

DLM Product Line

Directional LED Module



The DLM700 and DLMWF Directional Light Modules are fully integrated and optimized lighting sub-systems which combine the advantages of LED technology (directionality, long-life, energy-efficiency, and low maintenance) with an innovative optical design: a controlled light distribution away from the glare zone, with no pixelation.

The DLMs are dimmable and have an average rated life of 50,000 hours.

The integration and optimization of optical, mechanical, and electronic components eliminates the need for additional heat sinking, maximizes efficacy (50 and 57 LPW), and provides for a compact package that can be used with various mounting techniques in applications such as down lighting, track lighting, wall washing, and accent lighting. The DLM700 and DLM800WF may be optimally paired with an OPTOTRONIC® constant current, Class 2 power supply.

Key Features & Benefits

- Fully optimized and integrated module
- 700 and 800 lumens
- 60° and 80° beam angle
- Input power: 14W
- 435 and 460 CBCP
- Designed to fit 5-6" aperture fixtures
- 50 and 57 LPW
- CRI: 83
- Designed to operate optimally with OPTOTRONIC OT17
- Service life up to 50,000 hrs when temperature at Tc point is maintained below 80°C
- Dimensions 2.21" (H) 4.05" (Ø)

Product Offering

Ordering Description	Wattage (W)	Colour (K)
DLM700/835/4.0 IN	14	3500
DLM800WF/835/4.0 IN	14	3500

Application Information

Applications

Recessed down light
Track light
Area lighting
Accent light

Specifications and Certifications



The SYLVANIA DLM700 and DLM800WF are UL2108 Recognized for US and Canada Class 2 Unit. (UL file # E258264)

RoHS Compliant



Specification Data

Catalogue #	Type
Project	
Comments	
Prepared by	Date

Ordering Information

Item Number	Ordering Description	Module Dimensions	Power* (W)	Module Operating Current (mA)	Voltage (Vdc)	Colour Temp. (K)	CBCP (cd)	Beam Angle (degrees)	Lumen Output
70287	DLM700/835/4.0 IN	2.21 (H) x 4.05 (Ø) in	14	700	21	3500	460	60	700
70084	DLM800WF/835/4.0 IN	2.21 (H) x 4.05 (Ø) in	14	700	21	3500	435	80	800

*All data is related to entire module at Tc point of 25°C. Data reflects statistical mean values. Actual data may differ depending on variances in the manufacturing process. End users need to take into account the lumen depreciation as the temperature rises with various thermal management solutions installed. Product is shipped with 30 in. input connector.

Ordering Guide

DLM700	/	8	35	/	4.0 IN
Directional Light Module 700 = 700 Lumens 800WF = 800 Lumens: Wide Flood		CRI 8 > 80	Colour Temperature 35 = 3500K		Diameter

Power Supply Ordering Information

Item Number	Ordering Description	Max. No. of DLM700 Modules per Power Supply
51597	OT17/120-277/700E	1

Minimum and Maximum Ratings

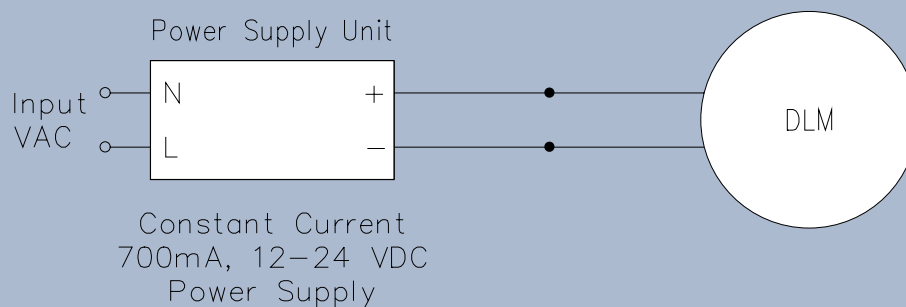
Parameter	Symbol	Values
Ambient Operating Temperature	T_a	-30 to +50°C *
Storage Temperature Range	T_{stg}	-30 to +90°C (-22 to +194°F)
Voltage Range	V_{max}	12 – 24 Vdc
Max. Reverse Voltage/Current	V_r/I_r	24 Vdc/1 Amp
Max. Tc point	T_c	80°C *

* Module only, to maintain 50,000 hrs.

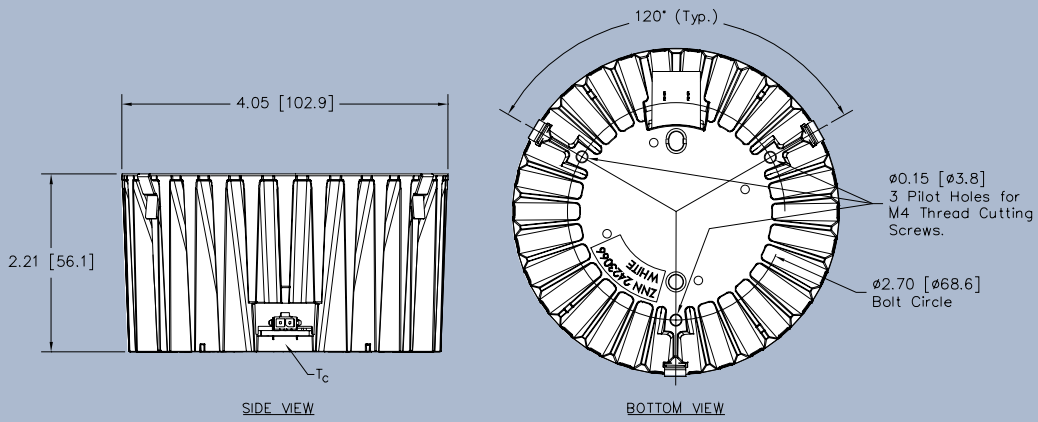
Notes:

- Exceeding maximum ratings may damage the LED module and cause potential safety hazards.
- Elevated operating temperatures can be expected to negatively impact the service life in terms of lumen output.

Wiring Diagram



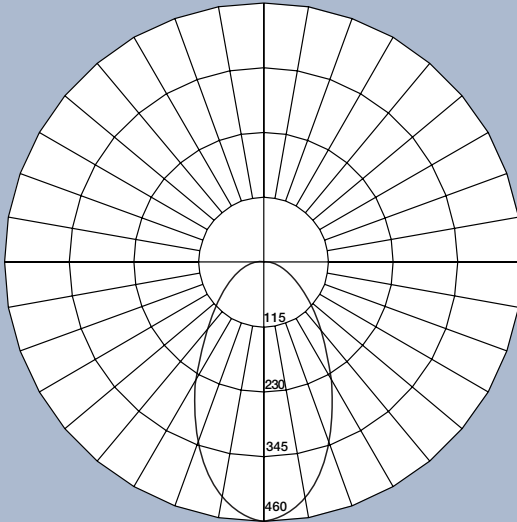
Assembly Diagram



DIMENSIONS: Inches [mm]

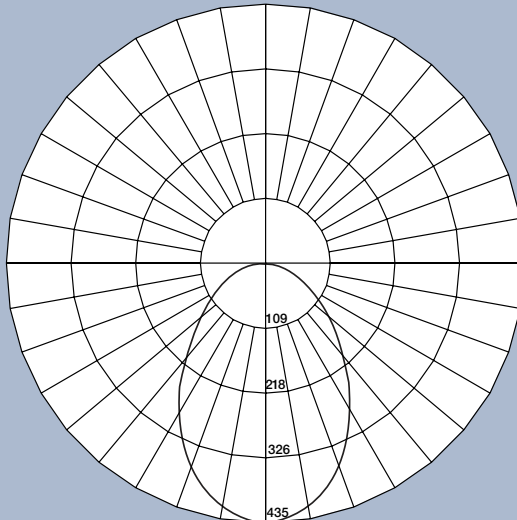
Candlepower Distribution

DLM700



Angle (°)	Intensity (cd)
0	460
5	452
10	432
15	388
20	333
25	287
30	242
35	200
40	181
45	163
50	121

DLM800WF



Angle (°)	Intensity (cd)
0	435
5	429
10	415
15	390
20	359
25	324
30	285
35	246
40	209
45	174
50	143

Safety Information

**WARNING: ONLY QUALIFIED PERSONNEL SHOULD PERFORM INSTALLATION.
TO AVOID ELECTRICAL SHOCK OR COMPONENT DAMAGE, DISCONNECT POWER BEFORE
ATTEMPTING INSTALLATION OF THE POWER SUPPLIES AND/OR MODULES.**

Failure to install the power supplies and/or LED modules in accordance with the National Electric Code (NEC), all applicable Federal, State and local electric codes as well as the specific Underwriters Laboratories (UL) safety standards for the installation, location and application may cause serious personal injury, death, property damage and/or product malfunction.

These instructions are guidelines for installation of SYLVANIA LED modules and power supplies. Installation requirements may vary depending on the application. Licensed electricians should provide all installation services for connection of both primary and secondary (input/output) of the power supplies.

1. The LED module itself and all its components must not be subjected to mechanical stress.
2. Installation of the LED module (with power supplies) should adhere to all applicable electrical and safety standards. Only qualified personnel should perform installations.
3. Correct electrical polarity needs to be observed. Wrong polarity may destroy the module.
4. Pay attention to standard ESD precautions when installing the module.
5. Damage by corrosion will not be honored as a materials defect claim. It is the user's responsibility to provide suitable protections against corrosive agents such as moisture and condensation and other harmful elements.
6. Modules may be hot to the touch. Use caution when handling.

The LED Module incorporates no protection against short circuits, overload or overheating. Therefore it is necessary to operate the modules with an electronically stabilized power supply offering protection against the above mentioned safety risks.

SYLVANIA OPTOTRONIC® power supplies are specifically designed with protection features for safe operation.

When using power supplies other than OPTOTRONIC the following of basic safety features should be verified in addition to any other application specific concerns and local safety codes:

- Short circuit protection
- Overload protection
- Overheat protection
- Correct output voltage, including consideration for ripple and spikes

Assembly Information

1. Module is intended for use with constant current power supplies. The module is not intended for use with constant voltage power supplies.
2. The DLM has inherent thermal management that will provide a service life of 50,000 hours when operated at an ambient temperature of up to 50°C. Service life (i.e. lumen depreciation) is primarily a function of LED temperature which is to be monitored at the designated "Tc point". A Tc point temperature of 80°C is sufficient to enable a service life of 50,000 hours.

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