

WELCOME

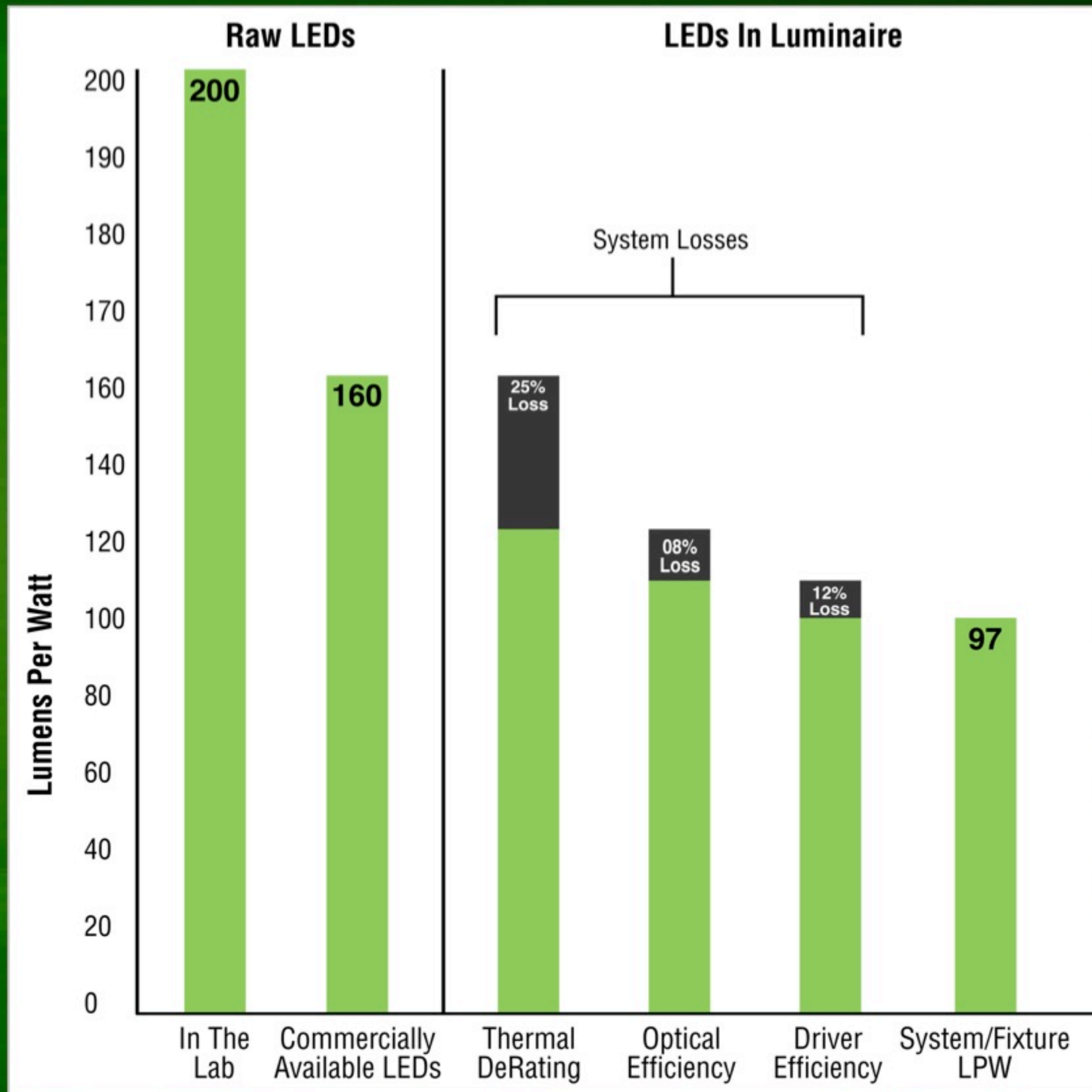
WHAT'S NEW WITH LAY-IN "TROFFER" FIXTURES

November 29, 2012 Webinar

- Lumen per watt update
- Cost per lumen update
- Lifetime data update
- LED edge lit troffers
- LED direct lit troffers
- LED troffer retrofit kits
- Specialty LED troffer

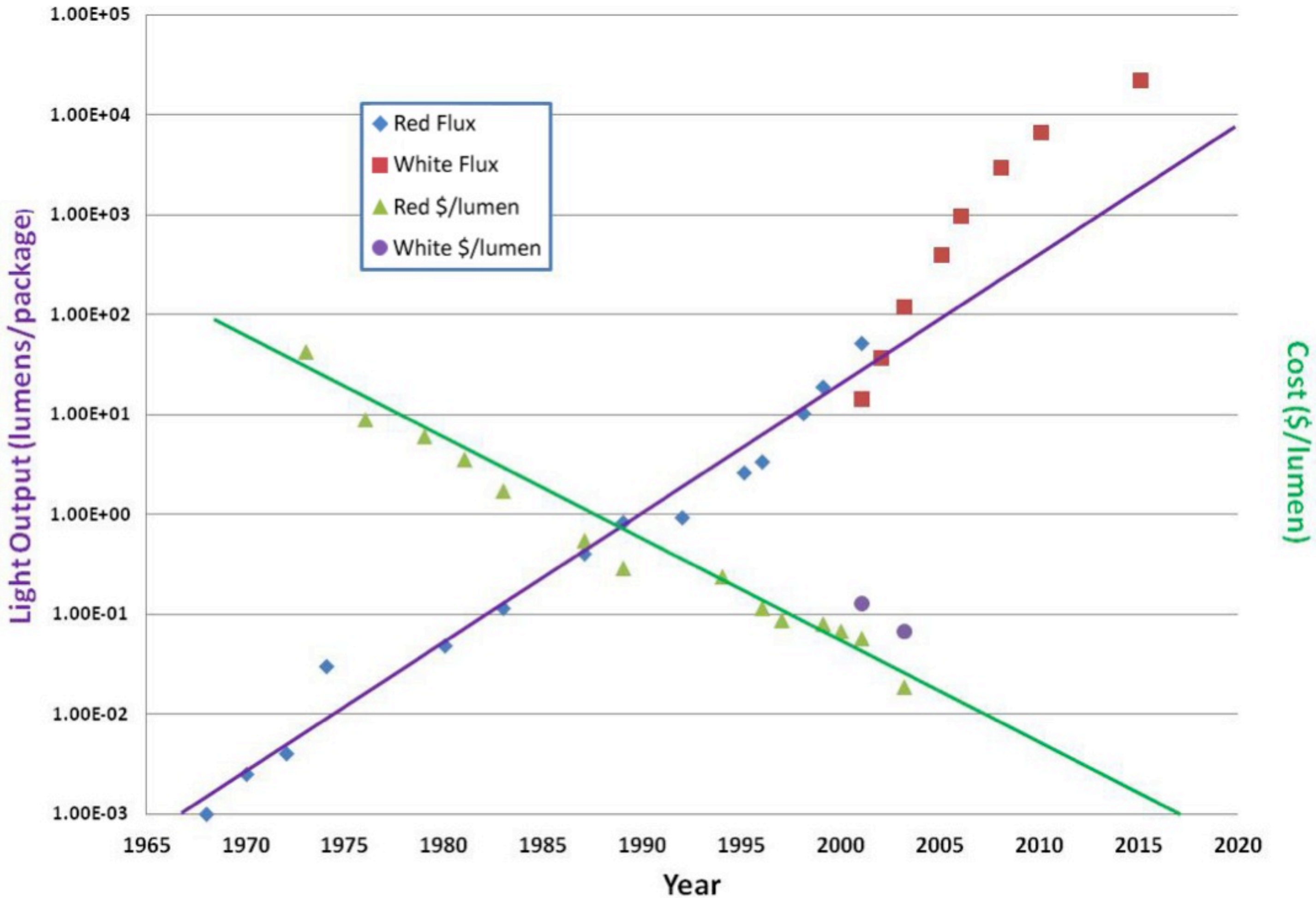


Lumens Per Watt

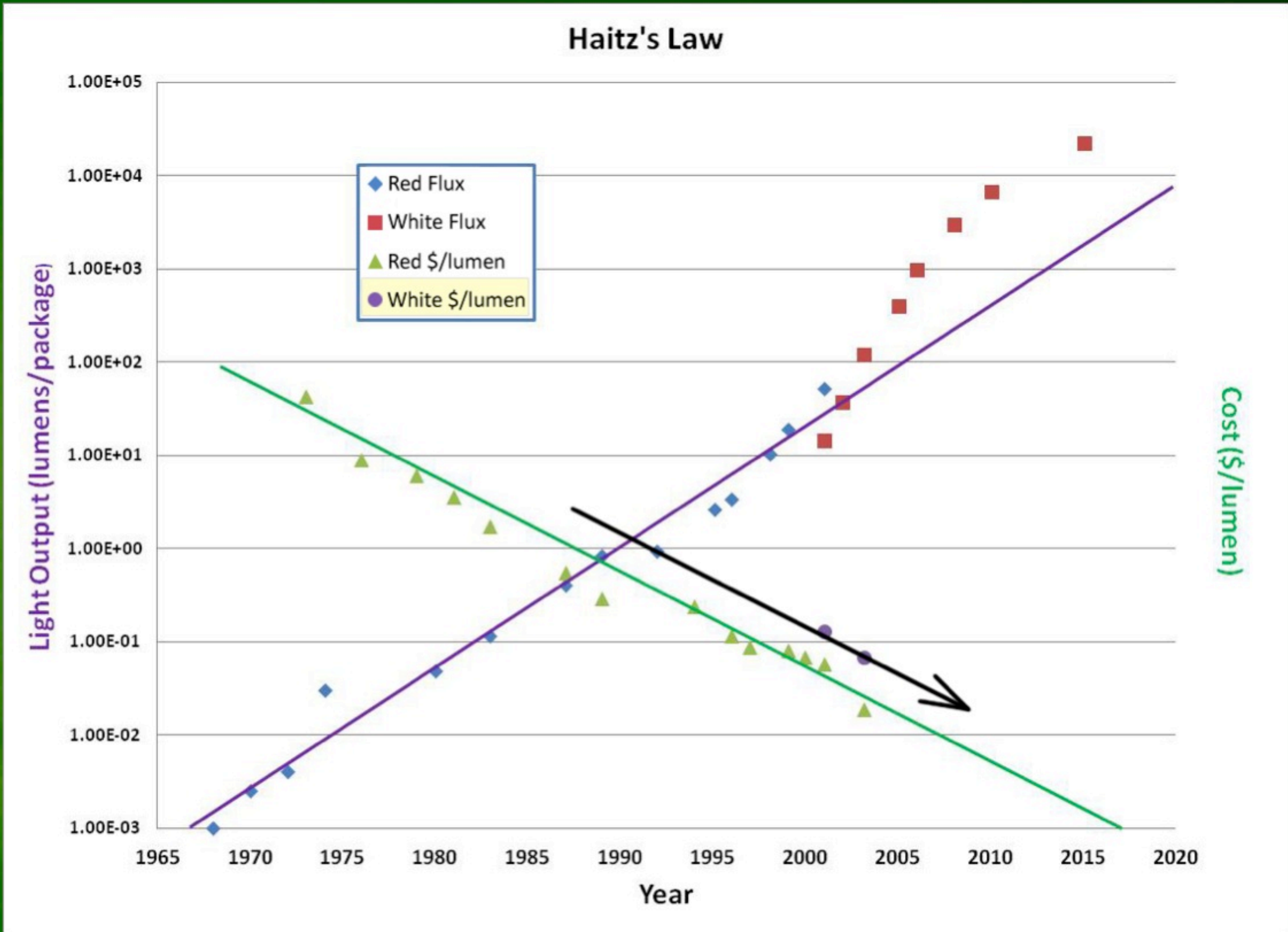


Cost Per Lumen

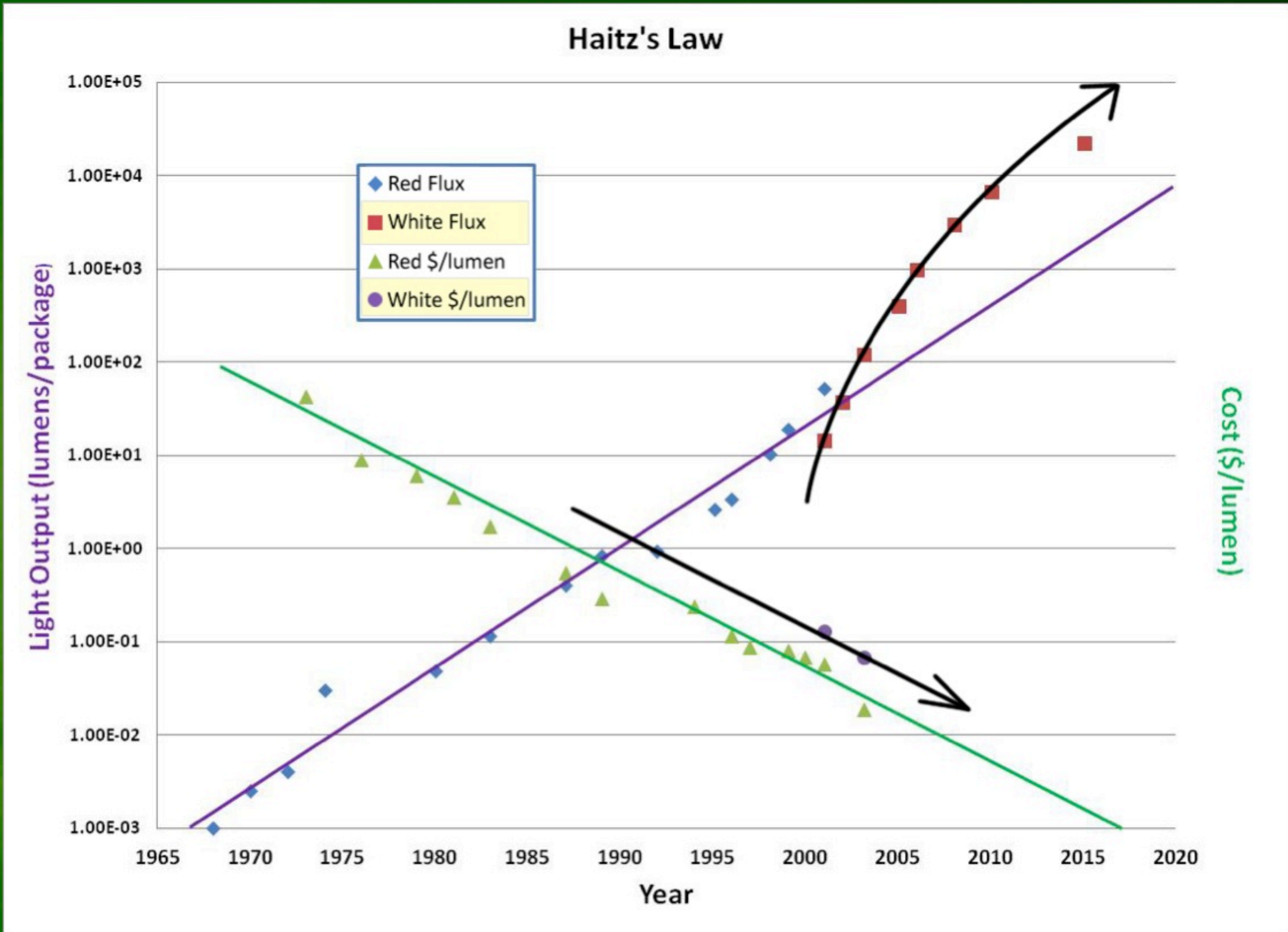
Haitz's Law



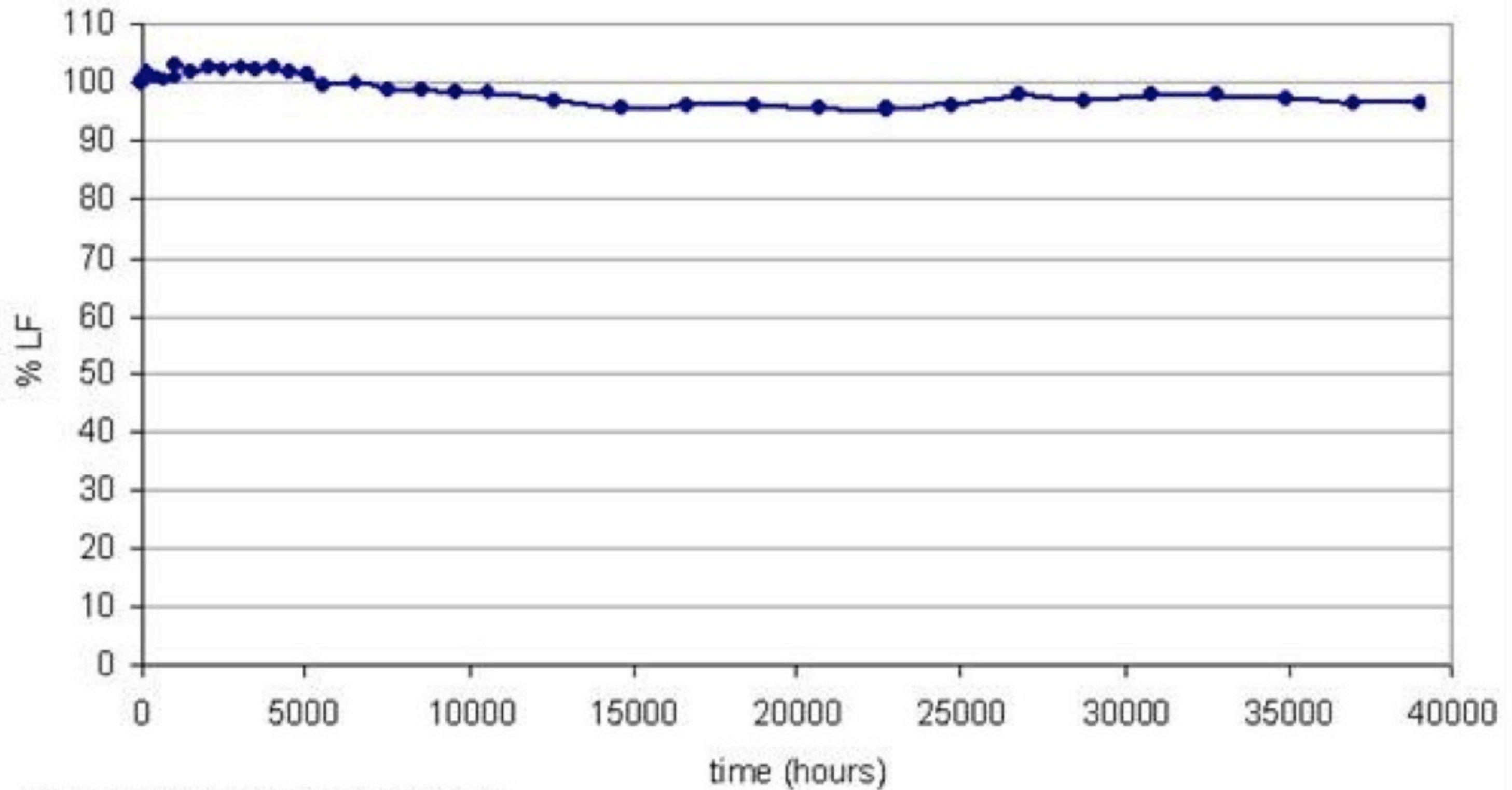
Cost Per Lumen



Cost Per Lumen



Cree White XLamp Long Term Lumen Maintenance
(Ambient Temperature = 25C, Junction Temperature = 65C)



study name: Derr03VTest#52#53RTOL

Lumen Maintenance Projection for White >3500°K LXML-PWx1 LUXEON Rebel under these conditions 85°C, 0.35A ($T_{\text{junction}} \cong 98^\circ\text{C}$) Normalized to 1 at 24 hours

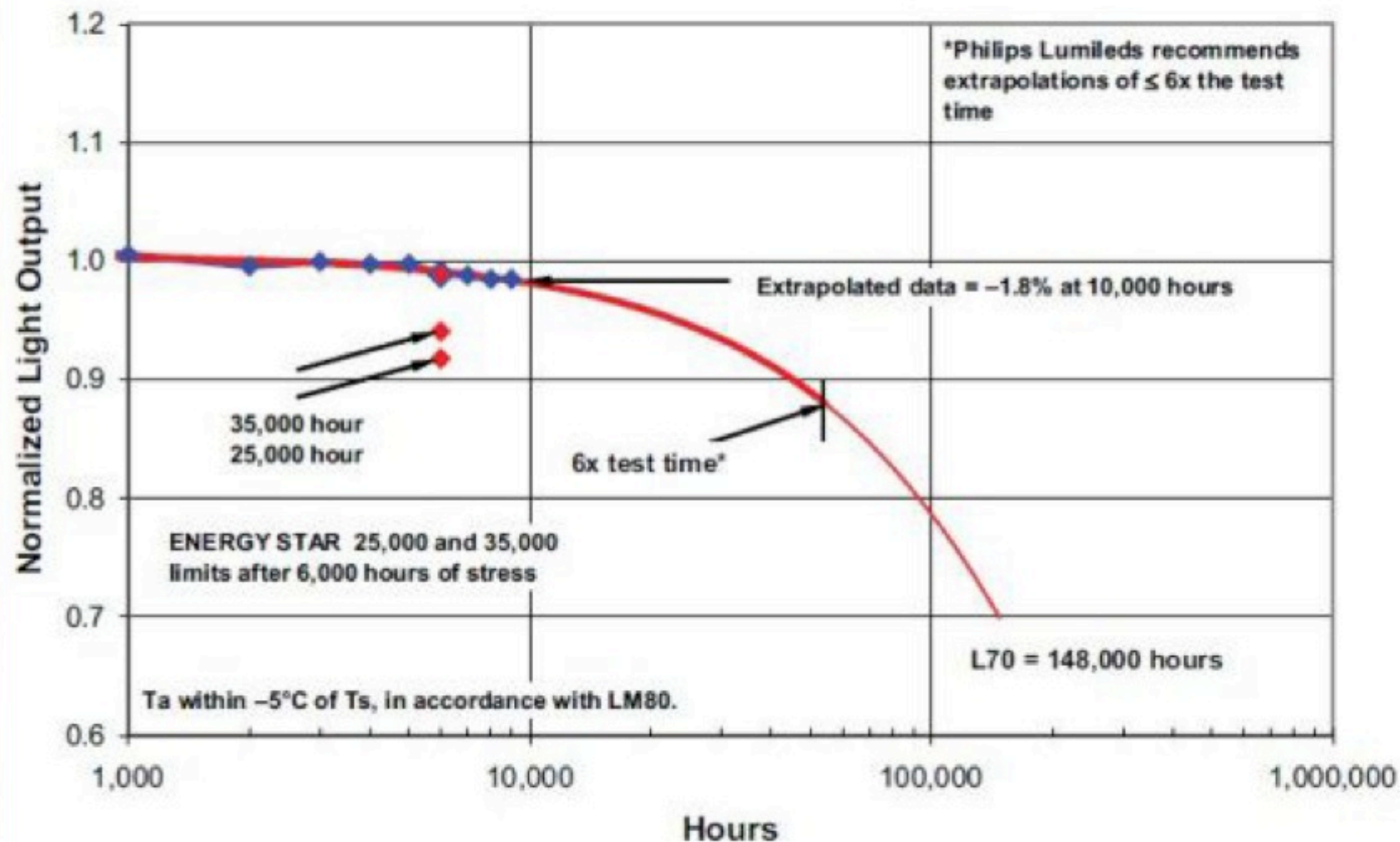


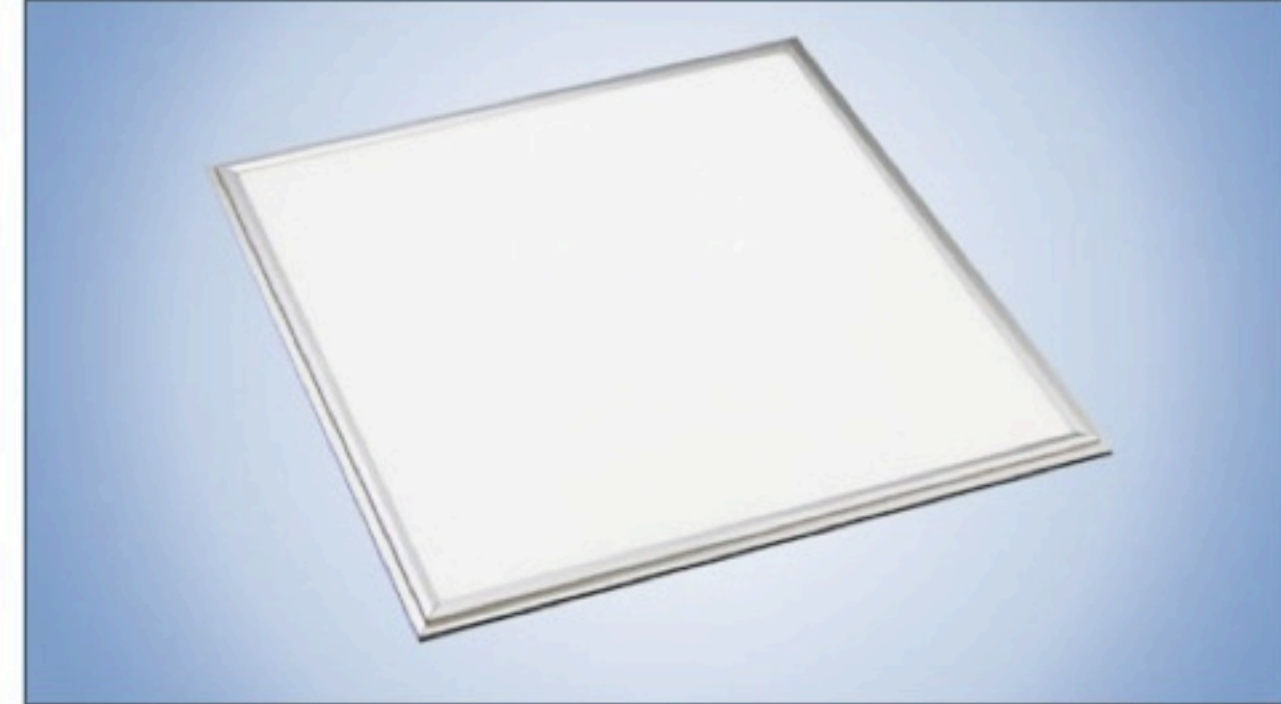
Figure 5. Long-term lumen maintenance data and L70 extrapolation.

From: *Lifetime Behavior of LED Systems White Paper WP15* 10/05/04

Edge Lit LED Troffers - 1x4, 2x2 & 2x4



EDGE LIT LED TROFFERS - 1X4, 2X2 & 2X4



MLFP14E4535	MLFP=Flat Panel/14=1x4 Size/E=Edge Lit/45=45 Watts/35=3500 Kelvin
MLFP14E4550	MLFP=Flat Panel/14=1x4 Size/E=Edge Lit/45=45 Watts/50=5000 Kelvin
MLFP22E4535	MLFP=Flat Panel/22=2x2 Size/E=Edge Lit/45=45 Watts/35=3500 Kelvin
MLFP22E4550	MLFP=Flat Panel/22=2x2 Size/E=Edge Lit/45=45 Watts/50=5000 Kelvin
MLFP24E5035	MLFP=Flat Panel/24=2x4 Size/E=Edge Lit/50=50 Watts/35=3500 Kelvin
MLFP24E5050	MLFP=Flat Panel/24=2x4 Size/E=Edge Lit/50=50 Watts/50=5000 Kelvin



Edge Lit LED Troffers - 1x4, 2x2 & 2x4

FEATURES & BENEFITS

Even light distribution

Translucent lens, crafted of white polycarbonate, enables even light distribution.

Installation depth of just 2.3 inches

Standard integrated driver enables installation depth of just 2.3 inches.

LM-80-rated chips ensure color uniformity

Constructed with LM-80-rated chips with high-ranked binning that ensures color uniformity and produces accurate color rendering, even light distribution and minimal glare.

Power factor of more than 98 percent

Operates on 120 to 277 volt systems with a power factor of more than 98 percent.

Dimming

Compatible with all 0-10V Ballast Dimmers.

Flat Panels can be linked

Up to 20 panels and a master panel can be linked to operate as a synced unit.

Cool operation

Provides cool operation without emitting radiation or heat, while also reducing HVAC maintenance costs.

Environmentally friendly

RoHS-compliant and constructed without any hazardous materials.

Body provides heat sink and thermal control capabilities

Driver housing, face frame, and back panel are aluminum and provide heat sink and thermal control capabilities.

50,000 hour life

50,000 hour life or more than 17 years operating 8 hours a day is based on L70 standards.

Power Linking/Circuit Breaker Limitations		
	Max # of	Max # of
Circuit Amps	2x2 (1.1AMP)	2x4(1.5Amp)
15	13	10
20	18	13
25	22	16
30	27	20

Edge Lit LED Troffers - 1x4, 2x2 & 2x4

SPECIFICATIONS

Model Number	MLFP14E4535	MLFP14E4550	MLFP22E4535
» Performance			
Input Wattage	45.0 W	45.0 W	45.0 W
Delivered Lumens (lms.)	3680.0 lms.	4050.0 lms.	3780.0 lms.
Efficacy (LM/W)	82.0 lms./w	90.0 lms./w	85.0 lms./w
Color Rendering Index (CRI)	82	82	82
Color Temperature (CCT)	3500 K	5000 K	3500 K
Equivalent Wattage	2 T8	2 T8	2 T8 plus
Min. Ambient Temp (°F)	-20 °F	-20 °F	-20 °F
Max. Ambient Temp (°F)	120 °F	120 °F	120 °F
» Dimming Control			
0-10V Dimming	Yes	Yes	Yes
Dimming compatible	Yes	Yes	Yes
Dali Dimming	No	No	No
DMX Dimming	No	No	No
Min. Dimming Level (%)	10%	10%	10%
» Longevity			
L70 Life (Hours)	50000 hours	50000 hours	50000 hours
Warranty (Years)	5 years	5 years	5 years
» Physical			
Product Height (Inches)	2.3 "	2.3 "	2.3 "
Product Width (Inches)	11.8 "	11.8 "	23.8 "
Product Depth (Inches)	47.8 "	47.8 "	23.8 "
Product Weight (lbs.)	8.0 lbs.	8.0 lbs.	7.6 lbs.
» Electrical			
Input Voltage Range (V)	100-277	100-277	100-277
OP. Frequency (Hz./kHz)	50/60	50/60	50/60
Power Factor	96	96	97
» Validations and Downloads			
.ies	Download		Download
Data Sheet	Download	Download	Download
ETLus	Yes	Yes	Yes
cETL	Yes	Yes	Yes
DesignLights™ Consortium	Yes	Yes	Yes
LM-79	Download		Download



Edge Lit LED Troffers - 1x4, 2x2 & 2x4

SPECIFICATIONS

Model Number	MLFP22E4550	MLFP24E5035	MLFP24E5050
» Performance			
Input Wattage	45.0 W	50.0 W	50.0 W
Delivered Lumens (lms.)	4060.0 lms.	4670.0 lms.	5235.0 lms.
Efficacy (LM/W)	90.0 lms./w	92.0 lms./w	104.0 lms./w
Color Rendering Index (CRI)	82	82	82
Color Temperature (CCT)	5000 K	3500 K	5000 K
Equivalent Wattage			
Min. Ambient Temp (°F)	-20 °F	-20 °F	-20 °F
Max. Ambient Temp (°F)	120 °F	120 °F	120 °F
» Dimming Control			
0-10V Dimming	Yes	Yes	Yes
Dimming compatible	Yes	Yes	Yes
Dali Dimming	No	No	No
DMX Dimming	No	No	No
Min. Dimming Level (%)	10%	10%	10%
» Longevity			
L70 Life (Hours)	50000 hours	50000 hours	50000 hours
Warranty (Years)	5 years	5 years	5 years
» Physical			
Product Height (Inches)	2.3 "	2.3 "	2.3 "
Product Width (Inches)	23.8 "	23.8 "	23.8 "
Product Depth (Inches)	23.8 "	47.8 "	47.8 "
Product Weight (lbs.)	7.6 lbs.	13.3 lbs.	13.0 lbs.
» Electrical			
Input Voltage Range (V)	100-277	100-277	100-277
OP. Frequency (Hz./kHz)	50/60	50/60	50/60
Power Factor	97	97	97
» Validations and Downloads			
.ies	N/A	Download	N/A
Data Sheet	Download	Download	Download
ETLus	Yes	Yes	Yes
cETL	Yes	Yes	Yes
DesignLights™ Consortium	Yes	Yes	Yes
LM-79	N/A	Download	N/A



Edge Lit LED Troffers - 1x4, 2x2 & 2x4

ACCESSORIES



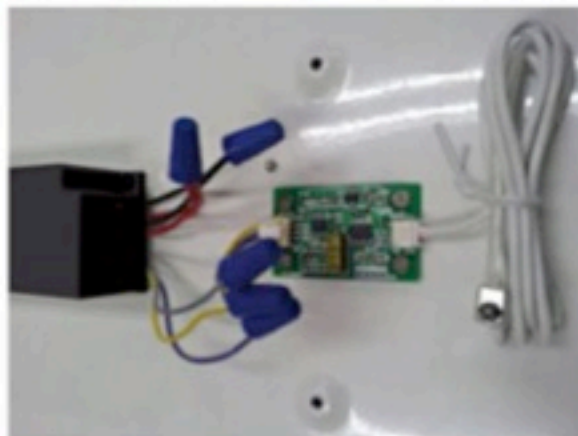
TROFFER-REMOTE

Wireless Remote Control
Order code: 70590



MLFPRWP

Wireless remote wall mount
Order code: 70691



MLFPIRK

Remote Control Kit
Order code: 71583



Surface Mount Kit

Surface Mount Kit for Edge Lit LED Troffers

For 1x4:

MLSMKFP14E

For 2x2:

MLSMKFP22E

For 2x4:

MLSMKFP24E

Direct Lit LED Troffers - 1x4, 2x2 & 2x4



DIRECT LIT LED TROFFERS - 1X4, 2X2 & 2X4



MLFP14DP4535	MLFP=Flat Panel/14=1'x4' Size/DP=Direct Performance/ 45=Wattage/35=3500 Kelvin
MLFP14DP4541	MLFP=Flat Panel/14=1'x4' Size/DP=Direct Performance/45=Wattage/41=4100 Kelvin
MLFP14DP4550	MLFP=Flat Panel/14=1'x4' Size/DP=Direct Performance/45=Wattage/50=5000 Kelvin
MLFP22DP4535	MLFP=Flat Panel/22=2'x2' Size/DP=Direct Performance/45=Wattage/35=3500 Kelvin
MLFP22DP4550	MLFP=Flat Panel/22=2'x2' Size/DP=Direct Performance/45=Wattage/50=5000 Kelvin
MLFP24DP6035	MLFP=Flat Panel/24=2'x4' Size/DP=Direct Performance/60=Wattage/35=3500 Kelvin
MLFP24DP6041	MLFP=Flat Panel/24=2'x4' Size/DP=Direct Performance/60=Wattage/41=4100 Kelvin
MLFP24DP6050	MLFP=Flat Panel/24=2'x4' Size/DP=Direct Performance/60=Wattage/50=5000 Kelvin



Direct Lit LED Troffers - 1x4, 2x2 & 2x4

FEATURES & BENEFITS

Environmentally friendly

Fixture is RoHS compliant and constructed without any hazardous materials.

Cool operation

Design provides a cooler operation that reduces HVAC costs, without emitting radiation or heat.

Control

Up to 20 troffers and a master troffer can be linked to operate as a synced unit.

Dimming

Compatible with all 0-10V Ballast Dimmers.

Color uniformity

Ensures color uniformity and produces accurate color rendering, even light distribution and minimal glare.

50,000 hour life

50,000 hour life is more than 17 years operating 8 hours a day, is based on L70 standards.

Installation depth of just 4"

Standard discreet driver, in enclosed junction box, enables installation depth of up to 4" inches.

Power factor of up to 98 percent

Operates on 120- to 277-volt systems with a power factor of up to 98 percent.

DLC-approved and rebatable models available

2'x2' & 2'x4' Direct Lit LED Troffers are DesignLights™ Consortium approved and included on its Qualified Products List, as well as compatible with utility rebate programs. **The 1'x4' Direct Lit LED Troffer is currently in the process of getting DLC listed.**

Power Linking/Circuit Breaker Limitations

	Max # of	Max # of
Circuit Amps	2x2 (1.1AMP)	2x4(1.5Amp)
15	13	10
20	18	13
25	22	16
30	27	20

Direct Lit LED Troffers - 1x4, 2x2 & 2x4

SPECIFICATIONS



Model Number	MLFP14DP4535	MLFP14DP4541	MLFP14DP4550	MLFP22DP4535
» Performance				
Input Wattage	45.0 W	45.0 W	45.0 W	45.0 W
Delivered Lumens (lms.)	3680.0 lms.	3670.0 lms.	3670.0 lms.	3850.0 lms.
Efficacy (LM/W)	81.0 lms./w	81.0 lms./w	81.0 lms./w	82.0 lms./w
Color Rendering Index (CRI)	84	84	85	83
Color Temperature (CCT)	3500 K	4100 K	5000 K	3500 K
Equivalent Wattage	2 T8	2 T8	2 T8	2 T8 U-Bend plus
Beam Angle	110 °	110 °	110 °	110 °
Min. Ambient Temp (°F)	-4 °F	-4 °F	-4 °F	-4 °F
Max. Ambient Temp (°F)	104 °F	104 °F	104 °F	104 °F
» Dimming Control				
0-10V Dimming	Yes	Yes	Yes	Yes
Dimming compatible	Yes	Yes	Yes	Yes
Dali Dimming	No	No	No	No
DMX Dimming	No	No	No	No
Min. Dimming Level (%)	10%	10%	10%	10%
» Longevity				
L70 Life (Hours)	50000 hours	50000 hours	50000 hours	50000 hours
Warranty (Years)	5 years	5 years	5 years	5 years
» Physical				
Product Height (Inches)	4.0 "	4.0 "	4.0 "	4.0 "
Product Width (Inches)	11.8 "	11.8 "	11.8 "	23.8 "
Product Depth (Inches)	47.8 "	47.8 "	47.8 "	23.8 "
Product Weight (lbs.)	8.0 lbs.	8.0 lbs.	8.0 lbs.	9.3 lbs.
» Electrical				
Input Voltage Range (V)	100-277V	100-277V	120-277	120-277
OP. Frequency (Hz./kHz)	50/60	50/60	50/60	50/60
Power Factor	0.99	0.99	0.99	0.99
» Validations and Downloads				
.ies	Download	Download	Download	Download
Data Sheet	Download	Download	Download	Download
ETLus	Yes	Yes	Yes	Yes
cETL	Yes	Yes	Yes	Yes
DesignLights™ Consortium	In Progress	In Progress	In Progress	Yes
LM-79	Download	Download	Download	Download
Owner Manual	Download	Download	Download	Download

Direct Lit LED Troffers - 1x4, 2x2 & 2x4

SPECIFICATIONS



Model Number	MLFP22DP4550	MLFP24DP6035	MLFP24DP6041	MLFP24DP6050
» Performance				
Input Wattage	45.0 W	60.0 W	60.0 W	60.0 W
Delivered Lumens (lms.)	3875.0 lms.	5107.0 lms.	5145.0 lms.	5204.0 lms.
Efficacy (LM/W)	82.0 lms./w	86.0 lms./w	85.0 lms./w	88.0 lms./w
Color Rendering Index (CRI)	85	82	84	83
Color Temperature (CCT)	5000 K	3500 K	4100 K	5000 K
Equivalent Wattage	2 T8 U-Bend plus	3 T8	3 T8	3 T8
Beam Angle	110 °	110 °	110 °	110 °
Min. Ambient Temp (°F)	-4 °F	-4 °F	-4 °F	-4 °F
Max. Ambient Temp (°F)	104 °F	104 °F	104 °F	104 °F
» Dimming Control				
0-10V Dimming	Yes	Yes	Yes	Yes
Dimming compatible	Yes	Yes	Yes	Yes
Dali Dimming	No	No	No	No
DMX Dimming	No	No	No	No
Min. Dimming Level (%)	10%	10%	10%	10%
» Longevity				
L70 Life (Hours)	50000 hours	50000 hours	50000 hours	50000 hours
Warranty (Years)	5 years	5 years	5 years	5 years
» Physical				
Product Height (Inches)	4.0"	4.0 "	4.0 "	4.0 "
Product Width (Inches)	23.8 "	23.8 "	23.8 "	23.8 "
Product Depth (Inches)	23.8 "	47.8 "	47.8 "	47.8 "
Product Weight (lbs.)	9.3 lbs.	15.0 lbs.	15.0 lbs.	15.0 lbs.
» Electrical				
Input Voltage Range (V)	120-277	120-277	120-277	120-277
OP. Frequency (Hz./kHz)	50/60	50/60	50/60	50/60
Power Factor	0.99	0.99	0.99	0.99
» Validations and Downloads				
.ies	Download	Download	Download	Download
Data Sheet	Download	Download	Download	Download
ETLus	Yes	Yes	Yes	Yes
ETL	Yes	Yes	Yes	Yes
DesignLights™ Consortium	Yes	Yes	Yes	Yes
LM-79	Download	Download	Download	Download
Owner Manual	Download	Download	Download	Download

Direct Lit LED Troffers - 1x4, 2x2 & 2x4



ACCESSORIES



TROFFER-REMOTE
Wireless Remote Control
Order code: 70590

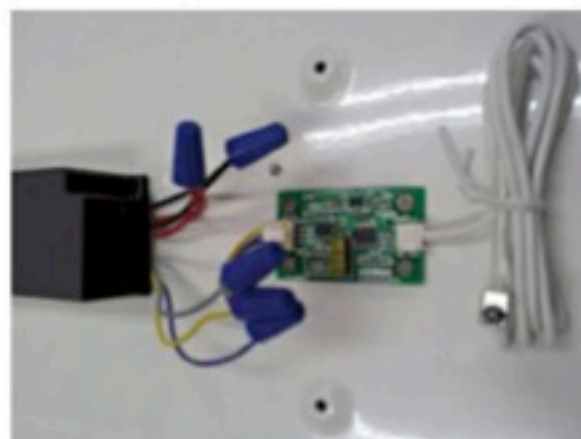


MLFPRWP
Wireless remote wall mount
Order code: 70691



Surface Mount Kit
Surface Mount Kit for Direct Lit LED Troffers

For 1x4:
MLSMKFP14D Order code: 71372
For 2x2:
MLSMKFP22D Order code: 71373
For 2x4:
MLSMKFP24D Order code: 71663



MLFPIRK
Remote Control Kit
Order code: 71583



Emergency Battery Backup models
provide 30 percent illumination for up to 90 minutes after a power failure

RKT Recess Troffer

MaxLite RKT Recess Troffer

Retrofit Kits



MaxLite's Recess Troffer Retrofit Kits offer an economical alternative to upgrading to long lasting LED lighting, while not invading ceiling space or replacing existing fixture bodies. The RKT Series fits most commercially made fluorescent troffer bodies with multiple voltage, wattage and output versions.

FEATURES:

- One piece panels for easy handling and pre-aligned LED arrays
- Pre-punched holes for easy fastener insertion
- Routed harnesses with Molex® connectors
- Screw fasteners allow for possible upgrades, and easy repair if needed
- Uses thermal dot technology for easy warranty control
- Multiple voltages, wattages and CCTs available
- 0-10 volt dimming available
- LM-80 qualified LEDs
- 100-277V input
- CRI: >82

CONSTRUCTION:

- Galvanized and painted 22 Ga. body for maximum life and reflectance
- Insulated LED board mounting clips
- Insulated mounting grommets
- Integrated tunnel cover houses driver
- VHB adhesive holds LED strips in contact with body for thermal efficiency
- 'S' hook for temporary hanging in installation

PROJECT NAME
CATALOG NUMBER
NOTES
FIXTURE TYPE



Part No.	Part Description	Quantity	Notes
100-277V	100-277V LED Board	1	
100-277V	100-277V LED Board	1	
100-277V	100-277V LED Board	1	
100-277V	100-277V LED Board	1	
100-277V	100-277V LED Board	1	
100-277V	100-277V LED Board	1	
100-277V	100-277V LED Board	1	
100-277V	100-277V LED Board	1	
100-277V	100-277V LED Board	1	
100-277V	100-277V LED Board	1	



MaxLite®: 1-800-555-5629 | Fax: 973-244-7333 | Web: www.maxlite.com | E-mail: info@maxlite.com | Revised: 10-09-12

MaxLite RKT Recess Troffer

Retrofit Kits



ORDERING INFORMATION:

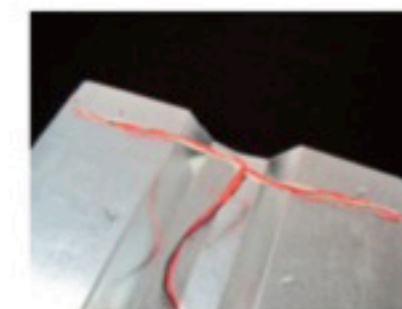
Part No.	Part Description	Quantity	Notes
100-277V	100-277V LED Board	1	
100-277V	100-277V LED Board	1	
100-277V	100-277V LED Board	1	
100-277V	100-277V LED Board	1	
100-277V	100-277V LED Board	1	
100-277V	100-277V LED Board	1	
100-277V	100-277V LED Board	1	
100-277V	100-277V LED Board	1	
100-277V	100-277V LED Board	1	
100-277V	100-277V LED Board	1	



Screws instead of rivets allow easy upgrade or replacement



Multiple hold down clips ensure thermal contact and easy upgrade



Detailed wiring harnesses with Molex® connectors facilitate quick installation

Installation instructions available online: specifications are subject to change without notice

MaxLite®: 1-800-555-5629 | Fax: 973-244-7333 | Web: www.maxlite.com | E-mail: info@maxlite.com | Revised: 10-09-12



RKL-Retrofit Kit Strips

RKL-Retrofit Kit Strips



The RKL Retrofit Kit Strips are an economy level LED troffer retrofit for both 2'x4' and 2'x2' recess troffer that is easily field installed using simple hand tools with minimum modification to the existing housings.

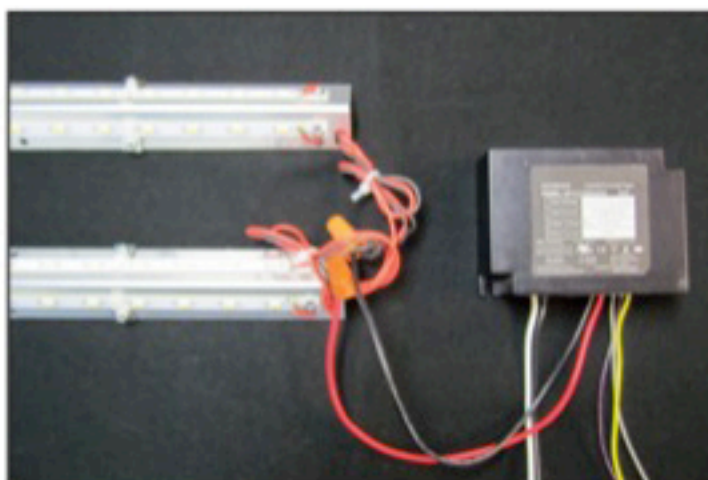
FEATURES:

- Twin aluminum carrier angles for added heat sinking and optic diffusion
- 120-277 volt Class 2 UL driver included
- 45 deg. optic angle of each strip for beam spread
- 4 LED FR4 light strips for 2'x2'
- 8 LED FR4 light strips for 2'x4'
- 0-10 volt dimming standard
- All components are discrete parts allowing for sustainable repair and upgrade cycles
- 50,000 hour life at L70 standards

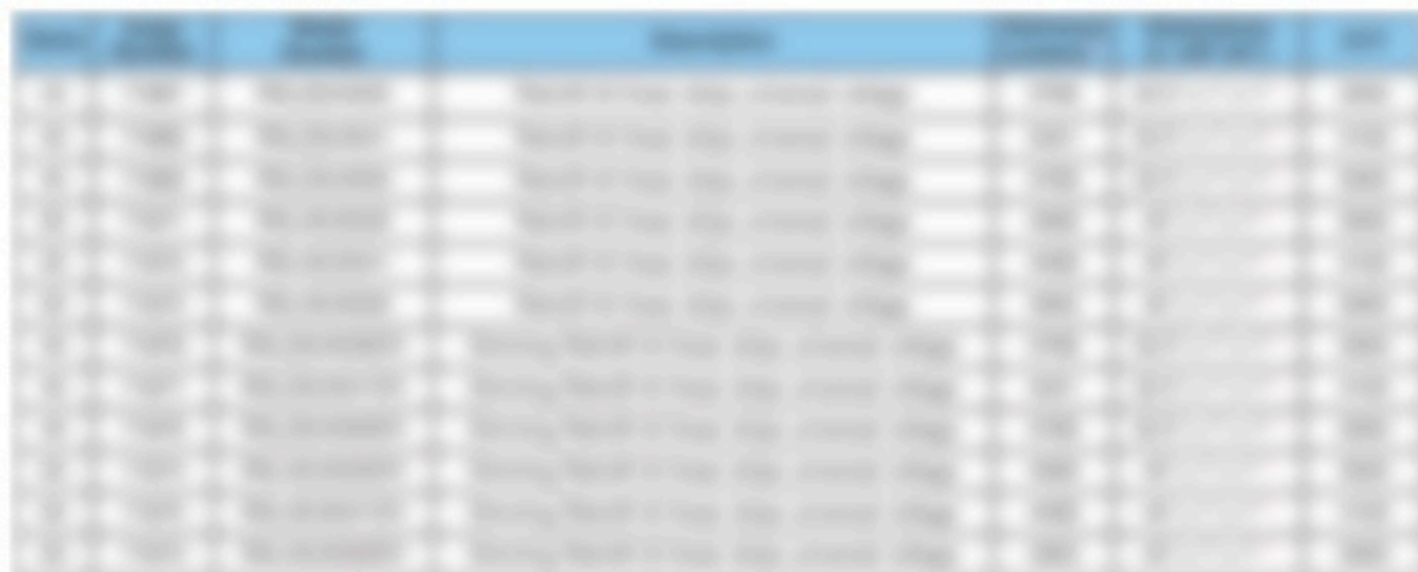
CONSTRUCTION:

- 1 x 1 x .06 aluminum angle carriers
- Sealed driver
- Completed wiring harness with Tyco quick-connection plugs
- LED strips screwed to carrier angle for field replacement, if needed
- < 3 lbs. for easy handling over head

PROJECT NAME	
CATALOG NUMBER	
NOTES	
FIXTURE TYPE	ROOM SCHEDULE



MaxLite Retrofit Kit Strips are warranted for a full 5 years when installed in 78°C* or lower dry listed environments. Using MaxLite thermal dots at critical Tc points of the driver and the strips, all use can be confirmed as inside recommended thermal limits. *Operation above 78°C can reduce L70 life claims



Specifications are subject to change without notice

*Per strip size only, driver average 4" x 3" x 1.25"

**Delivered lumens as used in standard troffer with prismatic acrylic diffuser

MaxLite®: 1-800-555-5629 | Fax: 973-244-7333 | Web: www.maxlite.com | E-mail: info@maxlite.com

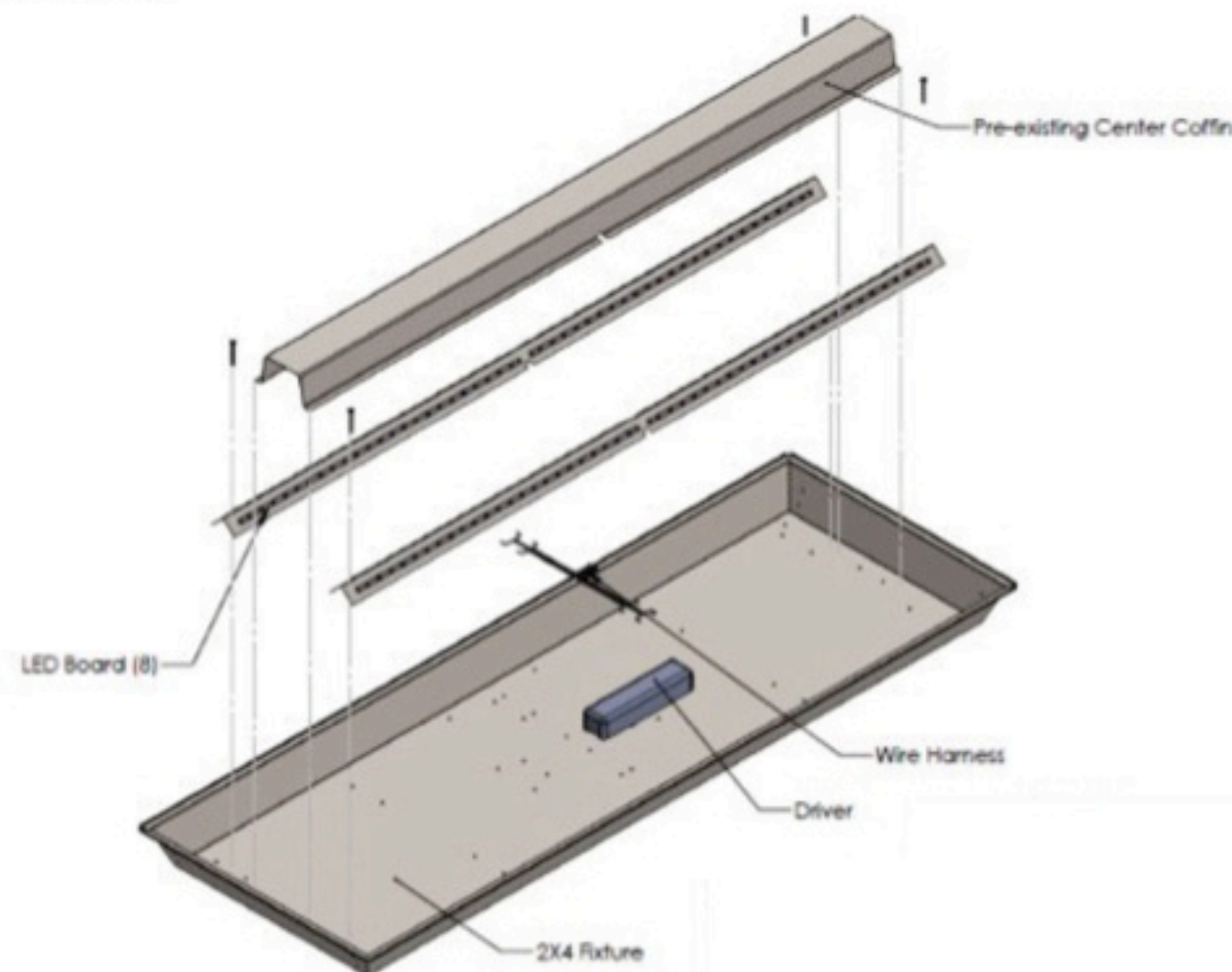


Revised: 10-09-12

RKL-Retrofit Kit Strips



ASSEMBLY:



Light Engine being placed into 2'x4' fixture (2'x2' similar using one of two pcs.)

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Revised: 10-09-12



MRI LED TROFFERS



MRI LED TROFFERS



MLFP14E6035MR	MLFP=Flat Panel/14=1'x4' Size/Edge/60=Wattage/35=3500K/MR=MRI
MLFP14E6050MR	MLFP=Flat Panel/14=1'x4' Size/Edge/60=Wattage/50=5000K/MR=MRI
MLFP22E6050MR	MLFP=Flat Panel/22=2'x2' Size/Edge/60=Wattage/50=5000K/MR=MRI



“SMALL OUTDOOR COMMERCIAL LED FIXTURES”

Small Fixtures with Big energy savings!

December 20, 2012 @ 12pm EST

MaxLite Webinars

MaxLite has been hosting free webinars once per month on a variety of topics since 2010. A lot of great content has been presented, here's how to find it:

- To browse previous MaxLite Webinars, visit: <http://www.maxlite.com/webinar>
- Check/Subscribe to our YouTube channel

Class Is In Session! 24/7

- Visit the MaxLite Lighting & Technology University at: <http://university.maxlite.com> to learn about all of MaxLite's products and gain access to many other lighting resources!



Thanks For Attending!

QUESTIONS & ANSWERS:

Thank you everyone for your attention.

This webinar session will be left open for the next 10 minutes to allow time for questions. We will answer as many questions as we have time for right now, but ALL questions will be answered via e-mail within the next 24 hours.

Thanks again for attending, and we hope to speak to you again, soon!

FOR MORE INFORMATION ABOUT OTHER MAXLITE PRODUCTS; OR FOR LIGHTING QUESTIONS IN GENERAL; PLEASE CONTACT:

info@maxlite.com

www.maxlite.com

1-800-555-5629

Or contact your MaxLite Representative or MaxLite's Regional Sales Manager.