

WELCOME

SHORTER

ROI ON YOUR

LED PROJECTS!

**“IT CAN MAKE THE DIFFERENCE
BETWEEN GETTING THE
JOB, OR NOT!”**

Presenter: Greg Murphy - MaxLite Product & Marketing Manager

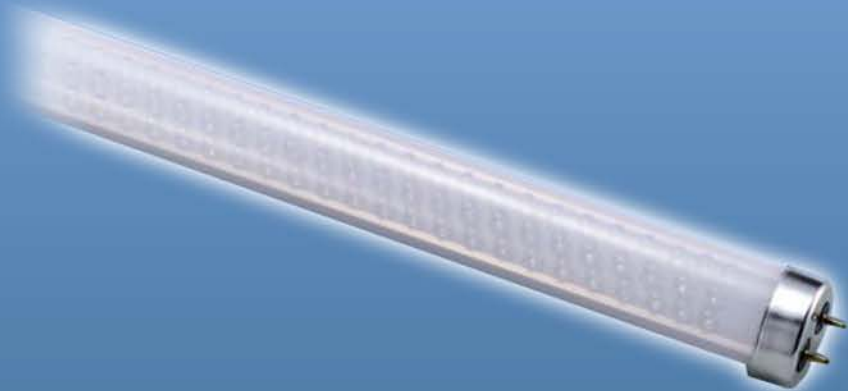


WHAT ARE WE DOING NOW!

Taking out fluorescent
T8s and putting in
linear LED T8s



Fluorescent T8 Tube



LED T8 Tube



IT'S EASY TO GET INTEREST BECAUSE OF:

LED MANIA

Everyone is buzzing
about LEDs

MERCURY HYSTERIA

Unfounded but real.

So the sales opportunity is there...
BUT the ROI is so long we are missing
out on the sale.



THE ROI ON SWAP-OUT IS DISAPPOINTING:

- Large Corporations
- Municipalities
- School Boards
- Utility Projects







Anyone investing in major capital expenditures requires a ROI within a short period.



THE MYTH OF LEDs NOT BEING READY SHOULD BE DISPELLED

LUMINAIRE SCHEDULE

Symbol	Label	Qty	Catalog Number	Description	Lamp	Lumens	LLF	Watts
	A	3	MLFP2x2	MaxLite LED Flat Panel, 2ft x 2ft, 120 to 277V, 60 Watts, 3150 lm, 3000 or 5000K	MaxLite LED Architect 2x2 Flat Panel	3150	1.00	60
	B	3	2AV G 3 17 SBL 1/3	2x2; 3 lamp T8 17 watt	Three 17-Watt T8 Linear Fluorescent	1325	1.00	47
	C	2	MLFP2x4	MaxLite LED Flat Panel, 2ft x 4ft, 120 to 277V, 90 Watts, 5000 lm, 3000 or 5000K	MaxLite LED Architect 2x4 Flat Panel	5000	1.00	90
	D	2	2AV G 3 32 MDR ASR	2x4; 3 lamp T8 32 watt. Aluminum Stepped Reflector	Three 32-Watt T8 Linear Fluorescent	2850	1.00	88

STATISTICS

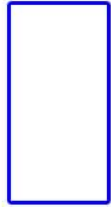
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Fluorescent 2x2	+	55.0 fc	65.0 fc	40.0 fc	1.6:1	1.4:1
Fluorescent 2x4	+	48.7 fc	64.3 fc	33.7 fc	1.9:1	1.4:1
LED 2x2	+	63.9 fc	74.5 fc	46.6 fc	1.6:1	1.4:1
LED 2x4	+	70.0 fc	90.9 fc	50.0 fc	1.8:1	1.4:1

All rooms are 15 ft (length) by 12 ft (width) by 9 ft (height) and have reflectances of 80% on all surfaces.

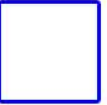


LED TO FLUORESCENT COMPARISON

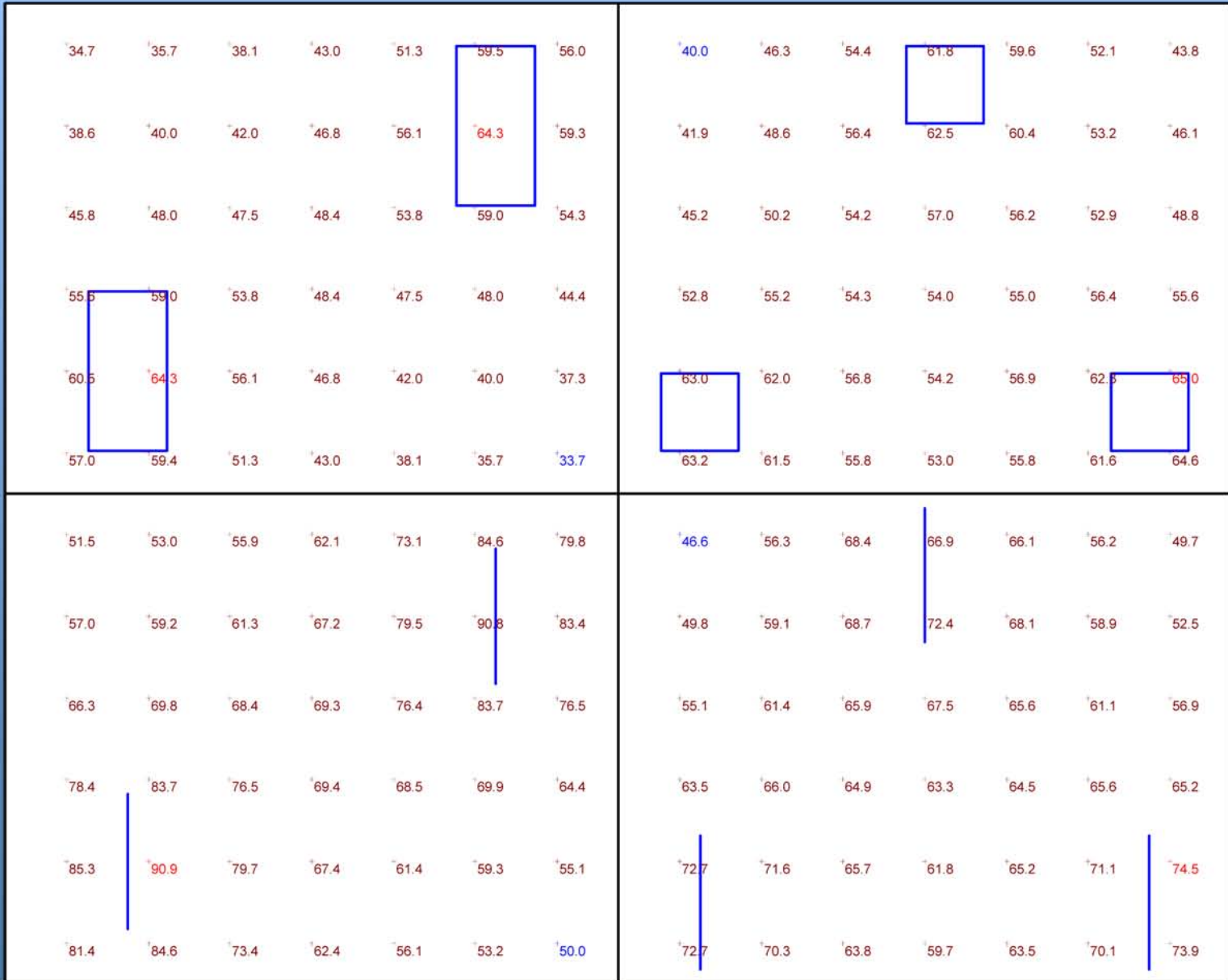
KEY:



**2x4
Fluorescent
32W T8**



**2x2
Fluorescent
17W T8**



**2x4 90W
Flat Panel**

**2x2 60W
Flat Panel**



THE SOLUTION IS: CONTROLS **WITH** CONTROLLABLE LED's

- Building Automation
- Dimming
- Daylight Harvesting
- Shade Controls
- Occupancy Sensors



THE SECRET IS; NOT ALL LED PRODUCTS ARE COMPATIBLE WITH CONTROLS!

Building Automation

Requires Master/Slave arrangement and compatibility with automation protocols.

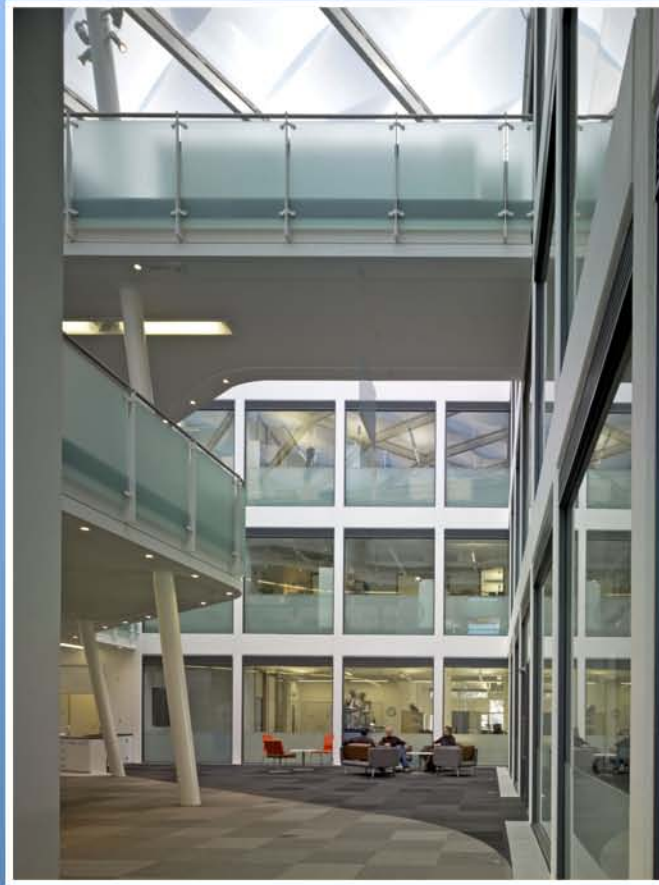
Dimming

In some simple dimming processes, efficacy is lost as the voltage is cut.

100W = 1000 Lumens / 50W should = 500 Lumens



DAYLIGHT HARVESTING:

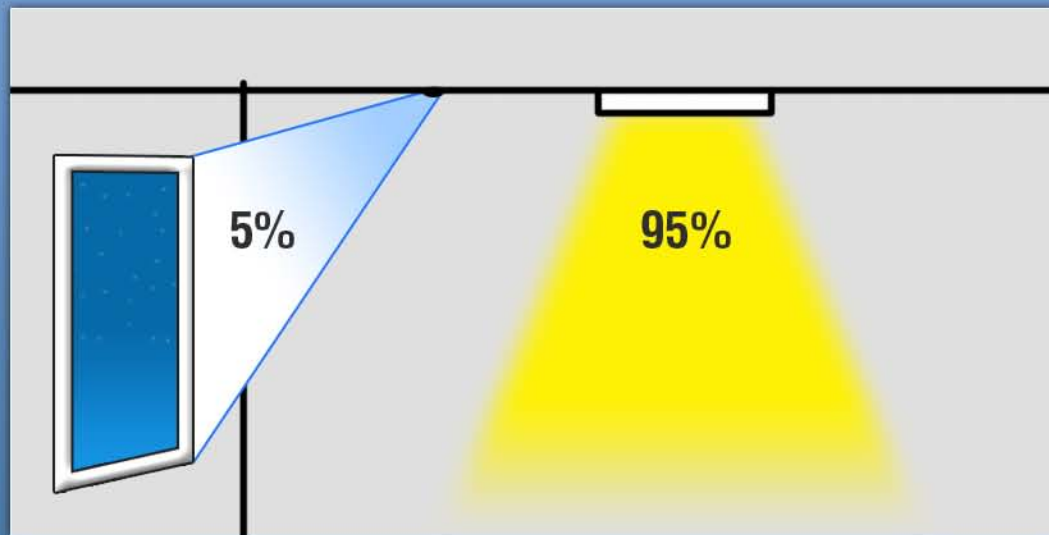
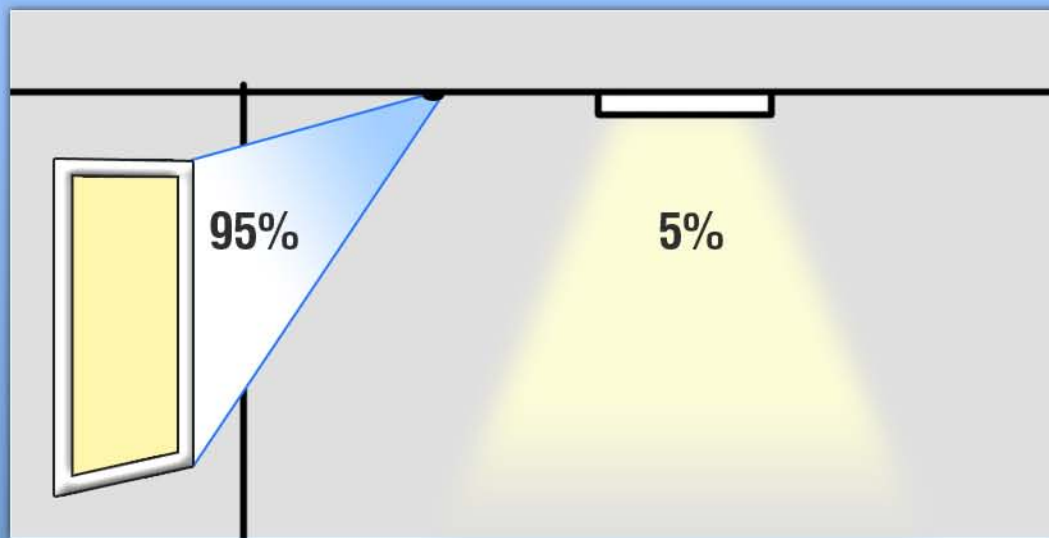


Using daylight to supplement light levels.
So the required light level is maintained, but
the amount of LED light (power) is reduced.



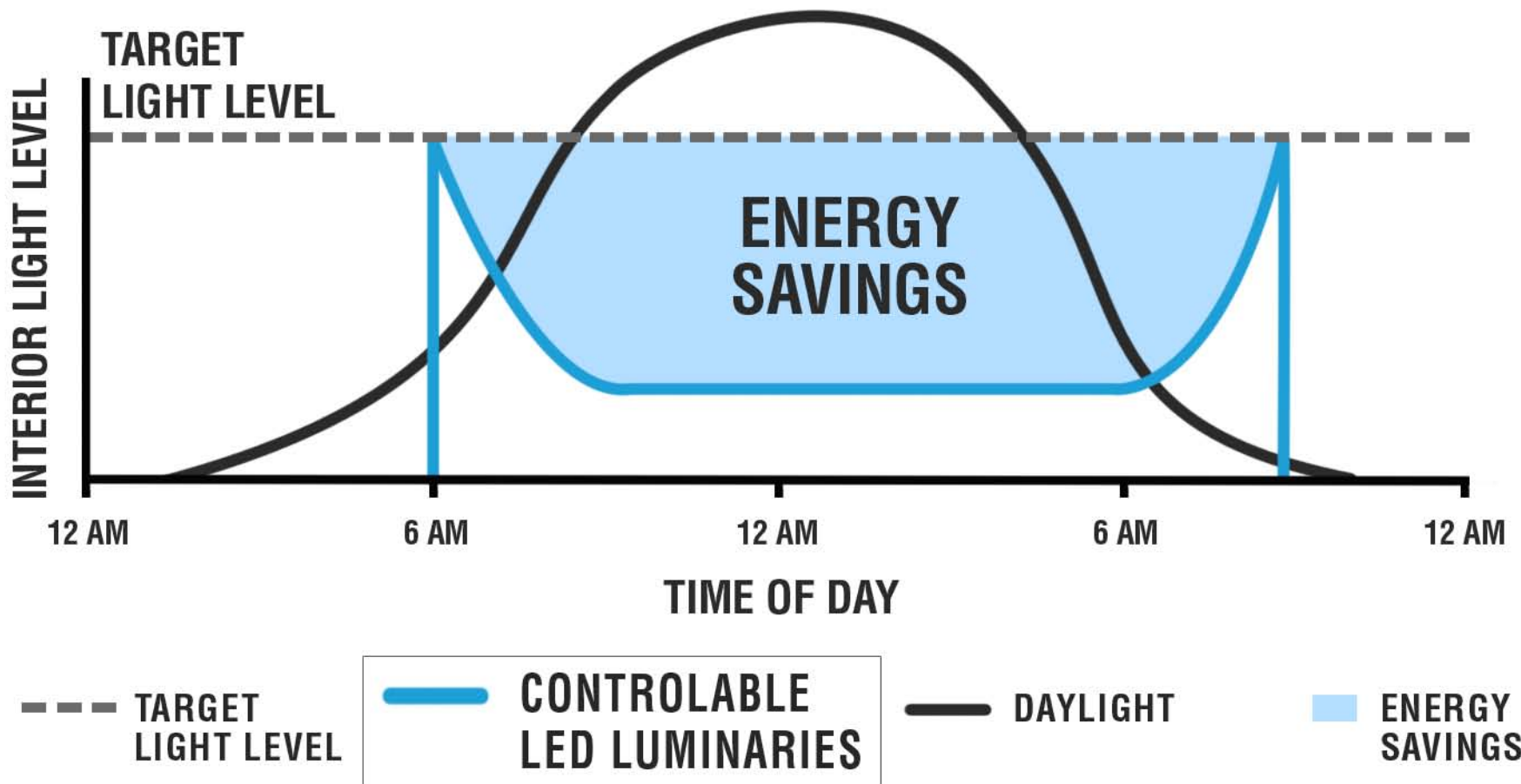
DAYLIGHT HARVESTING:

DAYLIGHT ADDED TO INTERIOR LIGHTING TO REACH DESIRED LIGHT LEVEL



ENERGY SAVING:

DAYLIGHT ADDED TO INTERIOR LED LIGHTING TO REACH DESIRED LIGHT LEVELS



SHADE CONTROL:



LED Lighting coupled with daylight harvesting to control light levels. Can be tied into HVAC shade controls.



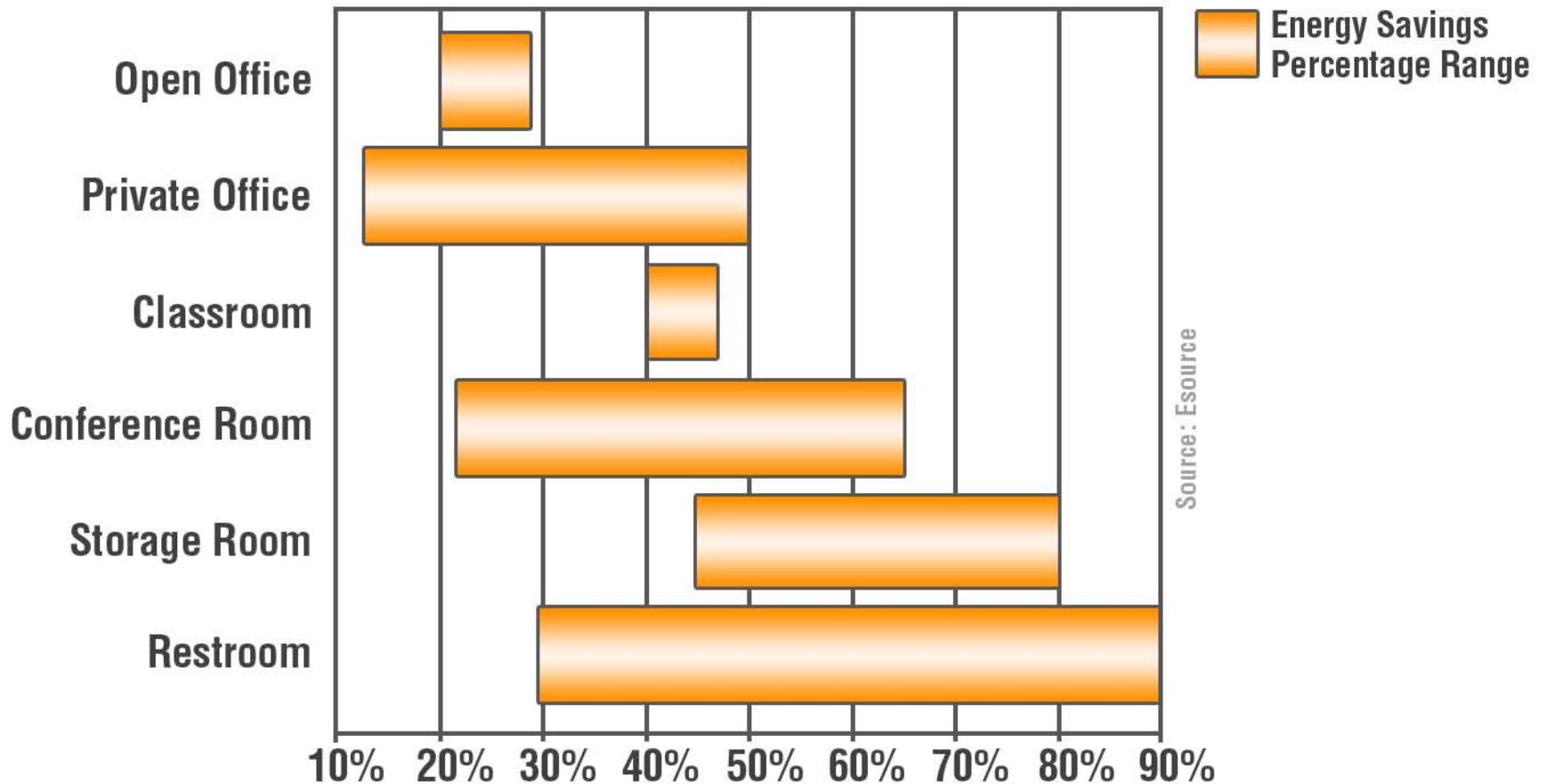
OCCUPANCY SENSORS:



LED lighting should be switching on in front of you and turning off behind you. One of the most effective features of controllable lighting.



Potential Energy Savings Using Occupancy Sensors



LOOK FOR THESE FEATURES:



1.) Dimmability compatible with common protocols (Not built in.)

2.) CALiPER tested.

3.) Compatible with a full range of control devices

4.) Fixture to fixture communication.

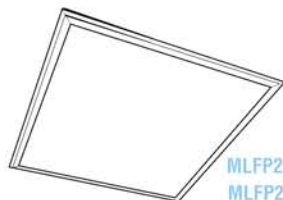
5.) Master / Slave capability.

6.) IES and Photometric files available.

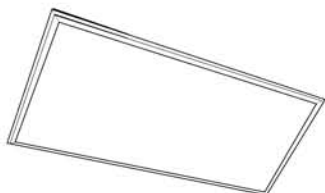


COMMERCIAL FIXTURES AND LAMPS SPECIFICATIONS

2x2 & 2x4 Architect LED Flat Panels



MLFP2X235
MLFP2X250



MLFP2X435
MLFP2X450



For more information on MaxLite products, visit:
www.MaxLite.com. Click on "PRODUCT LINE"

FOR ORDERING:

Tel: 1-800-555-5629
Fax: 973-244-7333
E-mail: info@maxlite.com

MaxLite
80 Little Falls Road
Fairfield, NJ
07004

PRODUCT FEATURES:

- Remote Control / Fully dimmable
- 50,000 Hour Life – Based on 30% lumen depreciation
- Self Driven – No additional drivers required
- Unique mounting gives flush fit in drop ceilings
- Slim profile enables installation in low depth cavities
- Mercury Free



MAXLITE 12018

SPECIAL FOCUS AWARDS



Special Focus for Light Distribution

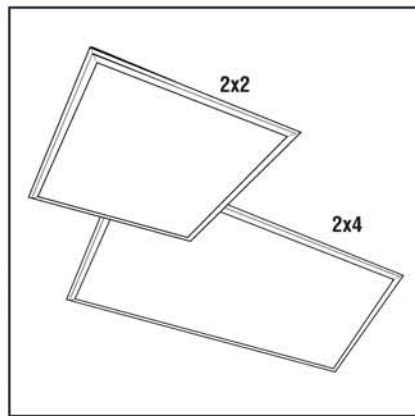
Architect LED Flat Panel MANUFACTURER: MAXLITE

A high performance dimmable LED flat panel for installation in grid ceilings; typically used to replace 2x2 and 2x4 fluorescent fixtures. The profile is only 3 inches deep including the junction box, so the fixture is perfect for low depth ceiling cavities. The housing and back panel are aluminum providing maximum heat sink and thermal control capabilities. White trim is electroplated and the lens is translucent white polycarbonate. Both panels use AC 120-277V input power; are fully dimmable (7 level remote dimmer), and wired for smart building controls.

LUMINAIRE MEASUREMENTS
Wattage: 92 watts
Light Output: 5592 lumens
Luminaire Efficacy: 61 lm/W
CCT: 5156
CRI: 70

CONTACT INFORMATION
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www.maxlite.com





MAXLITE™ 2x2 & 2x4 Architect LED Flat Panels

Construction: A high performance LED flat panel designed for installation in drop ceilings; typically used to replace standard 2x2 and 2x4 fluorescent fixtures. The profile is slim, only 3 inches deep including the junction box, so the fixture is ideal for low depth ceiling cavities.

The housing and the back panel are aluminum to provide maximum heat sink and thermo control capabilities. The trim also acts as a heat sink, and in keeping with the high quality of the rest of the materials the lens is a translucent white polycarbonate.

PRODUCT FEATURES:

- Remote Control / Fully dimmable
- 50,000 Hour Life – Based on 30% lumen depreciation
- Self Driven – No additional drivers required
- Unique mounting gives flush fit in drop ceilings
- Slim profile enables installation in low depth cavities
- Control whole room with one Master
- Control whole building with one control
- Mercury Free

B Complete the Build-A-Model worksheet, then transfer the complete model number here:

WRITE YOUR COMPLETED MODEL NUMBER HERE:

A Work from left to right to build your model number. Choose the options you want and write the corresponding code on the blank line

BUILD-A-MODEL: Example: MLFP2X235 / MLFP2X450

MLFP

SERIES	SIZE	COLOR
MLFP = MaxLite Flat Panel	2x2 = 2x2 2x4 = 2x4	35 = 3500K 50 = 5000K

Because of the quality and solidity of the materials, the fixtures have weight; the 2x4 is 34 lbs and the 2x2 is 14 lbs. (Earth quake safety tabs included).

Both panels are fully dimmable with a smooth 12 level remote dimmer, and both are wired for smart controls (See Controls on following sheet.)



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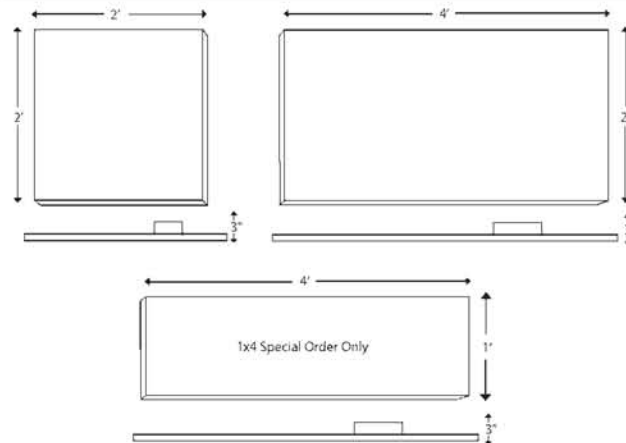
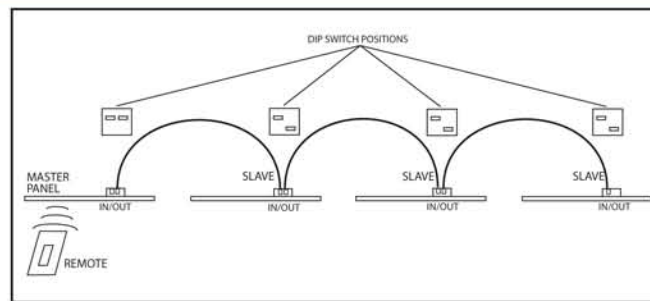


MAXLITE-1029



The Training Department: Product and Marketing Division:





MaxLite™ 2x2 & 2x4 Architect LED Flat Panel Controls

MASTER/SLAVE: Each panel (both 2x2 and 2x4) has a Master/Slave switch on the back. During mounting, one fixture in the room should be switched to Master, and the others in the room should be switched to Slave. With supplied regular RJ25 cord (telephone cords with telephone jacks) each fixture is joined to the next (see diagram left)

ROOM CONTROL: When all the units are joined, one remote control aimed at the Master Unit will control all the other units in the room, up to a maximum of 10 units. With one click, all the units can be turned on, dimmed and turned off. The Master Unit controls the whole room, up to 10 fixtures.

BUILDING CONTROL: Multiple panels can also be controlled from a single source. The panels can be linked to a DMX512 controller.

For information and specifications on either linking more than 10 panels, or on Green Building DMX controls please contact MaxLite.

SPECIFICATIONS:

Watts:

2x4 Typical 93W / Max 105 W

2x2 Typical 54W / Max 61W

Illumination: (at one meter)

2x2 Typical 1200 LUX / Max 1500 LUX

2x4 Typical 1500 LUX / Max 1700 LUX

SPECIFICATIONS:

- CRI 70
- Operating Temp: 14°F to 104°F
- Input Power: AC 120-277V, 50-60 Hz
- Power Factor: (At Max Load) 90% HPF.
- Controls - IR Remote: 0 to 10 dimming, on/off
Master/Slave: RJ25 Control
DMX: DMX512 Control

LED FLAT PANEL SPECIFICATIONS

* Photometrics & IES files available at www.maxlite.com

Order Code	Model Number	Description	Wattage	CRI	Weight (lbs)	LEDs	Lumens	Life (Hrs)	K
70476	MLFP2X235	LED Flat Panel 2' x 2'	60	70	14	234	3500	50,000	3500
70477	MLFP2X250	LED Flat Panel 2' x 2'	60	70	14	234	3500	50,000	5000
70478	MLFP2X435	LED Flat Panel 2' x 4'	90	70	35	468	5000	50,000	3500
70479	MLFP2X450	LED Flat Panel 2' x 4'	90	70	35	468	5000	50,000	5000
SPECIAL ORDER ONLY		LED Flat Panel 1' x 4'	60	70	14	234	3500	50,000	3500
SPECIAL ORDER ONLY		LED Flat Panel 1' x 4'	60	70	14	234	3500	50,000	5000

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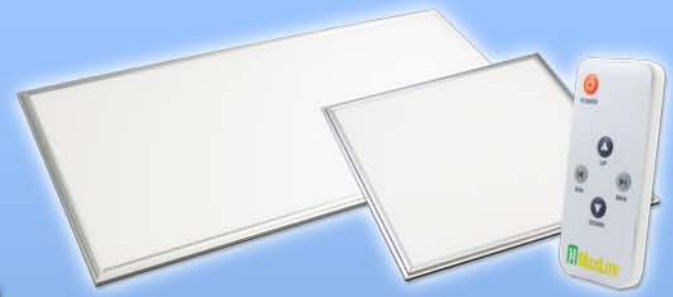
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The Training Department: Product and Marketing Division:



MAXLITE ARCHITECT LED FLAT PANEL:



- Winner of Lighting For Tomorrow (Not dots of light but even distribution.)
- CALiPER Tested.
- Capable of Dimming. Motion Sensing, and Daylight Harvesting using standard protocols.
- IES and Photometrics available.
- Custom lighting layouts available.
- 5 Year Warranty.



HOW DOES THIS AFFECT ROI?

ENERGY COST PER MONTH:

BASELINE:

	Wattage	Cost Per kWh	Hours Per Day	Days Per Week	Cost Per Month
3 Lamp T8 2x4	85	\$ 0.15	24	7	\$9.28

OPTIONS:

	Wattage	Cost Per kWh	Hours Per Day	Days Per Week	Cost Per Month
No Controls / 3 Lamp LED T8 2x4	69	\$ 0.15	24	7	\$7.53
Occupancy Sensor / Compatible LED	72	\$ 0.15	6	7	\$1.97
Daylight Harvesting & Occupancy Sensor / Compatible LED	28	\$ 0.15	6	7	\$0.76

SAVINGS PER MONTH:

	QTY RETROFITTED	Savings Per Month
No Controls / 3 Lamp LED T8 2x4	385	\$672.67
Occupancy Sensor / Compatible LED	385	\$2,816.81
Daylight Harvesting & Occupancy Sensor / Compatible LED	385	\$3,279.28

	Cost Per Fixture	Total Cost Per Project	ROI In Months
No Controls / 3 Lamp LED T8 2x4	\$180.00	\$69,300.00	103
Occupancy Sensor / Compatible LED	\$522.00	\$200,970.00	71
Daylight Harvesting & Occupancy Sensor / Compatible LED	\$531.00	\$204,435.00	62

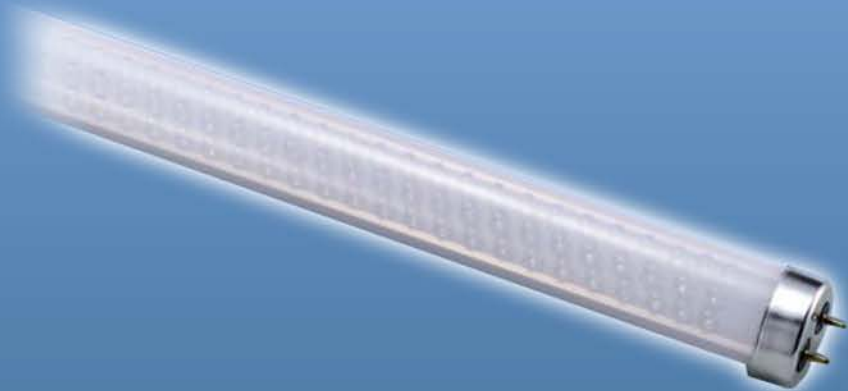


WHAT ARE WE DOING NOW!

Taking out fluorescent
T8s and putting in
linear LED T8s



Fluorescent T8 Tube



LED T8 Tube



LED FLAT PANELS COMPARED TO OTHER FLAT PANELS & T8's

	UL	MEETS CODE NATIONALLY	SUPPLIED REMOTE DIMMING	LIGHTING FOR TOMORROW WINNER	FULLY COMPATIBLE
MAXLITE ARCHITECT LED FLAT PANELS	✓	✓	✓	✓	✓
NORTH CAROLINA LED FLAT PANEL	⊗	⊗	✗	✗	⊗
LED T8'S	⊗	✗	✗	✗	✗

KEY: ✓ = Yes ✗ = No ⊗ = Some Exceptions



QUESTIONS & ANSWERS:

Thank you everyone for your attention.

This webinar session will be left open for the next 20 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, visit us at: <http://www.MaxLite.com>

