with OLEDs

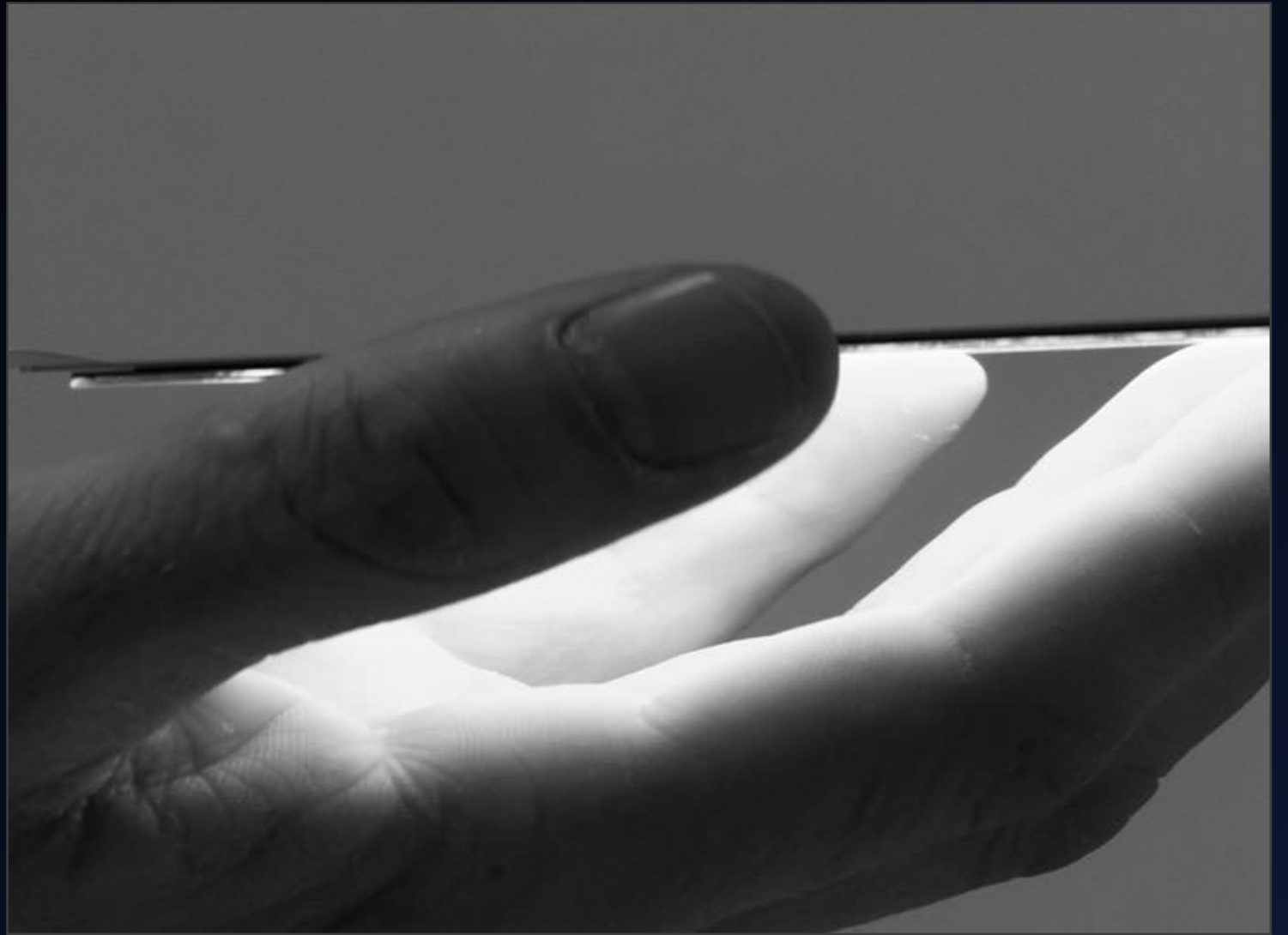


PANEL COST

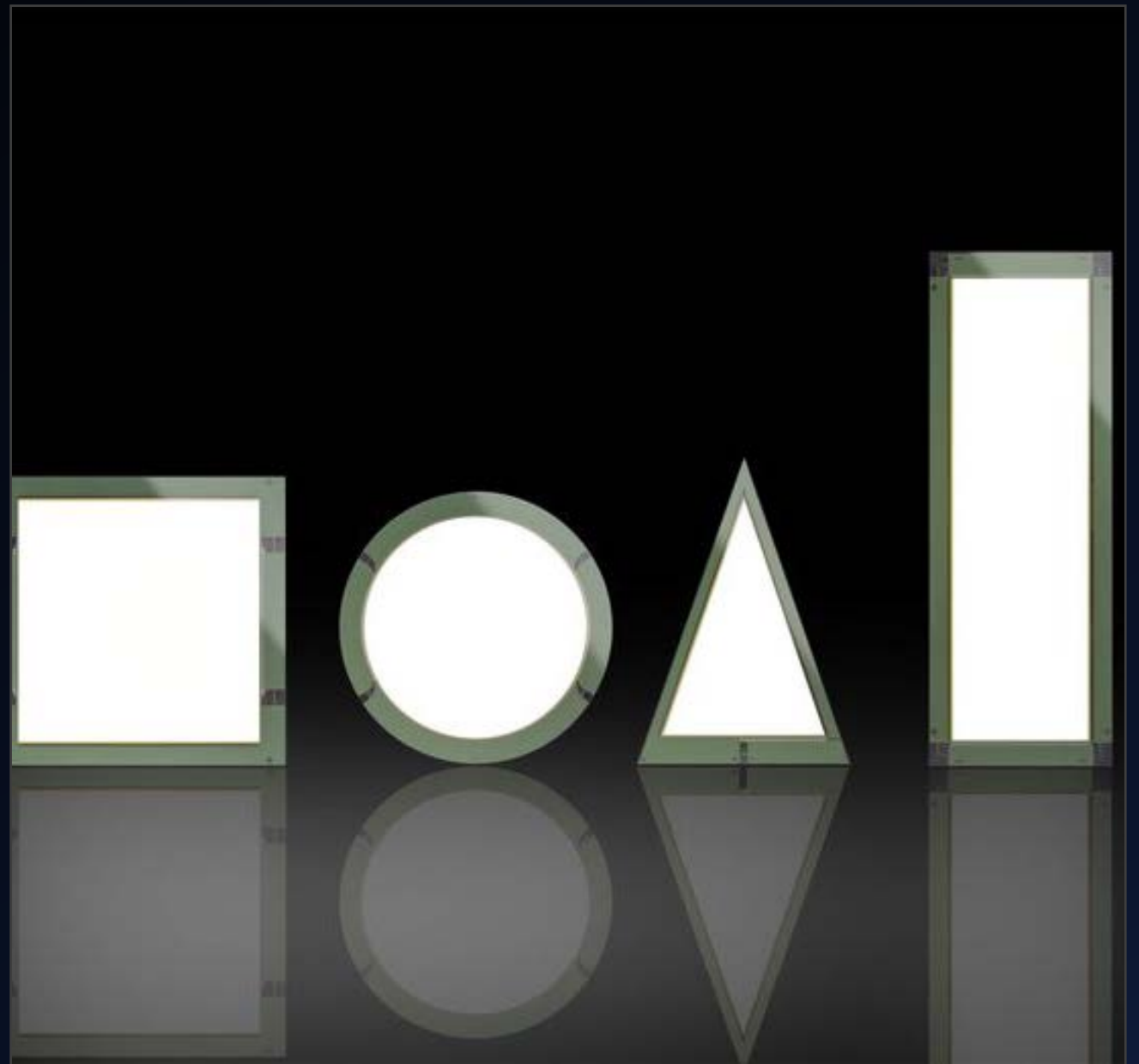




LOW LUMEN OUTPUT



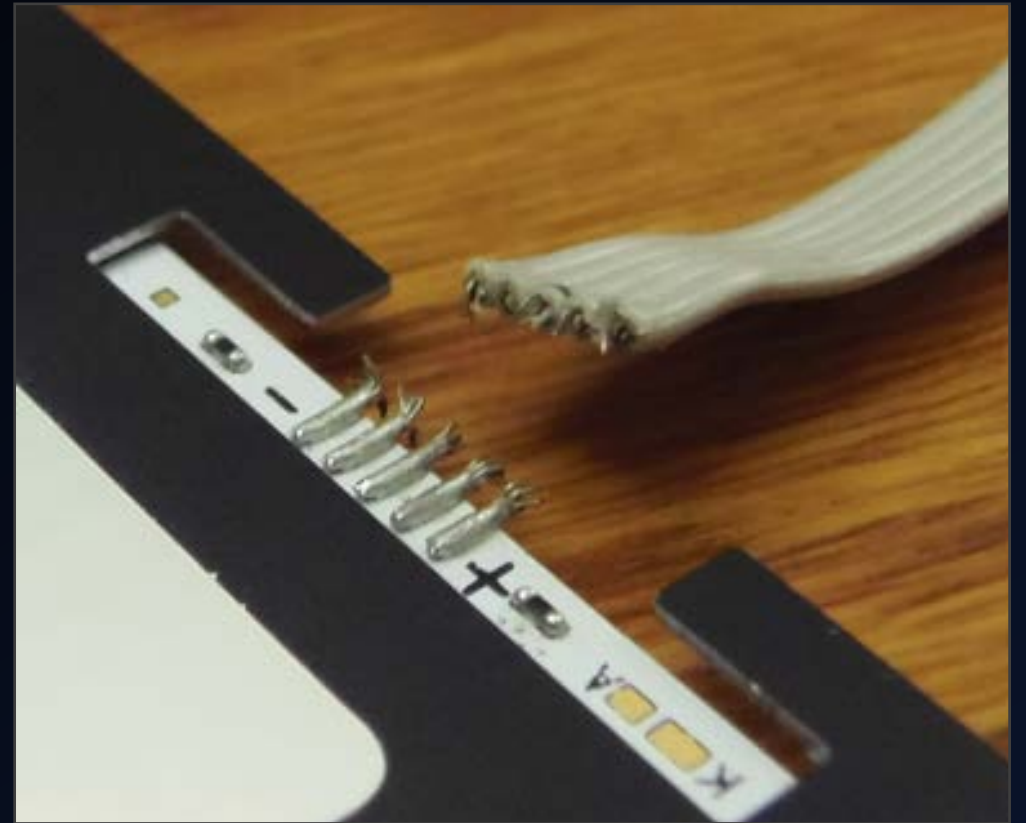
PANEL SIZES ARE NOT
STANDARD AND CONTINUE
TO CHANGE QUICKLY





HEAT DISSIPATION



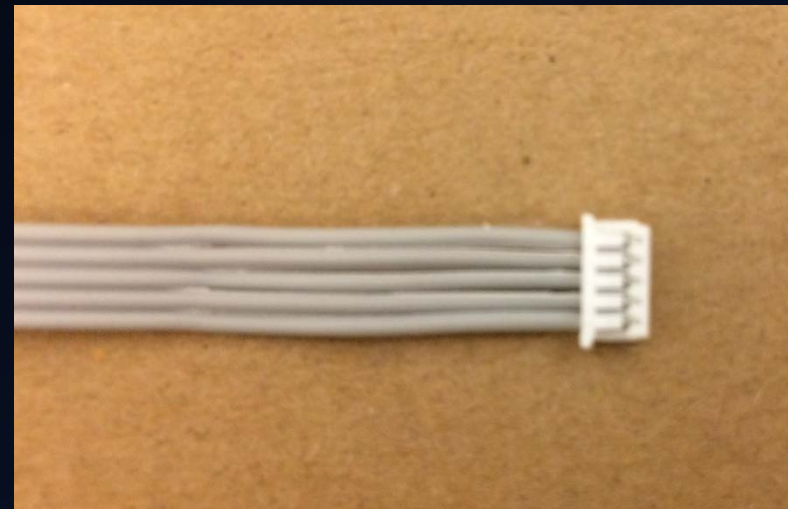
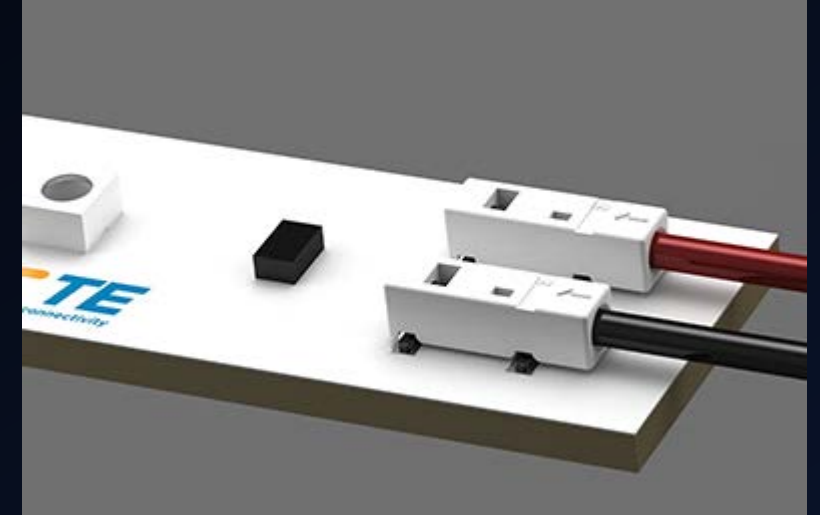


FRAGILE

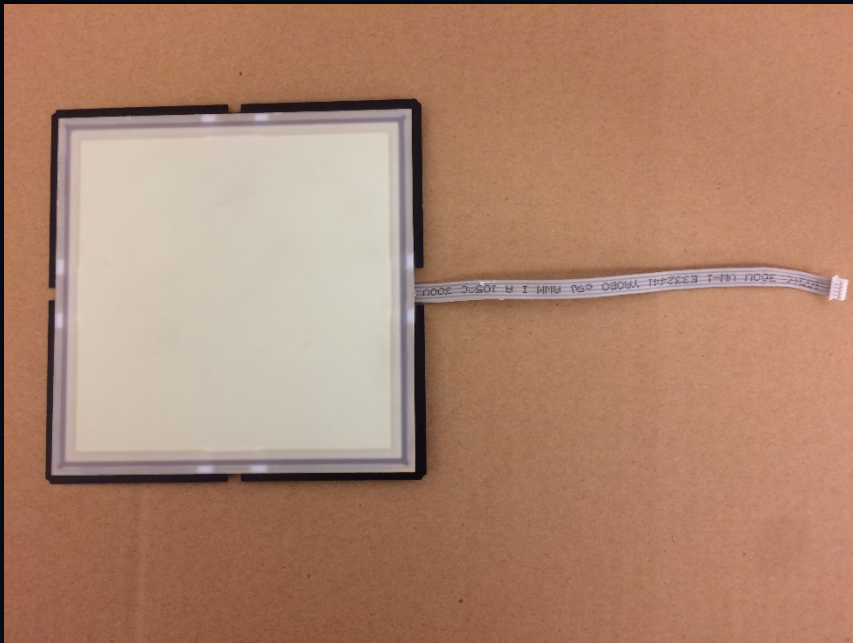
Panels that break or crack

Broken leads

WIRE MANAGEMENT AND CONNECTING TO POWER SUPPLIES



WORKING WITH PANELS, DRIVERS AND POWER SUPPLIES



RETENTION OF PANELS

DETERMINING END OF
PANEL LIFE



Progress we have made as a Manufacturer



	LED	OLED
Task Lamp Concept	2002	2013
Sconce and Pendant Concepts	X	2014
Pendant Concepts	X	2015
Produced Custom Fixture	2006	X
Produced Standard Product Pendant	2007	2016
# Years from concept to Production	5	4



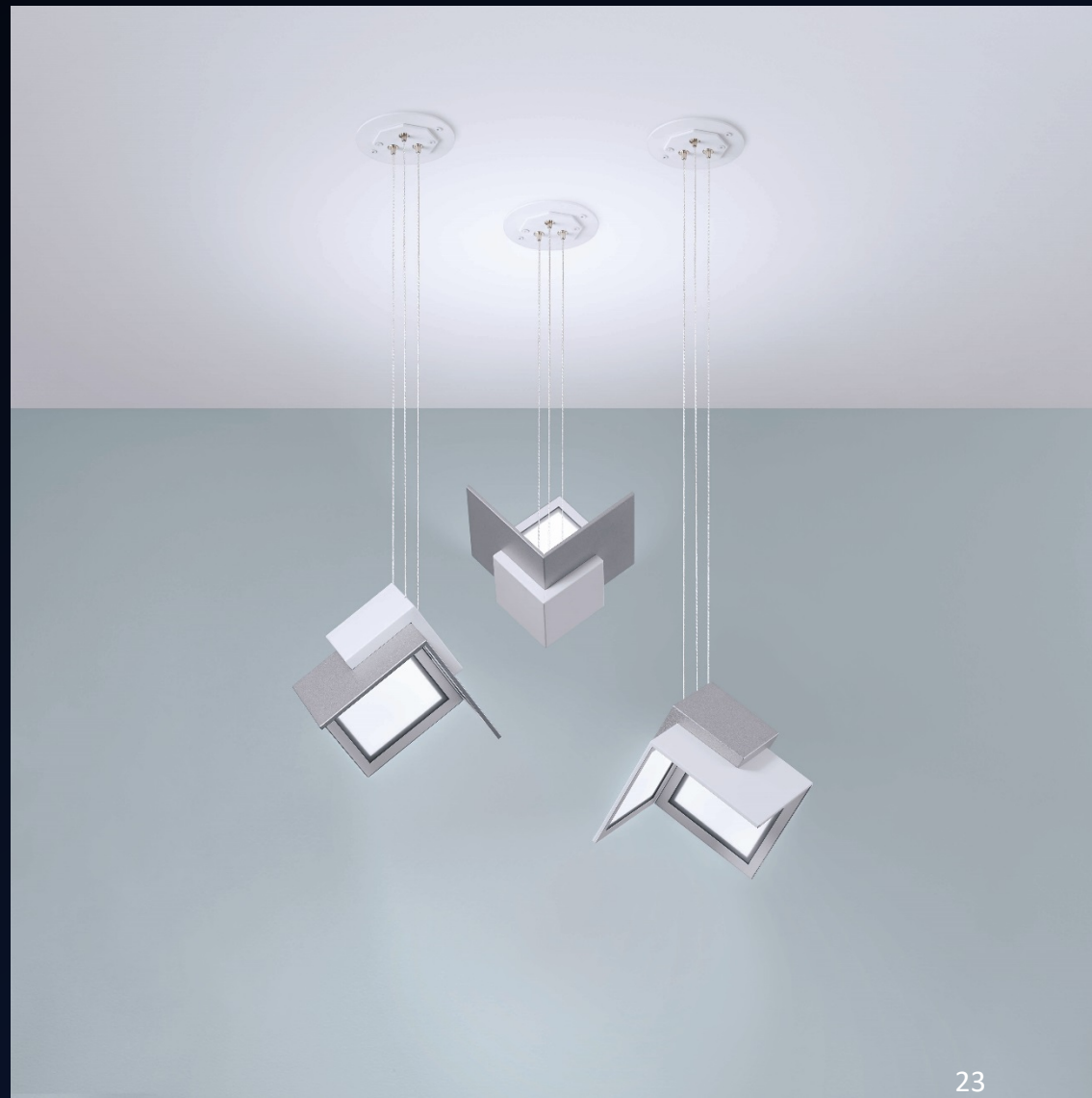
FIRST OLED CONCEPT MODEL



OLED CONCEPT MODELS



2015 OLED CONCEPT MODELS



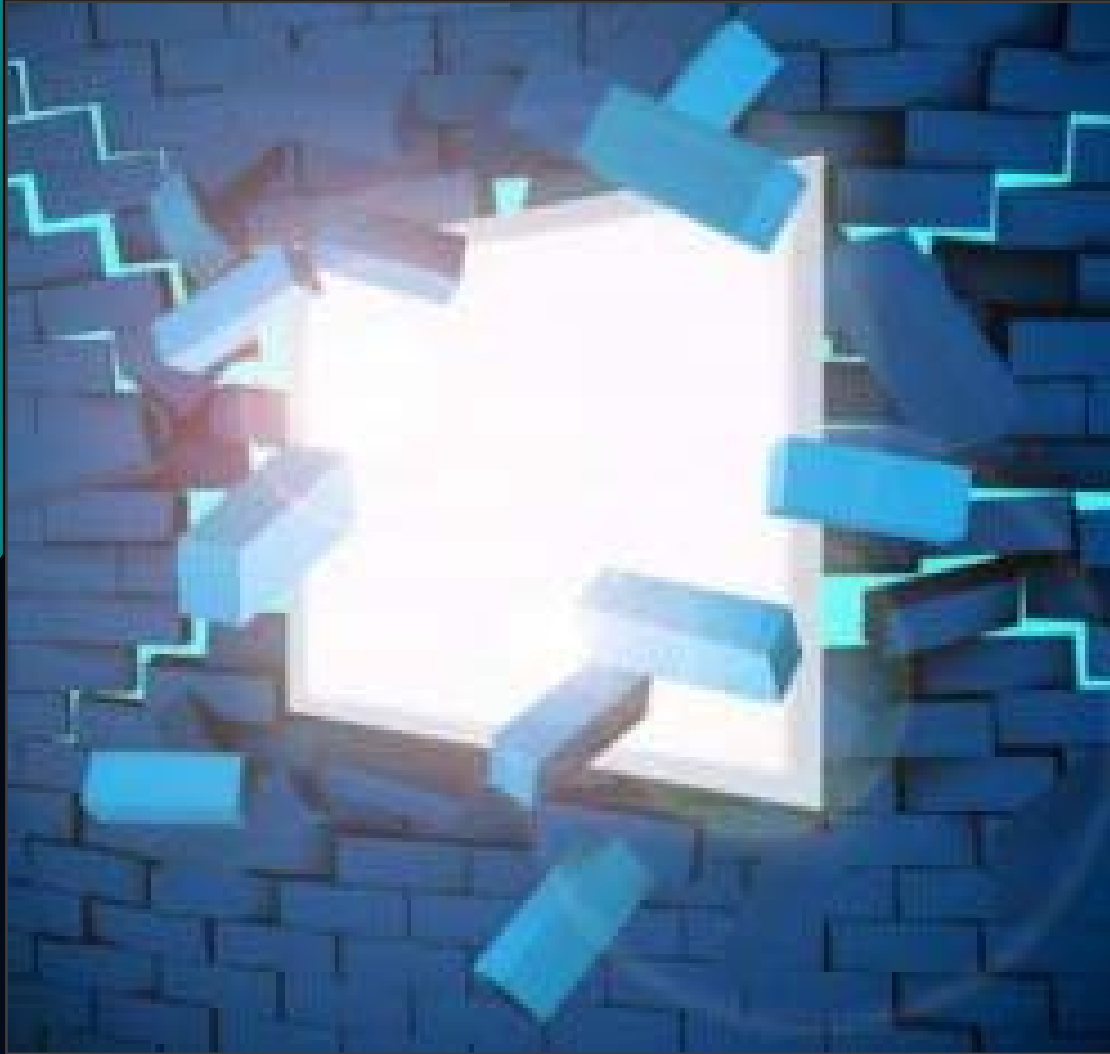
2016 FIRST OLED PRODUCTION FIXTURES



DOE GATEWAY PROJECT
DKB ACCOUNTING FIRM
ROCHESTER NY



MAKING OLEDS MAINSTREAM



Improve Lumen Output

Reduce Cost

Improve Durability

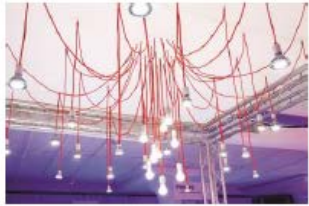
Zhaga Standard Panel Sizes, Drivers and Connectors

Educate Public

Come see the VISA LIGHTING OLED Display

AN OLDENBURG GROUP COMPANY

at



LIGHTING: THE NEXT FRONTIER

Architectural Lighting's
30th Anniversary Celebration

A 2016 PechaKucha Night

New York City, Canoe Studios: December 8, 2016

