

Optical Solutions

For HF²Stick and DRAGONstick modules



- Optics for HF²Stick and DRAGONstick LED modules
 - Not for use on HF²StickXB modules
 - Not for use on the 12 LED version DRAGONsticks
- Optimized for OSRAM's Golden DRAGON LED
- High optical efficiency
- The Spot Lens can easily and accurately be positioned over the Golden DRAGON LED
 - The Spot Lens has a self adhesive base to secure it to the module
- Spot Lens provides a beam angle of $\pm 2^\circ$
- There are 3 Sub Lenses available:
 - Diffuser Sub Lens $\pm 5^\circ$
 - Wide Sub Lens $\pm 15^\circ$
 - Oval Sub Lens $\pm 4^\circ \times \pm 27^\circ$
- The Sub Lenses snap directly onto the Spot Lens
- Each Spot Lens optic covers 1 LED
- When used on the DRAGONstick modules there will be noticeable color separation

The NEW OSRAM SYLVANIA Optical Accesories.

These Optics are a supplementary optical lens for the HF²Stick and DRAGONstick® modules. The optics provide light intensification and protection of the modules. The Spot Lens is specifically designed to fit the OSRAM Golden DRAGON™ LED and provide a beam angle of $\pm 2^\circ$. It can be placed directly over the LED and will stay in place due to the self adhesive base.

For additional beam angles there are three different Sub Lens illumination patterns available: Diffuser, Wide and Oval. These Sub Lenses can provide a $\pm 5^\circ$, $\pm 15^\circ$ or $\pm 4^\circ \times \pm 27^\circ$. The Sub Lenses can then be snapped directly onto the Spot base lens.

Product Availability

Product	NAED
LED/Optic/Spot/Lens-2	70159
LED/Optic/Wide/Sub Lens-15	70160
LED/Optic/Oval/Sub Lens-4x27	70161
LED/Optic/Diffuser/Sub Lens-5	70162

Application Information

Applications

Illumination of display cases and shelves
Spotlighting
Decorative effects
Small luminaires
Cove lighting

Ordering and Specification Information

Item Number	Ordering Abbreviation	Beam Angle
70159	LED/Optic/Spot/Lens-2	4
70160	LED/Optic/Wide/Sub Lens-15	30
70161	LED/Optic/Oval/Sub Lens-4x27	$\pm 4 \times \pm 27$
70162	LED/Optic/Diffuser/Sub Lens-5	10

Packaging-

Spot Lens- Minimum order qty:	12 optics	Case Qty: 144 optics
Sub Lenses- Minimum order qty:	12 lenses	Case Qty: 144 lenses

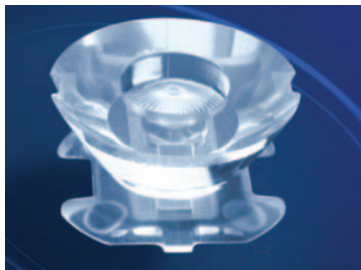
Maximum Ratings

Parameter	Symbol	Values	Units
Operating Temperature	T_{op}	-30... +65	°C
Storage Temperature Range	T_{stg}	-30... +65	°C

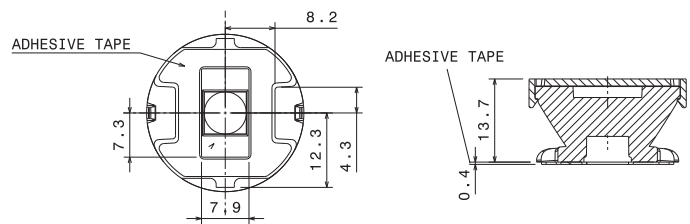
Dimensions

(All dimensions are in mm)

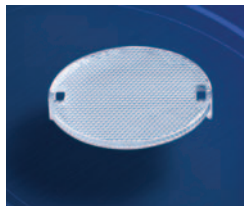
Spot Lens



70159



Sub Lenses



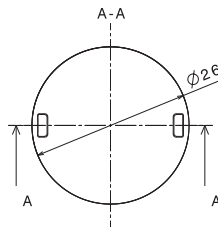
70160



70161



70162



OSRAM SYLVANIA
National Customer
Support Center
18725 N. Union Street
Westfield, IN 46074

Industrial Commercial

Phone: 1-800-255-5042
Fax: 1-800-255-5043

National Accounts

Phone: 1-800-562-4671
Fax: 1-800-562-4674

OEM/Specialty Markets

Phone: 1-800-762-7191
Fax: 1-800-762-7192

Display/Optic

Phone: 1-888-677-2627
Fax: 1-800-762-7192

In Canada
OSRAM SYLVANIA LTD.
Headquarters
2001 Drew Road
Mississauga, ON L5S 1S4

Industrial Commercial

Phone: 1-800-263-2852
Fax: 1-800-667-6772

Special Markets

Phone: 1-800-265-2852
Fax: 1-800-667-6772

Ordering Guide

LED	/	Optic	/	Spot	/	Lens-2
LED		Optics		illumination pattern		+/-2

OSRAM is a registered trademark of OSRAM GmbH. Golden DRAGON is a trademark of OSRAM GmbH used under license. SYLVANIA and DRAGONstick are registered trademarks of OSRAM SYLVANIA Inc.

Specifications subject to change without notice.

Visit our website: www.sylvania.com