



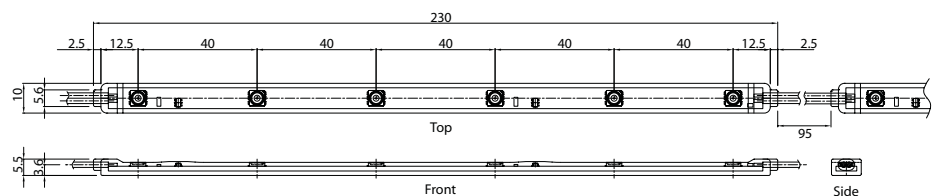
### ULTRA THIN BAR-TYPE LED MODULES

The STAR C0640, their transparent LED module lighting system perfect for those of who need maximum lighting output at lowest cost. It is made for low-profile channel letters with large channel width since their thickness is only 5.5mm at width of 10mm. C0640 is good for large letters which depth is more than 120mm up to 250mm. Each module of C0640 will cover up much more spaces than any other models available. For small letters with depth less than 150mm, another range of ULTRA THIN BAR-TYPE LED MODULES, C0230 & C0320 will led you most reasonable installation cost . Our ULTRA THIN BAR-TYPE LED MODULES will bring you the most competitive solution for your application including retrofit lighting source for neon signs and general illuminations.

- Guaranteed lifetime up to 42,500 hours with 70% lighting output  
\*24 hour constant load may result less operating hours with lower lighting output. Estimated lifetime is based on normal usage of 10 hours per day.
- Uniform color temperature by strictly controlled system of bin rank
- Transparent polyurethane body for tough environment
- Reverse voltage protection to minimize hassles during installation
- Extremely small and light solution for low-profile channel letters, indoor
- 70% more energy efficiency compared to conventional sign lighting source
- Quality and reliability assured

#### PHYSICAL

Length : 230mm  
 Width : 10mm  
 Thickness : 5.5mm  
 Weight : 17g  
 Lamp Picth : 40 mm (6 LED Lamps)  
 Module Pitch : 325mm



#### OPTICAL CHARACTERISTICS

Available Color	Luminous Flux (lm)			CCT (Kelvin) & Dominant Wave Length			Viewing Angle 2θ <sub>1/2</sub>
	Min	Typical	Max	Min	Typical	Max	
White	90	96	120		9,000K		120
Daylight White	90	96	120	5,000K	6,500K	7,000K	120
Warm White	78	84	108		3,000K		120
Red	12			623nm	625nm	628nm	120
Green	36			525nm	527mm	530nm	120
Blue	6			455nm	460nm	465nm	120

\*CRI (Color Rendering Index) for white product types is 70 / \*Luminous Flux measuring equipment is CA5140B  
 \*Viewing angle is the off axis angle from lamp centerline where the luminous intensity is half of the peak value / \*CCT 5% tester tolerance  
 \*Dominant wavelength is derived from the CIE 1931 Chromaticity diagram and represents the perceived color  
 \*Color temperature for white is strictly controlled by bin rank system and it consists of three ranks which should not be used simultaneously.

### ELECTRICAL CHARACTERISTICS

Current dissipation : 110 mA (white, and warm white),  
 Power Consumption : 1.30 W (white, and warmwhite),  
 Operating power : DC 12V  
 Quantity for maximum connection in serial : 25 modules  
 Electronic dimming control supported  
 Constant current drive  
 Reverse voltage protection

### THERMAL

Cooling : Ambient air  
 Maximum operating temperature : 60°C (140°F)  
 Minimum operating temperature : -25°C (-13°F)  
 Maximum storage temperature : 60°C (140°F)  
 Minimum storage temperature : -30 C (-22 F)

### SAFETY FEATURES

Reverse voltage protection : Device will prevent incoming power source on improper input connection

### CONSTRUCTION

White LED Lamp : chip & packaging by Samsung  
 Color LED Lamp : chip & packaging by Samsung  
 Body : PVC(Polyvinyl Chloride) transparent resin, 96% transparency  
 PCB : FR-4 fiber glass epoxy resin, quad layered  
 Lead wire : 20AWG

### APPLICATIONS

Channel letters - closed cover  
 Reverse halo lighting  
 Border lighting  
 Point-Of-Purchasing signage  
 Art & sculpture and cove lightin  
 Facade lighting

### APPROVAL

EN 55015:2000+A1:2001+A2:2002 Class B  
 EN 61547:1995+A1:2000



### FEATURES

**42,500H**  
LIFETIME

**IP54**

CONSTANT CURRENT  
DRIVING SYSTEM



**DC12V**

Specifications subject to change without notice

### CONNECTION GUIDE WITH SMPS

