## **Application Photos - LED Fiber Optic**



Stair Tread Edge Lighting

**Lumicord - Rope and Fiber Optic** 



Dock Lighting Fiber Optic Cable and Track



Pool and Spa Perimeter Lighting



## The Lighting Division



www.thelightingdivision.com



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# The Lighting Division



Life in a New Light

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# **Fiber Optic Lighting**







Light Case

Fiber Optic System Components				
Description	Part Number	Dimensions	Electrical	
Light Case - 1 Watt LED	LCE-XX	6.25" Long x 3.00" Wide x 1.55" High	9 - 36 Volts AC or DC, 3.5 Watts	
Light Case - 3 Watt LED**	LCE-3-XX	6.25" Long x 3.00" Wide x 1.55" High	9 - 36 Volts AC or DC, 6.5 Watts	
Repeater Light Case -Dual 1 Watt LED	LCR-XX-XX	6.50" Long x 3.00" Wide x 1.55" High	9 - 36 Volts AC or DC, 6.5 Watts	
Repeater Light Case -Dual 3 Watt LED**	LCR-3-XX-XX	6.50" Long x 3.00" Wide x 1.55" High	9 - 36 Volts AC or DC, 13 Watts	
Fiber Optic Cable - 14 Strand	FOC	0.18" Diameter		
Fiber Optic Track	FOT	Configurable As Shown>		
Shield Tube (block light)	FOS	XX denotes color ch	oices below	

<sup>\*\*</sup> Check with Factory to ensure color selection is available

Dimmer is included in each Light Case and Repeater





Light Case	Fiber	Singe End Lit
-		Dual End Lit Light Case
-		Dual End Lit w/Repeater

Power Supplies			
Model Number	Power		
TLD-60WLO (Outdoor)	60 Watt		

Fiber Optic Colors:

DB Deep Blue 455nm

SB Sky Blue 470nm

TQ Turquoise 505nm

GG Great Green 525nm

DW Diamond White 5000K

AM Amber 590nm

TR Tropical Red 617nm

RR Real Red 625nm

Illumination Level and Distance will vary by color, with Blue going longer than Red. We suggest lighting both ends of the fiber when exceeding 100 feet.

Fiber Optic Kits				
Part Number	Length	Fits Pool Diameter(s)		
LK-25-XX	25 Feet	_		
LK-50-XX	50 Feet	15 Foot Round		
LK-75-XX	75 Feet	18, 21 Foot Round		
LK-100-XX	100 Feet	24, 27 Ft Round/Oval		
LK-125-XX	125 Feet	Light Kit Includes:		
LK-150-XX	150 Feet	- One (1) LCE		
LK-175-XX	175 Feet	- FOC per kit length		
LK200-XX	200 Feet	- FOC per kit length - FOS (1 Foot)		

Inter-Connect and Options		
Model Number		Description
TLD-OS	-	Universal Photocell Timer
TLD-EC25		Power Ext Cord - 25 foot
TLD-EC50		Power Ext Cord - 50 foot
TLD-EC100		Power Ext Cord - 100 foot
TLD-MT2		2-Way Power Splitter
TLD-MT4		4-Way Power Splitter
TLD-MT8		8-Way Power Splitter

## The Lighting Division



Life in a New Light

LCE Light Case

Light Case

LCE Light Case

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Left Hand Feed FOC + FOS

### **Lumacord Fiber Optic Rope Light**



Lumacord

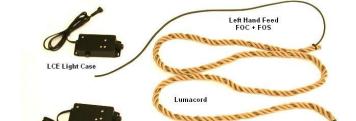
#### **Lumacord Single Emitter Configuration**

**Lumacord Part Number Generator** 

LCD BB ΔΔ

AA: Left Hand Feed Length in Feet **BB:** Lumacord Length in Feet

Example: LCD-03-50 is 50 feet of Lumacord with a 3 foot Feed



Right Hand Feed

FOC + FOS

Lumacord

#### **Lumacord Dual Emitter Configuration**

#### **Lumacord Part Number Generator**

LCD RR CC AA

> AA: Left Hand Feed Length in Feet **BB: Lumacord Length in Feet** CC: Right Hand Feed Length in Feet

Example: LCD-10-100-10 is 100 feet of Lumacord with 10 foot Feeds at both ends

LED Emitter Options			
Description	Part Number	Dimensions	Electrical
	LCE-XX	6.25" Long x 3.00" Wide x 1.55" High	9 - 36 Volts AC or DC, 3.5 Watts

Light Case - 3 Watt LED\*\* LCE-3-XX 6.25" Long x 3.00" Wide x 1.55" High 9 - 36 Volts AC or DC, 6.5 Watts Repeater Light Case LCR-XX-XX 6.50" Long x 3.00" Wide x 1.55" High 9 - 36 Volts AC or DC, 6.5 Watts Repeater Light Case -Dual 3 Watt LED\*\* LCR-3-XX-XX 6.50" Long x 3.00" Wide x 1.55" High 9 - 36 Volts AC or DC, 13 Watts

\*\* Check with Factory to ensure color selection is available

XX - Denotes LED Color (Repeater can be two different colors!)

Light Case and Repeater

Dimmer is included in each

Illumination Level and Distance will vary

by color, with Blue going longer than Red.

We suggest lighting both ends of the fiber

when exceeding 100 feet.

TLD-OS can be placed anywhere in the system and will control all fixtures powered through it.

LED Colors: DB Deep Blue 455nm SB Sky Blue 470nm

TQ Turquoise 505nm

GG Great Green 525nm

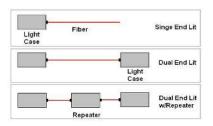
DW Diamond White 5000K

AM Amber 590nm

TR Tropical Red 617nm

RR Real Red 625nm





#### Power and Inter-Connect Options

Model Number TLD-60WLO (Outdoor) TLD-OS TLD-EC25 TLD-EC50 TLD-EC100 TLD-MT2 TLD-MT8

Description 60 Watt Power Supply Universal Photocell Timer Power Ext Cord - 25 foot Power Ext Cord - 50 foot Power Ext Cord - 100 foot 2-Way Power Splitter 8-Way Power Splitter



Revision 9/26/07

#### Instructions for installation of the Fiber Optic Lighting Kit

The Fiber Optic Lighting Kit includes: FOT (Fiber Optic Track), FOC (Fiber Optic Cable), Light Case Emitter (LCE) with one grip or Light Case Repeater (LCR) with grips on each side of a case, Shield Tube (We supply 1 foot of Shield Tube with every Light Case order.)

**Application:** Highlighting the perimeter of the area you wish to light for both indoors and outdoors. The products of the Lighting Division are compliant with the electrical codes in the United States.

Use proper caution working with electrical products; it is the installer's responsibility to ensure proper safety precautions are taken during hazardous installation of our lighting products. The transformer must be plugged into a ground fault receptacle. Local building codes prohibit use of extension cords around water due to risk of shock. Do not submerge the Light Case into water.

The intensity of light coming out of the box is very strong. Therefore, to avoid the overpowering effect of light we suggest for you to use the Shield Tube supplied in your Fiber Optic Lighting Kit.

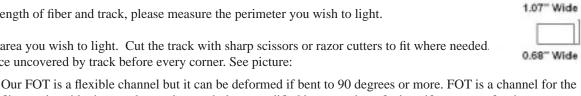
The first 6 inches of fiber coming from the light source and last six inches of fiber are the brightest and can be blackened if desired. In case you wish to avoid lighting in certain areas of your project. We offer Shield Tube for purchase in any length.

#### Working with a single Light Case Emitter (LCE)

Step 1. To determine the length of fiber and track, please measure the perimeter you wish to light.

**Step 2.** FOT installation.

Install the track along the area you wish to light. Cut the track with sharp scissors or razor cutters to fit where needed. Please leave 1 inch of space uncovered by track before every corner. See picture:





fiber optic cable that can be used as a whole or modified by removing of wings if necessary for the narrow surfaces. The track comes with double-sided tape that helps to hold it temporarily. Remove the backing of the tape. In addition, for wet locations we recommend staple gun or Silicone Adhesive Sealant for outdoor use. Apply a small bead of silicone adhesive sealant along the length of the track. Press gently along the length of the track. **NOTE:** It is important to clean the surface you wish to attach to the track for proper adhesion. Gently wipe excess silicone adhesive sealant away for a clean look.

**Step 3.** FOC installation

Once the track installation is complete, you may now work with Fiber Optic Cable (FOC).

Do not cut excess fiber before installation. Place the fiber into the groove of the FOT and push it inside. The fiber should be fully embedded into the track channel. Repeat installation all along the path of the Fiber Optic Track (FOT). When going around the corners of the surface keep the fiber snug without stretching it. Once you complete the installation of your fiber, you can either leave the end of the fiber uncovered for an end emitting effect or cover the end of the fiber with the Shield Tube and wire tie provided. See picture.



**Step 4.** Connection of a Light Case Emitter to Fiber Optic Cable.

Cut off a quarter of an inch of fiber with clean razor cutters to ensure optimal light transition. Cover the end of the fiber with the Shield Tube (6 inches long) leaving 3/4"uncovered by the tubing. Insert the fiber optic cable inside the Light Case grip approximately 1 inch. There should not be a bare cable between the cord grip and Shield Tube. Tighten the cable grip snugly avoiding undue pressure.

Step 5. Plug in the chosen power supply that best suits your application (indoor or outdoor) and attach it to the Light Case.

Step 6. With the dimmable capabilities of the Light Case you can control light intensity for your lighting system.

#### Working with two LCE Light Cases working from each side of Fiber Optic Cable

Two Light Cases can be used for lighting projects of longer lengths or where higher intensity lighting is preferable. Please repeat steps 4 through 6 above when installing two Light Cases.

#### Working with LCR Light Case(s)

LCR Light Case Repeater possesses features of a Light Case Emitter with one additional LED in it. Driving light from dual ends has become possible with LCR Light Case. Process stages of connection FOC and LCR Light Case are identical to those with LCE Light Case. (Please see above).

### Using accessories for the Fiber Optic Lighting Kit

Please keep the Light Cases and power supplies away from water. The Lighting Division offers Extension Cords of different lengths (TLD-EC25 - 25ft, TLD-EC50 - 50ft, TLD-EC100 - 100ft.) to ensure your safety and the long life of Light Cases(s).

Two-way power splitter will enable you to use two of your favorite light colors for two different applications of your choice. Eight-way power splitter permits you to work with several Light Cases of different colors powering them from one power supply.

Such a set up allows you to simultaneously light several areas or support several accent lighting projects.

The Lighting Division provides a connecting cord with a grip to ensure perfect connection between Light Cases(s) and power splitters. Universal Photocell Timer is a unique energy-saving component of the Fiber Optic Lighting System that automatically switches the kit off in the day-time, turning it back on when darkness comes.