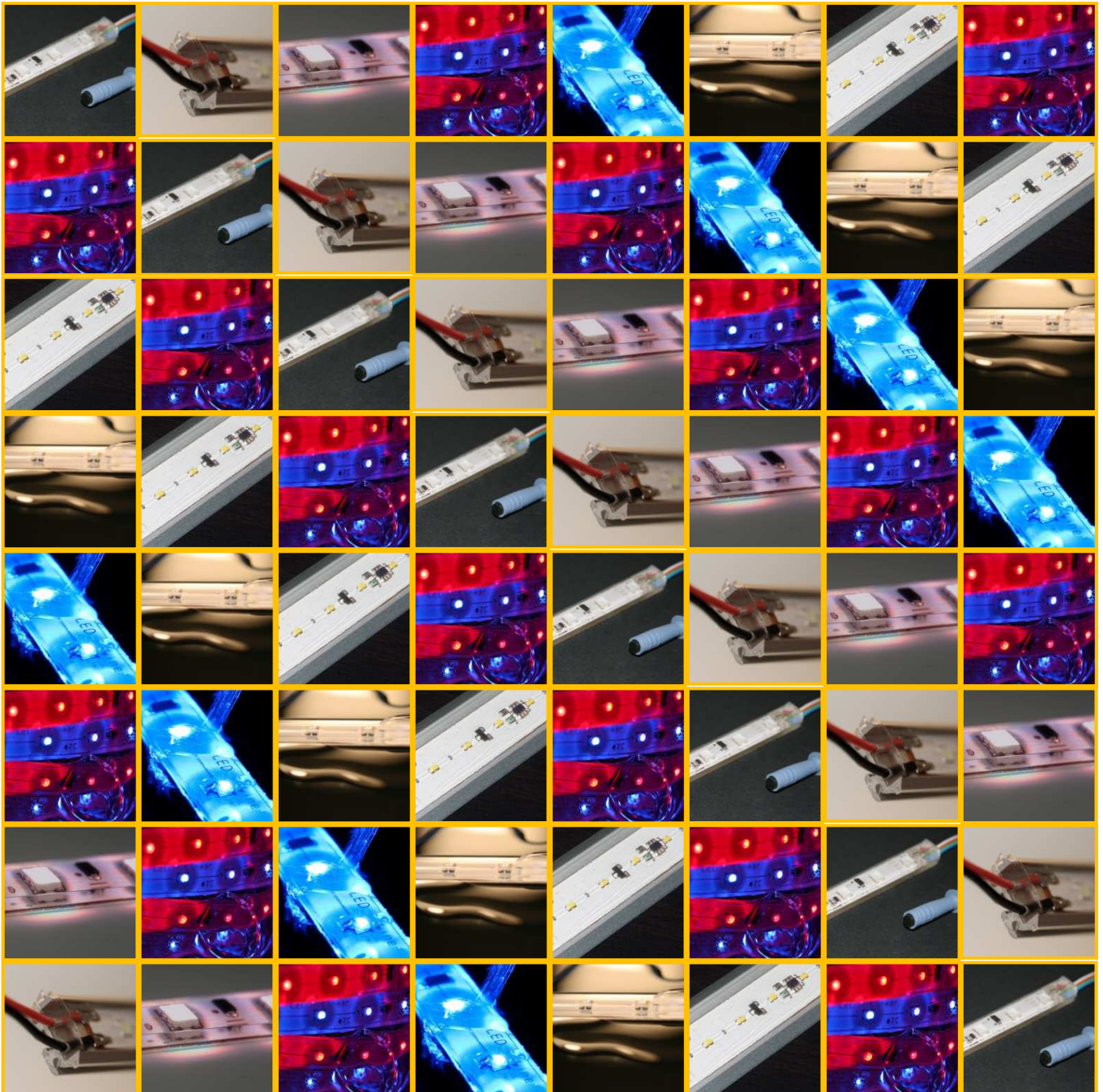




 **LED Linear**
linear lighting solutions

Performance Specification
IP 67 Products





Performance Specification

LED Linear Products IP67

Polyurethane Encapsulation System for LED

Outdoor Resistance

Tests	Ref. Method	Test Conditions	Results
Florida Test	SAE J 1976	Direct Inland ,45°South	Good (after 2 years)
Arizona Test	SAE J 1976	Direct Weathering , 45° South	Good (after 2 years)
Xenon WOM	SAE J1960-89 2000h	65°C- cycle 102minUV+ 18 min. UV/waterspray	no color change, minimal gloss change
Weatherometer QUV-B	SAE J 2020	(8hUV 60°-4hcond.50°C)	no color change, minimal gloss change
Weatherometer QUV-A	SAE J 2020	2000h (8hUV 70°-4hcond.50°C)	no color change, minimal gloss change

Water and Chemical Resistance

Tests	Ref. Method	Test Conditions	Results
Fuel Resistance	G.M.6073	Immersion	No gloss change/No degradation
Acid Resistance	MS-CG12	Spot Test 0.5-10% conc.	No gloss change/No degradation
Solvent Resistance	GM 6121 M	Various types of used chemicals	No gloss change/No degradation
Water Immersion	WSK-M3G178	240 h.@ 45°C	No gloss change/No degradation
Salt Spray Resistance	ASTM B117-95	2000 h @38°C 5% NaCl	No gloss change/No degradation
Humidity Resistance	MS-CG12	250h @ 40°C 100% R.H.	No gloss change/No degradation
Environmental Cycle	G.M.6073	Three Cycles	No gloss change/No degradation

Heat Resistance

Tests	Ref. Method	Test Conditions	Results
Heat Resistance	MS-CG12	250 h @ 80°C	No gloss change/No degradation
High Temperature Resistance	G.M.6073	60 min. @ 93°C.	No gloss change/No degradation
Thermal Shock	ESK-M99P16-A:3.5.5	16h.@ -40°C+ water@70°C/10cycles	No gloss change/No degradation

Abrasion Resistance

Tests	Ref. Method	Test Conditions	Results
Stone Chip Resistance	SAE J400:85	0.47L of 250-300 graded gravel fired @sample @480KPa in 5-10s	Chipping rating 10- No chipping to substrate

Flammability Resistance

Tests	Ref. Method	Test Conditions	Results
Flammability Resistance	FMVSS 302	ISO 3795	Flame self extinguishing

Electrical Properties

Tests	Ref. Method	Test Conditions	Results
Surface Resistivity	ASTM D257	500 V- spec. thickness 2 mm	2 x 10E15 Ohm
Volume Resistivity	ASTM D257	500 V- spec. thickness 2 mm	1 x 10E15 Ohm cm